



Rijksdienst voor Ondernemend  
Nederland

# *Nederland*

## *De industriële eigendom*

## Inleiding

### Hoofdblad

Het Blad de Industriële Eigendom verschijnt op de derde werkdag van een week. Indien Octrooicentrum Nederland op deze dag is gesloten, wordt de verschijningsdag van het blad verschoven naar de eerstvolgende werkdag, waarop Octrooicentrum Nederland is geopend. Het blad verschijnt alleen in elektronische vorm. Elk nummer van het blad bestaat uit 14 rubrieken.

### Bijblad

Verschijnt vier keer per jaar (januari, april, juli, oktober) in elektronische vorm via [www.rvo.nl/octrooien](http://www.rvo.nl/octrooien). Het Bijblad bevat officiële mededelingen en andere wetenswaardigheden waarmee Octrooicentrum Nederland en zijn klanten te maken hebben.

### Abonnementsprijzen per (kalender)jaar:

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Voor taksen en depotrekeningen:

ING 0705001296

Iban: NL41INGB070500129

BIC: INGBNL2A

## Introduction

### Patent Bulletin

The Patent Bulletin appears on the 3rd working day of each week. If the Netherlands Patent Office is closed to the public on the above mentioned day, the date of issue of the Bulletin is the first working day thereafter, on which the Office is open. Each issue of the Bulletin consists of 14 headings.

### Official Journal

Appears four times a year (January, April, July, October) in electronic form on the [www.rvo.nl/octrooien](http://www.rvo.nl/octrooien). The Official Journal contains announcements and other things worth knowing for the benefit of the Netherlands Patent Office and its customers.

### Subscription rates per calendar year:

Patent Bulletin and Official Journal: free of charge in electronic form on the website of the Netherlands Patent Office.

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BIC: INGBNL2A

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| <b>Rubriek NP1</b><br>Bevat gegevens betreffende octrooiaanvragen die zijn ingeschreven op grond van de Octrooiwet 1995.   | <b>8 Heading NP1</b><br>Contains data concerning Netherlands patent applications which have been entered in the patent register under the Patents Act 1995.                              | <b>8</b>    |
| <b>Rubriek NP2</b><br>Bevat gegevens betreffende ingeschreven en verleende octrooien op grond van de Octrooiwet 1995.  | <b>11 Heading NP2</b><br>Contains data concerning Netherlands patents which have been entered in the patent register under the Patents Act 1995.   | <b>11</b>   |
| <b>Rubriek NP3</b><br>Bevat gegevens betreffende Nederlandse octrooien na gedeeltelijke afstand conform artikel 63 van de Octrooiwet 1995.   | <b>13 Heading NP3</b><br>Contains data concerning Netherlands patents after partial renunciation confirm Article 63 of the Patents Act 1995.   | <b>13</b>   |
| <b>Rubriek EP1</b><br>Bevat gegevens betreffende vertaalde conclusies van Europese octrooiaanvragen.   | <b>14 Heading EP1</b><br>Contains data concerning translations of the conclusions of European patent applications.   | <b>14</b>   |
| <b>Rubriek EP2</b><br>Bevat gegevens betreffende voor Nederland verleende Europese octrooien.  | <b>15 Heading EP2</b><br>Contains data concerning European patents granted for The Netherlands.  | <b>15</b>   |
| <b>Rubriek EP3</b><br>Bevat gegevens betreffende voor Nederland verleende Europese octrooien waarvoor een vertaling is ingediend conform artikel 52 lid 1 of 6 van de Octrooiwet 1995. | <b>169 Heading EP3</b><br>Contains data concerning European patents granted for The Netherlands in which a translation was filed confirm Article 52 par. 1 or 6 of the Patents Act 1995. | <b>169</b>  |
| <b>Rubriek EP4</b><br>Bevat gegevens betreffende voor Nederland verleende gewijzigde Europese octrooien.   | <b>201 Heading EP4</b><br>Contains data concerning European patents granted in amended form for the Netherlands.   | <b>201</b>  |
| <b>Rubriek EP5</b><br>Bevat gegevens betreffende voor Nederland verleende gewijzigde   | <b>202 Heading EP5</b><br>Contains data concerning European patents granted in amended form for  | <b>202</b>  |

|  |   |     |
|--|---|-----|
| Europese octrooien waarvoor een gewijzigde vertaling is ingediend.   | The Netherlands in which an amended translation was filed.  |     |
| <b>Rubriek SPC</b><br>Bevat gegevens betreffende ingeschreven en verleende certificaten  | <b>203Heading SPC</b><br>Contains data concerning applications for- or granted Supplementary Protection Certificates.   | 203 |
| <b>Rubriek VB1</b><br>Bevat gegevens betreffende rechten waarvoor een verzoek of bezwaarschrift is ingediend conform de Octrooiwet 1995.   | <b>204Heading VB1</b><br>Contains data concerning requests and notices of opposition under the General administrative law.  | 204 |
| <b>Rubriek VB2</b><br>Bevat gegevens betreffende rechten waarin een beslissing is genomen of waarvoor een nieuwheidsrapport is uitgegaan op een verzoek- of bezwaarschrift conform de Octrooiwet 1995. | <b>205Heading VB2</b><br>Contains data concerning requests and notices of opposition under the General administrative law in respect of which a decision has been taken or in respect for which a report has been made. | 205 |
| <b>Rubriek MED</b><br>Bevat gegevens betreffende overige mededelingen.   | <b>206Heading MED</b><br>Contains data concerning other communications.   | 206 |
| <b>Rubriek VRV</b><br>Bevat gegevens betreffende verval of nietigverklaring.   | <b>207Heading VRV</b><br>Contains data concerning lapse or annulment.   | 207 |
| <b>Rubriek VRB</b><br>Bevat gegevens betreffende verbeteringen op eerdere publicaties.   | <b>225Heading VRB</b><br>Contains data concerning corrections on earlier publications.  | 225 |
| <b>Rubriek CO</b><br>Bevat gegevens betreffende wijzigingen in het octrooiregister.  | <b>226Heading CO</b><br>Contains data concerning changes in the Netherland patent register.   | 226 |
| <b>Rubriek TVH</b><br>Bevat gegevens betreffende topografieën van halfgeleiderproducten.   | <b>230Heading TVH</b><br>Contains data concerning depots of original topographies of semi-conductor products.   | 230 |

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|--|--|-----|
| <b>Rubriek UP1</b><br>Bevat gegevens over Europese octrooien met geregistreerde eenheidswerking.   | <b>231Heading UP1</b><br>Contains data concerning European patents with registered Unitary Effect.   | 231 |
| <b>Rubriek UP2</b><br>Bevat gegevens over Europese octrooien met geregistreerd verzoek ex. artikel 52a (herstel recht op validatie).                           | <b>232Heading UP2</b><br>Contains data concerning European patents with registered request ex article 52a (restoration of validation right).                         | 232 |
| <b>Rubriek UP3</b><br>Bevat gegevens over Europese octrooien met geaccepteerd verzoek ex. artikel 52a (herstel recht op validatie) en complete validatie.      | <b>233Heading UP3</b><br>Contains data concerning European patents with accepted ex article 52a (restoration of validation right) and validation completed.          | 233 |
| <b>Rubriek UP4</b><br>Bevat gegevens over Europese octrooien met geaccepteerd verzoek ex. artikel 52a (herstel recht op validatie) en geen complete validatie. | <b>234Heading UP4</b><br>Contains data concerning European patents with accepted request ex article 52a (restoration of validation right) and incomplete validation. | 234 |
| <b>Rubriek UP5</b><br>Bevat gegevens over Europese octrooien met afgewezen verzoek ex. artikel 52a (herstel recht op validatie).                               | <b>235Heading UP5</b><br>Contains data concerning European patents with rejected request ex article 52a (restoration of validation right).                           | 235 |
| <b>Rubriek UP6</b><br>Bevat gegevens over Europese octrooien met ingetrokken verzoek ex. artikel 52a (herstel recht op validatie).                             | <b>236Heading UP6</b><br>Contains data concerning European patents with withdrawn request ex article 52a (restoration of validation right).                          | 236 |

## Overzicht van Inid codes

### INID CODES

Inid codes worden gebruikt op de voorpagina van octrooigeschriften en in octroobulletins. Ze dienen om de verschillende bibliografische gegevens te kunnen begrijpen zonder kennis te hebben van de taal. INID is een acronym van Internationally agreed Numbers for Identification of Data. De definities van INID codes wordt gegeven in de WIPO standaard ST. 9.

- (11) Octrooinummer
- (13) Soort document volgens WIPO standaard 16
- (15) Correctie informatie
- (21) Octrooiaanvraagnummer
- (22) Datum van indiening
- (23) Datum tentoonstelling
- (25) Taal van indiening
- (26) Taal waarin de aanvraag is gepubliceerd
- (30) Voorrangsgegevens
- (31) Nummer voorrang
- (32) Datum voorrang
- (33) Land van herkomst voorrang
- (34) Oorspronkelijk land van indiening
- (40) Datum van inschrijving
- (41) Datum van inschrijving van een octrooiaanvraag
- (42) Datum van inschrijving van een onderzochte aanvraag (openbaarmaking)
- (43) Datum waarop de aanvraag ter inzage is gelegd

### INID CODES

"INID" Codes are used on the front pages of patent documents and in official gazettes to identify various bibliographic data items without knowledge of the language used and the industrial property laws applied. "INID" is an acronym for "Internationally agreed Numbers for the Identification of Data". The INID Codes are usually given in parenthesis adjacent to the appropriate bibliographic data item. The definitions of the INID Codes are given in WIPO Standard ST. 9 (as of November 1998) and are listed below:

- (11) Patent number
- (13) Kind of document code according to WIPO standard ST.16
- (15) Patent correction information
- (21) Application number
- (22) Date(s) of filing application(s)
- (23) Date of exhibition
- (25) Language in which the published application was originally filed
- (26) Language in which the application is published
- (30) Priority Data
- (31) Number(s) assigned to priority application(s)
- (32) Date(s) of filling of priority application(s)
- (33) WIPO Standard ST.3 Code indentifying the national patent office allotting the priority application number or the organization allotting the regional priority application number: for international applications filed under the PCT, the code "WO" is used.
- (34) For priority fillings under the regional or international arrangements, the WIPO Standard ST.3 Code indentifying at least one country party to the Paris Union for which the regional or international application was made.
- (40) Date(s) of making available to the public
- (41) Date of making available to the public by viewing, or copying on request an unexamined patent document, on which no grant has taken place on or before the said date.
- (42) Date of making available to the public by viewing, or copying on request an examined patent document, on which no grant has taken place on or before the said date.
- (43) Date of publication by printing or similar process of anexamined document on which no grant has taken place on or before said date

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|---|---|
| (44) Datum van openbaarmaking   | (44) Date of publication by printing or similar process of an examined document on which no grant has taken place on or before said date  |
| (45) Datum van kracht worden van een Europees octrooi in Nederland                          | (45) Date of publication by printing or similar process of a document on which no grant has taken place on or before said date  |
| (46) Inschrijvingsdatum conclusies  | (46) Date of publication by printing or similar process of the claim(s) only of a document  |
| (47) Verleningsdatum octrooi  | (47) Date from which the patent takes effect  |
| (48) Datum waarop een verbetering van een octrooi is uitgegeven                             | (48) Date of issuance of a corrected patent document  |
| (51) Internationale Octrooi classificatie   | (51) International Patent Classification  |
| (54) Korte aanduiding   | (54) Title of the invention   |
| (62) Nummer moeder aanvraag   | (62) Number and, if possible, filing date of the earlier application from which the present document has been divided out   |
| (68) Nummer basis octrooi   | (68) Number of the basic patent   |
| (71) Naam aanvrager(s)  | (71) Name(s) of the applicant(s)  |
| (72) Naam uitvinder(s)  | (72) Name(s) of the inventor(s) if known to be such   |
| (73) Naam octrooihouder(s)  | (73) Name(s) of grantee(s)  |
| (74) Naam gemachtigde   | (74) Name(s) of the attorney(s) or agent(s)   |
| (75) Naam van uitvinders die tevens aanvrager zijn  | (75) Name(s) of inventor(s) who is (are) also application(s)  |
| (81) Aangewezen landen volgens de PCT   | (81) Designated States(s) according to the PCT  |
| (83) Informatie over micro organismen   | (83) Information concerning the deposit of microorganisms   |
| (84) Aangewezen landen bij regionale octrooien  | (84) Designated Contracting States under regional patent conventions  |
| (86) Nummer van omgezette aanvraag  | (86) Application number of a PCT-application or number of European patent which is converted into a national application  |
| (87) Datum en nummer van een PCT aanvraag   | (87) Publication date and number of a PCT application   |
| (92) Certificaten: nummer en datum van de eerste nationale vergunning voor een geneesmiddel | (92) For an SPC, number and date of the first national authorization to place the product on the market as a medicinal product  |
| (93) Datum en nummer van de eerste EU vergunning voor een geneesmiddel                      | (93) For an SPC, number and date and where applicable, country of origin, of the first authorization to place the product on the market as a medicinal product within a regional economic community |
| (94) Expiratiedatum voor een topografie   | (94) Calculated date of expiry of the topography  |
| (95) Certificaten: naam van het product   | (95) Name of the product protected by the basic patent and in respect of which the SPC has been applied for or granted  |

## Rubrieken/Headings

### NP1

#### Nederlandse octrooiaanvragen die zijn ingeschreven op grond van de Octrooiwet 1995. Contains data concerning Netherlands patent applications which have been entered in the patent register under the Patents Act 1995.

|   |  |  |
|---|--|--|
| (51) A61F 5/48  | (54) Frame for the detection and measurement of the longitudinal profile of the rail           | (54) WATERAFLEIDINRICHTING VOOR EEN SCHEEPSVENSTER                             |
| (21) 2033068  | (71) MECNO SERVICE S.R.L.  | (71) Robert Meijsen  |
| (22) 19.09.2022   | (74) ir. A. Blokland c.s.  | (74) ir. F.A. Geurts c.s.  |
| (54) UNDERPAD WITH WETNESS INDICATOR  | (72) Claudio Favaron   | (72) Robert Meijsen  |
| (71) Medline Industries, LP   | (31) 102021000026096   | (31) 10 2021 126 582.7   |
| (74) mr. ir. J. van Breda c.s.  | (32) 12.10.2021  | (32) 13.10.2021  |
| (72) Alyssa Kurt  | (33) Italy   | (33) Germany   |
| Morgan Uridil   | (51) B62J 6/04   | (51) B65B 27/08  |
| Kushal Basnet   | B62J 6/029   | B65B 11/10   |
| Jessica Iacullo   | B62K 19/30   | B65B 51/02   |
| Cole Fuerste  | (21) 2031280   | (21) 2029342   |
| Danielle Calverley  | (22) 15.03.2022  | (22) 07.10.2021  |
| Jacob Sessions  | (54) Bicycle, in particular an electric bicycle  | (54) A wrapping module and a method for providing a sleeve around a mail item  |
| (31) 17/500,464   | (71) VANMOOF B.V.  | (71) Buhrs Packaging Solutions B.V.  |
| (32) 13.10.2021   | (74) ir. H.Th. van den Heuvel c.s.   | (74) ir. H.A. Witmans c.s.   |
| (33) United States of America   | (72) Job Hendrik Stehmann  | (72) Benedictus Johannes Maria Verheij   |
| (51) A61K 47/06   | Ties Jonan Midas Carlier   | Jan Gijbert Kranstauber  |
| A61K 9/127  | Jean-Paul Niellissen   | (41) 19.04.2023  |
| A61K 31/436   | (41) 19.04.2023  | (51) C09K 19/38  |
| A61P 19/00  | (31) 2029347   | C09K 19/04   |
| (21) 2033274  | (32) 07.10.2021  | (21) 2029336   |
| (22) 11.10.2022   | (33) Netherlands   | (22) 07.10.2021  |
| (54) DRUG-LOADED HYDROGEL MICROSPHERES (HMS) WITH SELF-RENEWABLE HYDRATION LUBRICATION LAYER AND PREPARATION METHOD AND USE THEREOF | (51) B62J 6/22   | (54) Method for the preparation of a thermoplastic liquid crystalline polymer. |
| (71) THE FIRST AFFILIATED HOSPITAL OF CHONGQING MEDICAL UNIVERSITY  | B62J 3/10  | (71) TECHNISCHE UNIVERSITEIT EINDHOVEN   |
| (74) ir. M.B. Plaggenborg   | (21) 2029359   | (74) ir. A. Blokland c.s.  |
| (72) Wenguo Cui   | (22) 08.10.2021  | (72) Sean Jean Daniël Lugger   |
| Yiting Lei  | (54) A bell for a bicycle, bell assembly comprising the bell and method for operating the bell | Albertus Petrus Hendrikus Johannes Schenning                                   |
| Ning Hu   | (71) Youri van Vilsteren   | Dirk Jan Mulder  |
| Xiaoji Luo  | (74) ir. A. Blokland c.s.  | (41) 19.04.2023  |
| Wei Huang   | (72) Youri van Vilsteren   | (51) C12N 15/113   |
| (31) 202111188654.8   | Luuk Toonstra  | A61K 45/00   |
| (32) 12.10.2021   | (41) 20.04.2023  | A61P 31/04   |
| (33) China  | (51) B62K 21/26  | C12Q 1/689   |
| (51) B60L 53/66   | B62L 3/02  | (21) 2033164   |
| B60L 58/10  | B62J 50/22   | (22) 28.09.2022  |
| B60L 53/16  | B62K 23/02   | (54) Sheep Escherichia coli F17-related miRNA and use thereof                  |
| (21) 2034533  | B62J 50/21   | (71) Yangzhou University   |
| (22) 11.04.2023   | B62K 21/12   | (74) ir. M.B. Plaggenborg  |
| (54) Emergency Service request via CCS charging port  | (21) 2031300   | (72) Zehu Yuan   |
| (71) Total Safety Solutions B.V.  | (22) 15.03.2022  | Ling Ge  |
| (74) mr. ir. J. van Breda c.s.  | (54) Rijwielstuurhandvatsamenstel  | Shuangxia Zou  |
| (72) Hendricus Johannes Bernardus Wijnans   | (71) VANMOOF B.V.  | Wei Sun  |
| Ralf Arnoldus Antonius Adams  | (74) ir. H.Th. van den Heuvel c.s.   | (31) 202111197413.X  |
| (51) B61K 9/08  | (72) Jean-Paul Niellissen  | (32) 14.10.2021  |
| (21) 2033290  | Ties Jonan Midas Carlier   | (33) China   |
| (22) 12.10.2022   | Job Hendrik Stehmann   | (51) D04B 1/12   |
|   | (41) 19.04.2023  | D04B 1/14  |
|   | (31) 2029354   | (21) 2031624   |
|   | (32) 07.10.2021  | (22) 19.04.2022  |
|   | (33) Netherlands   |  |
|   | (51) B63B 19/00  |  |
|   | (21) 2033116   |  |
|   | (22) 23.09.2022  |  |



|  |   |   |
|--|---|---|
| (54) COTTON KNITTED FABRIC WITH ANTIBACTERIAL, DEODORIZING AND MILDEW-PROOF PERFORMANCES         | Michael Lechner<br>(41) 19.04.2023  | (71) Shandong Jiaotong University<br>Lanzhou Jiaotong University  |
| (71) Freedom (Shanghai) Digital Technology Co., Ltd.   | (51) E05D 11/10<br>B65D 6/18  | (74) dr. A.V. Huygens<br>(72) Xuelei Meng   |
| (74) ir. M.B. Plaggenborg  | (21) 2029341  | Jiuhong Ruan  |
| (72) Ruiling Chen  | (22) 07.10.2021   | Shichao Xu  |
| (31) 202122472958.9  | (54) RAMPED HINGE   | Li Lin  |
| (32) 14.10.2021  | (71) Pipelife Nederland B.V.  | Zheng Han   |
| (33) China   | (74) dr. R.C. van Duijvenbode c.s.  | Zheng Li  |
| (51) E02D 27/00<br>E02D 29/09<br>E02D 29/16  | (72) Hielke Dolf Hoekstra<br>Ulrich Bohle   | (51) G06K 7/10<br>(21) 2033270  |
| (21) 2029360   | Matthias Schäfer  | (22) 10.10.2022   |
| (22) 08.10.2021  | Michael Adrianus Jacobus Schouten   | (54) Laser driving mode for aiming system of barcode imager   |
| (54) Klemmrichting en werkwijze voor het klemmen; werkwijze voor het herstellen van een meerpaal | Michael Lechner<br>(41) 19.04.2023  | (71) Zebra Technologies Corporation   |
| (71) F & R Nieuw Vennep Holding B.V.   | (51) E06B 9/50<br>E06B 9/60<br>E06B 9/78<br>E06B 9/90   | (74) ir. H.A. Witmans c.s.<br>(72) Jason S. Mak   |
| (74) ir. H.A. Witmans c.s.   | (21) 2029357  | Matthew D. Blaszczak  |
| (72) Rajnerius Johannes Antonius de Jeu  | (22) 08.10.2021   | David Tsi Shi   |
| David Marinus Harry  | (54) ROLLER BLIND   | Thomas Lackemann  |
| Frank Griekspoor   | (71) Shenzhen Ruiqing Xingye Plastic Co. Ltd.   | Vladimir Gurevich   |
| Stefan de Koker  | (74) dr. R.C. van Duijvenbode c.s.  | (31) 17/499,690   |
| (41) 20.04.2023  | (72) Chih-Yung Wang   | (32) 12.10.2021   |
| (51) E04F 15/10<br>B27N 3/02<br>B27N 3/08<br>B27N 7/00<br>B32B 27/10<br>C08K 3/26                | (41) 20.04.2023   | (33) United States of America   |
| (21) 2029346   | (51) F16B 3/06<br>F03D 13/20<br>F16B 7/18<br>F16B 7/04<br>F16B 7/02<br>F16B 13/06                                 | (51) G08G 1/01<br>G06Q 50/30<br>G06F 30/13  |
| (22) 07.10.2021  | (21) 2029335  | (21) 2029358  |
| (54) Decorative panel and method for producing a panel   | (22) 07.10.2021   | (22) 08.10.2021   |
| (71) CHAMPION LINK INTERNATIONAL CORPORATION   | (54) Assembly comprising a first and a second member and a connector, and a method of assembling such an assembly | (54) SYSTEM AND METHOD FOR PROVIDING A TRAFFIC STATE PREDICTION   |
| (74) ir. H.Th. van den Heuvel c.s.   | (71) C1 Connections Holding B.V.  | (71) Goudappel Groep BV   |
| (72) Sven Boon   | (74) dr. ir. G.J.C. Verdijck c.s.   | (74) dr. ir. G.J.C. Verdijck c.s.   |
| Thomas Luc Martine Baert   | (72) Jasper Winkes  | (72) Lucas Johannes Nicolaas Brederode  |
| Tom van Poyer  | (41) 19.04.2023   | Peter Willem Klein Kranenburg   |
| (41) 20.04.2023  | (51) G01N 3/40<br>G01N 23/2251<br>G01N 3/20   | (41) 20.04.2023   |
| (51) E04F 15/10<br>C08J 7/04<br>B05D 3/06<br>B05D 7/26<br>B32B 15/082<br>B32B 27/08              | (21) 2033671  | (51) H01J 65/04<br>(21) 2034069   |
| (21) 2029345   | (22) 05.12.2022   | (22) 27.10.2021   |
| (22) 07.10.2021  | (54) A METHOD FOR DETERMINING THE EFFECT OF ORIENTED STRUCTURES OF SHALE ON ITS MICROMECHANICAL PROPERTIES        | (54) LIGHT EMITTING SEALED BODY, LIGHT EMITTING UNIT, AND LIGHT SOURCE DEVICE   |
| (54) Decorative panel  | (71) CHENGDU UNIVERSITY OF TECHNOLOGY   | (62) 2029527 (27.10.2021)   |
| (71) CHAMPION LINK INTERNATIONAL CORPORATION   | (74) ir. M.B. Plaggenborg   | (71) HAMAMATSU PHOTONICS K.K.   |
| (74) ir. H.Th. van den Heuvel c.s.   | (72) Ruixue Li  | ENERGETIQ TECHNOLOGY, INC.  |
| (72) Tom van Poyer   | Hucheng Deng  | (74) dr. ir. G.J.C. Verdijck c.s.   |
| Sven Boon  | Xinhui Xie  | (72) Akinori Asai   |
| Thomas Luc Martine Baert   | Jianhua He  | Stephen F. Horne  |
| (41) 20.04.2023  | Ziyun Zheng   | Laura Owens   |
| (51) E05D 3/18   | (31) 202210783305.9   | Shinichi Ohba   |
| (21) 2029340   | (32) 05.07.2022   | Ron Collins   |
| (22) 07.10.2021  | (33) China  | Akio Suzuki   |
| (54) ROTATING PLATE HINGE  | (51) G02B 6/46  | Yusei Nagata  |
| (71) Pipelife Nederland B.V.   | (21) 2034238  | Matthew Partlow   |
| (74) dr. R.C. van Duijvenbode c.s.   | (22) 28.02.2023   | Toru Fujita   |
| (72) Matthias Schäfer  | (54) A Multi-network Integrated Fiber Distribution Box for the Internet of Things                                 | (31) 17/129,753   |
| Michael Adrianus Jacobus Schouten  |   | (32) 21.12.2020   |
| Ulrich Bohle   |   | (33) United States of America   |
| Hielke Dolf Hoekstra   |   | (51) H02J 13/00<br>G01R 19/25   |
|  |   | (21) 2029344  |
|  |   | (22) 07.10.2021   |
|  |   | (54) SYSTEM AND METHOD FOR PROCESSING MEASUREMENTS, MEASUREMENT UNIT, AND METHOD FOR CONNECTING SUBSTATION TO REMOTE CONTROL CENTER |

(71) Alliander Corporate Ventures B.V.

(74) ir. H.A. Witmans c.s.

(72) Peter Hermanus Aloisius Hemmer

Frank Louis Baldinger

Raymond Johannes Franciscus

Woertman

Renze Adriaan Nicolai

(41) 20.04.2023

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(51) H02S 20/32

H02S 20/10

H02S 20/30

(21) 2029343

(22) 07.10.2021

(54) Systeem voor het combineren van  
agrarische activiteiten met het opwekken  
van zonne-energie

(71) Petrus Maria Marinus Bekkers

(74) dr. J. van Straaten

(72) Petrus Maria Marinus Bekkers

(41) 20.04.2023

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## NP2

**Ingeschreven en verleende octrooien op grond van de Octrooiwet 1995.  
Contains data concerning Netherlands patents which have been entered in the patent  
register under the Patents Act 1995.**

|   |  |  |
|---|--|--|
| (51) B62J 6/04                                  | (11) 2029336                               | (51) E05D 3/18                           |
| B62J 6/029                                      | (47) 19.04.2023                            | (11) 2029340                             |
| B62K 19/30                                      | (22) 07.10.2021                            | (47) 19.04.2023                          |
| (11) 2031280                                    | (54) Method for the preparation of a       | (22) 07.10.2021                          |
| (47) 19.04.2023                                 | thermoplastic liquid crystalline polymer.  | (54) ROTATING PLATE HINGE                |
| (22) 15.03.2022                                 | (73) TECHNISCHE UNIVERSITEIT               | (73) Pipelife Nederland B.V.             |
| (54) Bicycle, in particular an electric bicycle | EINDHOVEN                                  | (72) Matthias Schäfer                    |
| (73) VANMOOF B.V.                               | (72) Sean Jean Daniël Lugger               | Michael Adrianus Jacobus Schouten        |
| (72) Job Hendrik Stehmann                       | Albertus Petrus Hendrikus Johannes         | Ulrich Bohle                             |
| Ties Jonan Midas Carlier                        | Schenning                                  | Hielke Dolf Hoekstra                     |
| Jean-Paul Niellissen                            | Dirk Jan Mulder                            | Michael Lechner                          |
| (74) ir. H.Th. van den Heuvel c.s.              | (74) ir. A. Blokland c.s.                  | (74) dr. R.C. van Duijvenbode c.s.       |
| (31) 2029347                                    | (51) E02D 27/00                            | (51) E05D 11/10                          |
| (32) 07.10.2021                                 | E02D 29/09                                 | B65D 6/18                                |
| (33) Netherlands                                | E02D 29/16                                 | (11) 2029341                             |
| (51) B62J 6/22                                  | (11) 2029360                               | (47) 19.04.2023                          |
| B62J 3/10                                       | (47) 20.04.2023                            | (22) 07.10.2021                          |
| (11) 2029359                                    | (22) 08.10.2021                            | (54) RAMPED HINGE                        |
| (47) 20.04.2023                                 | (54) Klemminrichting en werkwijze voor het | (73) Pipelife Nederland B.V.             |
| (22) 08.10.2021                                 | klemmen; werkwijze voor het herstellen     | (72) Hielke Dolf Hoekstra                |
| (54) A bell for a bicycle, bell assembly        | van een meerpaal                           | Ulrich Bohle                             |
| comprising the bell and method for              | (73) F & R Nieuw Vennep Holding B.V.       | Matthias Schäfer                         |
| operating the bell                              | (72) Rajjnerius Johannes Antonius de Jeu   | Michael Adrianus Jacobus Schouten        |
| (73) Youri van Vilsteren                        | David Marinus Harry                        | Michael Lechner                          |
| (72) Youri van Vilsteren                        | Frank Griekspoor                           | (74) dr. R.C. van Duijvenbode c.s.       |
| Luuk Toonstra                                   | Stefan de Koker                            | (51) E06B 9/50                           |
| (74) ir. A. Blokland c.s.                       | (74) ir. H.A. Witmans c.s.                 | E06B 9/60                                |
| (51) B62K 21/26                                 | (51) E04F 15/10                            | E06B 9/78                                |
| B62L 3/02                                       | B27N 3/02                                  | E06B 9/90                                |
| B62J 50/22                                      | B27N 3/08                                  | (11) 2029357                             |
| B62K 23/02                                      | B27N 7/00                                  | (47) 20.04.2023                          |
| B62J 50/21                                      | B32B 27/10                                 | (22) 08.10.2021                          |
| B62K 21/12                                      | C08K 3/26                                  | (54) ROLLER BLIND                        |
| (11) 2031300                                    | (11) 2029346                               | (73) Shenzhen Ruiqing Xingye Plastic Co. |
| (47) 19.04.2023                                 | (47) 20.04.2023                            | Ltd.                                     |
| (22) 15.03.2022                                 | (22) 07.10.2021                            | (72) Chih-Yung Wang                      |
| (54) Rijwielstuurhandvatsamenstel               | (54) Decorative panel and method for       | (74) dr. R.C. van Duijvenbode c.s.       |
| (73) VANMOOF B.V.                               | producing a panel                          | (51) F16B 3/06                           |
| (72) Jean-Paul Niellissen                       | (73) CHAMPION LINK INTERNATIONAL           | F03D 13/20                               |
| Ties Jonan Midas Carlier                        | CORPORATION                                | F16B 7/18                                |
| Job Hendrik Stehmann                            | (72) Sven Boon                             | F16B 7/04                                |
| (74) ir. H.Th. van den Heuvel c.s.              | Thomas Luc Martine Baert                   | F16B 7/02                                |
| (31) 2029354                                    | Tom van Poyer                              | F16B 13/06                               |
| (32) 07.10.2021                                 | (74) ir. H.Th. van den Heuvel c.s.         | (11) 2029335                             |
| (33) Netherlands                                | (51) E04F 15/10                            | (47) 19.04.2023                          |
| (51) B65B 27/08                                 | C08J 7/04                                  | (22) 07.10.2021                          |
| B65B 11/10                                      | B05D 3/06                                  | (54) Assembly comprising a first and a   |
| B65B 51/02                                      | B05D 7/26                                  | second member and a connector, and a     |
| (11) 2029342                                    | B32B 15/082                                | method of assembling such an assembly    |
| (47) 19.04.2023                                 | B32B 27/08                                 | (73) C1 Connections Holding B.V.         |
| (22) 07.10.2021                                 | (11) 2029345                               | (72) Jasper Winkes                       |
| (54) A wrapping module and a method for         | (47) 20.04.2023                            | (74) dr. ir. G.J.C. Verdijck c.s.        |
| providing a sleeve around a mail item           | (22) 07.10.2021                            | (51) G08G 1/01                           |
| (73) Buhrs Packaging Solutions B.V.             | (54) Decorative panel                      | G06Q 50/30                               |
| (72) Benedictus Johannes Maria Verheij          | (73) CHAMPION LINK INTERNATIONAL           | G06F 30/13                               |
| Jan Gijsbert Kranstauber                        | CORPORATION                                | (11) 2029358                             |
| (74) ir. H.A. Witmans c.s.                      | (72) Tom van Poyer                         | (47) 20.04.2023                          |
| (51) C09K 19/38                                 | Sven Boon                                  | (22) 08.10.2021                          |
| C09K 19/04                                      | Thomas Luc Martine Baert                   |  |
|   | (74) ir. H.Th. van den Heuvel c.s.         |  |

- (54) SYSTEM AND METHOD FOR PROVIDING A TRAFFIC STATE PREDICTION
- (73) Goudappel Groep BV
- (72) Lucas Johannes Nicolaas Brederode  
Peter Willem Klein Kranenburg
- (74) dr. ir. G.J.C. Verdijck c.s.
- 
- (51) H02J 13/00  
G01R 19/25
- (11) 2029344
- (47) 20.04.2023
- (22) 07.10.2021
- (54) SYSTEM AND METHOD FOR PROCESSING MEASUREMENTS, MEASUREMENT UNIT, AND METHOD FOR CONNECTING SUBSTATION TO REMOTE CONTROL CENTER
- (73) Alliander Corporate Ventures B.V.
- (72) Peter Hermanus Aloisius Hemmer  
Frank Louis Baldinger  
Raymond Johannes Franciscus  
Woertman  
Renze Adriaan Nicolai
- (74) ir. H.A. Witmans c.s.
- 
- (51) H02S 20/32  
H02S 20/10  
H02S 20/30
- (11) 2029343
- (47) 20.04.2023
- (22) 07.10.2021
- (54) Systeem voor het combineren van agrarische activiteiten met het opwekken van zonne-energie
- (73) Petrus Maria Marinus Bekkers
- (72) Petrus Maria Marinus Bekkers
- (74) dr. J. van Straaten
-

**NP3**

**Nederlandse octrooien na gedeeltelijke afstand conform artikel 63 van de Octrooiwet 1995..  
Contains data concerning Netherlands patents which have been entered in the patent  
register (after limitation procedure) under the Patents Act 1995.**

## EP1

**Vertaalde conclusies van Europese octrooiaanvragen.**

**Contains data concerning translations of the claims of European patent applications.**

(43) 12.04.2023

(11) EP4163102

(51) B32B 3/06

B32B 5/18

B32B 7/06

B32B 7/12

B32B 27/06

B32B 27/08

B32B 27/36

(71) EAUZON

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## EP2

## Voor Nederland verleende Europese octrooien.

## Contains data concerning European patents granted for The Netherlands.

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| (51) A01B 9/00                          | (47) 26.04.2023                     | (21) EP20186234.9                      |
| A01B 13/08                              | (22) 02.08.2006                     | (47) 26.04.2023                        |
| A01B 49/02                              | (54) Shears for cutting branches    | (22) 16.07.2020                        |
| A01B 15/16                              | (73) HUSQVARNA AB                   | (54) WATER DEVICE, FOR THE             |
| A01B 15/10                              | (72) Reichart, Vincent              | COLONISATION AND/OR SHELTER OF         |
| (11) EP3945763                          | Keim, Norbert                       | AMPHIBIANS                             |
| (21) EP20714529.3                       | (31) 102005039084                   | (73) Trautner, Jürgen                  |
| (47) 26.04.2023                         | (32) 05.08.2005                     | (72) Trautner, Jürgen                  |
| (87) EP2020058132                       | (33) Germany                        | Rall, Sebastian                        |
| 01.10.2020                              | (51) A01G 9/14                      | Hermann, Gabriel                       |
| (22) 24.03.2020                         | A01G 9/24                           | (31) 102019119647                      |
| (54) PLOUGH MODULE                      | F24S 90/00                          | (32) 19.07.2019                        |
| (73) Huber Soil Solution GmbH           | H02S 20/23                          | (33) Germany                           |
| (72) HUBER, Franz-Ferdinand             | H02S 40/42                          | (51) A01M 21/04                        |
| (31) 102019204256                       | H02S 40/44                          | (11) EP3643173                         |
| (32) 27.03.2019                         | (11) EP3582607                      | (21) EP19401042.7                      |
| (33) Germany                            | (21) EP18754680.9                   | (47) 26.04.2023                        |
| (51) A01B 29/04                         | (47) 26.04.2023                     | (22) 18.10.2019                        |
| (11) EP3590316                          | (87) US2018018645                   | (54) METHOD FOR THE APPLICATION OF     |
| (21) EP18181126.6                       | 23.08.2018                          | LIQUID                                 |
| (47) 26.04.2023                         | (22) 19.02.2018                     | (73) Amazonen-Werke H. Dreyer SE & Co. |
| (22) 02.07.2018                         | (54) ENERGY EFFICIENT GREENHOUSE    | KG                                     |
| (54) DEVICE FOR WORKING THE SOIL        | (73) Ceres Greenhouse Solutions LLC | (72) Austermann, Stefan                |
| (73) Maschinenfabrik Bermatingen GmbH & | (72) Dreyer, Justus                 | Dreyer, Justus                         |
| Co. KG                                  | SCHILLER, Lindsey                   | Ehlen, Volker                          |
| (72) LEHMANN, Franz                     | (31) 201762460543 P                 | Johannaber, Stefan Jan                 |
| (51) A01B 79/00                         | (32) 17.02.2017                     | Kiefer, Stefan                         |
| A01M 7/00                               | (33) United States of America       | Holtkötter, Christian                  |
| A01B 63/111                             | (51) A01G 9/14                      | Klemann, Timo                          |
| (11) EP3732945                          | A01G 13/02                          | Hilbert, Florenz                       |
| (21) EP20160483.2                       | (11) EP4005366                      | (31) 102018126588                      |
| (47) 26.04.2023                         | (21) EP20210289.3                   | (32) 25.10.2018                        |
| (22) 02.03.2020                         | (47) 26.04.2023                     | (33) Germany                           |
| (54) TECHNIQUE FOR CREATING AN          | (22) 27.11.2020                     | (51) A01N 25/10                        |
| OFF-ROAD PROFILE WITH AN                | (54) ELONGATED SHEET FOR COVERING   | A01N 43/54                             |
| AGRICULTURAL MACHINE                    | CULTIVATED PLANTS                   | A01P 13/00                             |
| (73) HORSCH LEEB Application Systems    | (73) Daios, Asterios                | (11) EP3979798                         |
| GmbH                                    | (72) Daios, Asterios                | (21) EP20728734.3                      |
| (72) Leeb, Theodor                      | Daios, Dimitrios                    | (47) 26.04.2023                        |
| (31) 102019108730                       | (51) A01G 25/02                     | (87) EP2020064626                      |
| (32) 03.04.2019                         | (11) EP3355685                      | 10.12.2020                             |
| (33) Germany                            | (21) EP17792612.8                   | (22) 27.05.2020                        |
| (51) A01F 15/08                         | (47) 26.04.2023                     | (54) MICROPARTICLE COMPOSITIONS        |
| (11) EP3166386                          | (87) IL2017050494                   | COMPRISED SAFLUFENACIL                 |
| (21) EP15734367.4                       | 09.11.2017                          | (73) BASF Agro B.V.                    |
| (47) 26.04.2023                         | (22) 04.05.2017                     | (72) STEINBRENNER, Ulrich              |
| (87) EP2015065354                       | (54) METHOD AND SYSTEM FOR          | STEUERWALD, Joerg                      |
| 14.01.2016                              | IRRIGATION                          | KLAMCZYNSKI, Katharine                 |
| (22) 06.07.2015                         | (73) N-Drip Ltd.                    | LAIK, Wolfgang                         |
| (54) AUXILIARY POWER SYSTEM FOR         | (72) SHANI, Uri                     | (31) 19179063                          |
| AN AGRICULTURAL BALER WITH              | XIA, Xiaohong                       | (32) 07.06.2019                        |
| FLYWHEEL START UP                       | VITNER, Asher                       | (33) European Patent Office (EPO)      |
| (73) CNH Industrial Belgium N.V.        | ROZENGARTEN, Boaz                   | (51) A21C 9/06                         |
| (72) MORSELLI, Riccardo                 | DABACH, Sharon                      | A21C 9/08                              |
| VERHAEGHE, Didier                       | MILLER, Zvi                         | A21C 11/10                             |
| (31) 201400545                          | (31) 201662332017 P                 | A21C 11/16                             |
| (32) 09.07.2014                         | (32) 05.05.2016                     | A21C 9/04                              |
| (33) Belgium                            | (33) United States of America       | (11) EP3616521                         |
| (51) A01G 3/025                         | (51) A01K 63/00                     | (21) EP18862425.8                      |
| (11) EP2258163                          | A01K 63/04                          | (47) 26.04.2023                        |
| (21) EP10170864.2                       | (11) EP3766342                      | (87) CN2018078536                      |

|   |  |   |
|---|--|---|
| 04.04.2019  | (87) EP2017064466  | C12N 15/09  |
| (22) 09.03.2018   | 21.12.2017   | (11) EP3524063  |
| (54) STUFFED FOOD FORMING METHOD  | (22) 13.06.2017  | (21) EP17858454.6   |
| (73) Shanghai Soontrue Machinery<br>Equipment Co., Ltd.                   | (54) DEVICE, SYSTEM AND METHOD FOR<br>DOSING A PASTY FOOD PRODUCT<br>WITH SOLID PIECES AND A SAUCE<br>INTO A CONTAINER | (47) 26.04.2023   |
| (72) HUANG, Song  | (73) Société des Produits Nestlé S.A.  | (87) JP2017036193   |
| (31) 201710913612   | (72) MOREAU, Jean  | 12.04.2018  |
| (32) 30.09.2017   | DAHLKE, Tanja  | (22) 04.10.2017   |
| (33) China  | LEVALLOIS, Dominique   | (54) METHOD FOR PRODUCING NUCLEIC<br>ACID SEASONING   |
| (51) A21D 10/02   | (31) 16174179  | (73) Amano Enzyme Inc.  |
| A21D 13/41  | (32) 13.06.2016  | (72) OKUDA Keita  |
| (11) EP3994997  | (33) European Patent Office (EPO)  | (31) 2016199543   |
| (21) EP21203341.9   | (51) A23F 3/16   | (32) 07.10.2016   |
| (47) 26.04.2023   | A23F 3/40  | (33) Japan  |
| (22) 19.10.2021   | A23L 27/20   | (51) A24C 5/00  |
| (54) PIZZA DOUGH FOR DEFERRED USE<br>AND METHOD FOR PREPARING SAME        | (11) EP3923734   | A24C 5/32   |
| (73) Cérélia  | (21) EP20700934.1  | A24D 3/02   |
| (72) MICHEAUX, Claire   | (47) 26.04.2023  | (11) EP3639680  |
| HEINRICH, Mathieu   | (87) EP2020051530  | (21) EP19203175.5   |
| FRITSCH, Gérard   | 20.08.2020   | (47) 26.04.2023   |
| (31) 2011470  | (22) 22.01.2020  | (22) 15.10.2019   |
| (32) 09.11.2020   | (54) PRESERVED TEA PRODUCT   | (54) PRODUCTION LINE AND METHOD<br>FOR THE PRODUCTION OF ROD-<br>SHAPED ARTICLES OF THE TOBACCO<br>INDUSTRY |
| (33) France   | (73) Unilever IP Holdings B.V.   | (73) G.D S.p.A.   |
| (51) A22C 11/02   | (72) MYCOCK, Gary  | (72) ESPOSTI, Marco   |
| (11) EP3818831  | SIMONS, Elizabeth-Ann  | EUSEPI, Ivan  |
| (21) EP20191591.5   | (31) 19157077  | BENNI, Gabriele   |
| (47) 26.04.2023   | (32) 14.02.2019  | BALDANZA, Nicola  |
| (22) 18.08.2020   | (33) European Patent Office (EPO)  | GAMBERINI, Giuliano   |
| (54) CASING HOLDING DEVICE FOR A<br>DEVICE FOR FILLING TUBULAR<br>CASINGS | (51) A23G 9/12   | FEDERICI, Luca  |
| (73) VEMAG Maschinenbau GmbH  | A23G 9/22  | (31) 201800009608   |
| (72) Franz, Gerhard   | B01F 27/072  | (32) 19.10.2018   |
| Hiller, Klaus   | B01F 27/091  | (33) Italy  |
| Walger, Johann  | B01F 27/808  | (51) A24C 5/28  |
| (31) 202019106178 U   | B01F 27/213  | A24C 5/34   |
| (32) 06.11.2019   | B01F 35/92   | A47G 21/18  |
| (33) Germany  | B01F 35/50   | B29L 23/00  |
| (51) A23C 3/00  | B01F 35/90   | B29C 48/00  |
| B65B 55/14  | (11) EP3073839   | (11) EP3682749  |
| A23D 7/06   | (21) EP14865669.7  | (21) EP20151347.0   |
| A23C 13/08  | (47) 26.04.2023  | (47) 26.04.2023   |
| A23C 19/097   | (87) AU2014001080  | (22) 13.01.2020   |
| (11) EP3505457  | 04.06.2015   | (54) METHOD FOR OPERATING A<br>MACHINE FOR THE TOBACCO<br>INDUSTRY AND CORRESPONDING<br>MACHINE             |
| (21) EP18248059.0   | (22) 27.11.2014  | (73) Körber Technologies GmbH   |
| (47) 26.04.2023   | (54) IMPROVED BASE DRIVEN APPLIANCE<br>AND ATTACHMENTS   | (72) SAITOW, Viktor   |
| (22) 27.12.2018   | (73) Breville Pty Limited  | GROTHAUS, Frank   |
| (54) PRODUCING AN ASEPTIC FOOD<br>PRODUCT                                 | (72) THOMAS, Mark  | HOFMANN, Nils   |
| (73) Tetra Laval Holdings & Finance S.A.                                  | (31) 2013904731  | GOLZ, Peter   |
| (72) Oestengaard, Svend Erik  | 2013904627   | PIECHACZEK, Roman   |
| Abelha, Kamila  | (32) 05.12.2013  | LÜCKE, Felix  |
| (31) 17211115   | 29.11.2013   | SCHAFFORZ, Mathias  |
| (32) 29.12.2017   | (33) Australia   | (31) 102019101019   |
| (33) European Patent Office (EPO)   | Australia  | (32) 16.01.2019   |
| (51) A23C 9/13  | (51) A23L 7/196  | (33) Germany  |
| A23C 9/152  | (11) EP3841891   | (51) A24F 40/42   |
| A23C 9/156  | (21) EP19383180.7  | A24F 40/485   |
| A23P 30/25  | (47) 26.04.2023  | A24F 40/10  |
| A23G 9/28   | (22) 23.12.2019  | (11) EP3874979  |
| A23P 30/40  | (54) QUICK COOK RICE   | (21) EP19878088.4   |
| A23L 9/10   | (73) Maria Carmen, Casañ Gimeno  | (47) 26.04.2023   |
| A23C 13/14  | (72) CASAÑ GIMENO, Maria Carmen  | (87) CN2019114420   |
| G01F 11/02  | DE LOS REYES CÁNOVAS, Ruth   | 07.05.2020  |
| (11) EP3468381  | ALCAÑIZ COSÍN, Diego   | (22) 30.10.2019   |
| (21) EP17729146.5   | (51) A23L 27/23  |   |
| (47) 26.04.2023   | A23L 31/15   |   |
|   | C12N 9/16  |   |



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|--|---|---|
| (54) ATOMIZER HAVING DETACHABLE ATOMIZING CORE AND ELECTRONIC CIGARETTE  | WANCHOO, Nishey<br>BAERENRODT, Mark<br>STAID, Kevin   | (31) 201514806377<br>(32) 22.07.2015<br>(33) United States of America   |
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| Aßmann, Walter                  | A61B 1/05                                     | DETERMINING THE REFRACTIVE                |
| (31) 102018111613               | A61B 1/12                                     | PROPERTIES OF AN EYE OF A CHILD           |
| (32) 15.05.2018                 | G02B 23/24                                    | (73) Carl Zeiss Vision International GmbH |
| (33) Germany                    | (11) EP3613331                                | (72) Welscher, Monique                    |
| (51) A47L 15/42                 | (21) EP19190235.2                             | Kratzer, Timo                             |
| A47L 15/48                      | (47) 26.04.2023                               | (51) A61B 3/103                           |
| D06F 34/20                      | (22) 06.08.2019                               | G02C 7/02                                 |
| D06F 39/14                      | (54) ENDOSCOPE WITH A MOVABLE                 | (11) EP3979895                            |
| (11) EP2845532                  | COMPONENT                                     | (21) EP20729753.2                         |
| (21) EP14183228.7               | (73) Karl Storz SE & Co. KG                   |   |

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| (47) 26.04.2023                             | (33) United States of America       | A61N 1/00                           |
| (87) EP2020065429                           | (51) A61B 5/00                      | (11) EP2385859                      |
| 10.12.2020                                  | A61B 18/14                          | (21) EP10729655.0                   |
| (22) 04.06.2020                             | A61B 90/00                          | (47) 26.04.2023                     |
| (54) METHOD AND INSTRUMENT FOR              | A61B 18/00                          | (87) US2010020737                   |
| PROVIDING AT LEAST ONE EYE OF A             | A61B 17/00                          | 15.07.2010                          |
| SUBJECT WITH A FIRST REFRACTION             | (11) EP3571983                      | (22) 12.01.2010                     |
| CORRECTION AND WITH A SECOND                | (21) EP19175704.6                   | (54) MINIATURE STENT-BASED          |
| REFRACTION CORRECTION TO BE                 | (47) 26.04.2023                     | IMPLANTABLE WIRELESS                |
| COMPARED WITH EACH OTHER                    | (22) 21.05.2019                     | MONITORING DEVICES                  |
| (73) Essilor International                  | (54) CATHETER WITH CAPACITIVE FORCE | (73) Purdue Research Foundation     |
| (72) MARIN, Gildas                          | SENSOR                              | (72) CHOW, Eric Y.                  |
| LONGO, Adèle                                | (73) Biosense Webster (Israel) Ltd. | BEIER, Brooke                       |
| GIRAUDET, Guillaume                         | (72) SHETH, Piyush                  | CHAPPELL, William J.                |
| BOUTINON, Stéphane                          | (31) 201815986730                   | IRAZOQUI, Pedro P.                  |
| PINAULT, Philippe                           | (32) 22.05.2018                     | (31) 143965 P                       |
| (31) 19305733                               | (33) United States of America       | (32) 12.01.2009                     |
| (32) 06.06.2019                             | (51) A61B 5/021                     | (33) United States of America       |
| (33) European Patent Office (EPO)           | A61B 5/00                           | (51) A61B 5/0245                    |
| (51) A61B 5/00                              | G16H 10/00                          | A61B 5/00                           |
| A61B 5/11                                   | (11) EP3843619                      | A61B 5/352                          |
| (11) EP3900614                              | (21) EP19762738.3                   | A61B 5/364                          |
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| (22) 16.12.2020                             | 05.03.2020                          | (47) 26.04.2023                     |
| (54) DEVICE FOR MEASURING KNEE              | (22) 27.08.2019                     | (87) JP2019008061                   |
| TORQUE IN BEDRIDDEN HUMANS                  | (54) METHOD AND APPARATUS FOR       | 12.09.2019                          |
| AND METHOD FOR USING THE                    | CORRECTING A BLOOD PRESSURE         | (22) 01.03.2019                     |
| DEVICE                                      | MEASUREMENT TAKEN AT A              | (54) HEARTBEAT RATE CALCULATION     |
| (73) Univerza na Primorskem, Universita del | MEASUREMENT LOCATION                | DEVICE AND METHOD                   |
| Litorale                                    | (73) Pulsion Medical Systems SE     | (73) NIPPON TELEGRAPH AND           |
| (72) Sarabon, Nejc                          | (72) THALMEIER, Thomas              | TELEPHONE CORPORATION               |
| (51) A61B 5/00                              | GRULER, Roman                       | (72) SATO, Rieko                    |
| A61B 5/145                                  | (31) 102018006844                   | MATSUURA, Nobuaki                   |
| A61B 5/1486                                 | (32) 29.08.2018                     | KUWABARA, Kei                       |
| (11) EP3988014                              | (33) Germany                        | OGASAWARA, Takayuki                 |
| (21) EP21209045.0                           | (51) A61B 5/021                     | (31) 2018080426                     |
| (47) 26.04.2023                             | A61B 5/024                          | 2018039446                          |
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| (54) MEDICAL SYSTEM AND METHOD OF           | A61B 5/145                          | 06.03.2018                          |
| MANUFACTURING THEREOF                       | A61B 5/00                           | (33) Japan                          |
| (73) F. Hoffmann-La Roche AG                | G06T 11/20                          | Japan                               |
| (72) Konya, Ahmet                           | A61N 1/39                           | (51) A61B 5/053                     |
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| A61B 5/145                                  | (87) DE2018000040                   | (54) APPARATUS FOR TREATING A TUMOR |
| (11) EP3831283                              | 01.11.2018                          | WITH AN ALTERNATING ELECTRIC        |
| (21) EP21152231.3                           | (22) 16.02.2018                     | FIELD AND FOR SELECTING A           |
| (47) 26.04.2023                             | (54) DISPLAY FOR OUTPUTTING         | TREATMENT FREQUENCY BASED ON        |
| (22) 11.12.2012                             | INFORMATION CONTENTS OF             | ESTIMATED CELL SIZE                 |
| (54) ANALYTE SENSOR DEVICES,                | MEDICAL DEVICES                     | (73) Novocure GmbH                  |
| CONNECTIONS, AND METHODS                    | (73) WEINMANN Emergency Medical     | (72) PALTI, Yoram                   |
| (73) Abbott Diabetes Care, Inc.             | Technology GmbH + Co. KG            | DISHON, Matan                       |
| (72) PACE, Louis                            | (72) NEUHAUS, Christian             | (31) 201361819717 P                 |
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| CURRY, Samuel Mason                         | (31) 102017007625                   | (51) A61B 5/08                      |
| CARTER, Phillip William                     | 102017004140                        | A61B 5/00                           |
| DIPALMA, Vincent Michael                    | (32) 09.08.2017                     | A61B 7/00                           |
| OLSON, Jennifer                             | 27.04.2017                          | A61B 7/04                           |
| DONNAY, Manuel Luis Miguel                  | (33) Germany                        | G06K 9/00                           |
| TAUB, Marc Barry                            | Germany                             | G10L 25/66                          |
| MHATRE, Amit                                | (51) A61B 5/0215                    | G16H 50/20                          |
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| (22) 28.03.2013                     | A61B 5/333                            | A61B 5/00                                   |
| (54) A METHOD AND APPARATUS FOR     | A61B 5/11                             | A61B 5/06                                   |
| PROCESSING SOUND RECORDINGS         | A61B 5/0533                           | A61B 5/01                                   |
| OF A PATIENT                        | A61B 5/024                            | A61B 5/33                                   |
| (73) The University of Queensland   | A61B 5/021                            | A61B 18/00                                  |
| (72) ABEYRATNE, Udantha, R.         | A61B 5/117                            | (11) EP3813706                              |
| SWANKAR, Vinayak                    | B60N 2/00                             | (21) EP19783684.4                           |
| AMRULLOH, Yusuf, A.                 | B60N 2/90                             | (47) 26.04.2023                             |
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| (32) 29.03.2012                     | (21) EP15707235.6                     | 19.03.2020                                  |
| (33) Australia                      | (47) 26.04.2023                       | (22) 09.09.2019                             |
| (51) A61B 5/08                      | (87) US2015016803                     | (54) UNIBODY INTRAVASCULAR                  |
| A61B 5/1455                         | 27.08.2015                            | CATHETER SHAFT                              |
| A61B 5/372                          | (22) 20.02.2015                       | (73) St. Jude Medical, Cardiology Division, |
| A61B 5/00                           | (54) VEHICLE SEAT WITH INTEGRATED     | Inc.  |
| A61B 7/00                           | SENSORS                               | (72) TEGG, Troy T.                          |
| A61B 7/04                           | (73) Faurecia Automotive Seating, LLC | OLSON, Gregory K.                           |
| (11) EP3821805                      | (72) BENSON, Matthew K.               | (31) 201862729976 P                         |
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| (47) 26.04.2023                     | MONTGOMERY, Sean M.                   | (33) United States of America               |
| (87) JP2019026880                   | DEXTER, Brian R.                      | (51) A61B 5/366                             |
| 16.01.2020                          | BONK, Jeffery T.                      | A61B 5/349                                  |
| (22) 05.07.2019                     | CUMMINGS, David L.                    | A61B 5/25                                   |
| (54) PHYSIOLOGICAL STATE EVALUATION | HAASE, Alexander S.                   | A61N 7/00                                   |
| DEVICE                              | BAUDU, Samuel                         | A61B 5/282                                  |
| (73) Cyberdyne Inc.                 | BOUSSETTA, Radouane                   | A61N 1/05                                   |
| University of Tsukuba               | DRUBETSKOY, Pioter                    | A61B 5/00                                   |
| (72) SANKAI, Yoshiyuki              | DACOSTA-MALLET, Anne-Isabelle         | A61N 1/365                                  |
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| (32) 10.07.2018                     | (31) 201461942493 P                   | (21) EP17708666.7                           |
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| (21) EP21199492.6                   | 20.02.2014                            | (54) NONINVASIVE SYSTEMS OF                 |
| (47) 26.04.2023                     | (33) United States of America         | DETERMINING THE EXTENT OF                   |
| (22) 05.02.2016                     | United States of America              | TISSUE CAPTURE FROM CARDIAC                 |
| (54) MEDICAL DEVICE FOR DETECTING   | United States of America              | PACING                                      |
| AT LEAST ONE ANALYTE IN A BODY      | (51) A61B 5/20                        | (73) Medtronic Inc.                         |
| FLUID                               | A61B 5/00                             | (72) GHOSH, Subham                          |
| (73) F. Hoffmann-La Roche AG        | (11) EP3738511                        | (31) 201615142176                           |
| (72) Walter, Helmut                 | (21) EP20174922.3                     | 201662300675 P                              |
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| (21) EP13711808.9                   | (54) NON-INVASIVE MEASURING DEVICE    | (33) United States of America               |
| (47) 26.04.2023                     | FOR MEASURING THE RETENTION OF        | United States of America                    |
| (87) US2013030583                   | LIQUID IN THE URINARY BLADDER OF      | (51) A61B 6/02                              |
| 19.09.2013                          | A USER                                | A61B 6/04                                   |
| (22) 12.03.2013                     | (73) inContAlert GmbH                 | A61B 6/00                                   |
| (54) SYSTEMS AND METHODS FOR        | (72) LOCKL, Jannik                    | A61B 8/08                                   |
| PROCESSING ANALYTE SENSOR           | ZÜRL, Tristan                         | A61B 8/00                                   |
| DATA                                | (31) 102019207154                     | (11) EP3701871                              |
| (73) Dexcom, Inc.                   | (32) 16.05.2019                       | (21) EP20158331.7                           |
| (72) ESTES, Michael, J.             | (33) Germany                          | (47) 26.04.2023                             |
| VANSLYKE, Stephen, J.               | (51) A61B 5/25                        | (22) 19.02.2020                             |
| KAMATH, Apurv, Ullas                | A61B 5/0533                           | (54) CONTROL DEVICE, RADIOGRAPHY            |
| PEYSER, Thomas, A.                  | (11) EP3459449                        | SYSTEM, MEDICAL IMAGING SYSTEM,             |
| BOHNETT, Lucas                      | (21) EP17193095.1                     | CONTROL METHOD, AND CONTROL                 |
| MAHALINGAM, Aarthi                  | (47) 26.04.2023                       | PROGRAM                                     |
| GARCIA, Arturo                      | (22) 26.09.2017                       | (73) FUJIFILM Corporation                   |
| SIMPSON, Peter, C.                  | (54) APPARATUS FOR SENSING            | (72) ARAI, Takahisa                         |
| RACK-GOMER, Anna, Leigh             | BIOSIGNALS                            | FUKUYO, Masakazu                            |
| BOHM, Sebastian                     | (73) Nokia Technologies Oy            | KOBAYASHI, Takeyasu                         |

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| (73) Ethicon LLC  | (21) EP16705496.4   | (47) 26.04.2023   |
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| (33) United States of America   | (22) 18.02.2016   | (54) NEUROSURGICAL ASSISTANCE ROBOT   |
| (51) A61B 18/14   | (54) SYSTEMS FOR PERFORMING MINIMALLY INVASIVE SPINAL SURGERY WITH A ROBOTIC SURGICAL SYSTEM USING A PERCUTANEOUS TECHNIQUE | (73) Medtech SA   |
| A61B 18/00  | (73) KB Medical SA  | (72) NAHUM, Bertin  |
| (11) EP3970648  | (72) MORARD, Marc   | BADANO, Fernand   |
| (21) EP21196238.6   | VAN DOMMELEN, Kristof   | ROUSSEL, Eric   |
| (47) 26.04.2023   | KOSTRZEWSKI, Szymon   | BLONDEL, Lucien   |
| (22) 13.09.2021   | (31) 201562117919 P   | (31) 1501055  |
| (54) MEDICAL HIGH FREQUENCY INSTRUMENT                                | (32) 18.02.2015   | (32) 21.05.2015   |
| (73) Karl Storz SE & Co. KG   | (33) United States of America   | (33) France   |
| (72) Hahn, Martin   | (51) A61B 50/22   | (51) A61C 1/00  |
| Hermle, Rainer  | A61B 50/34  | (11) EP4014918  |
| Wittke, Uwe   | A61B 17/28  | (21) EP20215895.2   |
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| (32) 18.09.2020   | (11) EP3923850  | (22) 21.12.2020   |
| (33) Germany  | (21) EP21709946.4   | (54) SYSTEM FOR EXCAVATING DENTAL MATERIAL  |
| (51) A61B 18/14   | (47) 26.04.2023   | (73) Ivoclar Vivadent AG  |
| A61B 18/18  | (87) EP2021055247   | (72) HAUNER-WESTPHAL, Martina   |
| A61M 35/00  | 10.09.2021  | PESCHKE, Arnd   |
| A61N 1/40   | (22) 03.03.2021   | BOCK, Thorsten  |
| A61N 7/00   | (54) UNLOCKING APPARATUS AND STRAINER BASKET  | (51) A61C 3/03  |
| A61N 5/02   | (73) Aesculap AG  | (11) EP3708110  |
| A61B 18/00  | (72) HENKE, Matthias  | (21) EP20162993.8   |
| A61M 37/00  | KIESSLING, Daniel   | (47) 26.04.2023   |
| (11) EP3922200  | LUZ, Sebastian  | (22) 13.03.2020   |
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| B32B 27/36                         | A61K 8/06                         | A61P 5/18                               |
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| (47) 26.04.2023                    | (21) EP14730622.9                 | A61P 13/00                              |
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| (54) HYDROGEN PEROXIDE             | (22) 04.04.2014                   | (11) EP3895699                          |
| FORMULATIONS IN BARRIER LAYER      | (54) HAIR CARE COMPOSITION        | (21) EP21176696.9                       |
| FILMS WITH A METALLIZED LAYER      | COMPRISING A PRE-EMULSIFIED       | (47) 26.04.2023                         |
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| (72) NOWOTTNY, Marc                | (73) The Procter & Gamble Company | (54) PHARMACEUTICAL COMPOSITIONS        |
| LECHNER, Torsten                   | (72) CARTER, John, David          | COMPRISING IRON OXY-HYDROXIDE           |
| BARTHEL, Wolfgang                  | STELLA, Qing                      | (73) Vifor Fresenius Medical Care Renal |
| (31) 102017223040                  | IWATA, Toshiyuki                  | Pharma, Ltd.                            |
| (32) 18.12.2017                    | CIENGSHIN, Tanashaya              | (72) WEIBEL-FURER, Ludwig               |
| (33) Germany                       | HOSSEINPOUR, Dariush              | PHILIPP, Erik                           |
| (51) A61K 8/24                     | UEHARA, Nobuaki                   | (31) 07120837                           |
| A61K 8/90                          | OKADA, Toshiyuki                  | (32) 16.11.2007                         |
| A61Q 11/00                         | TAY, Raymond, Xu Zhan             | (33) European Patent Office (EPO)       |
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| (47) 26.04.2023                    | (51) A61K 9/00                    | A61K 9/20                               |
| (87) EP2020075888                  | A61K 9/20                         | A61K 47/02                              |
| 08.04.2021                         | A61K 45/06                        | A61P 3/00                               |
| (22) 16.09.2020                    | A61K 31/47                        | A61P 3/12                               |
| (54) AN ORAL CARE COMPOSITION      | A61P 31/06                        | A61P 5/18                               |
| COMPRISING HEXAMETAPHOSPHATE       | A61P 43/00                        | A61P 7/00                               |
| AND A PIGMENT                      | (11) EP3250182                    | A61P 7/08                               |
| (73) Unilever IP Holdings B.V.     | (21) EP16701516.3                 | A61P 13/00                              |
| (72) JOINER, Andrew                | (47) 26.04.2023                   | A61P 13/12                              |
| PHILPOTTS, Carole, Jane            | (87) EP2016051545                 | A61P 19/08                              |
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| (51) A61K 8/34                     | (73) Janssen Pharmaceutica NV     | (47) 26.04.2023                         |
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| A61K 8/46                          | TAMBWEKAR, Kaustubh, Ramesh       | COMPRISING IRON OXY-HYDROXIDE           |
| A61K 8/60                          | NAIR, Shreedevi, Velayudhan       | (73) Vifor Fresenius Medical Care Renal |
| A61Q 19/00                         | (31) 264MU2015                    | Pharma, Ltd.                            |
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| (73) Henkel AG & Co. KGaA          | (47) 26.04.2023                   | (21) EP17706788.1                       |
| (72) SARTINGEN, Kirsten            | (87) EP2016081878                 | (47) 26.04.2023                         |
| HEIDE, Barbara                     | 28.06.2018                        | (87) EP2017054158                       |
| PFEIFER, Stephanie                 | (22) 20.12.2016                   | 31.08.2017                              |
| (31) 102015201862                  | (54) A MUCOADHESIVE OROMUCOSAL    | (22) 23.02.2017                         |
| (32) 03.02.2015                    | FORMULATION COMPRISING A          | (54) TREATMENT OF ALKAPTONURIA AND      |
| (33) Germany                       | NICOTINE COMPLEX                  | TYROSINEMIA TYPE 1                      |
| (51) A61K 8/34                     | (73) Fertin Pharma A/S            | (73) Università degli Studi di Siena    |
| A61Q 5/02                          | (72) NIELSEN, Kent Albin          | (72) SANTUCCI, Annalisa                 |
| A61K 8/60                          | (51) A61K 9/70                    | BERNARDINI, Giulia                      |
| A61Q 5/06                          | A61K 9/00                         | LASCHI, Marcella                        |
| A61Q 5/12                          | A61K 9/16                         | MANETTI, Fabrizio                       |
| A61K 8/25                          | A61K 9/20                         | PETRICCI, Elena                         |

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| (51) A61K 31/19  | University of Alaska Fairbanks  | (22) 20.12.2013   |
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| (21) EP16192597.9  | GLENNON, Richard A.   | (72) LOW, Philip S.   |
| (47) 26.04.2023  | BULT-ITO, Abel  | CHU, Haiyan   |
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| (54) GEMCABENE FOR TREATING<br>PANCREATITIS  | MITRA, Swarup   | (31) 201261740384 P   |
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| (22) 15.03.2017  | A61K 47/36  | (11) EP3525795  |
| (54) METHOD OF TREATMENT OF<br>OBESITY   | A61P 35/00  | (21) EP17861908.6   |
| (73) Queen Mary University of London   | A61K 45/06  | (47) 26.04.2023   |
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| (33) United Kingdom  | (54) INTRATUMORAL ADMINISTRATION<br>OF SIROLIMUS FOR TREATMENT OF<br>PROSTATE CANCER  | LIN, Chi-Feng   |
| United Kingdom   | (73) Santen Pharmaceutical Co., Ltd.  | SHIH, Jhen-Hua  |
| (51) A61K 31/351   | (72) KUNDU, Aishwarya   | WU, Alexander C. H.   |
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| 20.06.2019   | (51) A61K 31/454  | United States of America  |
| (22) 10.12.2018  | A61P 21/00  | (51) A61K 31/702  |
| (54) USE OF PHARMACOLOGICAL<br>CHAPERONES FOR THE TREATMENT<br>OF LYSOSOMAL STORAGE DISEASES | A61P 43/00  | A61P 1/00   |
| (73) Fundación Biomédica Galicia Sur   | (11) EP4000621  | A23L 33/15  |
| Universidad de Vigo  | (21) EP20382995.7   | A61P 25/22  |
| (72) ORTOLANO, Saida   | (47) 26.04.2023   | A61P 25/24  |
| BESADA PEREIRA, Pedro  | (22) 18.11.2020   | A23L 33/00  |
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| (31) 201731396   | (73) Fundación del Hospital Nacional de<br>Paraplégicos Para la Investigación y la<br>Integración (FUHNPAIIN)                                     | (21) EP16859112.1   |
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| A61K 45/06   | (51) A61K 31/4985   | (22) 28.10.2016   |
| A61P 43/00   | A61K 31/352   | (54) SYNTHETIC COMPOSITION AND<br>METHOD FOR MODULATING<br>EMOTION AND MOOD DISORDERS |
| A61K 9/20  | A61K 31/551   | (73) Glycom A/S   |
| A61K 47/02   | A61P 35/00  | (72) MCCONNELL, Bruce   |
| (11) EP3429563   | A61K 39/00  | ELISON, Emma  |
| (21) EP17767319.1  | A61K 47/54  | VIGSNÆS, Louise Kristine  |
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| (22) 14.03.2017  |   | 28.10.2015  |
| (54) DESFORMYLFLUSTRABROMINE<br>FOR USE IN THE TREATMENT OF                                  |   | (33) Denmark  |
|  |   | Denmark   |
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| A61K 31/136                        | DOI, Shigehiro                  | A61P 1/18                                    |
| A61K 31/22                         | YOSHIDA, Ken                    | A61P 3/06                                    |
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| A61P 27/02                         | A61P 21/00                      | (54) COMPOSITION FOR TREATING                |
| (11) EP3041479                     | (11) EP3989999                  | DIABETES, CONTAINING LONG-                   |
| (21) EP14766342.1                  | (21) EP20737378.8               | ACTING INSULIN ANALOG                        |
| (47) 26.04.2023                    | (47) 26.04.2023                 | CONJUGATE AND LONG-ACTING                    |
| (87) US2014054018                  | (87) EP2020068224               | INSULIN SECRETION PEPTIDE                    |
| 12.03.2015                         | 30.12.2020                      | CONJUGATE                                    |
| (22) 04.09.2014                    | (22) 29.06.2020                 | (73) Hanmi Pharm. Co., Ltd.                  |
| (54) TREATMENT OF CYR61- AND VEGF- | (54) NEW COMPOSITION CONTAINING | (72) KIM, Jung Kuk                           |
| MEDIATED CONDITIONS                | BRANCHED-CHAIN AMINO ACIDS      | KIM, Dae Jin                                 |
| (73) Vanda Pharmaceuticals Inc.    | (73) Dompé farmaceutici SpA     | HEO, Yong Ho                                 |
| (72) POLYMERPOULOS, Mihael, H.     | (72) ALLEGRETTI, Marcello       | CHOI, In Young                               |
| LICAMELE, Louis, William           | ARAMINI, Andrea                 | JUNG, Sung Youb                              |
| LAVEDAN, Christian                 | BIANCHINI, Gianluca             | KWON, Se Chang                               |
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| (33) United States of America      | (33) Italy                      | (33) Korea (Republic)                        |
| (51) A61K 33/40                    | (51) A61K 38/10                 | (51) A61K 38/42                              |
| A61K 33/14                         | (11) EP3215172                  | C07K 14/805                                  |
| A61P 17/10                         | (21) EP15856496.3               | A61P 9/10                                    |
| A61P 17/02                         | (47) 26.04.2023                 | (11) EP3595702                               |
| A61K 9/00                          | (87) US2015059613               | (21) EP18711670.2                            |
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| (47) 26.04.2023                    | (54) MODIFICATIONS AND USES OF  | 20.09.2018                                   |
| (87) SE2017050525                  | CONOTOXIN PEPTIDES              | (22) 13.03.2018                              |
| 23.11.2017                         | (73) Kineta Chronic Pain, Llc.  | (54) MODIFIED HAEMOGLOBIN PROTEINS           |
| (22) 18.05.2017                    | (72) POSAKONY, Jeffrey, Jerard  | (73) University of Essex Enterprises Limited |
| (54) NEW USE OF PRODUCT FOR SKIN   | (31) 201462123123 P             | (72) COOPER, Chris E.                        |
| TREATMENT                          | (32) 07.11.2014                 | REEDER, Brandon                              |
| (73) Biocool AB                    | (33) United States of America   | SILKSTONE, Gary                              |
| (72) ERIKSSON, JanOlof             | (51) A61K 38/18                 | (31) 201704006                               |
| (31) 1650679                       | A61K 47/30                      | (32) 13.03.2017                              |
| (32) 19.05.2016                    | A61K 35/50                      | (33) United Kingdom                          |
| (33) Sweden                        | A61K 9/00                       | (51) A61K 39/00                              |
| (51) A61K 35/28                    | A61K 47/10                      | C12Q 1/68                                    |
| A61P 1/16                          | A61K 9/08                       | A61P 35/00                                   |
| A61P 13/12                         | A61P 43/00                      | G01N 33/50                                   |
| C12N 5/00                          | (11) EP3344277                  | (11) EP3892295                               |
| A61P 43/00                         | (21) EP16770822.1               | (21) EP21168360.2                            |
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| (21) EP17888752.7                  | (22) 06.09.2016                 | CANCER                                       |
| (47) 26.04.2023                    | (54) NON-SURGICAL, LOCALIZED    | (73) BioNTech SE                             |
| (87) JP2017046427                  | DELIVERY OF COMPOSITIONS FOR    | TRON - Translationale Onkologie              |
| 05.07.2018                         | PLACENTAL GROWTH FACTORS        | an der Universitätsmedizin der               |
| (22) 25.12.2017                    | (73) MiMedx Group, Inc.         | Johannes Gutenberg- Universität Mainz        |
| (54) REPAIR AGENT FOR LIVING       | (72) KOOB, Thomas J.            | gemeinnützige GmbH                           |
| TISSUE DAMAGE COMPRISING           | BROWN, Rebeccah J.C.            | (72) SAHIN, Ugur                             |
| MESENCHYMAL STEM CELLS, AND        | (31) 201514845199               | KREITER, Sebastian                           |
| METHOD FOR PRODUCING SAID          | (32) 03.09.2015                 | DIKEN, Mustafa                               |
| REPAIR AGENT                       | (33) United States of America   | DIEKMANN, Jan                                |
| (73) Two Cells Co., Ltd            | (51) A61K 38/28                 | KOSLOWSKI, Michael                           |
| Hiroshima University               | A61K 38/26                      | BRITTEN, Cedrik                              |
| (72) KATO, Yukio                   | A61K 47/50                      | CASTLE, John                                 |
| TSUJI, Koichiro                    | A61K 47/30                      | LÖWER, Martin                                |
| NAKASHIMA, Ayumu                   | A61K 47/60                      | RENARD, Bernhard                             |
| MASAKI, Takao                      | A61K 47/68                      | OMOKOKO, Tana                                |

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| (32) 02.01.2012                                | DEGENERATION DISEASE                    | 27.12.2018                         |
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| World Intellectual Property Office (WIPO)      | BIEL, Martin                            | (73) OY LIFA AIR LTD               |
| (51) A61K 39/395                               | SEELIGER, Mathias                       | (72) MAKIPAA, Vesa                 |
| C07K 16/22                                     | SCHOEN, Christian                       | MAKIPAA, Janette                   |
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| (22) 15.09.2015                                | A61K 9/107                              | A61L 27/36                         |
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| (72) LE, Lan                                   | (47) 26.04.2023                         | A61L 27/56                         |
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| (51) A61K 47/10                                | OF EMULSION OR MICROEMULSION            | (87) JP2016058541                  |
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| A61K 9/00                                      | CONTAINING AT LEAST ONE DYE,            | (22) 17.03.2016                    |
| (11) EP3902565                                 | AND ITS USE IN A DIAGNOSTIC             | (54) CARTILAGE REGENERATION        |
| (21) EP19828723.7                              | ENDOSCOPIC PROCEDURE OF                 | MATERIAL AND METHOD FOR            |
| (47) 26.04.2023                                | SIGMOID COLON AND/OR RECTUM             | PRODUCING SAME                     |
| (87) EP2019086111                              | (73) Cosmo Technologies Ltd.            | (73) FUJIFILM Corporation          |
| 02.07.2020                                     | (72) MORO, Luigi                        | JAPAN TISSUE ENGINEERING CO.,      |
| (22) 18.12.2019                                | FRIMONTI, Enrico                        | LTD.                               |
| (54) LIQUID NICOTINE FORMULATION               | LONGO, Luigi Maria                      | (72) NAKAMURA, Kentaro             |
| COMPRISING LOW MOLAR MASS                      | (31) MI20140121                         | MIYOSHI, Hayato                    |
| METAL SALT                                     | (32) 29.01.2014                         | HADA, Satoko                       |
| (73) Philip Morris Products S.A.               | (33) Italy                              | WATANABE, Masatoki                 |
| (72) TAURINO, Irene                            | (51) A61L 9/01                          | (31) 2015054887                    |
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| (33) European Patent Office (EPO)              | (11) EP3471783                          | (51) A61L 27/26                    |
| (51) A61K 47/40                                | (21) EP17732160.1                       | A61L 27/52                         |
| A61K 9/08                                      | (47) 26.04.2023                         | A61L 27/54                         |
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| A61P 27/02                                     | 21.12.2017                              | A61P 25/00                         |
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| (22) 14.01.2020                                | BIRD, Arron                             | A61L 27/22                         |
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| (72) WABEL, Peter                       | (22) 22.02.2022                       | A61M 5/24                                  |
| BERLICH, Robert                         | (54) DEVICE FOR ADMINISTRATION OF     | A61M 5/315                                 |
| BREUNINGER, Marcus                      | LIQUIDS WITH DAMPING ELEMENT          | A61M 5/46                                  |
| STAUDE, Birgit                          | FOR ABSORBING EXTERNAL IMPACT         | A61M 5/31                                  |
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| AND SHUT-OFF MECHANISM                  | (21) EP20181590.9                     | (11) EP3996785                             |
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| (72) RITTER, Kai-Uwe                    | (73) Sanofi-Aventis Deutschland GmbH  | (22) 09.07.2020                            |
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Corporation<br/>                 (72) HUERTAS FERNANDEZ, Ismael<br/>                 DOAN, Que, T.<br/>                 (31) 201962803330 P<br/>                 201862693543 P<br/>                 (32) 08.02.2019<br/>                 03.07.2018<br/>                 (33) United States of America<br/>                 United States of America<br/> <hr/>                 (51) A61N 1/05<br/>                 A61N 1/375<br/>                 A61N 1/39<br/>                 (11) EP3456377<br/>                 (21) EP17306184.7<br/>                 (47) 26.04.2023<br/>                 (22) 14.09.2017<br/>                 (54) ATTACHMENT MEANS FOR IMPLANTABLE CARDIAC DEVICE<br/>                 (73) Sorin CRM SAS<br/>                 (72) Ollivier, Jean-François<br/> <hr/>                 (51) A61N 1/08<br/>                 A61N 1/02<br/>                 A61N 1/05<br/>                 A61N 1/36<br/>                 A61N 1/375<br/>                 A61N 1/39<br/>                 (11) EP3452164<br/>   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| GUNNA SRINIVASAN, Vikrant,<br>Venkateshwar<br>SHAH, Chirag<br>YOO, Peter J.<br>MOFFITT, Michael A.<br>KOTHANDARAMAN, Sridhar  | RÖMER, Martin<br>WEISS, Ingo<br>(31) 102019110286<br>(32) 18.04.2019<br>(33) Germany   | A61Q 5/06<br>A61K 8/88<br>(11) EP3697502<br>(21) EP18785629.9<br>(47) 26.04.2023  |
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| (51) A61N 1/36<br>G16H 50/50<br>A61B 5/24<br>G16H 50/20<br>G16H 20/30<br>A61B 5/00<br>A61N 1/372<br>(11) EP3958958<br>(21) EP20722031.0<br>(47) 26.04.2023<br>(87) US2020025995<br>29.10.2020<br>(22) 31.03.2020<br>(54) NEURAL OSCILLATORY SIGNAL<br>SOURCE LOCATION DETECTION | (73) Medtronic, Inc.<br>(72) DRAKE, Ronald A.<br>STENER, Lester O.<br>COLIN, Brian P.<br>(31) 202016847344<br>201962844680 P<br>(32) 13.04.2020<br>07.05.2019<br>(33) United States of America<br>United States of America   | (31) 17197654<br>(32) 20.10.2017<br>(33) European Patent Office (EPO)   |
| (73) Medtronic Inc.<br>(72) PANKEN, Eric J.<br>PULLIAM, Christopher L.<br>JACKSON, Jadin C.<br>XIAO, Yizi<br>(31) 201916395308<br>(32) 26.04.2019<br>(33) United States of America  | (51) A61N 1/375<br>A61N 1/372<br>A61N 1/362<br>A61B 5/00<br>H04B 13/00<br>A61N 1/36<br>(11) EP3669935<br>(21) EP19154497.2<br>(47) 26.04.2023<br>(22) 30.01.2019<br>(54) CAPACITOR-DISCHARGE<br>COMMUNICATION SCHEME FOR AN<br>IMPLANTABLE MEDICAL SYSTEM                | (51) A62B 7/10<br>A62B 18/08<br>A62B 23/02<br>A62B 18/00<br>A62B 18/04<br>(11) EP2547404<br>(21) EP11756717.2<br>(47) 26.04.2023<br>(87) US2011026963<br>22.09.2011<br>(22) 03.03.2011<br>(54) A POWERED AIR PURIFYING<br>RESPIRATOR<br>(73) 3M Innovative Properties Company<br>(72) CURRAN, Desmond T.<br>MURPHY, Andrew<br>WALKER, Garry J.<br>SAYERS, Terence M.<br>HENDERSON, Christopher P.<br>KALLMAN, Bengt |
| (87) US2019056171<br>14.05.2020<br>(22) 15.10.2019<br>(54) CARDIAC STIMULATION SYSTEM<br>WITH AUTOMATED OPTIMIZATION OF<br>HIS BUNDLE PACING FOR CARDIAC<br>RESYNCHRONIZATION THERAPY   | (73) BIOTRONIK SE & Co. KG<br>(72) Baru, Marcelo<br>Taff, Brian M.<br>Kibler, Andrew B.<br>(31) 201862780954 P<br>(32) 18.12.2018<br>(33) United States of America   | (31) 201004405<br>(32) 17.03.2010<br>(33) United Kingdom  |
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| (51) A61N 1/362<br>A61N 1/39<br>A61N 1/368<br>(11) EP3725362<br>(21) EP20165103.1<br>(47) 26.04.2023<br>(22) 24.03.2020<br>(54) IMPLANTABLE ASSEMBLY FOR<br>STIMULATING A HUMAN OR ANIMAL<br>HEART  | (73) BIOTRONIK SE & Co. KG<br>(72) DÖRR, Thomas<br>ERSHOV, Sergey<br>RADTKE, Torsten   | (51) A63B 24/00<br>A61N 1/36<br>A63B 71/06<br>A63B 69/36<br>(11) EP3804823<br>(21) EP20212157.0<br>(47) 26.04.2023<br>(22) 28.11.2017<br>(54) IMPROVED MOTION TRAINING AID<br>WITH STIMULATOR<br>(73) West & Bergh Holding AB<br>(72) Bergh, Christian<br>Wallenberg, Christian   |

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| Dahl, Philip                       | (21) EP21212284.0                    | (54) SANITIZATION METHOD FOR         |
| (51) A63F 13/23                    | (47) 26.04.2023                      | AFFINITY CHROMATOGRAPHY              |
| A63F 13/24                         | (22) 03.12.2021                      | MATRICES                             |
| A63F 13/92                         | (54) TOY CAR                         | (73) Cytiva BioProcess R&D AB        |
| A63F 13/98                         | (73) Bruder Spielwaren GmbH + Co. KG | (72) MONIE, Elin, Marianne           |
| (11) EP3103534                     | (72) Kvesic, Goran                   | BJORKMAN, Tomas                      |
| (21) EP16173845.5                  | (31) 102020216591                    | GRONBERG, Anna                       |
| (47) 26.04.2023                    | (32) 30.12.2020                      | LJUNGLOF, Anders                     |
| (22) 10.06.2016                    | (33) Germany                         | RODRIGO, Gustav, Jose                |
| (54) INFORMATION PROCESSING SYSTEM | (51) A63H 27/10                      | TORSTENSON, Karin                    |
| AND INFORMATION PROCESSING         | (11) EP3725385                       | WETTERHALL, Magnus, Carl, Erik       |
| DEVICE                             | (21) EP20164629.6                    | (31) 201503578                       |
| (73) Nintendo Co., Ltd.            | (47) 26.04.2023                      | (32) 03.03.2015                      |
| (72) KOIZUMI, Yoshiaki             | (22) 20.03.2020                      | (33) United Kingdom                  |
| EHARA, Yui                         | (54) NOZZLE FOR INFLATING A BALLOON  | (51) B01D 15/22                      |
| NISHIKAWA, Munetaka                | (73) Novacorp Inc.                   | G01N 30/60                           |
| KAWAI, Kochi                       | (72) Chang, Ming-Cheng               | B01D 15/10                           |
| KENICHI, Mae                       | (31) 108204586 U                     | G01N 30/72                           |
| (31) 2015119707                    | 108113088                            | (11) EP2747861                       |
| (32) 12.06.2015                    | (32) 15.04.2019                      | (21) EP12828910.5                    |
| (33) Japan                         | 15.04.2019                           | (47) 26.04.2023                      |
| (51) A63F 13/40                    | (33) Taiwan, Chinese Taipei          | (87) US2012051972                    |
| A63F 13/211                        | Taiwan, Chinese Taipei               | 07.03.2013                           |
| A63F 13/212                        | (51) A63H 33/00                      | (22) 23.08.2012                      |
| A63F 13/25                         | F16C 11/04                           | (54) CHROMATOGRAPHY COLUMN           |
| A63F 13/5255                       | (11) EP3655125                       | ASSEMBLY                             |
| (11) EP3533504                     | (21) EP18834549.0                    | (73) Waters Technologies Corporation |
| (21) EP17869811.4                  | (47) 26.04.2023                      | (72) MICHENZI, Joseph D.             |
| (47) 26.04.2023                    | (87) US2018043113                    | FADGEN, Keith                        |
| (87) CN2017097938                  | 24.01.2019                           | LEVEILLE, SR., Wade P.               |
| 17.05.2018                         | (22) 20.07.2018                      | FISK, Raymond P.                     |
| (22) 17.08.2017                    | (54) SUPER FOLD PLAYHOUSE            | MARZALKOWSKI, JR., Frank John        |
| (54) IMAGE RENDERING METHOD AND VR | (73) KidKraft, Inc.                  | (31) 201261621852 P                  |
| DEVICE                             | (72) RIEBER, Frederick               | 201161527648 P                       |
| (73) Huawei Technologies Co., Ltd. | BARR, David                          | 201161527747 P                       |
| (72) XU, Yu                        | (31) 201762535096 P                  | 201161527639 P                       |
| SIMA, Jinghua                      | (32) 20.07.2017                      | 201161527638 P                       |
| SHAO, Kai                          | (33) United States of America        | (32) 09.04.2012                      |
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| 201611000176                       | F16C 11/04                           | 26.08.2011                           |
| (32) 06.04.2017                    | (11) EP3655126                       | 26.08.2011                           |
| 14.11.2016                         | (21) EP18836212.3                    | 26.08.2011                           |
| (33) China                         | (47) 26.04.2023                      | (33) United States of America        |
| China                              | (87) US2018043124                    | United States of America             |
| (51) A63H 11/00                    | 24.01.2019                           | United States of America             |
| G05D 1/00                          | (22) 20.07.2018                      | United States of America             |
| A63H 33/00                         | (54) ACCORDION FOLD PLAY STRUCTURE   | United States of America             |
| (11) EP3760290                     | WITH EASY-UP ASSEMBLY DEVICE         | (51) B01D 17/04                      |
| (21) EP19757014.6                  | (73) KidKraft, Inc.                  | B01D 17/00                           |
| (47) 26.04.2023                    | (72) RIEBER, Frederick               | F04B 39/16                           |
| (87) JP2019000212                  | BARR, David                          | (11) EP3650097                       |
| 29.08.2019                         | (31) 201862688517 P                  | (21) EP18205258.9                    |
| (22) 08.01.2019                    | 201762535096 P                       | (47) 26.04.2023                      |
| (54) INFORMATION PROCESSING        | (32) 22.06.2018                      | (22) 08.11.2018                      |
| DEVICE, INFORMATION PROCESSING     | 20.07.2017                           | (54) PURGE GAS CONTAMINATE           |
| METHOD, AND PROGRAM                | (33) United States of America        | ELIMINATION DEVICE AND SYSTEM        |
| (73) Sony Group Corporation        | United States of America             | FOR A VEHICLE                        |
| Sony Mobile Communications Inc.    | (51) B01D 15/20                      | (73) KNORR-BREMSE Systeme für        |
| (72) TAKAGI, Noriaki               | B01D 15/38                           | Nutzfahrzeuge GmbH                   |
| SHIMASE, Masahiro                  | G01N 30/50                           | (72) Györke, Zsombor                 |
| SONODA, Tomoyuki                   | A61L 2/18                            | Kantor, Kornél                       |
| WATANABE, Daisuke                  | (11) EP3265198                       | Németh, Huba                         |
| TAKADA, Kohei                      | (21) EP16706227.2                    | Toth, Janos                          |
| (31) 2018032120                    | (47) 26.04.2023                      | Vass, Zoltán László                  |
| (32) 26.02.2018                    | (87) EP2016053996                    | (51) B01D 29/64                      |
| (33) Japan                         | 09.09.2016                           | B01D 33/067                          |
| (51) A63H 17/26                    | (22) 25.02.2016                      | B07B 1/18                            |
| (11) EP4023314                     |                                      | C02F 11/126                          |

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| D21F 1/80                            | (87) EP2014000640                       | Lambert, Corine                           |
| F03B 7/00                            | 18.09.2014                              | (51) B01D 69/02                           |
| F16K 3/06                            | (22) 11.03.2014                         | D04C 3/48                                 |
| (11) EP3746207                       | (54) METHOD FOR OPERATING               | D04C 1/06                                 |
| (21) EP19747688.0                    | A SURFACE TREATMENT                     | D06C 7/00                                 |
| (47) 26.04.2023                      | INSTALLATION, SET OF FILTER             | B01D 63/02                                |
| (87) US2019015719                    | MODULES AND SURFACE                     | C02F 1/44                                 |
| 08.08.2019                           | TREATMENT INSTALLATION                  | B01D 69/08                                |
| (22) 29.01.2019                      | (73) Eisenmann GmbH                     | B01D 69/10                                |
| (54) IN-CHANNEL SCREENING WITH A     | (72) SCHMEINCK, Nils                    | H05B 3/42                                 |
| DRUM SCREEN                          | SCHULZE, Herbert                        | H05B 3/44                                 |
| (73) Ovivo Inc.                      | RÖCKLE, Jürgen                          | B01D 61/02                                |
| Holindrake, Jared                    | (31) 102013004082                       | (11) EP3381544                            |
| Aviles, Abner                        | (32) 11.03.2013                         | (21) EP15909337.6                         |
| Keever, Christopher                  | (33) Germany                            | (47) 26.04.2023                           |
| (72) HOLINDRAKE, Jared               | (51) B01D 61/24                         | (87) KR2015012636                         |
| AVILES, Abner                        | B01D 69/02                              | 01.06.2017                                |
| KEEVER, Christopher                  | B01D 69/08                              | (22) 24.11.2015                           |
| (31) 201862624069 P                  | A61M 1/16                               | (54) DEVICE FOR HEAT-TREATING             |
| (32) 30.01.2018                      | B01D 63/02                              | INNER SURFACE OF BRAID FOR                |
| (33) United States of America        | B01D 71/68                              | REINFORCING HOLLOW FIBER                  |
| (51) B01D 45/16                      | (11) EP3595800                          | MEMBRANE FOR WATER TREATMENT              |
| B01D 46/00                           | (21) EP18720105.8                       | AND BRAID MANUFACTURED USING              |
| B01D 50/00                           | (47) 26.04.2023                         | SAME                                      |
| (11) EP3675983                       | (87) EP2018056689                       | (73) Kim, Im Sun                          |
| (21) EP18778647.0                    | 20.09.2018                              | Alpha Co., Ltd.                           |
| (47) 26.04.2023                      | (22) 16.03.2018                         | (72) Kim, Im Sun                          |
| (87) US2018048907                    | (54) HOLLOW FIBER MEMBRANE HAVING       | (51) B01F 23/231                          |
| 07.03.2019                           | IMPROVED DIFFUSION PROPERTIES           | B01F 23/233                               |
| (22) 30.08.2018                      | (73) Fresenius Medical Care Deutschland | B01F 27/117                               |
| (54) FILTER CARTRIDGES; AIR CLEANER  | GmbH                                    | B01F 27/85                                |
| ASSEMBLIES                           | (72) KELLER, Torsten                    | C02F 3/12                                 |
| (73) Donaldson Company, Inc.         | SANDER, Roland                          | C02F 3/20                                 |
| (72) RAHN, Hubert, J.                | RAIKO, Igor                             | (11) EP3938322                            |
| BURTON, David, J.                    | FINKLER, Christian                      | (21) EP20712891.9                         |
| CAMPBELL, Steven, K.                 | (31) 102017204524                       | (47) 26.04.2023                           |
| (31) 201862685394 P                  | (32) 17.03.2017                         | (87) EP2020057110                         |
| 201762552836 P                       | (33) Germany                            | 12.11.2020                                |
| (32) 15.06.2018                      | (51) B01D 65/02                         | (22) 16.03.2020                           |
| 31.08.2017                           | (11) EP3104963                          | (54) WASTE WATER CLEANING DEVICE          |
| (33) United States of America        | (21) EP15709748.6                       | AND METHOD FOR CLEANING WASTE             |
| United States of America             | (47) 26.04.2023                         | WATER                                     |
| (51) B01D 46/00                      | (87) IB2015051053                       | (73) INVENT Umwelt- und Verfahrenstechnik |
| (11) EP3436180                       | 20.08.2015                              | AG  |
| (21) EP17716483.7                    | (22) 12.02.2015                         | (72) HÖFKEN, Marcus                       |
| (47) 26.04.2023                      | (54) METHOD FOR OPERATING A WATER       | HUBER, Peter                              |
| (87) EP2017057620                    | TREATMENT PLANT AND PLANT FOR           | HUIJBOOM, Marcel                          |
| 05.10.2017                           | CARRYING OUT SAID METHOD                | (31) 102019111489                         |
| (22) 30.03.2017                      | (73) Suez International                 | (32) 03.05.2019                           |
| (54) METHODS AND SYSTEMS FOR         | (72) DELAGARDE, Sébastien               | (33) Germany                              |
| OPTIMIZING FILTER CHANGE             | (31) 1451165                            | (51) B01F 23/60                           |
| INTERVAL                             | (32) 14.02.2014                         | B01F 31/20                                |
| (73) Nuovo Pignone Tecnologie S.r.l. | (33) France                             | B01F 33/84                                |
| (72) ALLEGORICO, Carmine             | (51) B01D 67/00                         | B01F 101/35                               |
| SANTINI, Marco                       | B01D 69/02                              | (11) EP3749442                            |
| ANTONINI, Claudio                    | B01D 69/06                              | (21) EP18857431.3                         |
| DE STEFANIS, Laura                   | B01D 69/08                              | (47) 26.04.2023                           |
| (31) UA20162164                      | B01D 71/42                              | (87) HU2018000059                         |
| (32) 31.03.2016                      | A61M 1/16                               | 27.06.2019                                |
| (33) Italy                           | A61M 1/34                               | (22) 19.12.2018                           |
| (51) B01D 46/00                      | (11) EP3296010                          | (54) MIXING APPARATUS AND MIXING          |
| B05B 15/40                           | (21) EP16188681.7                       | SYSTEM FOR MIXING FLUIDS, AND             |
| B05B 14/43                           | (47) 26.04.2023                         | FOUNTAIN PEN THEREFOR                     |
| B01D 45/08                           | (22) 14.09.2016                         | (73) M and M Productions Kft.             |
| B05B 14/435                          | (54) ACRYLONITRILE-BASED MEMBRANE       | (72) MEGYERI, Gábor                       |
| (11) EP2969243                       | WITH LOW THROMBOGENICITY                | (31) 1700536                              |
| (21) EP14724630.0                    | (73) Gambro Lundia AB                   | (32) 20.12.2017                           |
| (47) 26.04.2023                      | (72) Malard, Benjamin                   | (33) Hungary                              |

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| (51) B01F 25/432                    | C08L 33/08                                   | C02F 1/68                               |
| B01F 33/501                         | C08L 33/26                                   | C02F 101/20                             |
| (11) EP3710148                      | C08L 5/00                                    | (11) EP3946722                          |
| (21) EP18814952.0                   | B01J 13/14                                   | (21) EP20714578.0                       |
| (47) 26.04.2023                     | A01N 25/28                                   | (47) 26.04.2023                         |
| (87) EP2018084696                   | D06M 23/12                                   | (87) EP2020058373                       |
| 04.07.2019                          | (11) EP3512625                               | 08.10.2020                              |
| (22) 13.12.2018                     | (21) EP17851666.2                            | (22) 25.03.2020                         |
| (54) MIXER, MULTI-COMPONENT         | (47) 26.04.2023                              | (54) METHOD FOR RECOVERING              |
| DISPENSER, AND METHOD OF            | (87) US2017051916                            | METAL IONS FROM INDUSTRIAL              |
| DISPENSING MULTI-COMPONENT          | 22.03.2018                                   | WASTE WATER, AND THEREWITH              |
| MATERIAL FROM A MULTI-              | (22) 15.09.2017                              | ASSOCIATED USE OF A COMPLEXING          |
| COMPONENT DISPENSER                 | (54) MICROCAPSULE COMPOSITIONS               | AGENT                                   |
| (73) medmix Switzerland AG          | STABILIZED WITH VISCOSITY                    | (73) Helmholtz-Zentrum Dresden -        |
| (72) SCHOECK, Joachim               | CONTROL AGENTS                               | Rosendorf e.V.                          |
| (31) 17211041                       | (73) International Flavors & Fragrances Inc. | (72) JAIN, Rohan                        |
| (32) 29.12.2017                     | (72) POSTMA, Djurre Sijbren                  | JOSHI, Tanmaya                          |
| (33) European Patent Office (EPO)   | LEI, Yabin                                   | POLLMANN, Katrin                        |
| (51) B01F 27/052                    | LEE, Hui Min                                 | (31) 102019108803                       |
| (11) EP3536394                      | LEE, Daniel Kaiping                          | (32) 04.04.2019                         |
| (21) EP19160567.4                   | (31) 201662395586 P                          | (33) Germany                            |
| (47) 26.04.2023                     | (32) 16.09.2016                              | (51) B01J 29/40                         |
| (22) 04.03.2019                     | (33) United States of America                | C01B 39/48                              |
| (54) MIXING TOOL, MIXING DEVICE AND | (51) B01J 19/00                              | B01J 35/00                              |
| MIXING TOOL MANUFACTURING           | B01D 3/20                                    | B01J 35/02                              |
| METHOD                              | B01D 3/22                                    | B01J 35/10                              |
| (73) Bauer, Dettlef                 | B01J 19/24                                   | (11) EP3265425                          |
| (72) Bauer, Dettlef                 | B01J 19/32                                   | (21) EP16759273.2                       |
| (31) 102018105177                   | C07C 273/04                                  | (47) 26.04.2023                         |
| (32) 07.03.2018                     | (11) EP3993899                               | (87) US2016019098                       |
| (33) Germany                        | (21) EP20730305.8                            | 09.09.2016                              |
| (51) B01F 27/1152                   | (47) 26.04.2023                              | (22) 23.02.2016                         |
| B01F 27/90                          | (87) EP2020065962                            | (54) HIGH MESO-SURFACE AREA, LOW Si/    |
| B01F 27/92                          | 07.01.2021                                   | AI RATIO PENTASIL ZEOLITE               |
| B01F 27/93                          | (22) 09.06.2020                              | (73) UOP LLC                            |
| B01F 35/71                          | (54) A REACTOR FOR THE SYNTHESIS OF          | (72) MOSCOSO, Jaime G.                  |
| B28C 5/12                           | UREA   | JAN, Deng-Yang                          |
| (11) EP3944891                      | (73) CASALE SA                               | (31) 201514636672                       |
| (21) EP20305887.0                   | (72) DENTE, Mario                            | (32) 03.03.2015                         |
| (47) 26.04.2023                     | MARRONE, Leonardo                            | (33) United States of America           |
| (22) 31.07.2020                     | MAFFIETTI, Federico                          | (51) B01J 35/04                         |
| (54) A MIXING APPARATUS             | (31) 19183879                                | B01D 53/94                              |
| (73) SAINT-GOBAIN PLACO             | (32) 02.07.2019                              | B01J 23/46                              |
| (72) JAFFEL, Hamouda                | (33) European Patent Office (EPO)            | F01N 3/035                              |
| QUELEN, Sophie                      | (51) B01J 20/22                              | F01N 3/28                               |
| MARIN, Jean-Luc                     | C10G 29/24                                   | B01J 23/44                              |
| (51) B01F 31/20                     | C10L 3/10                                    | B01J 35/00                              |
| B01F 31/23                          | B01D 53/48                                   | B01J 37/02                              |
| (11) EP3826757                      | B01D 53/52                                   | B01J 37/08                              |
| (21) EP19742060.7                   | C07C 47/21                                   | F01N 3/10                               |
| (47) 26.04.2023                     | (11) EP3476478                               | B01J 37/00                              |
| (87) EP2019069871                   | (21) EP17819982.4                            | (11) EP3778018                          |
| 30.01.2020                          | (47) 26.04.2023                              | (21) EP19775144.9                       |
| (22) 24.07.2019                     | (87) JP2017022835                            | (47) 26.04.2023                         |
| (54) MIXING APPARATUS               | 04.01.2018                                   | (87) JP2019011601                       |
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| RIEDEL, Philipp                     | CONTAINING COMPOUND                          | (54) EXHAUST GAS PURIFICATION DEVICE    |
| STREBEL, Christian                  | (73) Kuraray Co., Ltd.                       | (73) Mitsui Mining & Smelting Co., Ltd. |
| FEHR, Gero                          | (72) SHIMIZU, Masaki                         | (72) KURIHARA, Hiroki                   |
| LUN, Klaus                          | SAITOU, Yuusuke                              | SAKURADA, Yu                            |
| KARTHAUS, Christoph                 | TSURUTA, Takuo                               | NAGAI, Yusuke                           |
| (31) 18185420                       | SUZUKI, Takahiro                             | ENDO, Yoshinori                         |
| (32) 25.07.2018                     | FUJI, Junichi                                | NABEMOTO, Takeshi                       |
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| B01J 31/12                        | (72) MOOSMANN, Jürgen              | B41J 2/14                                  |
| C08F 10/00                        | MEILE, Andreas                     | B05B 12/08                                 |
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| (47) 26.04.2023                   | B02C 25/00                         | B41J 2/21                                  |
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| (22) 07.02.2019                   | (47) 26.04.2023                    | (47) 26.04.2023                            |
| (54) METHOD FOR PREPARING         | (87) IL2018051213                  | (87) JP2019025448                          |
| SUPPORTED HYBRID METALLOCENE      | 20.06.2019                         | 30.12.2020                                 |
| CATALYST                          | (22) 11.11.2018                    | (22) 26.06.2019                            |
| (73) LG CHEM, LTD.                | (54) VORTEX MILL AND METHOD OF     | (54) COATING MACHINE AND COATING           |
| (72) KWON, Hyun Jee               | VORTEX MILLING FOR OBTAINING       | METHOD                                     |
| LEE, Seungmi                      | POWDER WITH CUSTOMIZABLE           | (73) ABB Schweiz AG                        |
| KIM, Po Eun                       | PARTICLE SIZE DISTRIBUTION         | (72) TAWATA, Takahiro                      |
| LEE, Ki Soo                       | (73) Super Fine Ltd.               | (51) B05B 5/00                             |
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| (51) B01L 3/00                    | B04C 9/00                          | (72) KOEHN, David W.                       |
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| (22) 16.10.2018                   | (54) SWIMMING POOL CLEANER WITH    | B05B 5/053                                 |
| (54) DIGITAL MICROFLUIDIC DEVICES | HYDROCYCLONIC PARTICLE             | B29C 48/00                                 |
| INCLUDING DUAL SUBSTRATES         | SEPARATOR AND ROLLER DRIVE         | B29C 48/02                                 |
| WITH THIN-FILM TRANSISTORS AND    | SYSTEM                             | B29C 48/05                                 |
| CAPACITIVE SENSING                | (73) Hayward Industries, Inc.      | B29C 48/154                                |
| (73) Nuclera Nucleics Ltd         | (72) HAYES, Graham, M.             | B29C 48/345                                |
| (72) FRENCH, Ian                  | TEUSCHER, Scott                    | B29C 48/92                                 |
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| (47) 26.04.2023                   | B05B 11/00                         | ONTO A SUBSTRATE                           |
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| OPERATING A ROLLER MILL           | (21) EP17867735.7                  | BREITENBÜCHER, Marian                      |
| (73) FLSmidth A/S                 | (47) 26.04.2023                    | LACMAGO, Igor                              |
| (72) SCHROERS, Frank              | (87) CN2017109589                  | KUCHLER, Martin                            |
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| (32) 28.06.2019                   | (22) 06.11.2017                    | KLEMENS, Marcel                            |
| (33) Germany                      | (54) MICROSTRUCTURED NOZZLE        | RIEBE, Tim                                 |
| (51) B02C 13/06                   | (73) Microbase Technology Corp.    | (31) 102019122131                          |
| B02C 9/00                         | (72) HSIEH, Shu-Pin                | (32) 16.08.2019                            |
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| A01M 17/00                        | LIN, Yi-Ting                       | (51) B05B 7/00                             |
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| (51) B05B 7/00                               | (73) Dürr Systems AG  | C10M 105/76  |
| B05B 1/12                                    | (72) RÜGER, Alexander   | C23C 22/02   |
| B05B 1/34                                    | DUSCHEK, Marcus   | C10N 30/06   |
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| (73) Yoshino Kogyosho Co., Ltd.              | B22F 10/66  | (73) SIKEMIA   |
| (72) FUJIWARA Kotaro                         | B24C 1/04   | (72) MARTIN, Franck  |
| KAKUTA Yoshiyuki                             | B29C 64/153   | GRACY, Guillaume   |
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| A61M 11/00                                   | C21D 7/06   | C21D 10/00   |
| A61M 15/00                                   | F01D 5/28   | (11) EP3484632   |
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| 25.04.2019                                   | (54) CANTILEVERED MASK FOR<br>OPENINGS IN ADDITIVELY<br>MANUFACTURED PART | (54) SUBSTRATE WITH ANTI-CORROSION<br>SYSTEM   |
| (22) 17.10.2018                              | (73) General Electric Company   | (73) Fraunhofer-Gesellschaft zur Förderung<br>der angewandten Forschung e.V.                           |
| (54) SEAL FOR AN INHALATION DEVICE           | (72) PACKER, Travis J   | (72) SPECHT, Uwe   |
| (73) Softhale NV                             | VANTASSEL, Brad Wilson  | VISSING, Klaus-Dieter  |
| (72) BARTELS, Frank                          | PORTER, Christopher Donald  | LUKASCZYK, Thomas  |
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| CARELLA, Serena                        | B08B 1/02                            | PRODUCTION APPARATUS HAVING             |
| COLLADON, Marco                        | (11) EP3750642                       | SAME                                    |
| EDMONDSON, Stephen                     | (21) EP20179834.5                    | (73) Tunghsu Technology Group Co., Ltd. |
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| AND ULTRASONIC SURGICAL                | (33) Italy                           | ZHANG, Bing                             |
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| B07B 13/16                             | B08B 9/44                            | TAKAHASHI, Kazuhiro                     |
| B07C 5/36                              | B65G 47/252                          | FUJII, Hideki                           |
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| (73) Compac Technologies Limited       | (73) Sidel S.p.A.                    | (87) EP2016081539                       |
| (72) COOK, Lee Adrian                  | (72) BERZAGHI, Claudio               | 22.06.2017                              |
| JACKSON, Jonathan Patrick              | BOTTOS, Luca                         | (22) 16.12.2016                         |
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| (72) PRINZ, Heino                      | BE WASHED AND ADVANCED ALONG         | (33) Germany                            |
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| B05B 7/00                              | (73) Sidel S.p.A.                    | B21C 35/02                              |
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| (72) LIST CLAUSEN, Edvin             | METAL AND STIRRING SYSTEM        | (11) EP3774292                      |
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| (21) EP22151268.4                    | B29C 64/277                      | (32) 01.12.2017                     |
| (47) 26.04.2023                      | B29C 64/273                      | (33) Japan                          |
| (22) 17.07.2020                      | B29C 64/153                      | (51) B23C 5/10                      |
| (54) APPARATUS AND METHOD FOR        | B33Y 10/00                       | (11) EP3088112                      |
| CENTER TWISTING WIRES                | B22F 10/28                       | (21) EP14875805.5                   |
| (73) Aptiv Technologies Limited      | B22F 10/36                       | (47) 26.04.2023                     |
| (72) CIAPALA, Frank A.               | B22F 12/43                       | (87) JP2014084168                   |
| HANDEL, Jeffrey M.                   | B22F 12/44                       | 02.07.2015                          |
| (31) 201916515720                    | B22F 12/49                       | (22) 24.12.2014                     |
| (32) 18.07.2019                      | B22F 12/20                       | (54) REPLACEABLE BLADE EDGE ROTARY  |
| (33) United States of America        | B22F 12/33                       | CUTTING TOOL AND TOOL BODY          |
| (51) B22D 1/00                       | B22F 12/45                       | (73) Tungaloy Corporation           |
| B22D 18/04                           | (11) EP3778071                   | (72) ASO Takahiro                   |
| B22D 18/02                           | (21) EP19191589.1                | (31) 2013266252                     |
| B22D 21/00                           | (47) 26.04.2023                  | (32) 25.12.2013                     |
| C22C 21/02                           | (22) 13.08.2019                  | (33) Japan                          |
| C22C 21/04                           | (54) SYSTEM AND METHOD FOR LARGE | (51) B23F 21/22                     |
| C22F 1/04                            | SCALE ADDITIVE MANUFACTURING     | B24B 3/34                           |
| C22F 1/043                           | (73) Volvo Car Corporation       | B24B 3/06                           |
| (11) EP3370900                       | (72) ORBAY, Raik                 | (11) EP3352937                      |
| (21) EP16788143.2                    | (51) B22F 10/28                  | (21) EP16781232.0                   |
| (47) 26.04.2023                      | B22F 10/32                       | (47) 26.04.2023                     |
| (87) EP2016076218                    | B22F 10/85                       | (87) US2016053068                   |
| 11.05.2017                           | B22F 12/70                       | 30.03.2017                          |
| (22) 31.10.2016                      | (11) EP3539754                   | (22) 22.09.2016                     |
| (54) LIGHT METAL CASTING PART AND    | (21) EP18161837.2                | (54) THREE-FACE BLADE COMPATIBILITY |
| METHOD OF ITS PRODUCTION             | (47) 26.04.2023                  | (73) The Gleason Works              |
| (73) Mubea Performance Wheels GmbH   | (22) 14.03.2018                  | (72) STADTFELD, Hermann, J.         |
| (72) GARTNER, Josef                  | (54) METHOD FOR ADDITIVELY       | BOLZE, Markus, J.                   |
| HUBAUER, Werner                      | MANUFACTURING AT LEAST ONE       | NORSELLI, Anthony, J.               |
| (31) 15192538                        | THREE-DIMENSIONAL OBJECT         | (31) 201562222501 P                 |
| (32) 02.11.2015                      | (73) Concept Laser GmbH          | (32) 23.09.2015                     |
| (33) European Patent Office (EPO)    | (72) Hertel, Kai                 | (33) United States of America       |
| (51) B22D 11/115                     | (51) B22F 10/37                  | (51) B23K 9/095                     |
| (11) EP3626366                       | B22F 12/60                       | B23K 9/133                          |
| (21) EP19000399.6                    | B22F 12/63                       | B23K 9/173                          |
| (47) 26.04.2023                      | B22F 12/90                       | (11) EP3703894                      |
| (22) 20.12.2016                      | B29C 64/214                      | (21) EP18804476.2                   |
| (54) PRODUCTION PLANT OF METAL       | B33Y 30/00                       | (47) 26.04.2023                     |
| MATERIALS, CASTING MACHINE,          | B33Y 50/02                       | (87) US2018058439                   |
| CASTING PROCESS AND CONTROL          | B22F 10/14                       | 09.05.2019                          |
| METHOD OF ELECTROMAGNETIC            | B22F 10/28                       | (22) 31.10.2018                     |

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| <p>(54) WIRE DRIVE ASSEMBLY WITH SENSOR TO DETECT WHICH CONFIGURATION HAS BEEN SELECTED BASED ON A DISTANCE OF THE DRIVE ROLL ; CORRESPONDING WELDING POWER SUPPLY<br/>(73) Illinois Tool Works Inc.<br/>(72) SCHMITZ, Adam Richard<br/>ROEHL, Chris J.<br/>ROZMARYNOWSKI, Scott Ryan<br/>MACMULLEN, Zachary William<br/>GOULET, Lauren<br/>(31) 201715802185<br/>(32) 02.11.2017<br/>(33) United States of America<br/><hr/>(51) B23K 9/095<br/>B23K 9/16<br/>B23K 31/02<br/>B23K 31/12<br/>(11) EP3542943<br/>(21) EP19163800.6<br/>(47) 26.04.2023<br/>(22) 19.03.2019<br/>(54) METHOD OF AND NON TRANSITORY COMPUTER READABLE STORAGE MEDIUM FOR DETERMINING WELD QUALITY BY REALISING A WELD SIGNATURE ANALYSIS<br/>(73) Lincoln Global, Inc.<br/>(72) Albright, Matthew A.<br/>(31) 201815926216<br/>(32) 20.03.2018<br/>(33) United States of America<br/><hr/>(51) B23K 9/12<br/>B23K 9/133<br/>B23K 37/00<br/>(11) EP3546104<br/>(21) EP19164583.7<br/>(47) 26.04.2023<br/>(22) 22.03.2019<br/>(54) WELDING WIRE SUPPLY SYSTEM<br/>(73) Purem GmbH<br/>(72) Donauer, Mark<br/>Diehl, Uwe<br/>(31) 102018114754<br/>102018107404<br/>(32) 20.06.2018<br/>28.03.2018<br/>(33) Germany<br/>Germany<br/><hr/>(51) B23K 11/00<br/>B21D 22/20<br/>B23K 9/00<br/>B23K 10/02<br/>B23K 26/20<br/>B60R 19/03<br/>B62D 25/04<br/>B62D 25/20<br/>B21D 5/08<br/>B21D 22/00<br/>(11) EP2617509<br/>(21) EP11825260.0<br/>(47) 26.04.2023<br/>(87) JP2011071209<br/>22.03.2012<br/>(22) 16.09.2011</p> | <p>(54) FORMED MEMBER AND MANUFACTURING METHOD THEREOF<br/>(73) Nippon Steel Corporation<br/>(72) YASUYAMA, Masanori<br/>NAKAZAWA, Yoshiaki<br/>TASAKA, Masahito<br/>SUZUKI, Toshiya<br/>NAKATA, Masahiro<br/>FUJIMOTO, Hiroki<br/>NISHIBATA, Hitomi<br/>(31) 2010208178<br/>(32) 16.09.2010<br/>(33) Japan<br/><hr/>(51) B23K 15/00<br/>B22F 3/105<br/>B23K 26/342<br/>B23K 26/38<br/>B28B 1/00<br/>B29C 64/00<br/>B33Y 10/00<br/>B33Y 30/00<br/>B33Y 40/00<br/>B33Y 99/00<br/>B22F 10/20<br/>B22F 12/00<br/>B29C 64/153<br/>B29C 64/245<br/>B29C 64/379<br/>B33Y 40/20<br/>B22F 10/28<br/>B22F 10/66<br/>B22F 12/45<br/>B22F 12/88<br/>B23K 37/02<br/>B23K 101/00<br/>(11) EP3656498<br/>(21) EP19194157.4<br/>(47) 26.04.2023<br/>(22) 28.08.2019<br/>(54) ADDITIVE MANUFACTURING APPARATUS WITH A PART DETACHMENT ASSEMBLY, AND METHOD OF USING THE SAME<br/>(73) The Boeing Company<br/>(72) Sievers, Daniel E.<br/>Bocchini, Peter J.<br/>(31) 201816200463<br/>(32) 26.11.2018<br/>(33) United States of America<br/><hr/>(51) B23K 26/00<br/>B23K 26/402<br/>(11) EP3253529<br/>(21) EP15804717.5<br/>(47) 26.04.2023<br/>(87) EP2015077979<br/>21.07.2016<br/>(22) 27.11.2015<br/>(54) SEPARATION OF A SOLID BODY BY MATERIAL MODIFICATION<br/>(73) Siltecta GmbH<br/>(72) BEYER, Christian<br/>(31) 102015000449<br/>(32) 15.01.2015<br/>(33) Germany<br/><hr/>(51) B23K 26/00<br/>B23K 26/402<br/>(11) EP3223994<br/>(21) EP15804372.9</p> | <p>(47) 26.04.2023<br/>(87) EP2015077980<br/>02.06.2016<br/>(22) 27.11.2015<br/>(54) LASER BASED SLICING METHOD<br/>(73) Siltecta GmbH<br/>(72) BEYER, Christian<br/>RICHTER, Jan<br/>(31) 102014018841<br/>102014018720<br/>102014017582<br/>102014017583<br/>(32) 17.12.2014<br/>17.12.2014<br/>27.11.2014<br/>27.11.2014<br/>(33) Germany<br/>Germany<br/>Germany<br/>Germany<br/><hr/>(51) B23K 26/06<br/>B23K 26/064<br/>B23K 26/073<br/>B23K 26/21<br/>G02B 27/09<br/>G02B 27/10<br/>G02B 6/02<br/>H01S 3/067<br/>H01S 5/00<br/>B23K 103/10<br/>(11) EP3731991<br/>(21) EP17935842.9<br/>(47) 26.04.2023<br/>(87) FI2017050959<br/>04.07.2019<br/>(22) 29.12.2017<br/>(54) LASER PROCESSING APPARATUS AND METHOD<br/>(73) Corelase OY<br/>(72) KANGASTUPA, Jarmo<br/>SALOKATVE, Arto<br/><hr/>(51) B23K 26/06<br/>B23K 26/073<br/>B23K 26/24<br/>G02B 6/02<br/>(11) EP3924136<br/>(21) EP20709103.4<br/>(47) 26.04.2023<br/>(87) US2020017085<br/>20.08.2020<br/>(22) 06.02.2020<br/>(54) LASER WELDING METHOD<br/>(73) Coherent, Inc.<br/>(72) BRESOUE, Ryan<br/>LAVOIE, Jean-Philippe<br/>(31) 201962805244 P<br/>(32) 13.02.2019<br/>(33) United States of America<br/><hr/>(51) B23K 26/06<br/>B23K 26/082<br/>B23K 26/042<br/>(11) EP3932609<br/>(21) EP21188134.7<br/>(47) 26.04.2023<br/>(22) 10.06.2015<br/>(54) DEVICE FOR LASER MATERIAL PROCESSING WITH TWO PARALLEL</p> |
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| <p>SHIFTING UNITS OF THE LASER BEAM<br/>                 (73) Scanlab GmbH<br/>                 (72) MÜNZER, Hans-Joachim VALENTIN, Martin<br/>                 (31) 102014108259<br/>                 (32) 12.06.2014<br/>                 (33) Germany</p> <hr/> <p>(51) B23K 26/14<br/>                 B23K 26/38<br/>                 B23K 26/70<br/>                 B23K 31/00<br/>                 (11) EP3867004<br/>                 (21) EP19835273.4<br/>                 (47) 26.04.2023<br/>                 (87) EP2019085963<br/>                 25.06.2020<br/>                 (22) 18.12.2019<br/>                 (54) NOZZLE STATE OR TYPE IDENTIFICATION IN A METAL MACHINING APPARATUS<br/>                 (73) Bystronic Laser AG<br/>                 (72) LUEDI, Andreas FAHRNI, Christoph MESSER, Kevin<br/>                 (31) 102019108172<br/>                 102018132795<br/>                 (32) 29.03.2019<br/>                 19.12.2018<br/>                 (33) Germany<br/>                 Germany</p> <hr/> <p>(51) B23K 26/36<br/>                 B23K 26/00<br/>                 B23K 26/064<br/>                 B23K 26/073<br/>                 B23K 26/082<br/>                 B23Q 15/00<br/>                 G05B 19/4093<br/>                 B23K 26/06<br/>                 B23K 37/02<br/>                 (11) EP3819068<br/>                 (21) EP19831452.8<br/>                 (47) 26.04.2023<br/>                 (87) JP2019022105<br/>                 09.01.2020<br/>                 (22) 04.06.2019<br/>                 (54) CUTTING MACHINE AND CUTTING METHOD<br/>                 (73) Amada Co., Ltd.<br/>                 (72) NAGAYAMA, Takehiro KANNO, Kazuhiro<br/>                 (31) 2018128917<br/>                 (32) 06.07.2018<br/>                 (33) Japan</p> <hr/> <p>(51) B23P 6/00<br/>                 F01D 5/00<br/>                 B23K 1/00<br/>                 B23K 35/02<br/>                 B23K 35/30<br/>                 B23K 20/02<br/>                 C21D 1/78<br/>                 C22C 19/07<br/>                 C22F 1/10<br/>                 F01D 5/22<br/>                 C21D 9/00<br/>                 F01D 5/28<br/>                 B23K 101/00<br/>                 (11) EP3345719</p> | <p>(21) EP18150720.3<br/>                 (47) 26.04.2023<br/>                 (22) 09.01.2018<br/>                 (54) ASSEMBLY COMPRISING A TURBINE COMPONENT AND PROCESS OF TREATING A TURBINE COMPONENT<br/>                 (73) General Electric Company<br/>                 (72) KOTTILINGAM, Srikanth Chandrudu CUI, Yan<br/>                 TOLLISON, Brian Lee<br/>                 (31) 201715402725<br/>                 (32) 10.01.2017<br/>                 (33) United States of America</p> <hr/> <p>(51) B23P 17/00<br/>                 G02B 6/04<br/>                 G02B 6/06<br/>                 G02B 27/10<br/>                 H01L 21/00<br/>                 H01L 21/302<br/>                 G01S 7/481<br/>                 G01S 17/89<br/>                 (11) EP3504026<br/>                 (21) EP17844396.6<br/>                 (47) 26.04.2023<br/>                 (87) US2017048379<br/>                 01.03.2018<br/>                 (22) 24.08.2017<br/>                 (54) OPTICAL SYSTEM FOR COLLECTING DISTANCE INFORMATION WITHIN A FIELD<br/>                 (73) Ouster, Inc.<br/>                 (72) PACALA, Angus FRICHTL, Mark SHU, Marvin YOUNGE, Eric<br/>                 (31) 201662379130 P<br/>                 (32) 24.08.2016<br/>                 (33) United States of America</p> <hr/> <p>(51) B23P 19/04<br/>                 B25B 27/00<br/>                 B27D 5/00<br/>                 B29C 63/00<br/>                 B29C 63/48<br/>                 (11) EP3953100<br/>                 (21) EP20719956.3<br/>                 (47) 26.04.2023<br/>                 (87) EP2020059759<br/>                 15.10.2020<br/>                 (22) 06.04.2020<br/>                 (54) DEVICE AND METHOD FOR COATING WORKPIECES<br/>                 (73) HOMAG GmbH<br/>                 (72) GÖTZ, Reiner GAN, Yimin RIEGER, Harald<br/>                 (31) 102019109128<br/>                 (32) 08.04.2019<br/>                 (33) Germany</p> <hr/> <p>(51) B23Q 3/155<br/>                 G05B 19/4093<br/>                 (11) EP3908424<br/>                 (21) EP19711255.0<br/>                 (47) 26.04.2023<br/>                 (87) EP2019055123<br/>                 10.09.2020<br/>                 (22) 01.03.2019<br/>                 (54) METHOD FOR OPTIMIZING THE OCCUPANCY OF MAGAZINE SPACES</p> | <p>BY TOOLS IN A COMPUTER-SUPPORTED MANNER<br/>                 (73) Siemens Aktiengesellschaft<br/>                 (72) BAIER, Georg HUPP, Lena ROYER, Christian BECHER, Silvio</p> <hr/> <p>(51) B23Q 11/08<br/>                 B23Q 17/24<br/>                 G02B 27/00<br/>                 G03B 17/08<br/>                 (11) EP3854521<br/>                 (21) EP21153411.0<br/>                 (47) 26.04.2023<br/>                 (22) 26.01.2021<br/>                 (54) CAMERA SYSTEM WITH A THREE DIMENSIONAL ROTATABLE CAMERA HOUSING AND METHOD OF OPERATION OF SAID SYSTEM<br/>                 (73) Irlbacher Blickpunkt Glas GmbH<br/>                 (72) Irlbacher, Günther<br/>                 (31) 102020101883<br/>                 (32) 27.01.2020<br/>                 (33) Germany</p> <hr/> <p>(51) B23Q 15/00<br/>                 G05B 19/4061<br/>                 (11) EP3603883<br/>                 (21) EP17903013.5<br/>                 (47) 26.04.2023<br/>                 (87) JP2017013772<br/>                 04.10.2018<br/>                 (22) 31.03.2017<br/>                 (54) TOOL PATH GENERATION METHOD AND DEVICE<br/>                 (73) Makino Milling Machine Co., Ltd.<br/>                 (72) YASUKOCHI, Jiro SUZUKI, Kyohei ASAMI, Soichiro</p> <hr/> <p>(51) B24B 5/38<br/>                 B23B 5/08<br/>                 (11) EP3922407<br/>                 (21) EP21178132.3<br/>                 (47) 26.04.2023<br/>                 (22) 08.06.2021<br/>                 (54) MACHINE FOR DIAMOND-FINISHING ELONGATED BODIES<br/>                 (73) Pettenuzzo, Gianni<br/>                 (72) Pettenuzzo, Gianni<br/>                 (31) 202000013522<br/>                 (32) 08.06.2020<br/>                 (33) Italy</p> <hr/> <p>(51) B25B 5/14<br/>                 F03D 1/06<br/>                 B25B 1/20<br/>                 B25B 11/00<br/>                 B26B 29/00<br/>                 B23D 51/02<br/>                 B26B 29/06<br/>                 F03D 80/50<br/>                 (11) EP3580014<br/>                 (21) EP18700461.9<br/>                 (47) 26.04.2023<br/>                 (87) EP2018050190<br/>                 20.09.2018<br/>                 (22) 04.01.2018<br/>                 (54) ALIGNMENT TOOL, CUTTING ARRANGEMENT AND METHOD FOR TREATMENT OF A WORKPIECE</p> |
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| (73) Siemens Gamesa Renewable Energy A/S  | B65D 45/00<br>E05G 1/00  | B25J 19/00<br>B25J 9/06<br>B25J 9/10<br>B25J 9/14<br>F16M 11/04<br>F16M 11/18<br>F16M 11/20   |
| (72) NIELSEN, John<br>GRISHAUGE, Nikolai Bak<br>NIELSEN, Per<br>MADSEN, Jacob   | (11) EP3789163<br>(21) EP20193096.3<br>(47) 26.04.2023<br>(22) 27.08.2020  |   |
| (31) 102017204521<br>(32) 17.03.2017<br>(33) Germany  | (54) LOCKOUT BOX<br>(73) ABUS August Bremicker Söhne KG<br>(31) 102019123959<br>(32) 06.09.2019<br>(33) Germany  | (11) EP3782777<br>(21) EP19787839.0<br>(47) 26.04.2023<br>(87) JP2019015340<br>24.10.2019   |
| (51) B25B 23/142<br>B25B 13/46  | (51) B25J 9/00<br>B25J 5/00<br>B25J 11/00<br>B25J 13/00<br>B25J 13/08<br>A61G 7/08   | (22) 08.04.2019<br>(54) ARM-TYPE SUPPORT DEVICE<br>(73) CKD CORPORATION<br>(72) WAKASUGI Satoshi<br>MATSUMOTO Shigetaka   |
| (11) EP3938146<br>(21) EP20706481.7<br>(47) 26.04.2023<br>(87) EP2020054549<br>17.09.2020<br>(22) 20.02.2020  | (54) BOLT TENSIONING TOOL<br>(11) EP3302894<br>(21) EP16738666.3<br>(47) 26.04.2023<br>(87) EP2016000914<br>08.12.2016<br>(22) 03.06.2016  | (31) 2018079324<br>(32) 17.04.2018<br>(33) Japan  |
| (73) Atlas Copco Industrial Technique AB<br>(72) ASPLUND, Daniel<br>(31) 1930085<br>(32) 11.03.2019<br>(33) Sweden  | (87) EP2016000914<br>08.12.2016<br>(22) 03.06.2016   | (51) B26B 21/40<br>B26B 21/06<br>B26B 21/22<br>B26B 21/44<br>B26B 21/56   |
| (51) B25C 1/06<br>B25C 1/04   | (54) ROBOT-ASSISTED TRANSPORT OF A<br>MOBILE OBJECT<br>(73) Buck, Thomas<br>(72) Buck, Thomas<br>(31) 102015110557<br>102015007177<br>(32) 01.07.2015<br>05.06.2015<br>(33) Germany<br>Germany                 | (11) EP3389959<br>(21) EP16816415.0<br>(47) 26.04.2023<br>(87) IB2016057724<br>22.06.2017<br>(22) 16.12.2016<br>(54) SHAVING HEAD<br>(73) BIC Violex Single Member S.A.<br>(72) BOZIKIS, Ioannis<br>DRAKOPOULOS, Stavros<br>(31) 201562268638 P<br>(32) 17.12.2015<br>(33) United States of America   |
| (11) EP3603891<br>(21) EP18776476.6<br>(47) 26.04.2023<br>(87) JP2018006760<br>04.10.2018<br>(22) 23.02.2018  | (51) B25J 9/16<br>B25J 11/00<br>B25J 19/02<br>B05B 13/04<br>(11) EP3953113<br>(21) EP20726718.8<br>(47) 26.04.2023<br>(87) EP2020062674<br>12.11.2020<br>(22) 07.05.2020                                       | (51) B26D 1/00<br>B26D 1/40<br>B26D 1/62<br>B26D 3/18<br>B26D 7/26<br>(11) EP3551399<br>(21) EP17818010.5<br>(47) 26.04.2023<br>(87) US2017064843<br>14.06.2018<br>(22) 06.12.2017<br>(54) KNIFE HAVING BEAM ELEMENTS<br>(73) The Procter & Gamble Company<br>(72) BITTNER, Dale, Francis<br>KALNITZ, Howard, Jay<br>CONGLETON, Stephen, Douglas<br>(31) 201615371596<br>(32) 07.12.2016<br>(33) United States of America |
| (54) DRIVING MACHINE<br>(73) Koki Holdings Co., Ltd.<br>(72) ENTA Jun<br>KODATO Seiichi<br>UEDA Takashi<br>YASUTOMI Toshinori                             | (31) 102015110557<br>102015007177<br>(32) 01.07.2015<br>05.06.2015<br>(33) Germany<br>Germany  |   |
| (31) 2017064712<br>(32) 29.03.2017<br>(33) Japan  | (51) B25D 17/08<br>B25D 17/24<br>B25D 17/06<br>(11) EP3450109<br>(21) EP17188210.3<br>(47) 26.04.2023<br>(22) 28.08.2017   |   |
| (51) B25D 17/08<br>B25D 17/24<br>B25D 17/06   | (87) EP2020062674<br>12.11.2020<br>(22) 07.05.2020   |   |
| (11) EP3450109<br>(21) EP17188210.3<br>(47) 26.04.2023<br>(22) 28.08.2017   | (54) COATING METHOD AND<br>CORRESPONDING COATING<br>INSTALLATION<br>(73) Dürr Systems AG<br>(72) KUNZ, Harald<br>BAUDER, Manfred<br>SPILLER, Alexander<br>(31) 102019111760<br>(32) 07.05.2019<br>(33) Germany | (11) EP3551399<br>(21) EP17818010.5<br>(47) 26.04.2023<br>(87) US2017064843<br>14.06.2018<br>(22) 06.12.2017<br>(54) KNIFE HAVING BEAM ELEMENTS<br>(73) The Procter & Gamble Company<br>(72) BITTNER, Dale, Francis<br>KALNITZ, Howard, Jay<br>CONGLETON, Stephen, Douglas<br>(31) 201615371596<br>(32) 07.12.2016<br>(33) United States of America   |
| (54) HAMMER DEVICE, PREFERABLY<br>HAND-HELD HAMMER DEVICE<br>(73) Zenz, Holger<br>(72) Zenz, Holger   | (51) B25J 9/16<br>G05B 13/02<br>(11) EP4051461<br>(21) EP19828403.6<br>(47) 26.04.2023<br>(87) US2019064219<br>10.06.2021<br>(22) 03.12.2019   |   |
| (51) B25F 5/02<br>B23Q 11/00<br>B24B 23/04<br>B24B 55/10  | (51) B25J 9/16<br>G05B 13/02<br>(11) EP4051461<br>(21) EP19828403.6<br>(47) 26.04.2023<br>(87) US2019064219<br>10.06.2021<br>(22) 03.12.2019   |   |
| (11) EP3812101<br>(21) EP20202448.5<br>(47) 26.04.2023<br>(22) 16.10.2020   | (54) COMPUTERIZED ENGINEERING TOOL<br>AND METHODOLOGY TO DEVELOP<br>NEURAL SKILLS FOR A ROBOTICS<br>SYSTEM<br>(73) Siemens Aktiengesellschaft<br>(72) MARTINEZ CANEDO, Arquimedes<br>(51) B25J 17/00           | (11) EP3826813<br>(21) EP19744872.3<br>(47) 26.04.2023<br>(87) IB2019056064<br>30.01.2020<br>(22) 16.07.2019<br>(54) METHOD AND APPARATUS FOR<br>ALIGNING A CUTTING TRAJECTORY  |
| (54) DUST EXTRACTION DEVICE<br>(73) C. & E. Fein GmbH<br>(72) Mann, Rainer<br>Clabunde, Joachim<br>(31) 202019105847 U<br>(32) 21.10.2019<br>(33) Germany | (54) DUST EXTRACTION DEVICE<br>(73) C. & E. Fein GmbH<br>(72) Mann, Rainer<br>Clabunde, Joachim<br>(31) 202019105847 U<br>(32) 21.10.2019<br>(33) Germany  |   |
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| (72) GORI, Sergio                   | B32B 27/32                           | C08J 9/12                        |
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| (51) B27C 9/04                      | B29K 77/00                           | (47) 26.04.2023                  |
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| B27F 1/06                           | B29K 105/00                          | 26.04.2018                       |
| B27M 3/06                           | C08K 3/32                            | (22) 10.10.2017                  |
| B27M 3/04                           | F26B 17/00                           | (54) METHOD FOR MANUFACTURING    |
| E04F 15/02                          | (11) EP3647364                       | THERMOPLASTIC ELASTOMER          |
| B23P 19/04                          | (21) EP18825236.5                    | FOAMING PARTICLE MOLDED BODY     |
| (11) EP3750676                      | (47) 26.04.2023                      | (73) JSP Corporation             |
| (21) EP20175259.9                   | (87) JP2018024304                    | (72) OGAKI, Yoshihisa            |
| (47) 26.04.2023                     | 03.01.2019                           | (31) 2016206361                  |
| (22) 08.07.2010                     | (22) 27.06.2018                      | (32) 20.10.2016                  |
| (54) TOOL CONFIGURATION RELATING    | (54) ETHYLENE-VINYL ALCOHOL          | (33) Japan                       |
| TO EDGE MACHINING OF BUILDING       | COPOLYMER COMPOSITION,               | (51) B29C 45/14                  |
| PANELS                              | PELLETS AND MULTILAYERED             | B29C 45/16                       |
| (73) Välinge Innovation AB          | STRUCTURE                            | B29C 70/72                       |
| (72) PERVAN, Darko                  | (73) Mitsubishi Chemical Corporation | B60G 11/12                       |
| BERGELIN, Marcus                    | (72) USUI, Shintaro                  | F16F 1/18                        |
| BOO, Christian                      | NISHIMURA, Daichi                    | B29C 39/10                       |
| (31) 0901054                        | IKESHITA, Minako                     | B29C 43/18                       |
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| (33) Sweden                         | (51) B29B 17/02                      | (87) US2020014150                |
| United States of America            | B29L 31/00                           | 23.07.2020                       |
| (51) B28B 1/00                      | (11) EP3792027                       | (22) 17.01.2020                  |
| B01F 27/1121                        | (21) EP19196430.3                    | (54) PROCESS FOR MANUFACTURING A |
| B01F 27/192                         | (47) 26.04.2023                      | LEAF SPRING AND INSERT FOR LEAF  |
| B01F 27/213                         | (22) 10.09.2019                      | SPRING                           |
| E04G 21/04                          | (54) A TURF INFILL SEPARATION SYSTEM | (73) Hendrickson USA, L.L.C.     |
| B28B 3/20                           | AND METHOD FOR SEPARATING            | (72) PRIKKEL, John               |
| B29C 64/106                         | A DRY OR DRIED INFILL SUCH AS        | (31) 201962793432 P              |
| B33Y 10/00                          | FROM AN ARTIFICIAL TURF PRODUCT      | (32) 17.01.2019                  |
| B01F 33/501                         | (73) Re-Match Holding A/S            | (33) United States of America    |
| B01F 35/00                          | (72) Sørensen, Martin Welling        | (51) B29C 45/14                  |
| (11) EP3600809                      | Damhus, Rasmus                       | F21S 41/26                       |
| (21) EP18749812.6                   | (51) B29C 39/14                      | F21S 41/29                       |
| (47) 26.04.2023                     | B29D 7/01                            | B29K 83/00                       |
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| (22) 09.08.2018                     | B29C 41/32                           | (47) 26.04.2023                  |
| (54) SYSTEM FOR APPLYING A BUILDING | B32B 27/28                           | (22) 09.04.2018                  |
| MATERIAL                            | B29C 39/38                           | (54) OVERMOLDING OF AN OPTICAL   |
| (73) Sika Technology AG             | B29C 41/46                           | ELEMENT ON A THERMOPLASTIC       |
| (72) KUHN, Patrik                   | (11) EP3266581                       | FRAME                            |
| BOURQUIN, Raphael                   | (21) EP17180327.3                    | (73) Valeo Vision                |
| BRÜHWILER, Armin                    | (47) 26.04.2023                      | (72) REVOL, Damien               |
| LOOTENS, Didier                     | (22) 07.07.2017                      | LOZANO, Anthony                  |
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| (32) 09.08.2017                     | METHODS OF PRODUCING THE             | (31) 1753222                     |
| (33) European Patent Office (EPO)   | SAME                                 | (32) 12.04.2017                  |
| (51) B29B 9/12                      | (73) The Boeing Company              | (33) France                      |
| B29B 9/16                           | (72) RAWLINGS, Diane C.              | (51) B29C 49/70                  |
| C08L 29/04                          | KEOUGH, Bruce K.                     | B29C 49/50                       |
| C08L 77/02                          | OLLI, Larry K.                       | B29C 49/42                       |
| B32B 7/12                           | BURG, Alan G.                        | B29C 37/02                       |
| B32B 25/04                          | KESTNER, James M.                    | B29C 49/04                       |
| B32B 25/08                          | GRANGER, George Michael              | (11) EP3705261                   |
| B32B 25/14                          | McGARVEY, James Charles              | (21) EP18873254.9                |
| B32B 27/08                          | (31) 201615205460                    | (47) 26.04.2023                  |
| B32B 27/18                          | (32) 08.07.2016                      | (87) JP2018040361                |
| B32B 27/20                          | (33) United States of America        | 09.05.2019                       |
| B32B 27/22                          | (51) B29C 44/44                      | (22) 30.10.2018                  |
| B32B 27/28                          | B29C 44/34                           |                                  |

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| (54) BURR REMOVAL METHOD, AND BURR REMOVAL DEVICE  | (32) 23.03.2018<br>(33) Japan   | (47) 26.04.2023<br>(87) US2019048503<br>05.03.2020   |
| (73) Kyoraku Co., Ltd.   | (51) B29C 51/30   | (22) 28.08.2019  |
| (72) SHIMADA Kengo<br>TANJI Tadatoshi<br>TANI Naoto<br>ONODERA Masaaki   | B65D 65/46<br>B65D 75/32<br>B29C 51/10<br>B29C 51/26<br>B29C 51/36<br>B29C 51/22  | (54) METHOD FOR PRODUCING AN AIR-RETAINING FILM WITH TEXTURED SURFACE, AND AN AIR-RETAINING FILM WITH TEXTURED SURFACE   |
| (31) 2018201484<br>2017237467<br>2017210994  | (11) EP3497032  | (73) Avery Dennison Corporation  |
| (32) 26.10.2018<br>12.12.2017<br>31.10.2017  | (21) EP17754911.0<br>(47) 26.04.2023<br>(87) US2017045785<br>15.02.2018   | (72) CAVUSOGLU, Mutlu<br>PEROTTI, Daniele<br>MINOR, Jean-Christophe  |
| (33) Japan<br>Japan<br>Japan   | (22) 07.08.2017<br>(54) POUCH FORMING MOLD CONFIGURATION, METHOD AND POUCH  | (31) 18191808<br>(32) 30.08.2018<br>(33) European Patent Office (EPO)  |
| (51) B29C 49/78<br>B29C 49/42<br>B29C 49/06<br>B29C 49/36  | (73) MESPAC CLOUD, LLC<br>(72) HARTMAN, Donn D.<br>WATERMAN, Alexander J.<br>ALCAZAR, Michael Gregory<br>CRIVOLIO, Anthony  | (51) B29C 64/118<br>B29C 48/02<br>B29C 48/05<br>B29C 48/25<br>B29C 48/285<br>B29C 48/86<br>B33Y 10/00<br>B33Y 70/00  |
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| (22) 13.03.2020<br>(54) BLOW VALVE DEVICE OF A BLOWING DEVICE  | (32) 20.10.2016<br>08.08.2016<br>(33) United States of America<br>United States of America  | (22) 21.09.2016<br>(54) SELECTIVE ATTACHMENT OF A YARN STRUCTURE   |
| (73) Eugen Seitz AG<br>(72) SCHMIDT, Joachim<br>FEHLMANN, Mathias  | (51) B29C 53/62<br>(11) EP3768493<br>(21) EP19711603.1<br>(47) 26.04.2023<br>(87) EP2019056893<br>26.09.2019  | (73) NIKE Innovate C.V.<br>(72) WAATTI, Todd A.<br>STERMAN, Yoav   |
| (31) 19169887<br>19164639<br>(32) 17.04.2019<br>22.03.2019   | (22) 19.03.2019<br>(54) DEVICE FOR COMPACTING A TUBULAR STRUCTURE, ASSOCIATED INSTALLATION AND METHOD   | (31) 201514935904<br>(32) 09.11.2015<br>(33) United States of America  |
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| (51) B29C 51/14<br>B32B 27/32<br>C09J 7/22<br>C09J 7/38<br>G02B 5/30<br>B29C 48/07<br>B29C 48/08<br>B29C 48/21<br>B29C 48/305<br>B29C 51/10<br>B32B 7/12<br>B32B 27/08<br>B32B 27/30<br>B32B 27/36<br>B32B 27/40<br>C09J 123/04<br>C09J 123/08<br>C09J 123/12<br>C09J 153/02<br>B32B 27/34 | (31) 1852376<br>(32) 20.03.2018<br>(33) France  | (11) EP3980245<br>(21) EP20733903.7<br>(47) 26.04.2023<br>(87) EP2020065536<br>10.12.2020  |
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| (22) 20.03.2019<br>(54) PROTECTIVE FILM  | (11) EP3556538<br>(21) EP19163351.0<br>(47) 26.04.2023<br>(22) 18.03.2019<br>(54) METHOD FOR PRODUCING AN INJECTION DEVICE WITH BYPASS CHANNEL AND TOOL USED FOR THIS PURPOSE | (73) ExOne GmbH<br>(72) MÜLLER, Andreas<br>LADEWIG, Roland   |
| (73) Sumitomo Bakelite Co., Ltd.<br>(72) ONODERA, Kazufusa<br>INABA, Hironari  | (73) Gerresheimer Regensburg GmbH<br>(72) KALB, Franz<br>LANZL, Christian   | (31) 19179085<br>(32) 07.06.2019<br>(33) European Patent Office (EPO)  |
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| B33Y 10/00                             | B29C 65/18                            | (33) Italy                                  |
| B32B 1/02                              | B29C 65/38                            | (51) B30B 11/00                             |
| B32B 7/022                             | B65B 7/08                             | B30B 15/32                                  |
| B32B 25/08                             | B65B 31/04                            | B65G 47/84                                  |
| B32B 25/14                             | B65B 51/14                            | (11) EP3501812                              |
| B32B 27/08                             | B65B 55/00                            | (21) EP18202053.7                           |
| B32B 27/28                             | B65D 77/00                            | (47) 26.04.2023                             |
| B32B 27/32                             | B29C 65/04                            | (22) 23.10.2018                             |
| B32B 27/36                             | B29C 65/08                            | (54) MOLDED PRODUCT CONVEYING               |
| (11) EP3640009                         | C01B 33/02                            | DEVICE                                      |
| (21) EP18816989.0                      | (11) EP3782917                        | (73) Kikusui Seisakusho Ltd.                |
| (47) 26.04.2023                        | (21) EP19789357.1                     | (72) KAKITANI, Tomohiro                     |
| (87) JP2018022773                      | (47) 26.04.2023                       | (31) 2017247936                             |
| 20.12.2018                             | (87) JP2019016660                     | (32) 25.12.2017                             |
| (22) 14.06.2018                        | 24.10.2019                            | (33) Japan                                  |
| (54) CONTAINER FOR OPTICAL             | (22) 18.04.2019                       | (51) B31B 50/06                             |
| STEREOSCOPIIC SHAPING DEVICE           | (54) PACKAGING METHOD FOR             | B31B 50/46                                  |
| (73) Kuraray Noritake Dental Inc.      | POLYCRYSTALLINE SILICON,              | B31B 50/07                                  |
| (72) SUZUKI, Kenji                     | DOUBLE-PACKAGING METHOD FOR           | B65D 5/56                                   |
| SAKAMOTO, Hiroyuki                     | POLYCRYSTALLINE SILICON, AND          | B31B 105/00                                 |
| (31) 2017116634                        | PRODUCTION METHOD FOR RAW             | B31B 120/10                                 |
| (32) 14.06.2017                        | MATERIAL FOR MONOCRYSTALLINE          | B31B 120/50                                 |
| (33) Japan                             | SILICON                               | B65D 5/20                                   |
| (51) B29C 64/364                       | (73) Mitsubishi Materials Corporation | B31B 120/40                                 |
| B22F 12/70                             | (72) NODA, Seina                      | (11) EP3501813                              |
| B22F 10/322                            | (31) 2018079562                       | (21) EP18215484.9                           |
| B29C 64/25                             | (32) 18.04.2018                       | (47) 26.04.2023                             |
| B33Y 30/00                             | (33) Japan                            | (22) 21.12.2018                             |
| B33Y 40/00                             | (51) B29C 70/44                       | (54) METHOD AND MACHINE FOR                 |
| B22F 10/28                             | B29C 70/54                            | MANUFACTURING PACKAGING,                    |
| (11) EP4069455                         | B29C 33/00                            | PACKAGING OBTAINED                          |
| (21) EP20838142.6                      | B29D 99/00                            | (73) Groupe Guillin                         |
| (47) 26.04.2023                        | (11) EP3548261                        | (72) GUILLIN, François                      |
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| (54) IMPROVED THERMAL CONTROL          | 07.06.2018                            | (51) B31D 1/02                              |
| FOR APPARATUS FOR THE                  | (22) 01.12.2017                       | B65H 29/00                                  |
| MANUFACTURE OF THREE-                  | (54) METHOD AND SYSTEM FOR            | B65H 29/54                                  |
| DIMENSIONAL OBJECTS                    | MANUFACTURING A SHEAR WEB FOR         | B65H 29/66                                  |
| (73) Stratays Powder Production Ltd    | A WIND TURBINE BLADE                  | (11) EP3156219                              |
| (72) GARRIDO, Marcel                   | (73) LM Wind Power A/S                | (21) EP16189580.0                           |
| HARTMANN, Anders                       | (72) SCHIBSBY, Karsten                | (47) 26.04.2023                             |
| DORINI, Gianluca                       | LARSEN, Michael                       | (22) 20.09.2016                             |
| BAK, Simon                             | MADSEN, Kristian, Lehmann             | (54) MANUFACTURING DEVICE OF                |
| NIELS-CHRISTIANSEN, Hans               | (31) 16201771                         | LAMINATED LABEL BODY                        |
| (31) 201917823                         | (32) 01.12.2016                       | (73) Miyakoshi Printing Machinery Co., Ltd. |
| (32) 05.12.2019                        | (33) European Patent Office (EPO)     | Nishikawa Communications Co. Ltd.           |
| (33) United Kingdom                    | (51) B29D 30/24                       | (72) TOMAKI, Hitoshi                        |
| (51) B29C 64/393                       | B29D 30/26                            | SAGA, Toshihiro                             |
| G05B 19/408                            | B29D 30/06                            | FUJIWARA, Reishi                            |
| G05B 19/4099                           | (11) EP3727823                        | FUJIKAWA, Mitsuru                           |
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| (22) 25.11.2015                        | 27.06.2019                            | (51) B32B 5/02                              |
| (54) SYSTEM AND PROCESS FOR            | (22) 18.12.2018                       | B32B 27/32                                  |
| EVALUATING AND MANUFACTURING           | (54) DRUM FOR THE APPLICATION OF      | C09J 123/26                                 |
| ADDITIVELY MANUFACTURED                | SEMI-FINISHED PRODUCTS WITHIN         | C09J 151/06                                 |
| COMPONENTS                             | TYRES FOR VEHICLE WHEELS, AND         | C09J 153/02                                 |
| (73) Raytheon Technologies Corporation | APPLICATION PROCESS WHICH CAN         | (11) EP3380317                              |
| (72) RIZZO Jr, John P.                 | BE IMPLEMENTED WITH SAID DRUM         | (21) EP16819723.4                           |
| DOHERTY, Adam Z.                       | (73) Pirelli Tyre S.p.A.              | (47) 26.04.2023                             |
| BOYER, Jesse R.                        | (72) DE COL, Christian                | (87) US2016063499                           |



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| (22) 23.11.2016                                | (72) EGUCHI Kenichi              | SINTERING OF CONDUCTIVE INK        |
| (54) ADHESIVE FORMULATIONS FOR                 | KOTAKE Shinya                    | (73) Strataysys Ltd.               |
| FABRIC/POE ADHESION                            | MATSUKUMA Daisuke                | (72) YUDOVIN-FARBER, Ira           |
| (73) Dow Global Technologies LLC               | ISHII Aika                       | DVASH, Efraim                      |
| (72) CHEN, Yongchun                            | FUJITA Hiroyuki                  | ELY, Tal                           |
| WU, Hang                                       | (31) 2018211488                  | (31) 201562138113 P                |
| YU, Haiyang                                    | (32) 09.11.2018                  | (32) 25.03.2015                    |
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| YANG, Hong                                     | (51) B33Y 10/00                  | (51) B33Y 70/00                    |
| PANG, Xiao Yi                                  | B33Y 70/00                       | C09D 11/30                         |
| (31) PCT/CN2015/095762                         | B66C 13/48                       | C09D 11/101                        |
| (32) 27.11.2015                                | B66C 23/00                       | (11) EP4121293                     |
| (33) World Intellectual Property Office (WIPO) | E04G 21/04                       | (21) EP22728249.8                  |
| (51) B32B 21/04                                | B66C 23/30                       | (47) 26.04.2023                    |
| (11) EP2734364                                 | B66C 17/06                       | (87) EP2022062678                  |
| (21) EP12814615.6                              | B33Y 30/00                       | 15.12.2022                         |
| (47) 26.04.2023                                | (11) EP3938597                   | (22) 10.05.2022                    |
| (87) US2012047026                              | (21) EP20719127.1                | (54) DUAL CURE EPOXY INKJET        |
| 24.01.2013                                     | (47) 26.04.2023                  | COMPOSITION                        |
| (22) 17.07.2012                                | (87) EP2020059351                | (73) ALTANA AG                     |
| (54) BINDER COMPOSITION FOR USE                | 08.10.2020                       | (72) ASMACHER, Anne                |
| IN CELLULOSIC COMPOSITES AND                   | (22) 02.04.2020                  | SEUYEP, Denis Hervé                |
| METHODS RELATED THERETO                        | (54) BUILDING AND/OR MATERIAL    | MARRECK, Lina-Sophie               |
| (73) Huntsman International LLC                | HANDLING MACHINE AND METHOD      | RÖTTGER, Max                       |
| (72) MORIARTY, Christopher, J.                 | FOR GUIDING AND MOVING A         | (31) 21178537                      |
| SINGH, Sachchida, N.                           | WORKING HEAD                     | (32) 09.06.2021                    |
| OPPENHEIMER, Gordon, D.                        | (73) Liebherr-Werk Biberach GmbH | (33) European Patent Office (EPO)  |
| (31) 201113187286                              | (72) BRAMBERGER, Robert          | (51) B41C 1/10                     |
| (32) 20.07.2011                                | KÖGL, Martin                     | C08F 2/44                          |
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| F16L 11/08                                     | (33) Germany                     | C08F 222/00                        |
| B32B 27/32                                     | (51) B33Y 10/00                  | C08F 246/00                        |
| B32B 25/18                                     | B33Y 80/00                       | C08F 290/06                        |
| B32B 1/08                                      | C08G 69/14                       | G03F 7/00                          |
| B32B 25/04                                     | C08L 77/02                       | G03F 7/004                         |
| B32B 25/14                                     | B29C 64/153                      | G03F 7/038                         |
| B32B 27/42                                     | C08G 69/26                       | (11) EP3632696                     |
| C08J 5/12                                      | B33Y 70/10                       | (21) EP18809362.9                  |
| F16L 11/04                                     | B29K 77/00                       | (47) 26.04.2023                    |
| (11) EP3539766                                 | B33Y 70/00                       | (87) JP2018017814                  |
| (21) EP17868523.6                              | (11) EP3301124                   | 06.12.2018                         |
| (47) 26.04.2023                                | (21) EP17192346.9                | (22) 08.05.2018                    |
| (87) JP2017039174                              | (47) 26.04.2023                  | (54) LITHOGRAPHIC PRINTING PLATE   |
| 17.05.2018                                     | (22) 21.09.2017                  | PRECURSOR, PRODUCTION METHOD       |
| (22) 30.10.2017                                | (54) POLYAMIDE POWDER FOR        | FOR LITHOGRAPHIC PRINTING          |
| (54) RUBBER LAMINATE AND FLEXIBLE              | SELECTIVE SINTERING METHOD       | PLATE, POLYMER PARTICLES, AND      |
| HOSE USING SAME                                | (73) Evonik Operations GmbH      | COMPOSITION                        |
| (73) Nichirin Co., Ltd.                        | (72) Diekmann, Wolfgang          | (73) FUJIFILM Corporation          |
| (72) MIKI Kenji                                | Grebe, Maik                      | (72) HIRANO, Shuji                 |
| KOJIMA Ryota                                   | Baumann, Franz-Erich             | NOZAKI, Atsuyasu                   |
| TAKEO Yasushi                                  | Monsheimer, Sylvia               | (31) 2017210126                    |
| (31) 2016217883                                | Küting, Beatrice                 | 2017108002                         |
| (32) 08.11.2016                                | (31) 102016219082                | (32) 31.10.2017                    |
| (33) Japan                                     | (32) 30.09.2016                  | 31.05.2017                         |
| (51) B32B 27/18                                | (33) Germany                     | (33) Japan                         |
| B32B 7/022                                     | (51) B33Y 10/00                  | Japan                              |
| B32B 27/00                                     | H05C 3/00                        | (51) B41F 5/24                     |
| E04H 9/16                                      | H05K 3/46                        | B41F 13/08                         |
| B32B 25/20                                     | H05K 3/12                        | B41F 33/14                         |
| (11) EP3878650                                 | (11) EP3274172                   | F16F 15/02                         |
| (21) EP19882602.6                              | (21) EP16767878.8                | (11) EP3838595                     |
| (47) 26.04.2023                                | (47) 26.04.2023                  | (21) EP19217007.4                  |
| (87) JP2019044130                              | (87) IL2016050314                | (47) 26.04.2023                    |
| 14.05.2020                                     | 29.09.2016                       | (22) 17.12.2019                    |
| (22) 11.11.2019                                | (22) 24.03.2016                  | (54) METHOD OF OPERATING A ROTARY  |
| (54) SHEET BODY                                |                                  | PRINTING MACHINE                   |

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| (73) Heidelberger Druckmaschinen AG | (47) 26.04.2023                     | B42D 25/29                         |
| (72) Putzer, Marcus                 | (87) JP2019045248                   | B42D 25/324                        |
| Schadl, Hans                        | 04.06.2020                          | (11) EP2694296                     |
| (51) B41F 5/24                      | (22) 19.11.2019                     | (21) EP12714619.9                  |
| B41F 33/00                          | (54) RECORDING APPARATUS AND        | (47) 26.04.2023                    |
| (11) EP3822080                      | PROGRAM FOR RECORDING               | (87) EP2012055855                  |
| (21) EP20203620.8                   | APPARATUS                           | 11.10.2012                         |
| (47) 26.04.2023                     | (73) Kyocera Corporation            | (22) 30.03.2012                    |
| (22) 23.10.2020                     | (72) WADA, Akinori                  | (54) OPTICALLY VARIABLE SECURITY   |
| (54) METHOD FOR DETERMINING PRINT   | (31) 2018223354                     | FEATURE                            |
| PARAMETERS OF A PRINTING            | (32) 29.11.2018                     | (73) Schreiner Group GmbH & Co. KG |
| MACHINE AND TEST BENCH              | (33) Japan                          | (72) GRÖTZNER, Roland              |
| (73) Bobst Bielefeld GmbH           | (51) B41J 2/14                      | BAUR, Sebastian                    |
| (72) ROSTALSKI, Fred                | (11) EP3875278                      | (31) 102011016050                  |
| (31) 19020644                       | (21) EP21156164.2                   | (32) 04.04.2011                    |
| (32) 18.11.2019                     | (47) 26.04.2023                     | (33) Germany                       |
| (33) European Patent Office (EPO)   | (22) 10.02.2021                     | (51) B41M 7/00                     |
| (51) B41F 13/08                     | (54) LIQUID DISCHARGE HEAD          | B41M 5/00                          |
| B41F 33/00                          | (73) BROTHER KOGYO KABUSHIKI KAISHA | D06P 5/30                          |
| B41F 5/24                           | (72) KATAYAMA, Shingo               | A43B 1/00                          |
| G01B 11/24                          | KAKIUCHI, Toru                      | A43B 3/00                          |
| G01B 11/30                          | (31) 2020024596                     | A43B 23/02                         |
| B41F 13/34                          | (32) 17.02.2020                     | B33Y 30/00                         |
| (11) EP3988307                      | (33) Japan                          | B33Y 80/00                         |
| (21) EP21199425.6                   | (51) B41J 17/32                     | D06P 1/52                          |
| (47) 26.04.2023                     | B41J 35/28                          | B41J 11/00                         |
| (22) 28.09.2021                     | B41J 32/00                          | B41J 11/20                         |
| (54) METHOD FOR OPERATING A         | B41J 2/325                          | B41J 3/407                         |
| FLEXOGRAPHIC PRINTING MACHINE       | B41J 17/22                          | (11) EP3858635                     |
| AS WELL AS FLEXOGRAPHIC             | B41J 29/02                          | (21) EP21164251.7                  |
| PRINTING MACHINE AND SYSTEM         | B41J 29/13                          | (47) 26.04.2023                    |
| COMPRISING A FLEXOGRAPHIC           | (11) EP3822088                      | (22) 01.02.2017                    |
| PRINTING MACHINE AND A DEVICE       | (21) EP18914938.8                   | (54) METHOD FOR APPLYING LAYERS ON |
| FOR MEASURING THE DOT DENSITY       | (47) 26.04.2023                     | A MATERIAL                         |
| OF A FLEXOGRAPHIC PRINTING          | (87) JP2018035520                   | (73) NIKE Innovate C.V.            |
| PLATE OR SLEEVE                     | 16.01.2020                          | (72) MILLER, Todd, W.              |
| (73) Heidelberger Druckmaschinen AG | (22) 25.09.2018                     | (31) 201662291867 P                |
| (72) Schwab, Werner                 | (54) PRINTER                        | (32) 05.02.2016                    |
| (31) 102020213324                   | (73) Sato Holdings Kabushiki Kaisha | (33) United States of America      |
| (32) 22.10.2020                     | (72) KAKUI, Yasuyuki                | (51) B44C 5/04                     |
| (33) Germany                        | JINNOUCHI, Takayoshi                | B32B 27/08                         |
| (51) B41F 16/00                     | (31) 2018133719                     | B32B 27/20                         |
| B26D 5/18                           | (32) 13.07.2018                     | E04F 15/10                         |
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| (21) EP20726869.9                   | (51) B41J 35/28                     | (11) EP3169533                     |
| (47) 26.04.2023                     | B41J 2/325                          | (21) EP15822782.7                  |
| (87) EP2020064522                   | B41J 17/18                          | (47) 26.04.2023                    |
| 03.12.2020                          | B41J 17/24                          | (87) SE2015050783                  |
| (22) 26.05.2020                     | B41J 17/32                          | 21.01.2016                         |
| (54) PLATEN PRESS WITH A PRESS      | B41J 29/13                          | (22) 02.07.2015                    |
| TOGGLE MECHANISM                    | B41J 29/02                          | (54) METHOD TO PRODUCE A           |
| (73) BOBST MEX SA                   | B41J 15/04                          | THERMOPLASTIC WEAR RESISTANT       |
| (72) DE GAILLANDE, Christophe       | B41J 35/16                          | FOIL                               |
| DELALOYE, Guy                       | B41J 17/22                          | (73) Välinge Innovation AB         |
| STOJANOVIC-ROTH, Steven             | (11) EP3822087                      | (72) ZIEGLER, Göran                |
| TILLER, Lukas                       | (21) EP18915780.3                   | HÅKANSSON, Niclas                  |
| (31) 19020346                       | (47) 26.04.2023                     | LUNDBLAD, Christer                 |
| (32) 27.05.2019                     | (87) JP2018035521                   | (31) 1550455                       |
| (33) European Patent Office (EPO)   | 16.01.2020                          | 1450895                            |
| (51) B41J 2/01                      | (22) 25.09.2018                     | 1450894                            |
| B41J 2/14                           | (54) PRINTER                        | (32) 16.04.2015                    |
| B41J 2/355                          | (73) Sato Holdings Kabushiki Kaisha | 16.07.2014                         |
| B41J 2/045                          | (72) KAKUI, Yasuyuki                | 16.07.2014                         |
| B41J 2/155                          | JINNOUCHI, Takayoshi                | (33) Sweden                        |
| B41J 2/21                           | (31) 2018133721                     | Sweden                             |
| G06K 15/02                          | (32) 13.07.2018                     | Sweden                             |
| (11) EP3871886                      | (33) Japan                          | (51) B60B 3/08                     |
| (21) EP19890799.0                   | (51) B41M 3/14                      | F16B 39/04                         |

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| F16B 39/06                            | (22) 04.12.2020                       | (33) United States of America      |
| B60B 3/00                             | (54) TIRE                             | (51) B60G 17/015                   |
| (11) EP3053758                        | (73) Sumitomo Rubber Industries, Ltd. | (11) EP3814157                     |
| (21) EP16154433.3                     | (72) LI, Qingmao                      | (21) EP19734327.0                  |
| (47) 26.04.2023                       | MIHARA, Naoya                         | (47) 26.04.2023                    |
| (22) 05.02.2016                       | (31) 2019226422                       | (87) EP2019066472                  |
| (54) WHEEL ASSEMBLY WITH TIE BOLT     | 2019226421                            | 02.01.2020                         |
| RETENTION SYSTEM                      | (32) 16.12.2019                       | (22) 21.06.2019                    |
| (73) Goodrich Corporation             | 16.12.2019                            | (54) CHASSIS AIR-SUSPENSION DEVICE |
| (72) MILLER, Jerry                    | (33) Japan                            | FOR SUPPORTING A CHASSIS OF A      |
| (31) 201514615000                     | Japan                                 | UTILITY VEHICLE ON RUNNING GEAR,   |
| (32) 05.02.2015                       | (51) B60C 11/03                       | INCLUDING LEVEL CONTROL            |
| (33) United States of America         | B60C 11/13                            | (73) KNORR-BREMSE Systeme für      |
| (51) B60C 1/00                        | (11) EP3929005                        | Nutzfahrzeuge GmbH                 |
| B60C 11/03                            | (21) EP21180596.5                     | (72) JAKAB, David                  |
| B60C 11/12                            | (47) 26.04.2023                       | KANDAR, Tibor                      |
| C08L 15/00                            | (22) 21.06.2021                       | CSONTOS, Peter                     |
| C08C 19/25                            | (54) TIRE                             | HOFMANN, Ken                       |
| C08C 19/44                            | (73) SUMITOMO RUBBER INDUSTRIES,      | BOHLEY, Martin                     |
| (11) EP3763546                        | LTD.                                  | (31) 102018115340                  |
| (21) EP20182986.8                     | (72) NAKAJIMA, Koichi                 | (32) 26.06.2018                    |
| (47) 26.04.2023                       | (31) 2020108901                       | (33) Germany                       |
| (22) 29.06.2020                       | (32) 24.06.2020                       | (51) B60H 1/00                     |
| (54) PNEUMATIC TIRE                   | (33) Japan                            | (11) EP3863872                     |
| (73) Sumitomo Rubber Industries, Ltd. | (51) B60C 13/04                       | (21) EP19791419.5                  |
| (72) NAKATANI, Masako                 | (11) EP4019290                        | (47) 26.04.2023                    |
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| (32) 12.07.2019                       | (47) 26.04.2023                       | 16.04.2020                         |
| (33) Japan                            | (22) 25.11.2021                       | (22) 07.10.2019                    |
| (51) B60C 1/00                        | (54) PNEUMATIC TIRE                   | (54) RECREATIONAL VEHICLE          |
| C08L 9/06                             | (73) Sumitomo Rubber Industries, Ltd. | (73) Thor Tech, Inc.               |
| (11) EP3562687                        | (72) MIZOKAWA, Hiroki                 | (72) SNYDER, Jeff                  |
| (21) EP17832991.8                     | (31) 2020215293                       | BROCK, Jon                         |
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| (87) IB2017058202                     | (33) Japan                            | BULLOCK, Mark                      |
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| (54) ELASTOMERIC COMPOSITIONS         | (21) EP20189915.0                     | (33) United States of America      |
| COMPRISING NATURAL RUBBERS            | (47) 26.04.2023                       | (51) B60H 1/00                     |
| FROM GUAYULE FOR TYRE                 | (22) 06.08.2020                       | B60H 1/32                          |
| COMPONENTS AND TYRES                  | (54) ELECTRIFIED AIR SYSTEM FOR USE   | H02J 7/14                          |
| COMPRISING THE SAME                   | WITH CENTRAL TIRE INFLATION           | F25D 11/00                         |
| (73) Pirelli Tyre S.p.A.              | SYSTEM                                | (11) EP3856547                     |
| (72) CASTELLANI, Luca                 | (73) Deere & Company                  | (21) EP19779303.7                  |
| HANEL, Thomas                         | (72) GONSOWSKI, Joseph                | (47) 26.04.2023                    |
| DALL'ABACO, Davide                    | PUNJANI, Pratih                       | (87) US2019051280                  |
| NAPOLITANO, Luca                      | BRATVOLD, Brian                       | 02.04.2020                         |
| ALBIZZATI, Enrico                     | (31) 201916533504                     | (22) 16.09.2019                    |
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| (32) 27.12.2016                       | (33) United States of America         | UNIT WITH AC GENERATOR             |
| (33) Italy                            | (51) B60C 25/05                       | CHARGING OF PRIME MOVER            |
| (51) B60C 9/20                        | B60B 30/06                            | ENERGY STORAGE DEVICE              |
| B60C 9/22                             | B25J 15/02                            | (73) Carrier Corporation           |
| (11) EP3967517                        | B25J 19/02                            | (72) SAROKA, Mary D.               |
| (21) EP21194453.3                     | B25J 15/10                            | BURCHILL, Jeffrey J.               |
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| (54) HEAVY DUTY PNEUMATIC TIRE        | (47) 26.04.2023                       | (33) United States of America      |
| (73) Sumitomo Rubber Industries, Ltd. | (87) US2015038575                     | (51) B60H 1/24                     |
| (72) KITANI, Naofumi                  | 07.01.2016                            | B60H 1/00                          |
| (31) 2020154094                       | (22) 30.06.2015                       | (11) EP3509881                     |
| (32) 14.09.2020                       | (54) ROBOTIC WHEEL GRIPPER WITH A     | (21) EP17780465.5                  |
| (33) Japan                            | TPM SENSOR                            | (47) 26.04.2023                    |
| (51) B60C 11/03                       | (73) INTERNATIONAL WHEEL AND TIRE,    | (87) FR2017052341                  |
| B60C 11/12                            | INC.                                  | 15.03.2018                         |
| (11) EP3838626                        | (72) KERWIN, Kevin R.                 | (22) 05.09.2017                    |
| (21) EP20211856.8                     | (31) 201462019536 P                   | (54) ARRANGEMENT OF A VENTILATION  |
| (47) 26.04.2023                       | (32) 01.07.2014                       | DEVICE IN A STRUCTURAL             |

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| ROOF SURROUND AND VEHICLE COMPRISING SUCH AN ARRANGEMENT | (73) Inalfa Roof Systems Group B.V.               | (54) ARRANGEMENT OF AN AIR GUIDING ELEMENT MADE OF FOAM ON A COOLER ELEMENT, AND COOLER ELEMENT AND AIR GUIDING ELEMENT MADE OF FOAM |
| (73) Renault s.a.s                                       | (72) van Boxtel, Eduardus Christianus Henricus    | (73) VOLKSWAGEN AKTIENGESELLSCHAFT   |
| (72) BEZEAULT, Loic                                      | (51) B60J 7/04                                    | (72) MERZ, Thorsten Tobias   |
| HEWAK, Gregor  | B60Q 3/208  | SCHORN, Tomas  |
| (31) 1658260   | (11) EP3744544                                    | IPPOLITI, Mario  |
| 1658259  | (21) EP20176654.0                                 | (31) 102018218520  |
| (32) 06.09.2016  | (47) 26.04.2023                                   | (32) 30.10.2018  |
| 06.09.2016   | (22) 26.05.2020                                   | (33) Germany   |
| (33) France  | (54) GLASS PANEL ASSEMBLY FOR A ROOF OF A VEHICLE | (51) B60K 11/08  |
| France   | (73) Inalfa Roof Systems Group B.V.               | (11) EP3805031   |
| (51) B60H 1/32   | (72) Li, Jiangtao                                 | (21) EP19201763.0  |
| B60K 23/00   | Custers, Jur Johannes Maria                       | (47) 26.04.2023  |
| B60L 7/10  | van Boxtel, Eduardus Christianus Henricus         | (22) 07.10.2019  |
| B60H 1/00  | Nellen, Marcel Johan Christiaan                   | (54) TRIM COMPONENT OF A VEHICLE AND VEHICLE COMPRISING SUCH A TRIM COMPONENT  |
| B60K 1/00  | Rikkert, Robert                                   | (73) Motherson Innovations Company Limited   |
| B60K 25/00   | De Bie, Sander                                    | (72) Burkhardt, Thomas   |
| B60L 1/00  | De Jong, Robbert Arij Jeroen                      | (51) B60K 15/03  |
| B60L 15/20   | (31) 201920766381 U                               | B60K 15/04   |
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| (87) CA2019051279  | (33) China  | (22) 09.07.2020  |
| 19.03.2020   | European Patent Office (EPO)                      | (54) FUEL TANK DEVICE  |
| (22) 11.09.2019  | (51) B60K 1/02                                    | (73) Magna Energy Storage Systems GesmbH   |
| (54) ELECTRIC VEHICLE AIR CONDITIONING SYSTEM AND METHOD | B60K 7/00   | (72) TURAN, Alparslan  |
| (73) MAGNA INTERNATIONAL INC                             | (11) EP3936358                                    | (51) B60K 31/00  |
| (72) SCHLAGER, Gerd                                      | (21) EP20193249.8                                 | B60W 30/08   |
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| (32) 11.09.2018  | (22) 28.08.2020                                   | B60W 30/17   |
| (33) United States of America                            | (54) DUAL-ELECTRIC-MOTOR DRIVING SYSTEM           | B60W 50/08   |
| (51) B60H 1/34   | (73) Jing-Jin Electric Technologies Co., Ltd.     | (11) EP3733440   |
| F24F 13/062  | (72) Yu, Ping                                     | (21) EP20159576.6  |
| (11) EP3632726   | Li, Jianwen                                       | (47) 26.04.2023  |
| (21) EP19382867.0  | Yang, Xudong                                      | (22) 26.02.2020  |
| (47) 26.04.2023  | (31) 202010647813                                 | (54) VEHICLE CONTROL DEVICE  |
| (22) 07.10.2019  | (32) 07.07.2020                                   | (73) TOYOTA JIDOSHA KABUSHIKI KAISHA   |
| (54) AIR DIFFUSER FOR A VEHICLE                          | (33) China  | (72) SHIMBO, Yuto  |
| (73) Seat, S.A.  | (51) B60K 6/48                                    | HOSHIKAWA, Yuma  |
| (72) PEÑA MARTÍNEZ, José                                 | B60W 10/02  | (31) 2019056653  |
| DEL CAMPO MELGAREJO, Luis                                | B60W 10/06  | (32) 25.03.2019  |
| PÉREZ DÍAZ, Manuel                                       | B60W 10/08  | (33) Japan   |
| PÉREZ SERRANO, Rubén                                     | B60W 20/10  | (51) B60K 35/00  |
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| (32) 05.10.2018  | B60W 10/184                                       | (21) EP21158927.0  |
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| (51) B60J 1/06   | (21) EP21202745.2                                 | (22) 24.02.2021  |
| (11) EP3795391   | (47) 26.04.2023                                   | (54) METHOD FOR OBTAINING A CURVED INTERFACE PANEL, CURVED INTERFACE PANEL AND ASSOCIATED CURVED INTERFACE DEVICE                    |
| (21) EP20174387.9  | (22) 14.10.2021                                   | (73) Valeo Comfort and Driving Assistance  |
| (47) 26.04.2023  | (54) HYBRID ELECTRIC VEHICLE CONTROL              | (72) BERRY, Martial  |
| (22) 13.05.2020  | (73) Suzuki Motor Corporation                     | (31) 2001893   |
| (54) WORK VEHICLE  | (72) Ito, Yoshiaki                                | (32) 26.02.2020  |
| (73) Kubota Corporation                                  | (31) 2020187169                                   | (33) France  |
| (72) NAKAJI, Masaru                                      | (32) 10.11.2020                                   | (51) B60K 35/00  |
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| (32) 17.09.2019  | (51) B60K 11/04                                   | E05C 17/02   |
| (33) Japan   | B60K 11/08  | E05D 11/10   |
| (51) B60J 7/02   | (11) EP3873758                                    |  |
| B60J 7/043   | (21) EP19790193.7                                 |  |
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| (47) 26.04.2023  | 07.05.2020  |  |
| (22) 03.12.2019  | (22) 17.10.2019                                   |  |
| (54) OPEN ROOF CONSTRUCTION FOR A VEHICLE                |   |  |

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| B65D 43/24                          | (11) EP4049878                         | (22) 27.12.2016                    |
| (11) EP3976412                      | (21) EP22158219.0                      | (54) TRAIN CONTROL DEVICE          |
| (21) EP20729027.1                   | (47) 26.04.2023                        | (73) KABUSHIKI KAISHA TOSHIBA      |
| (47) 26.04.2023                     | (22) 23.02.2022                        | Toshiba Infrastructure Systems &   |
| (87) EP2020064442                   | (54) VEHICLE DISPLAY DEVICE            | Solutions Corporation              |
| 03.12.2020                          | (73) Yazaki Corporation                | (72) YAMAMOTO, Junko               |
| (22) 25.05.2020                     | (72) Iwasaki, Katsuhiko                | IBA, Satoshi                       |
| (54) OPERATING UNIT FOR A VEHICLE   | (31) 2021029704                        | HATTORI, Yohei                     |
| (73) Behr-Hella Thermocontrol GmbH  | (32) 26.02.2021                        | MIYAJIMA, Yasuyuki                 |
| (72) HAGEN, Andreas                 | (33) Japan                             | (31) 2016041195                    |
| TREUGUTH, Udo                       | (51) B60K 37/06                        | (32) 03.03.2016                    |
| (31) 102019114002                   | B60W 30/14                             | (33) Japan                         |
| (32) 24.05.2019                     | B60W 30/16                             | (51) B60L 50/64                    |
| (33) Germany                        | B60K 28/06                             | H01M 50/213                        |
| (51) B60K 35/00                     | (11) EP3919308                         | H01M 50/224                        |
| B60K 37/06                          | (21) EP20716557.2                      | B60L 50/60                         |
| A01D 34/00                          | (47) 26.04.2023                        | (11) EP3367463                     |
| B62D 49/06                          | (87) IB2020000008                      | (21) EP17813468.0                  |
| B60K 25/00                          | 20.08.2020                             | (47) 26.04.2023                    |
| B60R 11/02                          | (22) 22.01.2020                        | (87) KR2017003081                  |
| B60R 11/00                          | (54) ADVANCED DRIVER ASSISTANCE        | 21.12.2017                         |
| (11) EP3315345                      | SYSTEM AND MANIPULATION                | (22) 22.03.2017                    |
| (21) EP17194755.9                   | ASSEMBLY THEREOF                       | (54) BATTERY MODULE, AND BATTERY   |
| (47) 26.04.2023                     | (73) VOLKSWAGEN                        | PACK AND VEHICLE COMPRISING        |
| (22) 04.10.2017                     | AKTIENGESELLSCHAFT                     | SAME                               |
| (54) AN AGRICULTURAL VEHICLE HAVING | (72) ZHU, Duan                         | (73) LG Energy Solution, Ltd.      |
| RECONFIGURABLE CONTROLS             | CHERUBINI, Matthieu                    | (72) RYU, Jae-Uk                   |
| (73) AGCO International GmbH        | (31) 201920146827 U                    | MUN, Jeong-O                       |
| (72) BARZEN, Alexander              | (32) 28.01.2019                        | JEONG, Byoung-Cheon                |
| (31) 201617031                      | (33) China                             | (31) 20160075277                   |
| (32) 07.10.2016                     | (51) B60K 37/06                        | (32) 16.06.2016                    |
| (33) United Kingdom                 | H05K 1/14                              | (33) Korea (Republic)              |
| (51) B60K 35/00                     | (11) EP3978298                         | (51) B60L 53/10                    |
| B60K 37/06                          | (21) EP21186963.1                      | B60L 53/302                        |
| G06F 3/041                          | (47) 26.04.2023                        | B60L 53/16                         |
| G06F 3/0488                         | (22) 21.07.2021                        | H01R 13/00                         |
| (11) EP3749540                      | (54) DISPLAY APPARATUS                 | H01R 13/533                        |
| (21) EP19703011.7                   | (73) Yamaha Hatsudoki Kabushiki Kaisha | H01R 9/11                          |
| (47) 26.04.2023                     | (72) Sugiyama, Yuichi                  | (11) EP3766726                     |
| (87) EP2019050984                   | (31) 2020166173                        | (21) EP20177702.6                  |
| 15.08.2019                          | (32) 30.09.2020                        | (47) 26.04.2023                    |
| (22) 15.01.2019                     | (33) Japan                             | (22) 01.06.2020                    |
| (54) OPERATING DEVICE, METHOD, AND  | (51) B60L 3/00                         | (54) LIQUID-COOLED CHARGING SYSTEM |
| COMPUTER-READABLE STORAGE           | B60L 15/20                             | FOR A VEHICLE                      |
| MEDIUM WITH INSTRUCTIONS FOR        | B60W 30/18                             | (73) Yazaki North America, Inc.    |
| SETTING UP AN OPERATING DEVICE      | B60L 58/15                             | (72) COLE, Bryan Donald            |
| (73) VOLKSWAGEN                     | (11) EP3569439                         | McVETY, Max Daniel                 |
| AKTIENGESELLSCHAFT                  | (21) EP19167123.9                      | (31) 201916517031                  |
| (72) LUTZ, Stefan                   | (47) 26.04.2023                        | (32) 19.07.2019                    |
| (31) 102018202049                   | (22) 03.04.2019                        | (33) United States of America      |
| (32) 09.02.2018                     | (54) DRIVE DEVICE AND CONTROL          | (51) B60L 53/31                    |
| (33) Germany                        | METHOD FOR VEHICLE                     | B60L 53/62                         |
| (51) B60K 35/00                     | (73) TOYOTA JIDOSHA KABUSHIKI KAISHA   | B60L 53/63                         |
| B60K 37/06                          | (72) SONODA, Yoshihiro                 | B60L 53/66                         |
| H01H 19/00                          | ARAKAWA, Ryota                         | B60L 53/67                         |
| (11) EP3785971                      | YOSHIMI, Masashi                       | B60L 53/68                         |
| (21) EP19193535.2                   | TASHIRO, Hiroki                        | B60L 58/13                         |
| (47) 26.04.2023                     | (31) 2018093860                        | H02J 3/32                          |
| (22) 26.08.2019                     | (32) 15.05.2018                        | (11) EP3526072                     |
| (54) A VEHICLE INPUT DEVICE WITH    | (33) Japan                             | (21) EP17728065.8                  |
| CUSTOM MADE APPEARANCE              | (51) B60L 7/18                         | (47) 26.04.2023                    |
| (73) Volvo Car Corporation          | B60L 15/40                             | (87) EP2017061012                  |
| (72) ERNSTSSON, Axel                | B60L 15/20                             | 19.04.2018                         |
| GÖTHLIN, Jonas                      | (11) EP3424768                         | (22) 09.05.2017                    |
| BERGSTRÖM, Anders                   | (21) EP16892750.7                      | (54) METHOD FOR CHARGE CONTROL OF  |
| (51) B60K 35/00                     | (47) 26.04.2023                        | A PLURALITY OF VEHICLES            |
| G02B 27/01                          | (87) JP2016088933                      | (73) Bayerische Motoren Werke      |
| G02B 30/20                          | 08.09.2017                             | Aktiengesellschaft                 |

|  |  |  |
|--|--|--|
| (72) MARCIAL-SIMON, Enrique<br>MEHLHORN, Rainer<br>PFAB, Xaver<br>STAUNER, Thomas  | B60N 2/12<br>B60N 2/20<br>(11) EP3484745<br>(21) EP17828207.5<br>(47) 26.04.2023<br>(87) US2017041151<br>18.01.2018  | F21S 45/10<br>F21W 103/35<br>(11) EP3873779<br>(21) EP19801230.4<br>(47) 26.04.2023<br>(87) EP2019079255<br>07.05.2020   |
| (31) 102016219726<br>(32) 11.10.2016<br>(33) Germany   | (22) 07.07.2017<br>(54) SLOUCH SEAT WITH LINK ARM<br>(73) Adient US LLC<br>(72) KAPUSKY, Michael<br>MICHALAK, Eric<br>CARUSS, Nathan<br>CARLSON, Jennifer<br>BURTON, Brent<br>MCCLELLAND, Matthew  | (22) 25.10.2019<br>(54) LIGHTING DEVICE FOR A MOTOR<br>VEHICLE<br>(73) Valeo Vision Belgique<br>(72) FRANC, Alexandre<br>CREUS, Geoffrey<br>GELOEN, Richard<br>(31) 1860103<br>(32) 31.10.2018<br>(33) France  |
| (51) B60N 2/01<br>B60N 2/015<br>B60N 2/22<br>B61D 1/04<br>B61D 33/00<br>B64D 11/06<br>B60N 2/24                          | (31) 201662362241 P<br>(32) 14.07.2016<br>(33) United States of America  | (51) B60Q 3/225<br>B60Q 3/64<br>B60N 3/10<br>(11) EP3305594<br>(21) EP16800040.4<br>(47) 26.04.2023<br>(87) JP2016065408<br>01.12.2016   |
| (11) EP3792099<br>(21) EP20192482.6<br>(47) 26.04.2023<br>(22) 24.08.2020  | (31) 201662362241 P<br>(32) 14.07.2016<br>(33) United States of America  | (51) B60Q 3/225<br>B60Q 3/64<br>B60N 3/10<br>(11) EP3305594<br>(21) EP16800040.4<br>(47) 26.04.2023<br>(87) JP2016065408<br>01.12.2016   |
| (54) SEATING ASSEMBLY FOR A MEANS<br>OF TRANSPORT  | (51) B60N 2/28<br>(11) EP3666589<br>(21) EP19209217.9<br>(47) 26.04.2023<br>(22) 14.11.2019<br>(54) CHILD SAFETY SEAT<br>(73) Wonderland Switzerland AG<br>(72) Duan, Xiao Song<br>(31) 201811357761<br>(32) 14.11.2018<br>(33) China  | (51) B60Q 3/225<br>B60Q 3/64<br>B60N 3/10<br>(11) EP3305594<br>(21) EP16800040.4<br>(47) 26.04.2023<br>(87) JP2016065408<br>01.12.2016<br>(2) 25.05.2016<br>(54) LIGHTING DEVICE<br>(73) Nifco Inc.<br>(72) UENO, Taeko<br>KOYAMA, Sachiko<br>(31) 2015108239<br>(32) 28.05.2015<br>(33) Japan   |
| (73) GRAMMER AG<br>(72) Meier, Dominik<br>Wegmann, Sebastian   | (11) EP3713788<br>(21) EP18807069.2<br>(47) 26.04.2023<br>(87) EP2018081871<br>31.05.2019  | (51) B60Q 3/47<br>B61D 29/00<br>(11) EP3889000<br>(21) EP21160920.1<br>(47) 26.04.2023<br>(22) 05.03.2021<br>(54) METHOD FOR OPERATING A LIGHT<br>AND RAIL VEHICLE<br>(73) Siemens Mobility GmbH<br>(72) Schiefer, Benno<br>(31) 102020204223<br>(32) 01.04.2020<br>(33) Germany   |
| (31) 102020109182<br>102019124901<br>102019124898<br>102019124897<br>102019124895  | (22) 20.11.2018<br>(54) AIR CONDITIONING SYSTEM OF A<br>VEHICLE SEAT HAVING COMFORT-<br>OPTIMIZED OPERATION BY MEANS<br>OF APPROPRIATE SWITCHING OF<br>THE SEAT VENTILATION SYSTEM<br>(73) Volkswagen Aktiengesellschaft<br>(72) BADER, Viktor<br>(31) 102017220770<br>(32) 21.11.2017<br>(33) Germany | (51) B60R 1/00<br>(11) EP3833576<br>(21) EP19749238.2<br>(47) 26.04.2023<br>(87) EP2019069420<br>13.02.2020<br>(22) 18.07.2019<br>(54) SURVEILLANCE CAMERA SYSTEM<br>(73) KNORR-BREMSE Systeme für<br>Nutzfahrzeuge GmbH<br>(72) TIHANYI, Viktor<br>NEMETH, Huba<br>BALOGH, Levente<br>SZÖLLOSI, Adam<br>GAL, Balazs<br>(31) 102018119024<br>(32) 06.08.2018<br>(33) Germany |
| (32) 02.04.2020<br>16.09.2019<br>16.09.2019<br>16.09.2019<br>16.09.2019  | (31) 201811357761<br>(32) 14.11.2018<br>(33) China   | (72) UENO, Taeko<br>KOYAMA, Sachiko<br>(31) 2015108239<br>(32) 28.05.2015<br>(33) Japan  |
| (33) Germany<br>Germany<br>Germany<br>Germany<br>Germany   | (11) EP3713788<br>(21) EP18807069.2<br>(47) 26.04.2023<br>(87) EP2018081871<br>31.05.2019  | (51) B60Q 3/47<br>B61D 29/00<br>(11) EP3889000<br>(21) EP21160920.1<br>(47) 26.04.2023<br>(22) 05.03.2021<br>(54) METHOD FOR OPERATING A LIGHT<br>AND RAIL VEHICLE<br>(73) Siemens Mobility GmbH<br>(72) Schiefer, Benno<br>(31) 102020204223<br>(32) 01.04.2020<br>(33) Germany   |
| (51) B60N 2/14<br>A47C 3/18<br>B60N 2/06<br>B60N 2/01<br>B60N 2/015<br>B60N 2/07<br>B60N 2/24<br>B60N 2/08<br>B64D 11/06 | (22) 20.11.2018<br>(54) AIR CONDITIONING SYSTEM OF A<br>VEHICLE SEAT HAVING COMFORT-<br>OPTIMIZED OPERATION BY MEANS<br>OF APPROPRIATE SWITCHING OF<br>THE SEAT VENTILATION SYSTEM<br>(73) Volkswagen Aktiengesellschaft<br>(72) BADER, Viktor<br>(31) 102017220770<br>(32) 21.11.2017<br>(33) Germany | (51) B60R 1/00<br>(11) EP3833576<br>(21) EP19749238.2<br>(47) 26.04.2023<br>(87) EP2019069420<br>13.02.2020<br>(22) 18.07.2019<br>(54) SURVEILLANCE CAMERA SYSTEM<br>(73) KNORR-BREMSE Systeme für<br>Nutzfahrzeuge GmbH<br>(72) TIHANYI, Viktor<br>NEMETH, Huba<br>BALOGH, Levente<br>SZÖLLOSI, Adam<br>GAL, Balazs<br>(31) 102018119024<br>(32) 06.08.2018<br>(33) Germany |
| (11) EP3851318<br>(21) EP19859073.9<br>(47) 26.04.2023<br>(87) JP2019032346<br>19.03.2020<br>(22) 20.08.2019             | (31) 102017220770<br>(32) 21.11.2017<br>(33) Germany   | (51) B60R 1/00<br>(11) EP3833576<br>(21) EP19749238.2<br>(47) 26.04.2023<br>(87) EP2019069420<br>13.02.2020<br>(22) 18.07.2019<br>(54) SURVEILLANCE CAMERA SYSTEM<br>(73) KNORR-BREMSE Systeme für<br>Nutzfahrzeuge GmbH<br>(72) TIHANYI, Viktor<br>NEMETH, Huba<br>BALOGH, Levente<br>SZÖLLOSI, Adam<br>GAL, Balazs<br>(31) 102018119024<br>(32) 06.08.2018<br>(33) Germany |
| (54) SEAT ARRANGEMENT SWITCHING<br>UNIT  | (51) B60N 2/68<br>B60N 2/58<br>(11) EP3911537<br>(21) EP20700991.1<br>(47) 26.04.2023<br>(87) EP2020050753<br>23.07.2020<br>(22) 14.01.2020<br>(54) SEAT ASSEMBLY FOR A VEHICLE<br>SEAT, METHOD FOR ASSEMBLING A<br>SEAT ASSEMBLY, AND VEHICLE SEAT  | (51) B60R 1/00<br>(11) EP3833576<br>(21) EP19749238.2<br>(47) 26.04.2023<br>(87) EP2019069420<br>13.02.2020<br>(22) 18.07.2019<br>(54) SURVEILLANCE CAMERA SYSTEM<br>(73) KNORR-BREMSE Systeme für<br>Nutzfahrzeuge GmbH<br>(72) TIHANYI, Viktor<br>NEMETH, Huba<br>BALOGH, Levente<br>SZÖLLOSI, Adam<br>GAL, Balazs<br>(31) 102018119024<br>(32) 06.08.2018<br>(33) Germany |
| (73) THK Co., Ltd.<br>(72) HOSAKA, Eiji<br>SHOYU, Takahiro<br>KURIBAYASHI, Hiroomi<br>KANEKO, Akito                      | (22) 14.01.2020<br>(54) SEAT ASSEMBLY FOR A VEHICLE<br>SEAT, METHOD FOR ASSEMBLING A<br>SEAT ASSEMBLY, AND VEHICLE SEAT  | (51) B60R 1/00<br>(11) EP3833576<br>(21) EP19749238.2<br>(47) 26.04.2023<br>(87) EP2019069420<br>13.02.2020<br>(22) 18.07.2019<br>(54) SURVEILLANCE CAMERA SYSTEM<br>(73) KNORR-BREMSE Systeme für<br>Nutzfahrzeuge GmbH<br>(72) TIHANYI, Viktor<br>NEMETH, Huba<br>BALOGH, Levente<br>SZÖLLOSI, Adam<br>GAL, Balazs<br>(31) 102018119024<br>(32) 06.08.2018<br>(33) Germany |
| (31) 2018169367<br>(32) 11.09.2018<br>(33) Japan   | (73) Adient US LLC<br>(72) WITTE, Stephan<br>(31) 102019100734<br>(32) 14.01.2019<br>(33) Germany  | (51) B60R 1/00<br>(11) EP3919327<br>(21) EP21175046.8<br>(47) 26.04.2023   |
| (51) B60N 2/22<br>B60N 2/02<br>B60N 2/04<br>B60N 2/06<br>B60N 2/10   | (31) 102019100734<br>(32) 14.01.2019<br>(33) Germany   | (51) B60R 1/00<br>(11) EP3919327<br>(21) EP21175046.8<br>(47) 26.04.2023   |
|  | (51) B60Q 1/30<br>F21S 43/50<br>F21S 43/37   | (51) B60R 1/00<br>(11) EP3919327<br>(21) EP21175046.8<br>(47) 26.04.2023   |

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|--|---|---|
| (22) 20.05.2021                            | (54) ENERGY ABSORBING DEVICE,<br>MOTOR VEHICLE BODY AND METHOD<br>FOR MANUFACTURING THEREOF | (73) Shanghai Dianba New Energy<br>Technology Co., Ltd.<br>Aulton New Energy Automotive<br>Technology Group |
| (54) CAMERA ASSEMBLY                       | (73) ArcelorMittal  | (72) ZHANG, Jianping  |
| (73) Witte Automotive GmbH                 | (72) COLMONT, Jean-Louis  | HUANG, Chunhua  |
| (72) Herdering, Markus                     | DERCHU, Thierry   | QIU, Danliang   |
| Mensch, Reinaldo                           | ALBEAUX, Sébastien  | (31) 201711482887   |
| (31) 102020114910                          | DE TAILLAC, Guillaume   | (32) 29.12.2017   |
| (32) 04.06.2020                            | (31) PCT/IB2018/056925  | (33) China  |
| (33) Germany                               | (32) 11.09.2018   |   |
| (51) B60R 16/023                           | (33) World Intellectual Property Office (WIPO)  | (51) B60T 1/06  |
| H05K 5/00                                  | (51) B60R 25/24   | B60T 17/18  |
| (11) EP4059779                             | B60R 25/31  | B60T 17/22  |
| (21) EP22161153.6                          | B60R 25/33  | (11) EP3983268  |
| (47) 26.04.2023                            | B60R 25/34  | (21) EP20737540.3   |
| (22) 09.03.2022                            | (11) EP3822131  | (47) 26.04.2023   |
| (54) ELECTRICAL CONNECTION BOX             | (21) EP18925785.0   | (87) IB2020055447   |
| (73) Yazaki Corporation                    | (47) 26.04.2023   | 17.12.2020  |
| (72) Kobayashi, Kazuki                     | (87) JP2018026106   | (22) 10.06.2020   |
| Toyoshima, Kohei                           | 16.01.2020  | (54) METHOD AND SYSTEM FOR  |
| Segawa, Kenji                              | (22) 10.07.2018   | DETECTING AND MEASURING A   |
| Fujiwara, Masahiro                         | (54) VEHICLE REMOTE CONTROL   | BRAKING FORCE OF A BRAKING  |
| (31) 2021044207                            | SYSTEM, COMMUNICATION MODULE,   | SYSTEM FOR VEHICLE, BY  |
| (32) 18.03.2021                            | VEHICLE, SERVER, VEHICLE REMOTE   | MEANS OF PHOTONIC SENSORS   |
| (33) Japan                                 | CONTROL METHOD, VEHICLE   | INCORPORATED IN A BRAKE PAD   |
| (51) B60R 19/04                            | REMOTE CONTROL PROGRAM, AND   | (73) Brembo S.p.A.  |
| B60R 19/18                                 | STORAGE MEDIUM  | (72) CAMOZZI, Francesco   |
| (11) EP4079581                             | (73) GLOBAL MOBILITY SERVICE INC.   | MAESTRINI, Luca   |
| (21) EP21305527.0                          | (72) NAKASHIMA Tokushi  | CASINI, Alessandro  |
| (47) 26.04.2023                            | KURAHASHI Katsuyoshi  | NANNIPIERI, Tiziano   |
| (22) 21.04.2021                            | (51) B60S 1/50  | BONOMO, Salvatore   |
| (54) REINFORCEMENT OF BUMPER               | B62D 25/08  | (31) 201900008874   |
| COVER FOR PEDESTRIAN                       | (11) EP3887214  | (32) 13.06.2019   |
| PROTECTION                                 | (21) EP19802137.0   | (33) Italy  |
| (73) TOYOTA JIDOSHA KABUSHIKI KAISHA       | (47) 26.04.2023   | (51) B60T 7/14  |
| (72) BUSCAGLIONE, Luca                     | (87) EP2019080617   | B60T 17/20  |
| KONDRATIEV, Sergey                         | 04.06.2020  | B60K 28/06  |
| ROMAIN, Jayr                               | (22) 07.11.2019   | B60W 40/08  |
| (51) B60R 19/04                            | (54) ARRANGEMENT OF A SEPARATE  | (11) EP3978325  |
| B60R 19/24                                 | FUNCTIONAL ELEMENT OF A   | (21) EP21195898.8   |
| B62D 65/16                                 | WASHER WATER RESERVOIR ON A   | (47) 26.04.2023   |
| (11) EP3741628                             | FIXING PORTION OF A STRUCTURAL  | (22) 10.09.2021   |
| (21) EP18899999.9                          | COMPONENT   | (54) METHOD OF CONTROLLING AN   |
| (47) 26.04.2023                            | (73) VOLKSWAGEN   | AUTOMOBILE AND AUTOMOBILE   |
| (87) JP2018046077                          | AKTIENGESELLSCHAFT  | SYSTEM  |
| 18.07.2019                                 | (72) IPPOLITI, Mario  | (73) MAZDA MOTOR CORPORATION  |
| (22) 14.12.2018                            | MERZ, Thorsten Tobias   | (72) HAMADA, Takashi  |
| (54) VEHICLE STRUCTURE AND METHOD          | KRÜGER, Stefan  | NISHIJO, Yuma   |
| FOR MANUFACTURING THE SAME                 | (31) 102018220292   | KOJIMA, Kouichi   |
| (73) Kabushiki Kaisha Kobe Seiko Sho (Kobe | (32) 26.11.2018   | YAMASHITA, Yoshiyuki  |
| Steel, Ltd.)                               | (33) Germany  | KYUSAKA, Shinya   |
| (72) HASHIMURA, Toru                       | (51) B60S 5/06  | TSUJI, Yuta   |
| YAMAKAWA, Taiki                            | B60K 1/04   | NONAKA, Nobuhiro  |
| MAEDA, Yasuhiro                            | B60L 53/80  | SHIMIZU, Daisuke  |
| WATANABE, Kenichi                          | H01M 50/20  | FUKUDA, Keigo   |
| NAITO, Junya                               | B60L 50/64  | NAKASHIMA, Yasuhiro   |
| TATSUMI, Akihiko                           | H01M 50/244   | OIKE, Taro  |
| (31) 2018004391                            | H01M 50/249   | (31) 2020166775   |
| (32) 15.01.2018                            | H01M 50/262   | (32) 01.10.2020   |
| (33) Japan                                 | (11) EP3733465  | (33) Japan  |
| (51) B60R 19/34                            | (21) EP18895181.8   | (51) B60T 8/34  |
| F16F 7/12                                  | (47) 26.04.2023   | (11) EP3981655  |
| (11) EP3849849                             | (87) CN2018125682   | (21) EP21205955.4   |
| (21) EP19769246.0                          | 04.07.2019  | (47) 26.04.2023   |
| (47) 26.04.2023                            | (22) 29.12.2018   | (22) 23.08.2019   |
| (87) IB2019057645                          | (54) BATTERY CASE AND QUICK BATTERY   | (54) BRAKE HYDRAULIC PRESSURE   |
| 19.03.2020                                 | CASE REPLACEMENT SYSTEM   | CONTROL APPARATUS   |
| (22) 11.09.2019                            |   | (73) Robert Bosch GmbH  |

- (72) KOIKE, Katsunori  
YOSHIDA, Atsushi  
(31) 2018174331  
(32) 19.09.2018  
(33) Japan
- 
- (51) B60T 13/36  
B60T 17/16  
(11) EP3849863  
(21) EP19762382.0  
(47) 26.04.2023  
(87) EP2019073371  
19.03.2020  
(22) 02.09.2019
- (54) BRAKE CYLINDER WITH LOCKING  
DEVICE FOR MECHANICALLY  
LOCKING THE BRAKE FORCE
- (73) KNORR-BREMSE Systeme für  
Schienenfahrzeuge GmbH
- (72) ELSTORPFF, Marc-Gregory  
HECHT, Ferdinand  
NIEPALA, Tomasz  
MESHENBERG, Jury  
(31) 102018122519  
(32) 14.09.2018  
(33) Germany
- 
- (51) B60T 13/66  
B60T 13/74  
(11) EP3947070  
(21) EP20713869.4  
(47) 26.04.2023  
(87) EP2020057822  
01.10.2020  
(22) 20.03.2020
- (54) CONTROLLING METHOD FOR  
AN ACTUATOR, ACTUATOR, AND  
ELECTROMECHANICAL BRAKE  
SYSTEM
- (73) Haldex Vie (Shanghai)  
Electromechanical Brake System Co.,  
Ltd.  
Haldex Brake Products Aktiebolag
- (72) LUO, Jiajun  
RYLANDER, Christian  
(31) 201910227821  
(32) 25.03.2019  
(33) China
- 
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BUCH, Andreas  
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BLESSING, Michael  
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| (72) COMULADA SIMPSON, Eduard<br>STRASSBERGER, Markus                                   | (31) 502032017   | (72) ASUKA, Masashi<br>TAKEWA, Tomoaki<br>TSUJITA, Wataru<br>SAWA, Yoshitsugu<br>KOSHINO, Daisuke  |
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| (73) Siemens Mobility Austria GmbH  | (33) Austria   | (72) IMAI, Yoshie<br>MURAYAMA, Shu   |
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| STEERING SYSTEM, A CONTROL       | KAWANO Akihiro                         | B63B 27/16                        |
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| F16H 55/24                       | (73) Tata Consultancy Services Limited | (73) Peleg, Amitay                |
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| (73) thyssenkrupp Presta AG      | B62K 25/08                             | (51) B63B 27/36                   |
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| (73) Airbus Helicopters              | SELECTIVE WAVE GENERATION                  | RELATED METHODS                            |
| (72) MORELLON, Emeric                | (73) Deep Science, LLC                     | (73) The Boeing Company                    |
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| (54) COUNTER-ROTATING PROPELLER      | (73) W.I.S. Entwicklungsgesellschaft mbH & | (73) Recaro Aircraft Seating GmbH & Co. KG |
| SYSTEM WITH CAPABILITY TO STOP       | Co. KG                                     | (72) IVANOV, Pavel                         |
| ROTATION OF ONE ROW                  | (72) Fähnrich, Ilja                        | OHM, Andreas                               |
| (73) Hamilton Sundstrand Corporation | Gluba, Dr. Marc                            | MAIER, Felix                               |
| (72) HENZE, Chad M.                  | (51) B64C 29/00                            | (31) 102020104480                          |
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| B64C 13/32                           | (54) DOWNSTOP LOAD SENSING SYSTEM          | Germany                                    |
| B29C 70/32                           | (73) Textron Innovations Inc.              | (51) B64D 11/06                            |
| B29C 70/68                           | (72) BENNETT, Evan Butler                  | (11) EP3871975                             |
| B29C 70/86                           | DECKER, George Ryan                        | (21) EP21158408.1                          |
| F16C 3/02                            | JOHNSON, Thomas Earl JR.                   | (47) 26.04.2023                            |
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| (47) 26.04.2023                      | (33) United States of America              | INCLUDING A SURFACE AND AN                 |
| (87) US2020034240                    | (51) B64C 39/02                            | INTEGRATED FOOTWELL                        |
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| (54) PRELOADED TORQUE SHAFT AND      | G01N 33/00                                 | MOE, Daniel N.                             |
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| (54) AIRCRAFT SYSTEM   | (31) 2007496<br>(32) 17.07.2020<br>(33) France  | (73) Tetra Laval Holdings & Finance S.A.<br>(72) MAGELLI, Roberto<br>POPPI, Marco<br>NERI, Dino<br>CASELLI, Stefano<br>(31) 20187318<br>(32) 23.07.2020<br>(33) European Patent Office (EPO)                        |
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| (54) TEMPERATURE CONTROL SYSTEM IN A PASSENGER SERVICE UNIT  | (73) Collins Aerospace Ireland, Limited<br>(72) ZHU, Yonghua<br>(51) B64D 47/04<br>(11) EP3254972<br>(21) EP17173774.5<br>(47) 26.04.2023<br>(22) 31.05.2017            | (51) B65B 39/00<br>A61J 7/00<br>A61J 7/04<br>G07F 17/00<br>(11) EP3875379<br>(21) EP21160750.2<br>(47) 26.04.2023<br>(22) 04.03.2021  |
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| MIOSSEC, Arnaud  | (73) Brady Worldwide, Inc.                                      | Breidenbach  |
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| (33) Italy   | SUNAOSHI, Takamitsu  | (73) Airbus Operations, S.L.U.  |
| (51) B65G 47/64  | HATTORI, Shunsuke  | (72) DOMÍNGUEZ GARCÍA, Iván   |
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| (73) Otis Elevator Company                                   | (73) Tadano Ltd.                                     | B66F 9/075  |
| (72) Derk, Pahlke  | (72) ISHIKAWA Iwao                                   | B66C 23/78  |
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| (11) EP3683201<br>(21) EP19020034.5<br>(47) 26.04.2023<br>(22) 18.01.2019<br>(54) PROCESS FOR PRODUCING OLEFINS<br>FROM OXYGENATES   | (51) C07C 5/48<br>C07C 2/82<br>C07C 7/09<br>C07C 7/148<br>C07C 7/163<br>C07C 7/167<br>C07C 11/04   | (47) 26.04.2023<br>(22) 07.10.2015<br>(54) METHOD FOR PRODUCING<br>FLUORINE GROUP-CONTAINING<br>HALOOLEFIN 1233XF<br>(73) DAIKIN INDUSTRIES, LTD.<br>(72) Karube, Daisuke<br>Kishimoto, Masayuki<br>Komatsu, Yuzo<br>Chaki, Takehiro        |
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| (51) C07C 5/00   | (22) 04.03.2020<br>(54) METHOD AND INSTALLATION FOR<br>THE PRODUCTION OF ONE OR MORE<br>OLEFINS<br>(73) Linde GmbH<br>(72) FRITZ, Helmut<br>MEISWINKEL, Andreas<br>SCHUBERT, Martin  | (51) C07C 19/01<br>C07C 17/10<br>B01J 23/28<br>(11) EP3209631<br>(21) EP15852294.6<br>(47) 26.04.2023<br>(87) US2015056355<br>28.04.2016  |

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| (72) SHERWOOD, Scott A.<br>LESTER, Stephen Robert  | (32) 16.04.2019  | A61K 31/472  |
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| (54) HEAT EXCHANGE SYSTEM AND<br>PREPARATION SYSTEM OF DIESTER-<br>BASED COMPOSITION COMPRISING<br>THE SAME      | (54) A PROCESS FOR THE PREPARATION<br>OF ENANTIOMERICALLY PURE<br>NOREPINEPHRINE                     | A01P 7/04  |
| (73) LG CHEM, LTD.   | (73) EDMOND PHARMA S.R.L.  | A61K 31/415  |
| (72) JEONG, Jae Hun<br>LEE, Sung Kyu<br>CHOO, Yeon Uk<br>JUN, Hyoung<br>JIN, Chan Hyu                            | (72) ZACCHE', Matteo<br>GATTI, Pier Andrea<br>GERLI, Fulvio<br>SBARBADA, Davide<br>RONDINA, Fabio    | A61P 33/00   |
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| 22.10.2020   | (22) 18.01.2019  | (54) AROMATIC COMPOUND AND USES<br>THEREOF                               |
| (22) 02.04.2020  | (54) METHOD FOR PRODUCING N-<br>ALKOXYCARBONYLPYPERIDINE<br>DERIVATIVE, AND INTERMEDIATE<br>THEREFOR | (73) Sumitomo Chemical Company, Limited                                  |
| (54) ACID CATALYZED SYNTHESIS OF<br>METHYL ACRYLATE FROM ACRYLIC<br>ACID AND METHANOL                            | (73) Yuki Gosei Kogyo Co., Ltd.<br>(72) NAKAGAWA Kiyono<br>ITO Yoshihiro<br>TANAKA Yumiko            | (72) AKIOKA, Yuki<br>SHIODA, Takayuki<br>ARIMORI, Sadayuki               |
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| (72) TAKAHASHI Motomasa                  | (47) 26.04.2023                    | C07D 498/14                       |
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| (51) C07D 233/64                         | (54) MATERIALS FOR ORGANIC         | (21) EP17761905.3                 |
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| (47) 26.04.2023                          | KROEBER, Jonas, Valentin           | (54) COMPOUNDS WITH               |
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| (54) COMPOSITIONS AND METHODS FOR        | (51) C07D 401/06                   | GROSSMANN, Tobias                 |
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| (73) Rivara, Mirko                       | C07D 261/04                        | JOOSTEN, Dominik                  |
| University Of Virginia Patent Foundation | C07D 261/14                        | KROEBER, Jonas                    |
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| (73) Morepen Laboratories Limited        | (87) US2018054520                  | (73) Pfizer Inc.                  |
| (72) Suri, Sanjay                        | 11.04.2019                         | (72) ARORA, Kapildev Kashmirilal  |
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| Aggarwal, Avinash                        | (73) Forma Therapeutics, Inc.      | KABLAOUI, Natasha Mariam          |
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| OR OF THE METHYL-D3 DEUTERATED           | (51) C07D 401/14                   | (33) United States of America     |
| FORM THEREOF                             | C07D 405/14                        | United States of America          |
| (73) OGEDA SA                            | C07D 401/04                        | United States of America          |
| (72) HOVEYDA, Hamid                      | C07D 403/04                        | (51) C07D 403/12                  |
| DUTHEUIL, Guillaume                      | C07D 403/10                        | (11) EP3908584                    |
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| C07D 409/04                              | C07D 487/04                        | (54) CRYSTALLINE FORMS OF 1-(1,2- |
| C07D 307/91                              | C07D 491/147                       | DIMETHYLPROPYL)-N-ETHYL-5-        |
| H01L 51/50                               | C07D 495/04                        | METHYL-N-PYRIDAZIN-4-YL-          |
| (11) EP3368520                           | C07D 495/14                        | PYRAZOLE-4-CARBOXAMIDE            |

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| RACK, Michael                     | C08L 83/04                      | (47) 26.04.2023                   |
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| GOETZ, Roland                     | (47) 26.04.2023                 | (22) 09.04.2018                   |
| VOGT, Florian                     | (87) US2020035640               | (54) METHOD FOR PRODUCING         |
| GOCKEL, Birgit                    | 10.12.2020                      | PHOSPHORYL IMIDE SALT,            |
| SOERGEL, Sebastian                | (22) 02.06.2020                 | METHOD FOR PRODUCING              |
| (31) 19151447                     | (54) THERMALLY INITIATED ACID   | NONAQUEOUS ELECTROLYTE            |
| (32) 11.01.2019                   | CATALYZED REACTION BETWEEN      | SOLUTION CONTAINING SAID SALT,    |
| (33) European Patent Office (EPO) | SILYL HYDRIDE AND ALPHA-BETA    | AND METHOD FOR PRODUCING          |
| (51) C07D 403/12                  | UNSATURATED ESTERS              | NONAQUEOUS SECONDARY              |
| A61K 51/04                        | (73) Dow Silicones Corporation  | BATTERY                           |
| A61P 35/00                        | (72) WEI, Yanhu                 | (73) Central Glass Co., Ltd.      |
| C07D 257/02                       | SWIER, Steven                   | (72) TAKAHASHI Mikihiro           |
| (11) EP3778592                    | NIU, Zhenbin                    | MORINAKA Takayoshi                |
| (21) EP19775196.9                 | LIU, Nanguo                     | SHINMEN Masutaka                  |
| (47) 26.04.2023                   | (31) 201962856777 P             | TERADA Ryosuke                    |
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| (54) PSMA-TARGETED                | C08L 83/04                      | (51) C07F 9/50                    |
| RADIOPHARMACEUTICAL FOR           | C08L 83/06                      | B32B 15/00                        |
| DIAGNOSING AND TREATING           | (11) EP3980432                  | C07F 9/655                        |
| PROSTATE CANCER                   | (21) EP20747176.4               | C07F 9/6553                       |
| (73) Futurechem Co., Ltd.         | (47) 26.04.2023                 | C08K 5/00                         |
| (72) CHI, Dae Yoon                | (87) US2020035645               | C08L 77/00                        |
| LEE, Byoung Se                    | 10.12.2020                      | H01L 51/00                        |
| CHU, So Young                     | (22) 02.06.2020                 | H01L 51/50                        |
| JEONG, Hyeon Jin                  | (54) BRIDGED FRUSTRATED LEWIS   | H01L 51/05                        |
| KIM, Min Hwan                     | PAIRS AS THERMAL TRIGGER FOR    | H01L 51/42                        |
| LEE, Kyo Chul                     | REACTIONS BETWEEN SI-H AND      | (11) EP3810619                    |
| LEE, Yong Jin                     | EPOXIDE                         | (21) EP19731306.7                 |
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| (32) 30.03.2018                   | (72) COURTEMANCHE, Marc-Andre   | (87) EP2019066487                 |
| (33) Korea (Republic)             | JANG, Eun Sil                   | 26.12.2019                        |
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| A61P 35/00                        | (32) 04.06.2019                 | (I) COMPLEXES                     |
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| A61P 21/00                        | (51) C07F 9/14                  | (72) BISSESSAR, Damien            |
| A61P 25/28                        | C07F 9/24                       | BELLEMIN LAPONNAZ, Stephane       |
| A61P 27/02                        | (11) EP3816170                  | STEFFANUT, Pascal                 |
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| (22) 31.08.2018                   | DIAMIDES                        | C07J 51/00                        |
| (54) IMIDAZO[1,5-A]PYRAZINE       | (73) SKW STICKSTOFFWERKE        | A61P 35/00                        |
| COMPOUNDS AND COMPOSITIONS        | PIESTERITZ GmbH                 | A61K 31/567                       |
| FOR IRE1 INHIBITION               | (72) Hucke, André               | C07J 73/00                        |
| (73) OptiKira, LLC                | Radics, Ute                     | A61K 45/06                        |
| The Regents of the University of  | Schuster, Carola                | (11) EP3464317                    |
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| (72) KEENAN, Richard M.           | (32) 29.10.2019                 | (47) 26.04.2023                   |
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| MALY, Dustin J.                   | (51) C07F 9/26                  | 07.12.2017                        |
| REYNOLDS, Charles                 | H01G 9/035                      | (22) 02.06.2017                   |
| WHITTAKER, Ben                    | H01G 11/62                      | (54) AMINOSTEROID DERIVATIVES AND |
| KNIGHT, Jamie                     | C01B 21/097                     | PROCESS FOR PRODUCING SAME        |
| SUTTON, Jon                       | H01G 11/06                      | (73) Université Laval             |
| HYND, George                      | H01G 11/64                      | (72) POIRIER, Donald              |
| PAPA, Feroz, R.                   | H01M 10/0568                    | MALTAIS, René                     |
| OAKES, Scott, A.                  | H01M 10/0569                    | PERREAULT, Martin                 |

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| (47) 26.04.2023   | C12N 15/86   | (47) 26.04.2023  |
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| (54) PROCESS FOR THE PREPARATION OF FULVESTRANT 3-BORONIC ACID                  | (47) 26.04.2023  | (54) SPLIT INTEINS WITH EXCEPTIONAL SPLICING ACTIVITY                              |
| (73) Farmabios S.p.A.   | (87) CN2019095015  | (73) The Trustees of Princeton University  |
| (72) GABOARDI, Mauro  | 16.01.2020   | (72) MUIR, Tom, W.   |
| MANFROTTO, Cristina   | (22) 08.07.2019  | STEVENS, Adam, J.  |
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| (72) SHIMAMURA, Munehisa  | (51) C07K 16/10  | (51) C07K 16/28  |
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| (73) Gubra ApS  | (31) 18305917  | CHEN, Wei  |
| (72) NIELSEN, Jens, Christian, Frøslev  |  | CHEN, Tao  |
| RIGBOLT, Kristoffer, Tobias, Gustav   |  | KONG, Yong   |
| BECH, Esben, Matzen   |  | WU, Yiliang  |
| LUNDH, Morten   |  | (51) C08B 3/06   |
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| BALLARÍN-GONZÁLES, Borja  |  | D01F 2/28  |
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| (47) 26.04.2023                               | (22) 08.03.2018                      | FOURNIER, Frances                |
| (87) JP2019023283                             | (54) PRODUCTION METHOD FOR           | YANG, Hong                       |
| 19.12.2019                                    | HYDROGENATED PETROLEUM RESIN         | AUJLA, Sukhjit                   |
| (22) 12.06.2019                               | (73) Maruzen Petrochemical Co., Ltd. | KIM, Do, Hoon                    |
| (54) CELLULOSE ACETATE, CELLULOSE             | (72) MATSUSHITA Keisuke              | ALEXIS, Dennis, Arun             |
| ACETATE FIBERS, CELLULOSE                     | IIZIMA Yoshikazu                     | (31) 201562264700 P              |
| ACETATE COMPOSITION, METHOD                   | HAYASHI Tomoki                       | (32) 08.12.2015                  |
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| ACETATE, AND METHOD FOR                       | (32) 16.03.2017                      | <hr/>                            |
| PRODUCING CELLULOSE ACETATE                   | (33) Japan                           | (51) C08F 36/06                  |
| COMPOSITION                                   | (51) C08F 10/02                      | C08F 136/06                      |
| (73) National University Corporation Hokkaido | C08F 4/651                           | C08L 9/00                        |
| University                                    | C08F 4/655                           | C08F 4/54                        |
| Nippon Paper Industries Co., Ltd.             | C08F 4/658                           | (11) EP3715388                   |
| Daicel Corporation                            | (11) EP3397660                       | (21) EP18880439.7                |
| (72) URAKI, Yasumitsu                         | (21) EP16822179.4                    | (47) 26.04.2023                  |
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| (33) Japan                                    | (54) PROCESS FOR MAKING A SOLID      | BASED POLYMER AND METHOD FOR     |
| <hr/>   | CATALYST COMPONENT FOR               | PREPARING THE SAME               |
| (51) C08F 2/00                                | ETHYLENE POLYMERIZATION AND          | (73) LG Chem, Ltd.               |
| C08F 2/38                                     | COPOLYMERIZATION                     | (72) KIM, Su Hwa                 |
| C08F 283/00                                   | (73) SABIC Global Technologies B.V.  | BAE, Hyo Jin                     |
| C08F 290/06                                   | (72) MOMAN, Akhlaq                   | PARK, Sung Ho                    |
| C08G 18/63                                    | BLACKMORE, Ian                       | CHOI, Soo Young                  |
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| (54) IMPROVED POLYMER POLYOL                  | C08L 27/06                           | (11) EP3596143                   |
| QUALITY                                       | C08L 27/24                           | (21) EP18716046.0                |
| (73) Covestro LLC                             | (11) EP3365380                       | (47) 26.04.2023                  |
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| (32) 13.09.2016                               | (54) VINYL CHLORIDE POLYMERS AND     | (73) Dow Global Technologies LLC |
| (33) United States of America                 | COMPOSITIONS FOR ADDITIVE            | (72) PATTON, Jasson T.           |
| <hr/>   | MANUFACTURING                        | SENECAL, Todd D.                 |
| (51) C08F 2/50                                | (73) Akdeniz Chemson Additives AG    | ARRIOLA, Daniel J.               |
| C09J 4/00                                     | (72) HARRISON, Greg                  | CHRISTIANSON, Matthew D.         |
| C09J 11/06                                    | PLANNER, Dennis                      | ROOF, Gordon R.                  |
| C08F 220/12                                   | KLAMANN, Joerg-Dieter                | KLOSIN, Jerzy                    |
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| (21) EP20171821.0                             | DENNIS, Stephen                      | DAVIS, Anna V.                   |
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| (54) PHOTOCURABLE COMPOSITION AND             | (33) Australia                       | (33) United States of America    |
| PRODUCT                                       | (51) C08F 20/56                      | <hr/>                            |
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| (21) EP18767510.3                             |                                      | POLYETHYLENE                     |
| (47) 26.04.2023                               |                                      | (73) Borealis AG                 |
| (87) JP2018009053                             |                                      | (72) SUMERIN, Victor             |

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| THORMAN, Joseph  | (73) Asahi Kasei Kabushiki Kaisha   | (33) France                                   |
| AHO, Jani  | (72) ICHINO, Hiroyuki   | (51) C08G 59/28                               |
| VAHTERI, Markku  | KUSANOSE, Yasuhiro  | C07D 251/34                                   |
| TUPE, Ravindra   | YAMAMOTO, Masashi   | C07D 405/06                                   |
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| SUZUKI, Masao  | (54) TWO-PART CURABLE OXYGEN-<br>ABSORBABLE RESIN COMPOSITION,<br>AND OXYGEN-ABSORBABLE | OZAWA, Kaori                                  |
| SHIMANO, Tsutomu   | ADHESIVE AGENT  | MITSUHASHI, Hisashi                           |
| TAGAWA, Reo  | (73) Toyo Seikan Group Holdings, Ltd.   | (31) 2017149207                               |
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| C09J 4/06  | C08G 18/32  | Japan   |
| C08K 5/103   | C08G 18/66  | Japan   |
| C08F 290/06  | C08G 18/76  | (51) C08G 63/06                               |
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| (72) HOFFMANN, Werner  | (73) Dow Global Technologies LLC  | 18.03.2021                                    |
| HANZ, Florian  | (72) GIROTTI, Cecilia   | (22) 11.09.2020                               |
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| (33) Germany   | (32) 03.04.2018   | (72) CHOI, Jung Yun                           |
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| C08F 8/04  | (51) C08G 18/76   | HEO, Sungwoon                                 |
| C08L 53/02   | C08G 18/12  | KANG, Donggyun                                |
| C08L 23/10   | C08G 18/48  | KIM, Jae Hyung                                |
| C08L 23/12   | C08L 75/08  | CHO, Suhyun                                   |
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| (54) HYDROGENATED BLOCK<br>COPOLYMER AND POLYPROPYLENE-<br>BASED RESIN COMPOSITION USING<br>THE SAME AND MOLDED ARTICLE<br>THEREOF | (54) SUPERELASTIC POLYURETHANE<br>MASTICS   | (87) JP2018019013                             |
| (73) BOSTIK SA   | (73) SANZ, Federico   | 29.11.2018                                    |
| (72) OPILLARD, André   | (31) 1563001  | (22) 17.05.2018                               |
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|  |   | (72) OZAKI Mitsutaka                          |
|  |   | HASHIMOTO Miwa                                |



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| KANO Ryoto                           | DO, Seung Hoe                      | (31) 2016008651                            |
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| (33) Japan                           | KIM, Dae Hak                       | <hr/>                                      |
| (51) C08G 64/30                      | (31) 20170160752                   | (51) C08J 3/24                             |
| C08G 64/02                           | (32) 28.11.2017                    | C08J 5/04                                  |
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| C09D 175/06                          | C08K 3/013                         | (54) PROCESS FOR CROSSLINKING              |
| C09J 175/06                          | C08K 5/00                          | A POLYMER AND CROSSLINKED                  |
| (11) EP3569635                       | C08K 5/134                         | POLYMER                                    |
| (21) EP18722880.4                    | (11) EP3772522                     | (73) Fraunhofer-Gesellschaft zur Förderung |
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| (54) POLYCARBONATE DIOL,             | AND ITS USE AND MOULDED BODIES     | (32) 06.06.2018                            |
| POLYCARBONATE DIOL CONTAINING        | PRODUCED FROM THE MOULDING         | (33) Germany                               |
| COMPOSITION, POLYCARBONATE           | COMPOUND                           | <hr/>                                      |
| DIOL PRODUCTION METHOD, AND          | (73) EMS-CHEMIE AG                 | (51) C08K 3/36                             |
| POLYURETHANE                         | (72) Harder, Philipp               | C08L 7/00                                  |
| (73) Mitsubishi Chemical Corporation | Schubert, Christian                | C08L 9/00                                  |
| (72) KANAMORI, Yoshikazu             | Ebling, Ronny                      | C08L 9/06                                  |
| HIOKI, Yuta                          | <hr/>                              | B60C 1/00                                  |
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| (11) EP3094755                       | (47) 26.04.2023                    | (73) Sumitomo Rubber Industries, Ltd.      |
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| (22) 16.01.2015                      | ACID-NEUTRALIZED SALT THEREOF,     | <hr/>                                      |
| (54) POLYMERIC FATLIQUORS            | AND APPLICATIONS THEREOF           | (51) C08K 5/49                             |
| (73) Corichem S.r.l.                 | (73) Dow Silicones Corporation     | C08L 71/12                                 |
| (72) LOVATO, Giancarlo               | Dow Toray Co., Ltd.                | C08L 25/00                                 |
| PAGANIN, Michela                     | (72) JOFFRE Eric Jude              | C08L 55/02                                 |
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| C08L 77/02                           | C08L 83/14                         | (21) EP19897985.8                          |
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| (47) 26.04.2023                      | (11) EP3406651                     | (22) 14.08.2019                            |
| (87) KR2018012909                    | (21) EP17741565.0                  | (54) NONHALOGEN FLAME RETARDANT            |
| 06.06.2019                           | (47) 26.04.2023                    | RESIN COMPOSITION AND FLAME                |
| (22) 29.10.2018                      | (87) JP2017002007                  | RETARDANT RESIN MOLDED ARTICLE             |
| (54) METHOD FOR PREPARING            | 27.07.2017                         | MANUFACTURED THEREFROM                     |
| POLYAMIDE BY USING MOLECULAR         | (22) 20.01.2017                    | (73) LG CHEM, LTD.                         |
| WEIGHT CONTROL AGENT HAVING          | (54) FLUORINE-CONTAINING, SILICON- | (72) YOO, Je Sun                           |
| DOUBLE ACTIVE GROUP, AND             | CONTAINING COMPOUND                | NAM, Ki Young                              |
| POLYAMIDE PREPARED THEREBY           | (73) Ochanomizu University         | SIM, Jae Young                             |
| (73) Hanwha Solutions Corporation    | Daikin Industries, Ltd.            | BAE, Seon Hyeong                           |
| (72) KIM, Do Kyoung                  | (72) YAJIMA, Tomoko                | BAE, Jae Yeon                              |
| LEE, Jin Seo                         | SASAHARA, Kana                     | KIM, In Seok                               |
|                                      | KANBARA, Tadashi                   | (31) 20190098712                           |

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| 20180163504  | (54) RESIN COMPOSITION, MELT-FORMING MATERIAL, MULTILAYER STRUCTURE, AND LIQUID PACKAGING MATERIAL            | C09C 1/56<br>C09K 23/00  |
| (32) 13.08.2019<br>17.12.2018  | (73) Mitsubishi Chemical Corporation  | (11) EP3377585   |
| (33) Korea (Republic)<br>Korea (Republic)  | (72) USUI, Shintaro<br>IKESHITA, Minako   | (21) EP16809654.3<br>(47) 26.04.2023   |
| (51) C08K 9/00   | (31) 2017224270   | (87) EP2016078176<br>26.05.2017  |
| (11) EP3568433   | (32) 22.11.2017   | (22) 18.11.2016  |
| (21) EP18701805.6  | (33) Japan  | (54) PARTICULATE CARBON MATERIAL FROM RENEWABLE RAW MATERIALS  |
| (47) 26.04.2023  | (51) C08L 29/04   | (73) SunCoal Industries GmbH   |
| (87) IB2018050185<br>19.07.2018  | B32B 27/30  | (72) WITTMANN, Tobias<br>BERGEMANN, Klaus  |
| (22) 11.01.2018  | B65D 65/40  | (31) 102016201801<br>102015015550<br>102015015549<br>102015014956  |
| (54) LASER PLATABLE THERMOPLASTIC COMPOSITIONS WITH A LASER ACTIVATABLE METAL COMPOUND AND SHAPED ARTICLES THEREFROM   | C08K 5/101  | (32) 05.02.2016<br>29.11.2015<br>29.11.2015<br>21.11.2015  |
| (73) SHPP Global Technologies B.V.   | (11) EP3715417  | (33) Germany<br>Germany<br>Germany<br>Germany  |
| (72) WANG, Jian<br>CHENG, Yunan<br>ZHANG, Yaqin<br>SONG, Shijie  | (21) EP18881555.9<br>(47) 26.04.2023<br>(87) JP2018043111<br>31.05.2019                                       | (51) C09D 5/00<br>C09D 4/00<br>C09D 7/00<br>C08K 3/00  |
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| (32) 11.01.2017  | (54) ETHYLENE-VINYL ALCOHOL COPOLYMER COMPOSITION, MELT-FORMING MATERIAL, MULTILAYER STRUCTURE, AND CONTAINER | (22) 25.08.2017  |
| (33) United States of America  | (73) Mitsubishi Chemical Corporation  | (54) ULTRAVIOLET ABSORBING HARDCOAT  |
| (51) C08L 7/00   | (72) USUI, Shintaro<br>IKESHITA, Minako   | (73) 3M Innovative Properties Company  |
| C08L 15/00   | (31) 2017224606   | (72) IHARA, Taiki<br>SUGIYAMA, Naota   |
| (11) EP3941761   | (32) 22.11.2017   | (31) 201662394330 P<br>(32) 14.09.2016<br>(33) United States of America  |
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| (47) 26.04.2023  | (51) C08L 53/02   | (11) EP3257904<br>(21) EP15882073.8<br>(47) 26.04.2023<br>(87) KR2015001285<br>18.08.2016  |
| (87) IB2020052547<br>24.09.2020  | C08F 297/04   | (22) 09.02.2015  |
| (22) 19.03.2020  | C08F 8/04   | (54) FIRE RESISTANT PAINT COMPOSITION, PRODUCTION METHOD FOR SAME, AND PAINTING METHOD FOR FIRE RESISTANT PAINT USING SAME       |
| (54) COMPOUND FOR BODY PLY SKIM  | C09J 153/02   | (73) Aerogel R&D Pte. Ltd.   |
| (73) Bridgestone Europe NV/SA  | (11) EP3819339  | (72) ROH, Myung Je<br>JOUNG, Young Chul<br>PARK, Jong Chul<br>KIM, Min Woo<br>HAHN, Choon Soo<br>JUNG, Dong Ho<br>PARK, Do Young |
| (72) FIORENZA, Paolo   | (21) EP20000405.9<br>(47) 26.04.2023<br>(22) 06.11.2020   | (51) C09C 1/48   |
| (31) 201900004047  | (54) POLYMER COMPOSITION AND FIBER OR NON-WOVEN FABRIC MADE THEREFROM   |  |
| (32) 20.03.2019  | (73) TSRC Corporation   |  |
| (33) Italy   | (72) Shiu, Tai-Yi<br>Yang, Feng-Yu<br>Tsai, Yu-Chuan<br>Sun, Der-Kai<br>Ting, Ching                           |  |
| (51) C08L 9/00   | (31) 201962932731 P<br>(32) 08.11.2019<br>(33) United States of America                                       |  |
| A63B 37/00   | (51) C08L 95/00   |  |
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| (21) EP21156658.3  | (21) EP17777618.4   |  |
| (47) 26.04.2023  | (47) 26.04.2023   |  |
| (22) 11.02.2021  | (87) FR2017052451<br>29.03.2018<br>(22) 14.09.2017  |  |
| (54) CURED PRODUCT OF GOLF BALL RUBBER COMPOSITION AND GOLF BALL   | (54) COMPOSITION COMPRISING ONE OR MORE PARTICULAR ADDITIVES  |  |
| (73) Sumitomo Rubber Industries, Ltd.  | (73) Arkema France  |  |
| (72) HAYASHI, Kai<br>SHIGA, Kazuyoshi<br>SHIGEMITSU, Takahiro<br>NAGAKURA, Hikaru<br>KAMINO, Kazuya<br>INOUE, Hidetaka | (72) JORDA, Eric<br>LIGIER, Sandrine<br>LUCA, Vincent<br>BIRKEN, Isabelle                                     |  |
| (31) 2020037235  | (31) 1658913  |  |
| (32) 04.03.2020  | (32) 22.09.2016   |  |
| (33) Japan   | (33) France   |  |
| (51) C08L 29/04  | (51) C09C 1/48  |  |
| B32B 27/28   |   |  |
| B65D 65/40   |   |  |
| C08L 67/02   |   |  |
| C08K 5/101   |   |  |
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| (21) EP18880660.8  |   |  |
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| B33Y 70/00   | (22) 18.10.2005  | (47) 26.04.2023  |
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| (21) EP18842109.3  | (73) SWIMC LLC   | 13.12.2018   |
| (47) 26.04.2023  | (72) O'BRIEN, Robert M.  | (22) 08.06.2018  |
| (87) CN2018088167  | RARDON, Daniel E.  | (54) AMORPHOUS PROPYLENE-ETHYLENE COPOLYMERS   |
| 07.02.2019   | SPYNDA, Rachael Ann  | (73) Synthomer Adhesive Technologies LLC   |
| (22) 24.05.2018  | BARTLEY, George K. III   | (72) MUVUNDAMINA, Mutombo Joseph   |
| (54) PHOTOCURABLE TRANSPARENT INK COMPOSITION FOR THREE-DIMENSIONAL MOLDING AND PREPARATION METHOD AND APPLICATION THEREOF | EVANS, Richard H.  | ROBE, Gary Robert  |
| (73) ZHUHAI SAILNER 3D TECHNOLOGY CO., LTD.  | (31) 62063904 P  | HAGOOD, Andrea Gail  |
| (72) WANG, Likun   | (32) 20.10.2004  | WILLIAMS, Timothy  |
| (31) 201710648852  | (33) United States of America  | SOOD, Dhiraj Sudesh  |
| (32) 01.08.2017  | (51) C09D 183/04   | SOMERS, Marc Stacey  |
| (33) China   | (11) EP3994223   | COTTLE, Raymond Prescott   |
| (51) C09D 11/36  | (21) EP20742620.6  | NOVAK, Bennett H.  |
| C09D 11/324  | (47) 26.04.2023  | RAJESH RAJA, Puthenkovilakom   |
| C09D 11/38   | (87) US2020040401  | (31) 201816002739  |
| C09D 11/10   | 07.01.2021   | 201762517253 P   |
| C09D 11/102  | (22) 01.07.2020  | (32) 07.06.2018  |
| (11) EP3775071   | (54) SILICONE-BASED BARRIER COMPOSITIONS   | 09.06.2017   |
| (21) EP19715041.0  | (73) Dow Global Technologies LLC   | (33) United States of America  |
| (47) 26.04.2023  | Dow Silicones Corporation  | United States of America   |
| (87) EP2019057873  | Rohm and Haas Company  | (51) C09K 8/54   |
| 03.10.2019   | (72) TATE, Michael P.  | (11) EP3662034   |
| (22) 28.03.2019  | BAI, Zhifeng   | (21) EP18755684.0  |
| (54) INK COMPOSITION FOR INKJET PRINTING   | MECCA, Jodi M.   | (47) 26.04.2023  |
| (73) Domino Printing Sciences PLC  | CHATTERJEE, Tirtha   | (87) US2018045237  |
| (72) BELTRAME, Emanuela Morgan   | HE, Yiyong   | 07.02.2019   |
| THOMSON, Mary  | BRASSEUR, Michael  | (22) 03.08.2018  |
| (31) 201804959   | BALIJEPALLI, Sudhakar  | (54) THIOL ADDUCTS FOR CORROSION INHIBITION  |
| (32) 28.03.2018  | RABASCO, John J.   | (73) ChampionX USA Inc.  |
| (33) United Kingdom  | (31) 201962870111 P  | (72) MOLONEY, Jeremy   |
| (51) C09D 11/40  | (32) 03.07.2019  | ANANTANENI, Prakasa Rao  |
| C09D 11/322  | (33) United States of America  | HARRINGTON, Ryan Matthew   |
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| (22) 30.09.2021  | C09D 175/14  | C09K 11/56   |
| (54) INK SET, INKJET PRINTING APPARATUS, AND INKJET PRINTING METHOD  | (11) EP3707216   | C09K 11/70   |
| (73) Ricoh Company, Ltd.   | (21) EP18795959.8  | C09K 11/88   |
| (72) KOIZUKA, Yuusuke  | (47) 26.04.2023  | (11) EP3448957   |
| SHIMURA, Naoto   | (87) EP2018078817  | (21) EP17724149.4  |
| TERAI, Nozomi  | 16.05.2019   | (47) 26.04.2023  |
| TAKARADA, Tatsuya  | (22) 22.10.2018  | (87) US2017029543  |
| (31) 2021122305  | (54) METHOD FOR PRODUCING OPAQUE COATINGS, ADHESIVE BONDS AND CASTINGS, AND A CURABLE COMPOUND FOR USE IN THE METHOD | 02.11.2017   |
| 2020176543   | (73) DELO Industrie Klebstoffe GmbH & Co. KGaA   | (22) 26.04.2017  |
| (32) 27.07.2021  | (72) UHL, Gerald   | (54) STABLE INP QUANTUM DOTS WITH THICK SHELL COATING AND METHOD OF PRODUCING THE SAME |
| 21.10.2020   | KIENZLE, Philipp   | (73) Nanosys, Inc.   |
| (33) Japan   | KREUL, Kilian  | (72) IPPEN, Christian  |
| Japan  | BRIEM, Marko   | CHOW, Yeewah Annie   |
| (51) C09D 151/08   | (31) 102017126215  | WANG, Chunming   |
| B65D 17/00   | (32) 09.11.2017  | KAN, Shihai  |
| B65D 25/14   | (33) Germany   | GUO, Wenzhuo   |
| C08F 2/22  | (51) C09J 123/14   | JEN-LA PLANTE, Ilan  |
| C08F 265/00  | C08F 210/16  | CHOW, Yeewah Annie   |
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|  |  | (51) C09K 11/02  |

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| C09K 11/61                           | C09D 11/36                                | (47) 26.04.2023                     |
| H01L 33/50                           | C09K 11/02                                | (87) EP2017066619                   |
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| (47) 26.04.2023                      | (47) 26.04.2023                           | (54) COPOLYMERS AS ADDITIVES FOR    |
| (87) US2017061702                    | (87) EP2016001525                         | FUELS AND LUBRICANTS                |
| 24.05.2018                           | 13.04.2017                                | (73) BASF SE                        |
| (22) 15.11.2017                      | (22) 09.09.2016                           | (72) PERETOLCHIN, Maxim             |
| (54) COATED RED LINE EMITTING        | (54) FORMULATIONS CONTAINING N,N-         | GARCIA CASTRO, Ivette               |
| PHOSPHORS                            | DIALKYLANILINE SOLVENTS                   | FLORES-FIGUEROA, Aaron              |
| (73) Current Lighting Solutions, LLC | (73) Merck Patent GmbH                    | FAUL, Dieter                        |
| (72) POROB, Digamber, Gurudas        | (72) BEALLE, Gaëlle                       | (31) 16178310                       |
| NAMMALWAR, Prasanth, Kumar           | LEONHARD, Christoph                       | (32) 07.07.2016                     |
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| BUTTS, Matthews, David               | MARTYNOVA, Irina                          | <hr/>                               |
| MURPHY, James, Edward                | LUDEMANN, Aurélie                         | (51) C10L 5/00                      |
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| (51) C09K 11/02                      | (51) C09K 11/06                           | (21) EP15761078.3                   |
| C09K 11/62                           | H01L 51/00                                | (47) 26.04.2023                     |
| C09K 11/88                           | H01L 51/50                                | (87) KR2015002377                   |
| C09K 11/56                           | (11) EP3643763                            | 17.09.2015                          |
| H05B 33/14                           | (21) EP19203781.0                         | (22) 11.03.2015                     |
| C09K 11/70                           | (47) 26.04.2023                           | (54) PULVERIZED COAL FOR PIG-IRON   |
| C09K 11/71                           | (22) 17.10.2019                           | MAKING COMPRISING COW MANURE,       |
| (11) EP3812444                       | (54) COMPOSITION, ORGANIC LIGHT-          | AND PIG-IRON PRODUCTION             |
| (21) EP20203824.6                    | EMITTING DEVICE, DISPLAY DEVICE,          | METHOD USING SAME                   |
| (47) 26.04.2023                      | PHOTOELECTRIC CONVERSION                  | (73) Hyundai Steel Company          |
| (22) 26.10.2020                      | APPARATUS, ELECTRONIC                     | (72) KIM, Byong Chul                |
| (54) CORE SHELL QUANTUM DOT AND      | APPARATUS, AND MOVING OBJECT              | LEE, Hong Seug                      |
| ELECTRONIC DEVICE INCLUDING          | INCLUDING THE COMPOSITION                 | CHOI, Won Seok                      |
| THE SAME                             | (73) CANON KABUSHIKI KAISHA               | (31) 20140028554                    |
| (73) Samsung Electronics Co., Ltd.   | (72) OHRUI, Hiroki                        | (32) 11.03.2014                     |
| (72) WON, Nayoun                     | NISHIDE, Yosuke                           | (33) Korea (Republic)               |
| LIM, Mi Hye                          | KAMATANI, Jun                             | <hr/>                               |
| KIM, Tae Gon                         | ITO, Kentaro                              | (51) C10M 105/38                    |
| KIM, Taekhoon                        | (31) 2019183349                           | C10M 129/74                         |
| PARK, Shang Hyeun                    | 2018201986                                | (11) EP3967739                      |
| JUN, Shin Ae                         | (32) 03.10.2019                           | (21) EP20305997.7                   |
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| (32) 25.10.2019                      | (33) Japan                                | (22) 09.09.2020                     |
| (33) Korea (Republic)                | Japan                                     | (54) USE OF ISOSORBIDE DIESTER AS A |
| <hr/>                                | <hr/>                                     | DEPOSIT CONTROL AGENT               |
| (51) C09K 11/02                      | (51) C09K 11/85                           | (73) Oleon N.V.                     |
| C09K 11/88                           | C09K 11/61                                | (72) ZITOUNI, Karima                |
| C09K 11/70                           | (11) EP3623450                            | FU-XIANG, Micky-Lee                 |
| C09K 11/56                           | (21) EP19193851.3                         | <hr/>                               |
| H05B 33/10                           | (47) 26.04.2023                           | (51) C10M 133/02                    |
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| H01L 27/32                           | (54) APPARATUS COMPRISING A               | C10M 133/54                         |
| (11) EP3916071                       | SCINTILLATOR                              | C07C 209/20                         |
| (21) EP21176173.9                    | (73) SAINT-GOBAIN CRISTAUX &              | C07C 211/63                         |
| (47) 26.04.2023                      | DETECTEURS                                | C10L 1/22                           |
| (22) 27.05.2021                      | (72) Blahuta, Samuel                      | C10L 10/04                          |
| (54) QUANTUM DOT COMPOSITE AND       | Ouspenski, Vladimir                       | C10L 10/06                          |
| ELECTRONIC DEVICE INCLUDING          | (31) 1158467                              | C10N 40/25                          |
| THE SAME                             | 201161540326 P                            | C10N 30/04                          |
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| (72) PARK, Shang Hyeun               | (32) 22.09.2011                           | (11) EP2791291                      |
| KIM, Tae Gon                         | 28.09.2011                                | (21) EP12799567.8                   |
| JUN, Shin Ae                         | 16.11.2011                                | (47) 26.04.2023                     |
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| <hr/>                                | <hr/>                                     | (54) USE OF QUATERNISED ALKYLAMINE  |
| (51) C09K 11/06                      | (51) C10L 1/196                           | AS ADDITIVE IN FUELS AND            |
| H01L 51/00                           | C10L 10/18                                | LUBRICANTS                          |
| C09D 11/033                          | (11) EP3481921                            | (73) BASF SE                        |
| H01L 51/50                           | (21) EP17734115.3                         | (72) HANSCH, Markus                 |

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| BÖHNKE, Harald                           | C11D 3/20                         | (21) EP16000873.6                       |
| VÖLKEL, Ludwig                           | C11D 11/00                        | (47) 26.04.2023                         |
| GRABARSE, Wolfgang                       | (11) EP3728542                    | (22) 18.04.2016                         |
| STRITTMATTER, Jan                        | (21) EP17829446.8                 | (54) METHOD OF PRODUCING 3D             |
| (31) 11193034                            | (47) 26.04.2023                   | CELL STRUCTURES IN HANGING              |
| (32) 12.12.2011                          | (87) US2017067161                 | DROPLETS AND HANGING DROPLET            |
| (33) European Patent Office (EPO)        | 27.06.2019                        | DEVICE COMPRISING 3D CELL               |
| (51) C10M 139/00                         | (22) 19.12.2017                   | STRUCTURES                              |
| C10M 125/14                              | (54) CLEANING COMPOSITION TO      | (73) Karlsruhe Institut für Technologie |
| (11) EP3622042                           | PROVIDE LONG-LASTING WATER        | (72) Demir, Konstantin                  |
| (21) EP18725407.3                        | REPELLENCY ON SURFACES            | Popova, Anna                            |
| (47) 26.04.2023                          | (73) Colgate-Palmolive Company    | Levkin, Pavel                           |
| (87) EP2018060023                        | (72) MUNOZ CARRILLO, Carlos       |   |
| 15.11.2018                               | DELGADILLO VERDEJA, Hiram         | (51) C12N 1/14                          |
| (22) 19.04.2018                          | RODRIGUEZ CEDILLO, Cesar          | C12P 17/06                              |
| (54) LUBRICANT COMPOSITION               | (51) C11D 11/00                   | (11) EP3337889                          |
| (73) Klüber Lubrication München SE & Co. | C11D 3/50                         | (21) EP16837405.6                       |
| KG                                       | (11) EP3936595                    | (47) 26.04.2023                         |
| (72) SEEMEYER, Stefan                    | (21) EP20184329.9                 | (87) SG2016050395                       |
| GRUNDEI, Stefan                          | (47) 26.04.2023                   | 23.02.2017                              |
| KRUTZSCH, Carla                          | (22) 06.07.2020                   | (22) 16.08.2016                         |
| ALTMANN, Philipp                         | (54) A PROCESS FOR MAKING A       | (54) METHODS FOR FERMENTATIVE           |
| (31) 102017004541                        | PARTICULATE LAUNDRY DETERGENT     | PRODUCTION OF MASSOIA LACTONE           |
| (32) 11.05.2017                          | COMPOSITION                       | (73) Temasek Life Sciences Laboratory   |
| (33) Germany                             | (73) The Procter & Gamble Company | Limited                                 |
| (51) C10M 149/12                         | (72) PREST, Joss                  | (72) Ji, Lianghai                       |
| F01M 13/04                               | DYTER, Zoe                        | NGOH, Si Te                             |
| C10N 20/04                               | ROBLES, Eric San Jose             | (31) 201562205996 P                     |
| C10N 30/04                               | TANTAWY, Hossam Hassan            | (32) 17.08.2015                         |
| C10N 40/25                               | (51) C11D 17/04                   | (33) United States of America           |
| (11) EP3116980                           | B65D 65/46                        | (51) C12N 1/38                          |
| (21) EP15710331.8                        | (11) EP3469065                    | C12P 21/00                              |
| (47) 26.04.2023                          | (21) EP17740150.2                 | C12N 5/00                               |
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| (22) 23.02.2015                          | 21.12.2017                        | (21) EP18194714.4                       |
| (54) METHOD OF LUBRICATING AN            | (22) 13.06.2017                   | (47) 26.04.2023                         |
| INTERNAL COMBUSTION ENGINE               | (54) A PROCESS OF WASHING FABRICS | (22) 10.03.2014                         |
| (73) The Lubrizol Corporation            | (73) The Procter & Gamble Company | (54) METHODS FOR INCREASING             |
| (72) GALIC RAGUZ, Mary                   | (72) SOUTER, Philip, Frank        | MANNOSE CONTENT OF                      |
| LOOP, John G.                            | KEULEERS, Robby, Renilde Francois | RECOMBINANT PROTEINS                    |
| TRUONG, My Hang T.                       | LABEQUE, Regine                   | (73) Amgen Inc.                         |
| O'RYAN, William                          | COURCHAY, Florence, Catherine     | (72) WU, Jian                           |
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| (51) C11D 1/83                           | (33) United States of America     | LINDAHL, Katherine, Rose                |
| C11D 3/12                                | (51) C12G 1/02                    | LILLIE, Shawn, Erik                     |
| C11D 3/48                                | C12G 1/036                        | (31) 201361784639 P                     |
| C11D 3/22                                | C12C 11/02                        | (32) 14.03.2013                         |
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| (47) 26.04.2023                          | (11) EP3486308                    | C12N 5/071                              |
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| (22) 05.12.2013                          | (22) 16.11.2018                   | A61L 27/50                              |
| (54) ANTIMICROBIAL ABRASIVE CREAM        | (54) BEVERAGE MAKER AND METHOD    | A61L 27/52                              |
| TYPE CLEANING COMPOSITIONS               | FOR MAKING BEVERAGE               | A61L 27/54                              |
| FOR INANIMATE HARD SURFACES              | (73) LG Electronics Inc.          | (11) EP3344753                          |
| (73) Reckitt Benckiser (Brands) Limited  | (72) PARK, Sunyoung               | (21) EP16760109.5                       |
| (72) EVANS, Mark                         | KANG, Wonchul                     | (47) 26.04.2023                         |
| GENO, Jason                              | MIN, Kyungseok                    | (87) EP2016070880                       |
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| (32) 14.01.2013                          | (33) Korea (Republic)             | (54) THREE DIMENSIONAL HYDROGELS        |
| (33) United Kingdom                      | (51) C12M 1/12                    | FOR CULTURING ORGANOIDS                 |
| (51) C11D 3/37                           | B01L 3/00                         | (73) Ecole Polytechnique Fédérale de    |
| C11D 1/88                                | (11) EP3235899                    | Lausanne (EPFL)                         |
|  |                                   | (72) LUTOLF, Matthias                   |

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| GJOREVSKI, Nikolce                             | A61K 31/7105                                   | (54) ANGIOPOIETIN-2 BIOMARKERS          |
| (31) PCT/EP2015/070143                         | A61K 31/711                                    | PREDICTIVE OF ANTI-IMMUNE               |
| (32) 03.09.2015                                | A61K 39/00                                     | CHECKPOINT RESPONSE                     |
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| (51) C12N 5/0784                               | (21) EP21209125.0                              | (72) HODI, F. Stephen                   |
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| HUMAN DENDRITIC CELLS FOR                      | Schlake, Thomas                                | 06.10.2014                              |
| IMMUNOTHERAPY                                  | Grund, Stefanie                                | (33) United States of America           |
| (73) The Regents of the University of          | (31) PCT/EP2014/003334                         | United States of America                |
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| (72) SEET, Christopher S.                      | (33) World Intellectual Property Office (WIPO) | (51) C12Q 1/6816                        |
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| C12N 1/15                                      | (22) 29.06.2018                                | 28.03.2019                              |
| C12N 1/19                                      | (54) METHOD AND APPARATUS FOR                  | (22) 06.09.2018                         |
| C12N 1/21                                      | ANALYTE DETECTION USING AN                     | (54) DIAGNOSTIC DEVICE AND SYSTEM       |
| C12N 5/10                                      | ELECTROCHEMICAL BIOSENSOR                      | (73) Altratech Limited                  |
| C12P 21/08                                     | (73) Abbott Diabetes Care                      | (72) O'FARRELL, Brian                   |
| G01N 33/53                                     | (72) OJA, Stephen, M.                          | O'SULLIVAN, Cian Desmond                |
| C07K 16/00                                     | FELDMAN, Benjamin                              | O'DRISCOLL, John                        |
| (11) EP3187583                                 | (31) 201762545252 P                            | CUMMINS, Timothy                        |
| (21) EP15835345.8                              | 201762544692 P                                 | FREE, Paul                              |
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| (87) JP2015074295                              | (32) 14.08.2017                                | WALSHE, John                            |
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| (22) 27.08.2015                                | 30.06.2017                                     | 17192156                                |
| (54) MONOCLONAL ANTIBODY AGAINST               | (33) United States of America                  | 17192153                                |
| KIR2DS1  | United States of America                       | (32) 21.11.2017                         |
| (73) National University Corporation Hokkaido  | United States of America                       | 20.09.2017                              |
| University                                     | (51) C12Q 1/68                                 | 20.09.2017                              |
| (72) MAENAKA Katsumi                           | C12Q 1/6827                                    | (33) European Patent Office (EPO)       |
| KUROKI Kimiko                                  | C12Q 1/6855                                    | European Patent Office (EPO)            |
| MAITA Hiroshi                                  | (11) EP3795696                                 | European Patent Office (EPO)            |
| FUKUHARA Hideo                                 | (21) EP20191562.6                              | (51) C12Q 1/6858                        |
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| (33) Japan                                     | (54) IDENTIFICATION AND USE OF                 | (21) EP18194115.4                       |
| (51) C12N 15/10                                | CIRCULATING NUCLEIC ACID TUMOR                 | (47) 26.04.2023                         |
| C12Q 1/6855                                    | MARKERS  | (22) 12.09.2018                         |
| C40B 40/08                                     | (73) The Board of Trustees of the Leland       | (54) MULTIPLEX NUCLEIC ACID             |
| (11) EP3821011                                 | Stanford Junior University                     | DETECTION METHOD                        |
| (21) EP19834769.2                              | (72) DIEHN, Maximilian                         | (73) LifeOS Genomics Corporation        |
| (47) 26.04.2023                                | ALIZADEH, Arash Ash                            | (72) LIU, Timothy Z                     |
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| (72) WU, Yalei                                 | G01N 33/574                                    | (11) EP3486332                          |
| LEE, Wai Ho                                    | C07K 16/28                                     | (21) EP18193712.9                       |
| ZHENG, Genhua                                  | (11) EP3204516                                 | (47) 26.04.2023                         |
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| (33) United States of America                  | 14.04.2016                                     | (73) Becton, Dickinson and Company      |
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| 19.05.2016                                     | PRESS HARDENED PARTS WITH HIGH                 | B22F 10/14                               |
| (22) 10.11.2015                                | PRODUCTIVITY                                   | B22F 10/28                               |
| (54) THERAPEUTIC AND DIAGNOSTIC                | (73) ArcelorMittal                             | (11) EP3810815                           |
| METHODS FOR IL-33-MEDIATED                     | (72) BLAISE, Alexandre                         | (21) EP19752938.1                        |
| DISORDERS                                      | DRILLET, Pascal                                | (47) 26.04.2023                          |
| (73) F.Hoffmann-La Roche AG                    | STUREL, Thierry                                | (87) EP2019069882                        |
| (72) KHOSLA, Rajita                            | (31) PCT/IB2018/051546                         | 06.02.2020                               |
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| STATON, Tracy                                  | (33) World Intellectual Property Office (WIPO) | (54) METAL COMPOSITION, METHOD           |
| YASPAN, Brian                                  | (51) C22B 3/02                                 | USING THE COMPOSITION AND USE            |
| ARRON, Joseph                                  | C22B 3/12                                      | OF THE COMPOSITION                       |
| CHOY, David                                    | C22B 11/08                                     | (73) Siemens Energy Global GmbH & Co. KG |
| DRESSEN, Amy                                   | C22B 11/12                                     | (72) HEINZE, Christoph                   |
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| (51) C21D 1/74                                 | PROCESS AND DEVICE FOR                         | (51) C22C 19/05                          |
| B62D 29/00                                     | TREATING REFRACTORY ORE, IN                    | F28D 20/00                               |
| C21D 1/76                                      | PARTICULAR REFRACTORY GOLD                     | (11) EP3899074                           |
| C21D 3/04                                      | ORE  | (21) EP18829878.0                        |
| C21D 8/02                                      | (73) S.A. Lhoist Recherche et Développement    | (47) 26.04.2023                          |
| C21D 8/04                                      | (72) Du Plessis, Chris                         | (87) EP2018086751                        |
| C23C 2/02                                      | Lambert, Hugues                                | 25.06.2020                               |
| C23C 2/12                                      | Rabieh, Alireza                                | (22) 21.12.2018                          |
| C21D 1/34                                      | Eksteen, Jacobus Johannes                      | (54) NEW USE OF A NICKEL-BASED ALLOY     |
| C21D 1/52                                      | (51) C22B 11/02                                | (73) Kanthal AB                          |
| C21D 1/673                                     | C22B 7/00                                      | (72) GEERS, Christine                    |
| B32B 15/01                                     | (11) EP3971310                                 | HELANDER, Thomas                         |
| C22C 38/00                                     | (21) EP21742030.6                              | LUNDBERG, Mats                           |
| C22C 38/02                                     | (47) 26.04.2023                                | (51) C22C 21/02                          |
| C22C 38/06                                     | (87) CN2021074719                              | C22C 21/08                               |
| C22C 38/28                                     | 06.01.2022                                     | C22F 1/043                               |
| C22C 38/32                                     | (22) 01.02.2021                                | C22F 1/05                                |
| C23C 2/26                                      | (54) METHOD FOR PYROENRICHMENT                 | (11) EP3839085                           |
| C23C 2/28                                      | OF PLATINUM-GROUP METALS IN                    | (21) EP19306659.4                        |
| C23C 2/40                                      | ALUMINUM-BASED WASTE CATALYST                  | (47) 26.04.2023                          |
| C22C 38/04                                     | (73) University Of Science And Technology      | (22) 17.12.2019                          |
| (11) EP3783116                                 | Beijing  | (54) IMPROVED METHOD FOR                 |
| (21) EP20156836.7                              | (72) DING, Yunji                               | MANUFACTURING A STRUCTURE                |
| (47) 26.04.2023                                | ZHANG, Shengen                                 | COMPONENT FOR A MOTOR VEHICLE            |
| (22) 06.09.2013                                | (31) 202010835163                              | BODY                                     |
| (54) PRE-COATED SHEETS ALLOWING                | (32) 19.08.2020                                | (73) Constellium Neuf-Brisach            |
| THE PRODUCTION OF PRESS-                       | (33) China                                     | (72) MULLER, Estelle                     |
| HARDENED AND COATED STEEL                      | (51) C22C 14/00                                | WUSYK, Bruno                             |
| PARTS  | C22F 1/18                                      | BARBIER, David                           |
| (73) ArcelorMittal                             | (11) EP3844314                                 | (51) C22C 29/16                          |
| (72) PUERTA VELASQUEZ, Juan David              | (21) EP19867058.0                              | B23B 27/14                               |
| STAUDTE, Jonas                                 | (47) 26.04.2023                                | B23C 5/16                                |
| DRILLET, Pascal                                | (87) US2019037421                              | C22C 1/05                                |
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| (51) C21D 9/48                                 | (73) ATI Properties LLC                        | (21) EP19754323.4                        |
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| (54) TIN-BASED SINTERED BODY AND<br>CUTTING TOOL MADE OF TIN-BASED<br>SINTERED BODY   | (54) COATED SEMICONDUCTOR<br>PROCESSING MEMBERS HAVING<br>CHLORINE AND FLUORINE PLASMA<br>EROSION RESISTANCE AND<br>COMPLEX OXIDE COATINGS<br>THEREFOR   | (31) 201816149416<br>201762570842 P<br>(32) 02.10.2018<br>11.10.2017<br>(33) United States of America<br>United States of America  |
| (73) Mitsubishi Materials Corporation<br>(72) IGARASHI, Makoto<br>FUJIWARA, Kazutaka  | (73) FM Industries, Inc.<br>(72) NAIM, Mahmood<br>HAMMERICH, David R.  | (51) C23C 16/02<br>C23C 16/26<br>C23C 16/44<br>C01B 32/16<br>C01B 32/162   |
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| (32) 25.12.2018<br>13.02.2018   | (32) 26.08.2016<br>14.04.2016  | (22) 15.07.2015<br>(54) PROCESS FOR PRODUCING<br>CARBON-NANOTUBE GRAFTED<br>SUBSTRATE  |
| (33) Japan  | (33) United States of America<br>United States of America  | (73) Imperial College Innovations Limited<br>(72) SHAFFER, Milo Sebastian Peter<br>ANTHONY, David Benbow   |
| (51) C22C 38/00<br>C21D 8/10<br>C21D 9/08<br>C22C 38/04<br>C22C 38/12<br>C22C 38/02<br>C22C 38/06<br>C22C 38/26<br>C22C 38/48<br>C22C 38/28<br>C21D 1/19<br>C21D 1/02<br>C22C 38/14<br>C21D 6/00<br>C21D 8/02<br>C22C 38/50<br>C22C 38/08<br>C22C 38/16<br>C22C 38/18<br>C22C 38/20<br>C22C 38/22<br>C22C 38/24<br>C22C 38/42<br>C22C 38/44<br>C22C 38/46<br>C22C 38/58<br>C21D 1/78<br>C21D 9/46 | (51) C23C 10/08<br>C23C 10/24<br>C23C 28/02<br>(11) EP3540089<br>(21) EP19162920.3<br>(47) 26.04.2023<br>(22) 14.03.2019<br>(54) LOCATION-SPECIFIC SLURRY BASED<br>COATINGS FOR INTERNALLY-COOLED<br>COMPONENT AND PROCESS<br>THEREFOR<br>(73) Raytheon Technologies Corporation<br>(72) TASK, Michael N<br>LIU, Xian<br>BEERS, Russell A<br>SCHLICHTING, Kevin W  | (31) 201412656<br>(32) 16.07.2014<br>(33) United Kingdom<br>(51) C23C 16/30<br>C23C 16/34<br>C23C 16/36<br>C23C 16/40<br>C23C 16/455<br>C23C 16/458<br>C23C 28/00<br>C23C 28/04<br>C23C 30/00<br>(11) EP3991891<br>(21) EP20875442.4<br>(47) 26.04.2023<br>(87) JP2020024326<br>15.04.2021<br>(22) 22.06.2020<br>(54) CUTTING TOOL<br>(73) Sumitomo Electric Hardmetal Corp.<br>(72) KIDO, Yasuki<br>PASEUTH, Anongsack<br>OKUNO, Susumu |
| (11) EP3816311<br>(21) EP18923989.0<br>(47) 26.04.2023<br>(87) JP2018024839<br>02.01.2020<br>(22) 29.06.2018<br>(54) STEEL PIPE AND STEEL SHEET<br>(73) NIPPON STEEL CORPORATION<br>(72) SHINOHARA, Yasuhiro<br>HARA, Takuya<br>EBIHARA, Kiyoshi<br>TSUTSUI, Kazuteru<br>HATTORI, Yutaka<br>ABE, Nozomu<br>HASHIMOTO, Akira   | (31) 201815923432<br>(32) 16.03.2018<br>(33) United States of America<br>(51) C23C 14/34<br>C04B 35/04<br>G11B 5/851<br>C23C 14/08<br>(11) EP3643807<br>(21) EP19823756.2<br>(47) 26.04.2023<br>(87) JP2019008832<br>19.03.2020<br>(22) 06.03.2019<br>(54) MGO SINTERED BODY SPUTTERING<br>TARGET<br>(73) JX Nippon Mining & Metals Corporation<br>(72) SHIBUYA, Yoshitaka<br>NARITA, Satoyasu<br>KAJITA, Hiroki | (31) 2019186821<br>(32) 10.10.2019<br>(33) Japan<br>(51) C23F 13/00<br>C23F 13/08<br>B41J 2/16<br>B41J 2/14<br>B81B 1/00<br>(11) EP3755537<br>(21) EP19872263.9<br>(47) 26.04.2023<br>(87) US2019029716<br>05.11.2020<br>(22) 29.04.2019<br>(54) CONDUCTIVE ELEMENTS<br>ELECTRICALLY COUPLED TO FLUIDIC<br>DIES<br>(73) HEWLETT-PACKARD DEVELOPMENT<br>COMPANY, L.P.   |
| (51) C23C 4/10<br>C23C 4/12<br>C23C 28/04<br>H01J 37/32<br>C23C 16/44<br>C23C 4/134<br>C23C 4/02<br>(11) EP3443136<br>(21) EP17782823.3<br>(47) 26.04.2023  | (31) 2018171714<br>(32) 13.09.2018<br>(33) Japan<br>(51) C23C 14/56<br>C23C 14/34<br>H01J 37/34<br>H01J 37/32<br>(11) EP3695025<br>(21) EP18866474.2<br>(47) 26.04.2023<br>(87) US2018055380<br>18.04.2019<br>(22) 11.10.2018<br>(54) MULTI-PATTERNED SPUTTER TRAPS<br>AND METHODS OF MAKING   |  |



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| (72) CUMBIE, Michael W,<br>CHEN, Chien-Hua<br>HOFFMAN, Randy  | (32) 11.06.2018<br>(33) United States of America                               | C04B 111/10<br>(11) EP2826903   |
| (51) C25C 3/08  | (51) D02G 1/20   | (21) EP14184412.6   |
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| (54) ARRANGEMENT FOR COLLECTION<br>OF HOT GAS FROM AN<br>ELECTROLYSIS PROCESS, AND<br>A METHOD FOR SUCH GAS<br>COLLECTION   | D01D 13/02   | BASTIGKEIT, Thorsten  |
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| (54) WASHING MACHINE AND METHOD OF        | NORO, Masaru                            | AGGREGATE, METHOD FOR                         |
| CONTROLLING THE SAME                      | (31) 2014191463                         | MANUFACTURING MICROFIBROUS                    |
| (73) Samsung Electronics Co., Ltd.        | (32) 19.09.2014                         | CELLULOSE AGGREGATE, AND                      |
| (72) Kim, Kyoung Sup                      | (33) Japan                              | METHOD FOR REMANUFACTURING                    |
| Park, Eun-Young                           | (51) D06F 93/00                         | MICROFIBROUS CELLULOSE                        |
| Kim, Hyun Sook                            | (11) EP3290578                          | DISPERSION LIQUID                             |
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| (72) Noh, Tae Gyoon                       | Germany                                 | B32B 27/18                                    |
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| Choi, Jun hoe                             | D06M 13/17                              | B32B 27/06                                    |
| Pyo, Sang Yeon                            | D06M 13/224                             | B32B 25/16                                    |
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| Qingdao Haier Washing Machine Co.,        | (21) EP18174387.3                       | (73) Hitachi Construction Machinery Co., Ltd. |
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| (54) EXCAVATOR                       | (33) Japan                                    | (73) EMERSON ELECTRIC CO.                      |
| (73) Sumitomo Heavy Industries, Ltd. | (51) E02F 9/20                                | (72) PAWELECK, Elijah                          |
| (72) WU, Chunnan                     | H04Q 9/00                                     | KOCHA, Timothy J.                              |
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| MORITA, Junichi                      | E02F 3/96                                     | (22) 06.12.2019                                |
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| F16N 7/14                            | (72) HIROMATSU, Kohei                         | (51) E04B 1/19                                 |
| F16C 33/10                           | IZUMI, Shiho                                  | F16B 7/18                                      |
| F16N 1/00                            | SAKAI, Daito                                  | F16B 37/04                                     |
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| JOINT OF WORK MACHINE                | 08.10.2020                                    | METHOD FOR PRODUCING THE                       |
| (73) Ponsse Oyj                      | (22) 02.04.2020                               | SAME   |
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| E02F 9/20                            | (72) LÓPEZ ALMENDROS, José                    | E06B 1/62                                      |
| E02F 3/43                            | BOBOUH ABAKOUY, Kamal                         | (11) EP3401455                                 |
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| (22) 13.01.2021   | (54) FORMWORK SUPPORT, FORMWORK<br>SUPPORT DEVICE AND METHOD<br>FOR MOULDING A SHUTTERING<br>ASSEMBLY | (72) JORDAN, Scott   |
| (54) TELESCOPING WALL   | (73) DOKA GmbH  | SAHILU, Bruk   |
| (73) Skyfold Inc.   | (72) BURGSTALLER, Gerald  | MILLIGAN, Charles  |
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| (47) 26.04.2023   | (21) EP19192278.0   | (47) 26.04.2023  |
| (22) 30.08.2021   | (47) 26.04.2023   | (87) DE2020100152  |
| (54) CONNECTOR FOR ANGLED<br>CONNECTION OF AT LEAST ONE<br>HOLLOW PROFILE TO A STRUCTURE<br>AND ARRANGEMENT COMPRISING AT<br>LEAST ONE SUCH CONNECTOR | (22) 19.08.2019   | 24.09.2020   |
| (73) HUECK System GmbH & Co. KG   | (54) STEEL MAST   | (22) 06.03.2020  |
| (72) Heller, Kay  | (73) European Trans Energy GmbH   | (54) DOOR LOCK, IN PARTICULAR MOTOR<br>VEHICLE DOOR LOCK                               |
| Volkelt, Thomas   | (72) Winter, Hubert   | (73) Kiekert AG  |
| (31) 102020122643   | (31) 507122018  | (72) INAN, Ömer  |
| (32) 31.08.2020   | (32) 22.08.2018   | SCHIFFER, Holger   |
| (33) Germany  | (33) Austria  | SCHOLZ, Michael  |
| (51) E04G 7/30  | (51) E05B 17/20   | SZEGENY, Peter   |
| B23K 33/00  | E05C 9/18   | SCHÖNENBERG, Thomas  |
| B23K 31/02  | E05B 17/00  | (31) 102019107229  |
| F16B 7/20   | E05B 9/00   | (32) 21.03.2019  |
| (11) EP4026961  | (11) EP3795783  | (33) Germany   |
| (21) EP22159081.3   | (21) EP20194618.3   | (51) E05D 3/14   |
| (47) 26.04.2023   | (47) 26.04.2023   | E05D 5/02  |
| (22) 27.04.2020   | (22) 04.09.2020   | E05F 1/12  |
| (54) ASSEMBLY METHOD BETWEEN AN<br>ALUMINIUM END OF A TUBULAR<br>POST OF A SUPPORTING TOWER<br>AND A STEEL PROTECTIVE RING                            | (54) AUXILIARY LOCK FOR MULTIPOINT<br>LOCKING   | E05F 5/00  |
|   | (73) WILKA SCHLIESTECHNIK GmbH  | (11) EP3947874   |
|   | (72) Heuer, Stefan  | (21) EP20717559.7  |
|   | Ei Hatri, Ralf  | (47) 26.04.2023  |

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| (87) EP2020058233<br>08.10.2020   | (73) SFS Group International AG   | (33) United States of America  |
| (22) 24.03.2020   | (72) SIEBER, Alex   | (51) E06B 9/42   |
| (54) FURNITURE CARCASS HAVING A HINGE   | HUSER, Simon  | E04F 10/06   |
| (73) Hettich-ONI GmbH & Co. KG  | (31) 102015009477   | E06B 9/17  |
| (72) SCHNEIDER, Mark  | (32) 22.07.2015   | (11) EP3712371   |
| TOFALL, Ralf  | (33) Germany  | (21) EP20000122.0  |
| BECKMANN, Thomas  | (51) E06B 3/16  | (47) 26.04.2023  |
| (31) 102019108341   | E06B 5/16   | (22) 20.03.2020  |
| (32) 29.03.2019   | (11) EP3314081  | (54) SHADING DEVICE WITH A HOUSING   |
| (33) Germany  | (21) EP16747448.5   | (73) STOBAG AG   |
| (51) E05D 3/14  | (47) 26.04.2023   | (72) Hasler, Fabian  |
| E05F 1/12   | (87) EP2016064866   | Imfeld, Jost   |
| E05F 5/00   | 29.12.2016  | Hippenmeyer, Stefan  |
| E05D 7/04   | (22) 27.06.2016   | (31) 102019002035  |
| E05F 5/02   | (54) MULTI-CHAMBER HOLLOW PROFILED ELEMENT AND FIRE PROTECTION STRUCTURE CONTAINING THE MULTI-CHAMBER HOLLOW PROFILED ELEMENT | (32) 22.03.2019  |
| (11) EP3956536  | (73) Pilkington Group Limited   | (33) Germany   |
| (21) EP20712573.3   | (72) AUTH, Matthias   | (51) E06B 9/54   |
| (47) 26.04.2023   | GRÜNZEL, Helga  | E05D 15/06   |
| (87) EP2020057956   | POERSCH, Andreas  | E05B 63/00   |
| 22.10.2020  | SIEBERT, Guido  | E05B 63/06   |
| (22) 23.03.2020   | KÖRBEL, Frank   | E05B 65/08   |
| (54) HINGE FOR THE OPENING AND CLOSING OF HINGED DOORS OF FURNITURE   | (31) 102015211878   | E05C 19/00   |
| (73) Effegi Brevetti S.r.l.   | (32) 25.06.2015   | E05B 47/00   |
| (72) GIOVANNETTI, Antonio   | (33) Germany  | E05F 15/643  |
| (31) 201900005758   | (51) E06B 3/663   | E05C 7/00  |
| (32) 15.04.2019   | (11) EP3385486  | (11) EP3805515   |
| (33) Italy  | (21) EP17179030.6   | (21) EP18755934.9  |
| (51) E05F 5/12  | (47) 26.04.2023   | (47) 26.04.2023  |
| E05F 15/41  | (22) 30.06.2017   | (87) PT2018050024  |
| (11) EP3514307  | (54) TRANSPARENT DOUBLE GLAZING PANEL   | 12.12.2019   |
| (21) EP19152580.7   | (73) MACCAGNOLA S.r.l.  | (22) 07.06.2018  |
| (47) 26.04.2023   | (72) MACCAGNOLA, Alcide   | (54) FRAMEWORK WITH IN-BUILT MOSQUITO NET                                    |
| (22) 18.01.2019   | (31) 201700037854   | (73) BBG S.A.  |
| (54) MANAGEMENT OF THE COMBINED MOVEMENT OF TWO MOTORISED LEAVES IN THE EVENT OF ONE OF THE LEAVES ENCOUNTERING AN OBSTACLE | (32) 06.04.2017   | (72) MACHADO RAINHA, Hugo Miguel   |
| (73) BHG  | (33) Italy  | (51) E21B 4/02   |
| (72) FRITSCH, Thomas  | (51) E06B 9/13  | (11) EP2841674   |
| PASQUIER, Patrick   | E06B 9/17   | (21) EP13721235.3  |
| (31) 1850489  | E06B 9/62   | (47) 26.04.2023  |
| (32) 22.01.2018   | (11) EP3805513  | (87) US2013038446  |
| (33) France   | (21) EP20206990.2   | 31.10.2013   |
| (51) E05G 1/024   | (47) 26.04.2023   | (22) 26.04.2013  |
| E06B 9/01   | (22) 13.03.2018   | (54) DOWNHOLE MOTOR WITH CONCENTRIC ROTARY DRIVE SYSTEM                      |
| E04H 17/00  | (54) ROLLER DOOR  | (73) National Oilwell Varco, L.P.  |
| E04H 17/16  | (73) Seuster KG   | (72) MARCHAND, Nicholas Ryan   |
| (11) EP3786409  | (72) Fischer, Jörg  | CLAUSEN, Jeffery Ronald  |
| (21) EP20201338.9   | (31) 102017005190   | PRILL, Jonathan Ryan   |
| (47) 26.04.2023   | (32) 31.05.2017   | (31) 201261639762 P  |
| (22) 07.06.2017   | (33) Germany  | (32) 27.04.2012  |
| (54) LATTICE WALL FOR A SECURITY CAGE   | (51) E06B 9/262   | (33) United States of America  |
| (73) Inventor Jam AB  | E06B 9/36   | (51) E21B 7/04   |
| (72) SÄÄF, Jarmo  | (11) EP3803022  | E21B 47/0228   |
| (51) E06B 1/00  | (21) EP19703890.4   | (11) EP3214260   |
| E06B 1/62   | (47) 26.04.2023   | (21) EP17000323.0  |
| (11) EP3121358  | (87) US2019014099   | (47) 26.04.2023  |
| (21) EP16178556.3   | 12.12.2019  | (22) 02.03.2017  |
| (47) 26.04.2023   | (22) 18.01.2019   | (54) METHOD FOR MAKING A BOREHOLE IN THE SOIL AND SOIL BORING DEVICE AND USE |
| (22) 08.07.2016   | (54) FASTENING SYSTEM AND WINDOW SHADE INCLUDING THE SAME   | (73) TRACTO-TECHNIK GmbH & Co. KG  |
| (54) FRAME PIECE AND MEMBRANE FRAME MADE THEREFROM  | (73) Teh Yor Co., Ltd.  | (72) Bayer, Hans-Joachim   |
|   | (72) HUANG, Chien-Fong  | (31) 102016002479  |
|   | (31) 201862682268 P   | (32) 03.03.2016  |
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|   |   | (51) E21B 7/20   |

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| E02D 7/22                         | (73) OneSubsea IP UK Limited         | (51) E21B 47/00                          |
| E21B 10/42                        | (72) JUNE, David R.                  | E21B 47/12                               |
| E21B 10/46                        | BHAT, Venkatesh                      | G01F 1/34                                |
| E21B 10/48                        | KOCUREK, Christopher G.              | G01F 1/50                                |
| E21B 10/62                        | (31) 201414339294                    | G01F 15/00                               |
| E21B 10/633                       | (32) 23.07.2014                      | G01F 1/74                                |
| E21B 10/02                        | (33) United States of America        | G01F 1/76                                |
| E21B 10/58                        | (51) E21B 33/12                      | (11) EP3580427                           |
| (11) EP3816392                    | E21B 33/128                          | (21) EP17754552.2                        |
| (21) EP19826273.5                 | E21B 23/06                           | (47) 26.04.2023                          |
| (47) 26.04.2023                   | E21B 21/10                           | (87) US2017045667                        |
| (87) JP2019024864                 | (11) EP3837422                       | 22.03.2018                               |
| 02.01.2020                        | (21) EP18942168.8                    | (22) 07.08.2017                          |
| (22) 24.06.2019                   | (47) 26.04.2023                      | (54) METHOD FOR ASSESSING AND            |
| (54) CUTTER BIT                   | (87) US2018064166                    | MANAGING SENSOR UNCERTAINTIES            |
| (73) Metal Tool Inc.              | 11.06.2020                           | IN A VIRTUAL FLOW METER                  |
| (72) ISHIZUKA, Takemi             | (22) 06.12.2018                      | (73) General Electric Company            |
| IWANAGA, Yohei                    | (54) THREADLESS FLOAT EQUIPMENT      | (72) GONZAGA, Carlos, Alberto Cavichioli |
| (31) 2018120543                   | AND METHOD                           | DE SOUZA, Luiz Felipe, Willcox           |
| (32) 26.06.2018                   | (73) HALLIBURTON ENERGY SERVICES,    | DOUAT, Luiz, Ricardo                     |
| (33) Japan                        | INC.                                 | NEMOTO, Rafael, Horschutz                |
| (51) E21B 10/573                  | (72) SANTOSO, Handoko, Tirto         | (31) 201615265575                        |
| (11) EP3538735                    | YUAN, Min, Mark                      | (32) 14.09.2016                          |
| (21) EP17797619.8                 | YELDELL, Stephen, Allen              | (33) United States of America            |
| (47) 26.04.2023                   | ACOSTA, Frank                        | (51) E21B 47/005                         |
| (87) EP2017078653                 | PARAMESHWARAI AH, Rajesh             | (11) EP3585979                           |
| 17.05.2018                        | (51) E21B 43/017                     | (21) EP18708855.4                        |
| (22) 08.11.2017                   | E21B 41/00                           | (47) 26.04.2023                          |
| (54) ROCK-CUTTING TOOL AND METHOD | (11) EP3719249                       | (87) US2018019076                        |
| FOR MINE AND OIL DRILLING         | (21) EP18883565.6                    | 30.08.2018                               |
| (73) Diarotech S.A.               | (47) 26.04.2023                      | (22) 22.02.2018                          |
| (72) DELWICHE, Robert             | (87) BR2018050419                    | (54) SYSTEMS AND METHODS FOR             |
| LAMINE, Etienne                   | 06.06.2019                           | MONITORING CASING CEMENT                 |
| (31) 201605854                    | (22) 13.11.2018                      | INTEGRITY                                |
| (32) 14.11.2016                   | (54) EQUIPMENT FOR CONNECTING        | (73) Saudi Arabian Oil Company           |
| (33) Belgium                      | UNDERSEA LINES                       | Weatherford International, LLC           |
| (51) E21B 21/08                   | (73) FMC Technologies Do Brasil LTDA | (72) MA, Shouxiang Mark                  |
| G05B 13/02                        | (72) DE ARAUJO BERNARDO, Leonardo    | TRCKA, Darryl                            |
| (11) EP3710667                    | GATHERAR, Nicholas                   | WILSON, Robert                           |
| (21) EP18878352.6                 | SUN LAI, Huei                        | (31) 201715438956                        |
| (47) 26.04.2023                   | DA SILVA BONFIM, Jorge Luiz          | (32) 22.02.2017                          |
| (87) US2018061314                 | (31) 102017025977                    | (33) United States of America            |
| 23.05.2019                        | (32) 01.12.2017                      | (51) E21B 47/024                         |
| (22) 15.11.2018                   | (33) Brazil                          | E21B 47/09                               |
| (54) FIELD OPERATIONS SYSTEM WITH | (51) E21B 44/00                      | G01D 21/02                               |
| FILTER                            | E21B 47/024                          | E21B 47/013                              |
| (73) Geoquest Systems B.V.        | E21B 41/00                           | B60G 13/08                               |
| (72) YU, Yingwei                  | E21B 7/04                            | B60G 13/00                               |
| LIU, Qihua                        | (11) EP3810896                       | (11) EP3721055                           |
| MEEHAN, Richard John              | (21) EP19818595.1                    | (21) EP18887102.4                        |
| CHAMBON, Sylvain                  | (47) 26.04.2023                      | (47) 26.04.2023                          |
| HAMZAH, Mohammad Khairi           | (87) US2019035149                    | (87) US2018063701                        |
| (31) 201762586288 P               | 19.12.2019                           | 13.06.2019                               |
| (32) 15.11.2017                   | (22) 03.06.2019                      | (22) 03.12.2018                          |
| (33) United States of America     | (54) REAL TIME SURVEYING WHILE       | (54) CONTINUOUS TRAJECTORY               |
| (51) E21B 33/03                   | DRILLING                             | CALCULATION FOR DIRECTIONAL              |
| E21B 33/04                        | (73) Schlumberger Technology B.V.    | DRILLING                                 |
| E21B 33/043                       | (72) PHILLIPS, Wayne J.              | (73) HRL Laboratories, LLC               |
| E21B 33/047                       | BULYCHENKOV, Konstantin              | (72) NGUYEN, Hung                        |
| E21B 33/035                       | LOWDEN, Ross                         | SORENSEN, Logan D.                       |
| (11) EP3172396                    | EDMUNDS, Michael                     | WALTER, David L.                         |
| (21) EP15736245.0                 | OROOQ, Zainab                        | KABAKIAN, Adour V.                       |
| (47) 26.04.2023                   | (31) 201962823112 P                  | PERAHIA, Raviv                           |
| (87) EP2015065635                 | 201862683134 P                       | WANG, Shuoqin                            |
| 28.01.2016                        | (32) 25.03.2019                      | SHAHAN, David W.                         |
| (22) 08.07.2015                   | 11.06.2018                           | HUANG, Lian X.                           |
| (54) A SYSTEM AND METHOD FOR      | (33) United States of America        | CHANG, David T.                          |
| ACCESSING A WELL                  | United States of America             | (31) 201762594073 P                      |

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| (32) 04.12.2017                            | 25.06.2020                          | WATSON, Andrew Michael                 |
| (33) United States of America              | (22) 17.12.2019                     | OGSTON, Philip Joseph                  |
| (51) E21B 47/113                           | (54) VOLUMETRIC MACHINE LIKE A      | THOMPSON, Christopher Michael          |
| E21B 41/00                                 | COMPRESSOR, EXPANDER, PUMP OR       | (31) 201815914419                      |
| E21B 47/125                                | THE LIKE FOR THE DISPLACEMENT       | (32) 07.03.2018                        |
| G01N 33/28                                 | OF A MEDIUM AND METHOD              | (33) United States of America          |
| G01V 3/18                                  | THEREBY USED                        | (51) F01D 5/02                         |
| (11) EP3526443                             | (73) ATLAS COPCO AIRPOWER, naamloze | F01D 5/30                              |
| (21) EP17787549.9                          | vennootschap                        | F04D 29/66                             |
| (47) 26.04.2023                            | (72) VERRELST, Björn                | F16F 15/32                             |
| (87) GB2017053068                          | (31) 201805894                      | F16F 15/34                             |
| 19.04.2018                                 | 201805896                           | (11) EP3971387                         |
| (22) 11.10.2017                            | (32) 18.12.2018                     | (21) EP21195389.8                      |
| (54) DOWNHOLE DEVICES, ASSOCIATED          | 18.12.2018                          | (47) 26.04.2023                        |
| APPARATUS AND METHODS                      | (33) Belgium                        | (22) 07.09.2021                        |
| (73) Swellfix UK Limited                   | Belgium                             | (54) BALANCING WEIGHT ENTRY PORT       |
| (72) HUNTER, John                          | (51) F01C 21/10                     | FOR TURBINE ROTOR                      |
| (31) 201617234                             | F04C 9/00                           | (73) General Electric Company          |
| (32) 11.10.2016                            | F04C 15/00                          | (72) FRIEDMAN, Michael Ericson         |
| (33) United Kingdom                        | F04C 15/06                          | LIU, Gang                              |
| (51) E21B 47/12                            | (11) EP3660267                      | (31) 202017022393                      |
| (11) EP3114317                             | (21) EP19205086.2                   | (32) 16.09.2020                        |
| (21) EP14884471.5                          | (47) 26.04.2023                     | (33) United States of America          |
| (47) 26.04.2023                            | (22) 12.05.2015                     | (51) F01D 5/14                         |
| (87) US2014021356                          | (54) PISTON ENGINE                  | (11) EP3336308                         |
| 11.09.2015                                 | (73) RapSon GmbH                    | (21) EP17191060.7                      |
| (22) 06.03.2014                            | (72) RAPP, Manfred                  | (47) 26.04.2023                        |
| (54) DOWNHOLE LOW RATE LINEAR              | (31) 102014208939                   | (22) 14.09.2017                        |
| REPEATER RELAY NETWORK TIMING              | (32) 12.05.2014                     | (54) FAN BLADE WITH STRUCTURAL SPAR    |
| SYSTEM AND METHOD                          | (33) Germany                        | AND INTEGRATED LEADING EDGE            |
| (73) Baker Hughes Oilfield Operations LLC  | (51) F01C 21/10                     | (73) Raytheon Technologies Corporation |
| (72) VAN ZELM, John-Peter                  | F04C 25/02                          | (72) WELCH, David A.                   |
| (51) E21D 9/10                             | F04D 19/04                          | (31) 201615265294                      |
| E21B 10/573                                | (11) EP3974655                      | (32) 14.09.2016                        |
| E21B 10/12                                 | (21) EP22156933.8                   | (33) United States of America          |
| B22F 3/15                                  | (47) 26.04.2023                     | (51) F01D 5/14                         |
| B22F 5/10                                  | (22) 29.09.2020                     | B64C 11/18                             |
| B22F 7/06                                  | (54) SCROLL VACUUM PUMP AND ITS     | B64C 11/46                             |
| B23K 20/02                                 | METHOD OF PRODUCTION                | F02K 3/02                              |
| B23K 20/16                                 | (73) Pfeiffer Vacuum GmbH           | F02C 6/20                              |
| B23K 20/227                                | (72) Willig, Michael                | F03D 1/06                              |
| B23K 20/24                                 | Hofmann, Jan                        | (11) EP2912270                         |
| B23K 31/02                                 | Becker, Jonas                       | (21) EP13786120.9                      |
| C22C 9/00                                  | Bernhardt, Gernot                   | (47) 26.04.2023                        |
| C22C 19/00                                 | Wangorsch, Verena                   | (87) US2013066383                      |
| C22C 29/08                                 | Kallenborn, Stefan                  | 01.05.2014                             |
| C25D 7/00                                  | Söhngen, Wolfgang                   | (22) 23.10.2013                        |
| (11) EP3656975                             | Schaefer, Heiko                     | (54) UNDUCTED THRUST PRODUCING         |
| (21) EP18208067.1                          | Harapat, Erhard                     | SYSTEM                                 |
| (47) 26.04.2023                            | Pauli, Lars                         | (73) General Electric Company          |
| (22) 23.11.2018                            | (31) 19201749                       | (72) BREEZE-STRINGFELLOW, Andrew       |
| (54) DISC CUTTER FOR TUNNEL BORING         | 19201745                            | KHALID, Syed, Arif                     |
| MACHINES AND A METHOD OF                   | (32) 07.10.2019                     | SMITH, Leroy, Harrington, Jr.          |
| MANUFACTURE THEREOF                        | 07.10.2019                          | (31) 201361771314 P                    |
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| AB   | European Patent Office (EPO)        | 201261717445 P                         |
| (72) EDERYD, Stefan                        | (51) F01D 3/04                      | (32) 01.03.2013                        |
| SUNDSTRÖM, Johan                           | F01D 25/16                          | 23.10.2012                             |
| BERGLUND, Tomas                            | F16C 19/52                          | 23.10.2012                             |
| MEURLING, Fredrik                          | G01L 5/00                           | (33) United States of America          |
| (51) F01C 1/16                             | (11) EP3536901                      | United States of America               |
| F04C 2/16                                  | (21) EP18214621.7                   | United States of America               |
| F04C 15/00                                 | (47) 26.04.2023                     | (51) F01D 5/18                         |
| F04C 18/16                                 | (22) 20.12.2018                     | F01D 9/02                              |
| (11) EP3899206                             | (54) BEARING ROTOR THRUST CONTROL   | (11) EP3798416                         |
| (21) EP19835515.8                          | (73) General Electric Company       | (21) EP20195435.1                      |
| (47) 26.04.2023                            | (72) SNOW, Kyle Robert              | (47) 26.04.2023                        |
| (87) IB2019060919                          | TOMPKINS, Andrew Michael            | (22) 10.09.2020                        |

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| (54) BLADE OF A TURBOMACHINE   | (22) 13.03.2020   | (32) 01.02.2019   |
| (73) MAN Energy Solutions SE   | (54) EGRESS SEAL FITTING                                  | (33) United States of America                                       |
| (72) Pöhler, Thorsten<br>Frank, Dirk   | (73) Raytheon Technologies Corporation                    | (51) F01D 17/02   |
| (31) 102019125779  | (72) WARREN, Eli Cole                                     | F01D 21/00  |
| (32) 25.09.2019  | NEGASH, Jerusalem   | (11) EP3712388  |
| (33) Germany   | FORD, Kevin A.  | (21) EP20164042.2   |
| (51) F01D 5/20   | (31) 201916365388   | (47) 26.04.2023   |
| (11) EP2942488   | (32) 26.03.2019   | (22) 18.03.2020   |
| (21) EP15165906.7  | (33) United States of America                             | (54) APPARATUS AND METHOD AND                                       |
| (47) 26.04.2023  | (51) F01D 11/00   | SYSTEM FOR INSPECTING A   |
| (22) 30.04.2015  | (11) EP3433469  | COMPONENT OF A GAS TURBINE  |
| (54) BLADE FOR A GAS TURBINE ENGINE,<br>GAS TURBINE ENGINE AND METHOD<br>OF COOLING A BLADE FOR A GAS<br>TURBINE ENGINE  | (21) EP17716956.2   | ENGINE  |
| (73) Raytheon Technologies Corporation   | (47) 26.04.2023   | (73) Raytheon Technologies Corporation                              |
| (72) Propheter-Hinckley, Tracy A<br>Quach, San   | (87) FR2017050649   | (72) LIU, Xuan  |
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| (32) 08.05.2014  | (22) 20.03.2017   | DEBICCARI, Andrew   |
| (33) United States of America  | (54) PLATFORM, FAN ASSEMBLY AND FAN                       | BRINDLEY, William J.  |
| (51) F01D 5/28   | (73) Safran Aircraft Engines                              | MACAULEY, Kathryn   |
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| F02C 7/36                              | F02M 35/02                           | (51) F03D 7/02                    |
| (11) EP3543516                         | F02M 35/10                           | (11) EP3803109                    |
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|  | (87) US2018020267                    | 12.12.2019                        |

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| (22) 06.06.2019  | (51) F03D 80/80                                    | (21) EP19206206.5                                   |
| (54) METHOD FOR OPERATING A WIND TURBINE   | (11) EP3959440                                     | (47) 26.04.2023                                     |
| (73) Wobben Properties GmbH  | (21) EP20746907.3                                  | (22) 30.10.2019                                     |
| (72) MESSING, Ralf   | (47) 26.04.2023                                    | (54) COMPRESSOR                                     |
| BOTT, Stefanie   | (87) EP2020070180                                  | (73) LG Electronics Inc.                            |
| JANSSEN, Hendrik   | 28.01.2021   | (72) LEE, Kangwook                                  |
| (31) 102018113531  | (22) 16.07.2020                                    | JEON, Nayoung                                       |
| (32) 06.06.2018  | (54) WIND TURBINE TRANSFORMER SYSTEM               | KIM, Cheolhwan                                      |
| (33) Germany   | (73) Siemens Gamesa Renewable Energy A/S           | (31) 20180131195                                    |
| (51) F03D 7/02   | (72) GAARD, Jesper                                 | (32) 30.10.2018                                     |
| G05B 13/04   | MUNK-HANSEN, Thorkil                               | (33) Korea (Republic)                               |
| F03D 7/04  | (31) 19187491                                      | (51) F04C 18/02                                     |
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| (21) EP17721954.0  | (33) European Patent Office (EPO)                  | F04C 27/00  |
| (47) 26.04.2023  | (51) F04B 35/04                                    | F04C 23/00  |
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| (54) CONTROLLING A WIND TURBINE DURING A LOW VOLTAGE GRID EVENT USING MPC  | (11) EP3196460                                     | (47) 26.04.2023                                     |
| (73) Vestas Wind Systems A/S   | (21) EP17150668.6                                  | (87) KR2018010004                                   |
| (72) KJÆR, Martin Ansbjerg   | (47) 26.04.2023                                    | 07.03.2019  |
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| (31) 201670288   | (54) LINEAR COMPRESSOR                             | (54) SCROLL COMPRESSOR                              |
| (32) 03.05.2016  | (73) LG ELECTRONICS INC.                           | (73) Samsung Electronics Co., Ltd.                  |
| (33) Denmark   | (72) JEON, Gyeongjin                               | (72) CHO, Nam Kyu                                   |
| (51) F03D 17/00  | KI, Sunghyun                                       | KIM, Yang Sun                                       |
| F03D 7/04  | HONG, Eonpyo                                       | PARK, Jung-Hoon                                     |
| F03D 9/25  | (31) 20160006362                                   | LEE, Jong Eun                                       |
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| (54) METHOD FOR GRAPHICALLY PRESENTING SENSOR DATA OF MULTIPLE WIND TURBINES, DEVICE FOR THIS PURPOSE, AND SYSTEM COMPRISING SAID DEVICE               | (21) EP20188544.9                                  | F04C 29/02  |
| (73) Wobben Properties GmbH  | (47) 26.04.2023                                    | (11) EP3935282                                      |
| (72) DEMUTH, Simon   | (22) 30.07.2020                                    | (21) EP20712450.4                                   |
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| F03D 13/20   | BAE, Sangeun                                       | (54) OIL-LUBRICATED ROTARY VANE VACUUM PUMP         |
| F03D 13/10   | HA, Dongkyun                                       | (73) Gebr. Becker GmbH                              |
| (11) EP3480456   | (31) 20190116389                                   | (72) KRAFT, Artjom                                  |
| (21) EP18804221.2  | (32) 20.09.2019                                    | KRIEBEL, Ulli                                       |
| (47) 26.04.2023  | (33) Korea (Republic)                              | RADERMACHER, Bernhard                               |
| (87) CN2018077198  | (51) F04C 2/344                                    | BENDER, Carsten                                     |
| 14.03.2019   | F04C 14/22   | POSSER, Carsten                                     |
| (22) 26.02.2018  | F04C 14/26   | (31) 102019105695                                   |
| (54) STREAMLINED BODY ASSEMBLY AND METHOD FOR USING THE STREAMLINED APPARATUS ASSEMBLY FOR SUPPRESSING VIBRATIONS OF AN ENCLOSURE FOR HOISTING A TOWER | F04C 14/06   | (32) 06.03.2019                                     |
| (73) Beijing Goldwind Science & Creation Windpower Equipment Co., Ltd.   | (11) EP3762609                                     | (33) Germany  |
| (72) MA, Shengjun  | (21) EP18712806.1                                  | (51) F04C 29/00                                     |
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|  | (73) Pierburg Pump Technology GmbH                 | (47) 26.04.2023                                     |
|  | (72) CUNEO, Carmine                                | (87) EP2019051130                                   |
|  | LAZZERINI, Massimiliano                            | 25.07.2019  |
|  | (51) F04C 18/02                                    | (22) 17.01.2019                                     |
|  | F04C 23/00   | (54) EGR PUMP SYSTEM AND CONTROL METHOD OF EGR PUMP |
|  | F04C 29/02   | (73) Eaton Intelligent Power Limited                |
|  | F04C 29/00   | (72) HUGHES, Douglas Anthony                        |
|  | (11) EP3647594                                     | BILLER, Brandon Dennis                              |
|  |  | SPRING, Jim Kevin                                   |

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| FORTINI, Matthew                     | (51) F04D 25/06                             | 02.07.2020                           |
| (31) 201862736161 P                  | F04D 25/08                                  | (22) 27.12.2018                      |
| 201862733340 P                       | F04D 29/26                                  | (54) CENTRIFUGAL BLOWER, BLOWER      |
| 201862674872 P                       | F04D 29/28                                  | DEVICE, AIR CONDITIONER, AND         |
| 201862662521 P                       | F04D 29/30                                  | REFRIGERATION CYCLE DEVICE           |
| 201862660497 P                       | F04D 29/62                                  | (73) Mitsubishi Electric Corporation |
| 201862629461 P                       | H02K 7/14                                   | (72) TERAMOTO, Takuya                |
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| 22.05.2018                           | (87) CN2020109648                           | YAMATANI, Takahiro                   |
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| 12.02.2018                           | (54) CENTRIFUGAL FAN AND AIR                | F17C 1/10                            |
| 17.01.2018                           | CONDITIONING DEVICE                         | F17C 1/14                            |
| (33) United States of America        | (73) Huawei Digital Power Technologies Co., | (11) EP3146217                       |
| United States of America             | Ltd.  | (21) EP15796532.8                    |
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| United States of America             | LUO, Jingyi                                 | (22) 08.05.2015                      |
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| (51) F04D 19/00                      | (32) 29.02.2020                             | COMPRISING POLAR BOSS                |
| F04D 29/32                           | (33) China                                  | (73) Steelhead Composites, LLC       |
| F04D 29/36                           | (51) F04D 25/06                             | (72) COORS, Andrew                   |
| (11) EP3768977                       | F04D 29/54                                  | MALLICK, Kaushik                     |
| (21) EP19717110.1                    | F04D 29/66                                  | CRONIN, John                         |
| (47) 26.04.2023                      | F04D 29/70                                  | CHAPEL, Carl                         |
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| (72) HÄGELE, Karl                    | (54) FAN                                    | F16B 39/30                           |
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| (51) F04D 19/04                      | (32) 07.08.2017                             | (54) DEVICE FOR ATTACHING A FIRST    |
| F04C 25/02                           | (33) Germany                                | COMPONENT TO A SECOND                |
| F04C 29/04                           | (51) F04D 27/00                             | COMPONENT                            |
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| F04D 29/58                           | (21) EP19710598.4                           | (72) Erpenbeck, Till                 |
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| (47) 26.04.2023                      | (22) 04.02.2019                             | (51) F16B 5/06                       |
| (22) 25.07.2017                      | (54) METHOD FOR DETERMINING                 | B60R 13/02                           |
| (54) VACUUM PUMP AND METHOD FOR      | OPERATING STATES OF A FAN                   | F16B 21/07                           |
| OPERATING A VACUUM PUMP              | (73) ZIEHL-ABEGG SE                         | (11) EP3682123                       |
| (73) PFEIFFER VACUUM GMBH            | (72) WENGER, Bjoern                         | (21) EP18875009.5                    |
| (72) Huber, Peter                    | KAMMERER, Matthias                          | (47) 26.04.2023                      |
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| (51) F04D 19/04                      | OBST, Raphael                               | (22) 05.09.2018                      |
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| (47) 26.04.2023                      | (32) 05.02.2018                             | TANER, Kaan                          |
| (22) 27.05.2020                      | (33) Germany                                | ERBIL, A. Egemen                     |
| (54) METHOD FOR PRODUCING A          | (51) F04D 29/42                             | (31) 201713375                       |
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| (72) Hofmann, Andreas                | (21) EP18944300.5                           | (51) F16B 7/00                       |
| Harapat, Erhard                      | (47) 26.04.2023                             | F16B 2/10                            |

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| F16B 1/00   | (54) COMPOSITE SHAFT WITH OUTER PERIPHERY RING   | (11) EP3997353   |
| F16B 12/32  | (73) Goodrich Corporation  | (21) EP20750350.9  |
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| F21V 21/116   | KING, Michael  | 14.01.2021   |
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| (72) NANNI, Mario                                   | (22) 14.12.2018  | (51) F16C 33/66  |
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| (33) Italy  | (72) YAMAMOTO, Ryoma   | F01D 25/12   |
| (51) F16B 13/06                                     | OZAKI, Yoshihiko   | F01D 25/16   |
| (11) EP3810940                                      | SAKATA, Kentaro  | F01D 25/18   |
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| (72) SHIMAHARA, Hideki                              | H01F 5/02  | (54) DEVICE FOR DISTRIBUTING OIL FROM A ROLLING BEARING FOR AN AIRCRAFT TURBINE ENGINE |
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| (51) F16B 41/00                                     | H01R 4/24  | SERVANT, Régis, Eugène, Henri  |
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| (54) CAPTIVE FASTENER SYSTEMS                       | (54) MAGNETIC BEARING, APPARATUS COMPRISING SUCH A MAGNETIC BEARING AND METHOD FOR MANUFACTURING SUCH A MAGNETIC BEARING | (51) F16C 35/04  |
| (73) Hamilton Sundstrand Corporation                | (73) SKF MAGNETIC MECHATRONICS   | F16C 35/063  |
| (72) O'Coin, James R.                               | (72) Carrasco, Eduardo   | F16C 35/067  |
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| (51) F16B 45/02                                     | C08L 27/22   | F16C 33/60   |
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| B64F 5/40   |  | (54) CONSTANT VELOCITY JOINT   |
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| (11) EP3954912                                      |  | (72) Schöner, Daniel   |
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| (33) Germany                         | (33) Italy                         | (22) 16.12.2015                           |
| (51) F16D 25/0638                    | (51) F16D 65/18                    | (54) VIBRATION ISOLATOR WITH A            |
| B60K 6/387                           | (11) EP4004391                     | VERTICALLY ACTIVE PNEUMATIC               |
| B60K 6/48                            | (21) EP20746919.8                  | SPRING                                    |
| (11) EP3825568                       | (47) 26.04.2023                    | (73) Integrated Dynamics Engineering GmbH |
| (21) EP20206524.9                    | (87) EP2020070399                  | (72) Evers, Arndt                         |
| (47) 26.04.2023                      | 28.01.2021                         | Hofmann, Frank                            |
| (22) 09.11.2020                      | (22) 20.07.2020                    | (51) F16G 1/08                            |
| (54) TORQUE TRANSMISSION DEVICE      | (54) ELECTROMAGNETIC BRAKE         | F16G 5/06                                 |
| (73) VALEO EMBRAYAGES                | (73) Konecranes Global Corporation | F16G 5/20                                 |
| (72) DOLE, Arnaud                    | (72) SKORSKI, Richard              | C08K 7/02                                 |
| DEQUESNES, Laurent                   | ENGEL, Harald                      | C08L 1/00                                 |
| VUAROQUEAUX, Guillaume               | KRÖPKE, Thomas                     | C08L 11/00                                |
| DOREMUS, Olivier                     | (31) 102019120041                  | C08L 21/00                                |
| THIBAUT, François                    | (32) 24.07.2019                    | (11) EP3971443                            |
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| F16D 65/18                           | 28.01.2021                         | (73) Bando Chemical Industries, Ltd.      |
| (11) EP3540258                       | (22) 20.07.2020                    | (72) KOBAYASHI Shogo                      |
| (21) EP18161298.7                    | (54) ELECTROMAGNETIC BRAKE         | KATO Hideyuki                             |
| (47) 26.04.2023                      | (73) Konecranes Global Corporation | MASUDA Takafumi                           |
| (22) 12.03.2018                      | (72) SKORSKI, Richard              | (31) 2019107206                           |
| (54) PULL ROD DEVICE ARRANGEMENT     | ENGEL, Harald                      | (32) 07.06.2019                           |
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| CALIPER                              | (31) 102019120043                  | (51) F16H 3/00                            |
| (73) KNORR-BREMSE Systeme für        | (32) 24.07.2019                    | F16H 3/089                                |
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| (72) ELSTORPFF, Marc-Gregory         | (51) F16D 65/54                    | (21) EP20728415.9                         |
| HAUER, Balázs                        | B64C 25/42                         | (47) 26.04.2023                           |
| FÜLÖP, Attila                        | (11) EP3779231                     | (87) EP2020063304                         |
| (51) F16D 63/00                      | (21) EP19461562.1                  | 19.11.2020                                |
| F16D 65/12                           | (47) 26.04.2023                    | (22) 13.05.2020                           |
| F16D 71/00                           | (22) 13.08.2019                    | (54) 8-SPEED GEARBOX                      |
| E05D 7/086                           | (54) BRAKE ACTUATOR                | (73) Transmisiones Y Equipos Mecánicos,   |
| (11) EP3966467                       | (73) Goodrich Corporation          | S.A. de C.V.                              |
| (21) EP20724084.7                    | (72) CIS, Marcin                   | (72) DE LANDTSHEERE, Jannick              |
| (47) 26.04.2023                      | SZCZESNY, Patryk                   | VANCOILLIE, Johan Gerard Michel           |
| (87) EP2020062438                    | (51) F16D 127/04                   | Joseph                                    |
| 12.11.2020                           | F16D 127/06                        | DEBROUWERE, Maarten                       |
| (22) 05.05.2020                      | B61H 13/04                         | GENOUW, Didier                            |
| (54) BRAKE SYSTEM, METHOD FOR        | (11) EP3849862                     | (31) 19174430                             |
| CONTROLLING SAID BRAKE SYSTEM        | (21) EP19762381.2                  | (32) 14.05.2019                           |
| (73) STABILUS GmbH                   | (47) 26.04.2023                    | (33) European Patent Office (EPO)         |
| (72) REIF, Thomas                    | (87) EP2019073367                  | (51) F16H 7/10                            |
| HILLEN, Jörg                         | 19.03.2020                         | F16H 37/02                                |
| RITTER, Andreas                      | (22) 02.09.2019                    | F16H 37/08                                |
| OSTER, Peter                         | (54) BRAKE CYLINDER WITH A LOCKING | F16H 7/08                                 |
| (31) 102019112005                    | SYSTEM FOR MECHANICALLY            | (11) EP3775616                            |
| (32) 08.05.2019                      | LOCKING THE BRAKE FORCE            | (21) EP19701464.0                         |
| (33) Germany                         | (73) KNORR-BREMSE Systeme für      | (47) 26.04.2023                           |
| (51) F16D 65/12                      | Schienenfahrzeuge GmbH             | (87) EP2019050752                         |
| (11) EP3899308                       | (72) ELSTORPFF, Marc-Gregory       | 03.10.2019                                |
| (21) EP19817425.2                    | MATHIEU, Michael                   | (22) 14.01.2019                           |
| (47) 26.04.2023                      | FUDERER, Erich                     | (54) MULTISTAGE GEAR ASSEMBLY             |
| (87) IB2019060481                    | HECHT, Ferdinand                   | (73) ContiTech Antriebssysteme GmbH       |
| 25.06.2020                           | (31) 102018122518                  | (72) FREIHEIT, Philipp                    |
| (22) 05.12.2019                      | (32) 14.09.2018                    | FISS, Tim                                 |
| (54) BRAKING BAND OF A DISC FOR DISC | (33) Germany                       | FRAMENT, Olivier                          |
| BRAKE OF VENTILATED TYPE             | (51) F16F 15/027                   | (31) 102018204830                         |
| (73) Brembo S.p.A.                   | F16F 15/03                         | (32) 29.03.2018                           |
| (72) CAVAGNA, Lorenzo                | (11) EP3181944                     | (33) Germany                              |
| RONCHI, Nino                         |                                    | (51) F16H 25/20                           |

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| (11) EP3839290  | Ichi, Satoaki  | (51) F16K 11/22   |
| (21) EP19218318.4   | Izumi, Kyohei  | F16K 31/02  |
| (47) 26.04.2023   | Hida, Yuji   | F03G 7/06   |
| (22) 19.12.2019   | (31) 2019130278  | (11) EP3894728  |
| (54) ELECTROMECHANICAL ACTUATOR ASSEMBLY  | (32) 12.07.2019  | (21) EP19835513.3   |
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| (72) Mezzino, Giacomo   | (51) F16J 15/16  | (87) IB2019060913   |
| (51) F16H 25/22   | F01D 11/00   | 25.06.2020  |
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| (21) EP20197576.0   | F01D 25/12   | (54) SHAPE MEMORY ALLOY ACTUATOR SUBASSEMBLY AND FLUIDIC VALVE INCORPORATING IT |
| (47) 26.04.2023   | F02C 7/28  | (73) Actuator Solutions GmbH  |
| (22) 22.09.2020   | (11) EP3712469   | Alfmeier Präzision SE   |
| (54) BALL SCREW AND SPINDLE NUT FOR SAME  | (21) EP20162154.7  | (72) KÖPFER, Markus   |
| (73) SFS Group International AG   | (47) 26.04.2023  | DÖRFLER, Erich  |
| (72) Nagypal, Andras  | (22) 10.03.2020  | (31) 201800020047   |
| Frei, Stefan  | (54) SEAL PLATE LUBRICANT SLINGER  | (32) 18.12.2018   |
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| Zach, Marijo  | (72) ANGLIN, Christopher T.  | (51) F16K 27/02   |
| (51) F16H 45/02   | NAJAFI, Camron   | F16K 31/06  |
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| (22) 22.06.2015   | F16K 3/18  | (73) CKD CORPORATION  |
| (54) TORSIONAL VIBRATION REDUCTION DEVICE   | (11) EP3837458   | (72) ITOH, Katsushi   |
| (73) TOYOTA JIDOSHA KABUSHIKI KAISHA  | (21) EP18935647.0  | KATOH, Atsushi  |
| (72) MIYAHARA, Yu   | (47) 26.04.2023  | IGUCHI, Seiji   |
| TSUKANO, Fusahiro   | (87) US2018053459  | YOSHINO, Kohei  |
| HONDA, Atsushi  | 02.04.2020   | (31) 2019184298   |
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| (32) 25.06.2014   | (54) MULTI-SEAT GATE VALVE   | (33) Japan  |
| (33) Japan  | (73) Franklin Valve LP   | (51) F16K 31/10   |
| (51) F16H 61/42   | (72) BRENNAN, John   | F16K 11/065   |
| F16H 61/46  | (51) F16K 11/07  | F16K 31/00  |
| E21B 7/02   | F16K 37/00   | F16K 31/06  |
| F16H 61/47  | F02C 7/232   | (11) EP3948036  |
| E21B 44/00  | (11) EP3693639   | (21) EP19714398.5   |
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| (22) 01.04.2021   | (54) FUEL METERING UNIT  | (22) 27.03.2019   |
| (54) SYSTEM FOR CONTROLLING A DRILLING DRIVE OF A SPECIALISED EXCAVATION DEVICE                 | (73) Hamilton Sundstrand Corporation   | (54) DIRECTIONAL CONTROL VALVE FOR A HEAT PUMP CIRCUIT                          |
| (73) Liebherr-Werk Nenzing GmbH   | (72) BERRY, Erin E.  | (73) Pierburg GmbH  |
| (72) GASSNER, Christof  | (31) 201816148477  | (72) GERARDS, Hans  |
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| (51) F16H 63/18   | F16L 37/56   | F15B 15/00  |
| F16H 57/02  | F16L 37/44   | F16K 31/124   |
| F16H 63/38  | F16K 31/524  | F16K 31/42  |
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| (54) TRANSMISSION MECHANISM INCLUDING SHIFT DRUM AND ACTUATOR UNIT WHICH ARE COAXIALLY DISPOSED | (21) EP19165845.9  | (22) 30.04.2021   |
| (73) Kawasaki Motors, Ltd.  | (47) 26.04.2023  | (54) VALVE ASSEMBLY CONFIGURED WITH MANIFOLD HAVING EUTECTIC PLUG               |
| (72) Sano, Katsuya  | (22) 28.03.2019  | (73) Hamilton Sundstrand Corporation  |
| Nishiyabu, Masaki   | (54) HYDRAULIC AND/OR PNEUMATIC MULTI-COUPLING CONNECTOR WITH LEVER ACTUATED MECHANISM | (72) SIMPSON, Scott W.  |
|   | (73) FASTER S.R.L.   | ZAWILINSKI, David J.  |
|   | (72) NERI, Marco   | DeFELICE, Robert  |
|   | FERRARA, Rocco   | (31) 202063017997 P   |
|   | CANZI, Luigi   |   |
|   | SORBI, Roberto   |   |



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| (33) United States of America                      | (21) EP18425036.3  | (72) BAKIC, Ante   |
| (51) F16K 51/02                                    | (47) 26.04.2023  | (72) SIKIC, Bruno  |
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| (47) 26.04.2023                                    | (73) Faster S.R.L.   | F16N 7/36  |
| (22) 14.08.2020                                    | (72) Rossetti, Daniele   | F16D 41/061  |
| (54) GATE VALVE WITH LOCKING FUNCTION              | Polgati, Igor  | F16D 41/066  |
| (73) King Lai Hygienic Materials Co., Ltd.         | (51) F16L 19/02  | F16H 57/04   |
| (72) LIN, Cheng-Chimr                              | F16L 37/088  | (11) EP3978793   |
| (31) 109123925                                     | (11) EP3789647   | (21) EP21194015.0  |
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| (33) Taiwan, Chinese Taipei                        | (47) 26.04.2023  | (22) 31.08.2021  |
| (51) F16L 9/22                                     | (22) 07.09.2020  | (54) SYSTEM FOR CONNECTION IN ROTATION PROVIDED WITH A FREE WHEEL AND A LUBRICATION DEVICE             |
| (11) EP3922893                                     | (54) PIPE CONNECTION SYSTEM FOR HYDRAULIC PIPES OF AN OFF-ROAD VEHICLE | (73) Airbus Helicopters  |
| (21) EP21161603.2                                  | (73) CNH Industrial Italia S.p.A.                                      | (72) ZAMPONI, Laurent  |
| (47) 26.04.2023                                    | (72) Ciarrocchi, Marco Pietro  | LE RU, John  |
| (22) 09.03.2021                                    | Zingale, Federico  | (31) 2010056   |
| (54) TUBE HALF SHELL WITH CLICK MECHANISM AND SEAL | (31) 201900015731  | (32) 01.10.2020  |
| (73) Witte Lastrup GmbH                            | (32) 06.09.2019  | (33) France  |
| MSW Kunststoffe GmbH                               | (33) Italy   | (51) F16T 1/48   |
| (72) Kramer, Ulrich                                | (51) F16L 23/04  | G01B 5/00  |
| Holtvoigt, Jan                                     | (11) EP3795877   | F16T 1/24  |
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| (21) EP20714145.8                                  | (33) France  | (73) TLV Co., Ltd.   |
| (47) 26.04.2023                                    | (51) F16L 55/00  | (72) OIKE Tadashi  |
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| (73) Neoperl GmbH                                  | (47) 26.04.2023  | F21S 41/26   |
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| (33) Germany                                       | (54) CONNECTION VERIFIER   | (22) 19.09.2013  |
| (51) F16L 15/04                                    | (73) Oetiker NY, Inc.  | (54) Optical module for a lighting and/or signalling device for a vehicle including a lens and sources |
| E21B 17/042  | (72) HALL, Thomas Edwin II   | (73) VALEO VISION  |
| (11) EP3043098                                     | CORRA, Craig Andrew  | (72) Meyrenaud, Jean-Luc   |
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| (54) THREADED CONNECTION FOR STEEL PIPE            | (33) United States of America  | G02F 1/15  |
| (73) Nippon Steel Corporation                      | United States of America   | F21S 43/31   |
| Vallourec Oil and Gas France                       | (51) F16L 55/132   | F21S 43/40   |
| (72) SUGINO, Masaaki                               | F16L 55/136  | F21S 43/15   |
| YAMAMOTO, Tatsuya                                  | F16L 55/128  | B60Q 1/38  |
| NISHIKAWA, Yukihiko                                | (11) EP3983714   | G02F 1/157   |
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| (54) VEHICLE LAMP USING SEMICONDUCTOR LIGHT-EMITTING DEVICE         | (22) 18.01.2017                                | (72) GREENBERG, Adam Phillip Takla |
| (73) ZKW Group GmbH   | (54) LIGHT EMITTING DEVICE                     | KING, Matthew Charles              |
| (72) JUNG, Mongkwon   | (73) NICHIA CORPORATION                        | (31) 201816155849                  |
| CHA, Joongtaek  | (72) Miyoshi, Tomonori                         | 201762570615 P                     |
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| (54) CUT-OFF MECHANISM COMPRISING A BAR CARRYING A PERMANENT MAGNET | F21S 41/148                                    | F21S 8/04                          |
| (73) AML Systems  | F21S 41/24                                     | F21Y 115/10                        |
| (72) NORONHA, Anderson  | F21S 41/32                                     | (11) EP3760922                     |
| LOPEZ, Daniel   | F21S 41/663                                    | (21) EP19760330.1                  |
| KOULOOUH, Hassan  | F21S 43/239                                    | (47) 26.04.2023                    |
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| (51) F21S 43/14   | (21) EP17829656.2                              | (54) MECHANICAL ARTICULATION       |
| F21S 43/31  | (47) 26.04.2023                                | SYSTEM WITH ELECTRICAL AND/        |
| F21S 43/33  | (87) EP2017084433                              | OR THERMAL CONDUCTIVITY VIA        |
| (11) EP3118516  | 28.06.2018                                     | INVISIBLE, ADJUSTABLE BALL-AND-    |
| (21) EP15761270.6   | (22) 22.12.2017                                | SOCKET JOINT                       |
| (47) 26.04.2023   | (54) LIGHT EMITTING MODULE                     | (73) Eidopia, S.L.                 |
| (87) KR2015002449   | WITH LIGHT GUIDE PLATE FOR                     | (72) Garcia Rodriguez, Lucas       |
| 17.09.2015  | AUTOMOTIVE HEADLIGHT                           | (31) 201830205                     |
| (22) 13.03.2015   | (73) Lumileds LLC                              | (32) 02.03.2018                    |
| (54) LIGHTING UNIT FOR VEHICLE                                      | (72) CAO, Yiyu                                 | (33) Spain                         |
| (73) LG Innotek Co., Ltd.   | (31) PCT/CN2016/111628                         | (51) F21V 29/00                    |
| (72) LEE, Jung Ho   | 17151648                                       | H05B 33/10                         |
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| (51) F21S 45/47   | European Patent Office (EPO)                   | F21Y 115/10                        |
| F21S 43/14  | (51) F21V 8/00                                 | F21V 29/85                         |
| F21S 43/19  | G03B 21/20                                     | (11) EP3431869                     |
| F21S 43/237   | H04N 9/31                                      | (21) EP18193959.6                  |
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| (11) EP3396239  | (87) FR2016050753                              | (73) Epistar Corporation           |
| (21) EP18167329.4   | 06.10.2016                                     | (72) CAO, Densen                   |
| (47) 26.04.2023   | (22) 01.04.2016                                | JENSEN, Steven                     |
| (22) 13.04.2018   | (54) LASER-DIODE-BASED SOURCE OF               | (31) 201161553635 P                |
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| (73) Valeo North America, Inc.                                      | (73) Xyzed                                     | (33) United States of America      |
| (72) BLANDIN, Jonathan  | (72) REBIFFE, Maurice                          | (51) F22B 1/02                     |
| HEMON, Julien   | (31) 1552885                                   | F22B 1/12                          |
| WARNER, Gavin   | (32) 03.04.2015                                | F22B 35/00                         |
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| ROTH, Frederick-Allen   | (51) F21V 21/14                                | G21C 15/18                         |
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| F21V 9/30   | G01D 18/00                                     | (22) 09.11.2018                    |
| F21V 13/08  | A01G 9/20                                      | (54) NUCLEAR POWER PLANTS          |
| H01L 25/075   | A01G 7/00                                      | (73) Rolls-Royce SMR Limited       |
| H01L 33/48  | A01G 9/14                                      | (72) Palmer, James                 |
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| (47) 26.04.2023   | 18.04.2019                                     | F01K 7/38                          |
|   | (22) 10.10.2018                                | F01K 17/02                         |
|   | (54) INTELLIGENT TRACK AND                     | F01K 17/06                         |
|   | NAVIGATION FOR SENSOR CARRIER                  | F01K 13/02                         |
|   | (73) lunu, Inc.                                | (11) EP3715593                     |
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| (22) 03.12.2019   | (54) COOKING APPLIANCE AND METHOD FOR PYROLYTIC CLEANING OF A COOKING APPLIANCE | (33) China  |
| (54) POWER PLANT AND POWER OUTPUT INCREASE CONTROLLING METHOD FOR POWER PLANT | (73) Miele & Cie. KG  | China   |
| (73) Mitsubishi Heavy Industries, Ltd.  | (72) Keller, Uwe  | (51) F24F 1/28  |
| (72) TOMIYAMA, Tomoya   | Ribbe, Patrick  | F24F 1/30   |
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| (33) Japan  | Sonntag, Antje  | (21) EP14896571.8   |
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| F23D 14/14  | (32) 18.08.2020   | (87) JP2014067620   |
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| (54) INFRARED RADIATOR AND METHOD FOR THE INSTALLATION THEREOF                | (73) Inmobles del Segria, S.L.  | B01D 53/88  |
| (73) Voith Patent GmbH  | (72) TORNÉ PICAPAL, Albert  | (11) EP3705797  |
| (72) PANIAGUA, Juan   | (51) F24F 1/0007  | (21) EP20160990.6   |
| HÖCKELMANN, Dirk  | F24F 13/22  | (47) 26.04.2023   |
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| (51) F23R 3/28  | (21) EP19798159.0   | (72) SIBEAUD, Mathilde  |
| F23R 3/34   | (47) 26.04.2023   | PACCAUD, Denis  |
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| (87) US2017024231   | (54) AIR CONDITIONER INDOOR UNIT AND AIR CONDITIONER                            | (33) France   |
| 28.09.2017  | (73) GD Midea Air-Conditioning Equipment Co., Ltd.                              | (51) F24F 11/30   |
| (22) 27.03.2017   | Midea Group Co., Ltd.   | F25B 1/04   |
| (54) SEGMENTED ANNULAR COMBUSTION SYSTEM WITH AXIAL FUEL STAGING              | (72) LU, Gen  | F25B 27/00  |
| (73) General Electric Company   | PI, Shuyang   | F25B 49/02  |
| (72) BERRY, Jonathan, Dwight  | (31) 201910158195   | F25B 6/02   |
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| (33) United States of America   | F24F 13/06  | (72) KAWAI, Kazuhiko  |
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| (51) F24C 14/00   | (11) EP3722684  | F24F 11/48  |
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| (54) OVEN COMPRISING A SYSTEM FOR DISPERSING CHEMICAL AGENTS                  | (54) AIR CONDITIONER INDOOR UNIT  | 18.06.2020  |
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| (72) TORNÉ PICAPAL, Albert  | Midea Group Co., Ltd.   | (54) AIR CONDITIONING CONTROL DEVICE AND AIR CONDITIONING CONTROL METHOD        |
| SANTALLUSIA CASTELLS, Josep   | (72) PENG, Daijie   | (73) Mitsubishi Electric Corporation  |
| (51) F24C 14/02   | CHEN, Zhihang   | (72) TAGUCHI, Naoki   |
| F24C 7/08   | ZHANG, Tao  | MARIYAMA, Toshisada   |
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| F24F 110/10                                   | (72) OKAMOTO, Daisuke                | F25C 5/12                          |
| F24F 11/77                                    | TOMIOKA, Naoto                       | (11) EP3904789                     |
| F24F 1/0047                                   | KAJIWARA, Mikio                      | (21) EP19902266.6                  |
| F24F 11/63                                    | NISHIDE, Yohei                       | (47) 26.04.2023                    |
| F21V 33/00                                    | OHNISHI, Yousuke                     | (87) JP2019033661                  |
| F24F 11/76                                    | ADACHI, Masaaki                      | 02.07.2020                         |
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| (21) EP16205728.5                             | 2018221585                           | ICE MAKER                          |
| (47) 26.04.2023                               | 2018185073                           | (73) DAIKIN INDUSTRIES, LTD.       |
| (22) 21.12.2016                               | (32) 13.12.2018                      | (72) KITA, Kouichi                 |
| (54) AIR CONDITIONER                          | 13.12.2018                           | KAJIMOTO, Akihiro                  |
| (73) Samsung Electronics Co., Ltd             | 27.11.2018                           | NISHIHARA, Kazuhiko                |
| (72) KIM, Kyoung-Rock                         | 28.09.2018                           | ITOU, Takamasa                     |
| YOON, Joon-Ho                                 | (33) Japan                           | YAMANAKA, Yuuji                    |
| KIM, Jung Ho                                  | Japan                                | UENO, Takeo                        |
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| F24F 13/22                                    | F25B 47/02                           | F25D 27/00                         |
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| (54) TOP COVER ASSEMBLY FOR AIR               | (73) MITSUBISHI ELECTRIC             | (54) REFRIGERATOR                  |
| CONDITIONER ADJUSTMENT                        | CORPORATION                          | (73) Samsung Electronics Co., Ltd. |
| APPARATUS, AND AIR CONDITIONER                | (72) ARIYAMA, Tadashi                | (72) JEON, Byung Woo               |
| ADJUSTMENT APPARATUS                          | (51) F25B 13/00                      | BAE, Il Sung                       |
| (73) Gree Electric Appliances, Inc. of Zhuhai | F25B 49/02                           | SONG, Joo Hee                      |
| (72) LI, Deqing                               | F24F 11/86                           | KIM, Ki-Hyun                       |
| JIN, Haiyuan                                  | F25B 9/08                            | YANG, Byung Kwan                   |
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| CHEN, Shengwen                                | CONDITIONING SYSTEM AND              | (21) EP21188526.4                  |
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| YANG, Jie                                     | Xinyu, Wu                            | (72) Hong, Dae Jin                 |
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| F25B 13/00                                    | (54) REFRIGERATION CYCLE DEVICE      | (11) EP3779335                     |
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| (21) EP19866258.7                             | (72) NISHIYAMA, Takumi               | (47) 26.04.2023                    |
| (47) 26.04.2023                               | TANAKA, Kosuke                       | (22) 17.02.2011                    |
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| 02.04.2020                                    | HATOMURA, Takeshi                    | (73) LG Electronics Inc.           |
| (22) 25.09.2019                               | AOYAMA, Yutaka                       | (72) EOM, Yonghwan                 |

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| KIM, Youngjin                      | F27B 9/18                                 | (22) 10.03.2020                      |
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| 20100016028                        | (21) EP21211883.0                         | INTEGRATED PHASE CHANGE              |
| (32) 23.02.2010                    | (47) 26.04.2023                           | MATERIAL AND METHOD                  |
| 23.02.2010                         | (22) 02.12.2021                           | (73) Hamilton Sundstrand Corporation |
| (33) Korea (Republic)              | (54) MULTIPLE HEARTH FURNACE              | (72) BOURAS, Scott R.                |
| Korea (Republic)                   | INCLUDING CURVED ARMS,                    | (31) 201916358262                    |
| (51) F25D 23/02                    | APPLICATION TO THE ROASTING OF            | (32) 19.03.2019                      |
| (11) EP3892943                     | BIOMASS                                   | (33) United States of America        |
| (21) EP21159518.6                  | (73) Commissariat à l'Energie Atomique et | (51) F28F 23/00                      |
| (47) 26.04.2023                    | aux Energies Alternatives                 | B23Q 11/12                           |
| (22) 27.01.2021                    | (72) CHATROUX, André                      | B23Q 11/14                           |
| (54) REFRIGERATOR                  | TRIPOLI, Carmelo                          | C09K 5/06                            |
| (73) Samsung Electronics Co., Ltd. | (31) 2012515                              | C09K 5/10                            |
| (72) Park, Sungdeuk                | (32) 02.12.2020                           | C09K 5/12                            |
| Kwon, Youngmin                     | (33) France                               | F28D 15/00                           |
| Nam, Jeongman                      | (51) F28D 7/02                            | F28D 20/02                           |
| Kim, Seongwoo                      | F28F 9/013                                | (11) EP3599441                       |
| Yoon, Seunggho                     | F28D 21/00                                | (21) EP18185417.5                    |
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| (32) 08.04.2020                    | (87) EP2020025151                         | REGENERATING A COOLANT               |
| 08.04.2020                         | 15.10.2020                                | DISPERSION                           |
| (33) Korea (Republic)              | (22) 31.03.2020                           | (73) GF Machining Solutions AG       |
| Korea (Republic)                   | (54) DESIGN AND ARRANGEMENT               | (72) FISCHER, Ludger                 |
| (51) F25D 23/10                    | OF TUBE SUPPORT BARS                      | VON ARX, Silvan                      |
| F24C 15/06                         | FOR REDUCING RADIAL                       | REINHARD, Edwin                      |
| F24C 15/08                         | MALDISTRIBUTION IN A COIL WOUND           | WEISS, Lukas                         |
| B44C 5/04                          | HEAT EXCHANGER                            | (51) F41G 1/32                       |
| H05K 7/18                          | (73) Linde GmbH                           | F41G 1/38                            |
| A47L 15/42                         | (72) STEINBAUER, Manfred                  | F41G 11/00                           |
| A47B 96/20                         | SPREEMANN, Jürgen                         | (11) EP3943873                       |
| (11) EP2993430                     | DEICHSEL, Florian                         | (21) EP21185782.6                    |
| (21) EP15182015.6                  | BRAUN, Konrad                             | (47) 26.04.2023                      |
| (47) 26.04.2023                    | KNAUP, Manuel                             | (22) 15.07.2021                      |
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| (54) COVER FOR A DOMESTIC          | (32) 12.04.2019                           | AND AIMING DEVICE WITH SUCH A        |
| APPLIANCE, AND DOMESTIC            | (33) Germany                              | TELESCOPIC SIGHT ADAPTER             |
| APPLIANCE HAVING A COVER           | (51) F28D 20/00                           | (73) Blaser Group GmbH               |
| (73) BSH Hausgeräte GmbH           | (11) EP3983743                            | (72) Seidl, Paul                     |
| (72) Pfister, Bernd                | (21) EP20714179.7                         | Marx, Robin                          |
| Fink, Andrea                       | (47) 26.04.2023                           | Wiedemann, Peter                     |
| Staud, Ralph                       | (87) EP2020057977                         | (31) 102020119567                    |
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| (32) 04.09.2014                    | (54) ENERGY STORAGE DEVICE AND            | (51) F42B 10/14                      |
| (33) Germany                       | METHOD FOR STORING ENERGY                 | (11) EP3488176                       |
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| (87) KR2019010526                  | (32) 17.06.2019                           | (73) Chairman, Defence Research &    |
| 09.04.2020                         | (33) European Patent Office (EPO)         | Development Organisation (DRDO)      |
| (22) 20.08.2019                    | (51) F28D 20/02                           | (72) BAVANARI, Venkata Lakshmi       |
| (54) REFRIGERATOR                  | F28F 3/02                                 | Chennakeseva Rao                     |
| (73) Samsung Electronics Co., Ltd. | H01L 23/367                               | SHAIK, Ismail                        |
| (72) PARK, Ji Yong                 | H01L 23/373                               | JAIN, Prakash Chand                  |
| SEO, Yong Man                      | H01L 23/427                               | PAMARTHI, Seeta Rama Anjaneyulu      |
| JANG, Myoung Jin                   | H05K 7/20                                 | ALI, Naveed                          |
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| (32) 02.10.2018                    | F28D 21/00                                | KAPADIA, Kaikobad Erachshaw          |
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| B23K 26/00                           | (54) SYSTEM AND METHOD FOR      | (54) METHOD AND CONTROL SYSTEM                 |
| G01J 5/00                            | REDUCED-SPECKLE LASER LINE      | FOR CONTROLLING A MARINE                       |
| (11) EP3889539                       | GENERATION                      | VESSEL   |
| (21) EP21166137.6                    | (73) Cognex Corporation         | (73) ABB Schweiz AG                            |
| (47) 26.04.2023                      | (72) FILHABER, John F.          | (72) FEYZMAHDAVIAN, Hamid                      |
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| MEASUREMENTS, AND OPERATING          | 19.01.2017                      | (21) EP18881632.6                              |
| METHOD THEREOF                       | (33) United States of America   | (47) 26.04.2023                                |
| (73) Adige S.p.A.                    | United States of America        | (87) JP2018042687                              |
| (72) DONADELLO, Simone               | (51) G01B 21/04                 | 31.05.2019                                     |
| PREVITALI, Barbara                   | B23Q 17/22                      | (22) 19.11.2018                                |
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| (32) 01.04.2020                      | G01B 11/00                      | COLLECTION METHOD                              |
| (33) Italy                           | G01B 5/008                      | (73) Mitsubishi Electric Corporation           |
| (51) G01B 11/02                      | (11) EP3147627                  | (72) SUZUKI, Toshiharu                         |
| G01B 11/24                           | (21) EP15186221.6               | GOTO, Yasunari                                 |
| G06T 7/62                            | (47) 26.04.2023                 | (31) 2017224464                                |
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| (47) 26.04.2023                      | CALIBRATION                     | (51) G01C 21/34                                |
| (87) JP2019036811                    | (73) GF Machining Solutions AG  | B60R 16/023                                    |
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| (54) MEASUREMENT DEVICE AND          | (51) G01C 21/16                 | (11) EP3767236                                 |
| MEASUREMENT METHOD                   | G01C 23/00                      | (21) EP19186340.6                              |
| (73) Panasonic Intellectual Property | G08G 5/06                       | (47) 26.04.2023                                |
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| (72) FUJIWARA Hikaru                 | (11) EP3957952                  | (54) ENERGY MAP RECONSTRUCTION BY              |
| HATSUDA Ken                          | (21) EP21182188.9               | CROWDSOURCED DATA                              |
| TEZUKA Shota                         | (47) 26.04.2023                 | (73) Bayerische Motoren Werke                  |
| UEDA Miyu                            | (22) 28.06.2021                 | Aktiengesellschaft                             |
| YASUNAGA Takuya                      | (54) SYSTEMS AND METHODS USING  | (72) Tian, Jilei                               |
| (31) 2018185332                      | IMAGE PROCESSING TO DETERMINE   | Athas, Gregory                                 |
| (32) 28.09.2018                      | AT LEAST ONE KINEMATIC STATE OF | Chin, Alvin                                    |
| (33) Japan                           | A VEHICLE                       | (51) G01C 21/34                                |
| (51) G01B 11/24                      | (73) HONEYWELL AEROSPACE SAS    | B60W 30/095                                    |
| G06T 7/174                           | (72) BARANEK, Radek             | G08G 1/123                                     |
| G01B 21/04                           | KANA, Zdenek                    | G08G 1/16                                      |
| G01B 11/02                           | SOTAK, Milos                    | G08G 1/00                                      |
| G01B 11/06                           | DOBES, Michal                   | (11) EP3805704                                 |
| G01B 11/28                           | BAGESHWAR, Vibhor L             | (21) EP20195178.7                              |
| G06T 7/12                            | (31) 202016999490               | (47) 26.04.2023                                |
| G06T 7/55                            | (32) 21.08.2020                 | (22) 09.09.2020                                |
| G06T 7/62                            | (33) United States of America   | (54) VEHICLE CONTROL SYSTEM AND                |
| (11) EP3783302                       | (51) G01C 21/20                 | COMPUTING DEVICE                               |
| (21) EP19192463.8                    | G01C 21/36                      | (73) Hitachi, Ltd.                             |
| (47) 26.04.2023                      | (11) EP3581888                  | (72) MATSUMOTO, Takashi                        |
| (22) 20.08.2019                      | (21) EP19179222.5               | KONDO, Akihiro                                 |
| (54) OBJECT MEASURING SYSTEM         | (47) 26.04.2023                 | HYODO, Akihiko                                 |
| FOR A PACKAGING MACHINE FOR          | (22) 10.06.2019                 | (31) 2019187612                                |
| DETERMINING THE DIMENSIONS OF        | (54) AUDIBLE ROUTE SEQUENCE FOR | (32) 11.10.2019                                |
| A BASE SURFACE AND A HEIGHT OF       | NAVIGATION GUIDANCE             | (33) Japan                                     |
| A PACKAGING TRAY TO BE WRAPPED       | (73) HERE Global B.V.           | (51) G01C 21/36                                |
| (73) Bizerba SE & Co. KG             | (72) GRANI, Francesco           | (11) EP3842762                                 |
| (72) Zobel, Rudolf                   | KROME, Sven                     | (21) EP21163677.4                              |
| Pries, Markus                        | (31) 201816007543               | (47) 26.04.2023                                |
| (51) G01B 11/25                      | (32) 13.06.2018                 | (22) 19.03.2021                                |
| G02B 5/02                            | (33) United States of America   | (54) AR NAVIGATION METHOD AND                  |
| G02B 27/48                           | (51) G01C 21/20                 | APPARATUS                                      |
| G02B 26/10                           | G06F 17/11                      | (73) Apollo Intelligent Connectivity (Beijing) |
| (11) EP3571463                       | B63B 79/40                      | Technology Co., Ltd.                           |
| (21) EP18702882.4                    | G05D 1/02                       | (72) LI, Yinghui                               |
| (47) 26.04.2023                      | (11) EP3742117                  | (31) 202010466019                              |
| (87) US2018014562                    | (21) EP19175824.2               | (32) 28.05.2020                                |

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| (51) G01D 4/00   | (32) 06.03.2018   | FREUND, William, R., JR.   |
| G01F 15/06   | (33) United States of America   | ZUCKERMAN, Richard, A.   |
| G06Q 50/06   | (51) G01D 18/00   | ESTRADA, Herbert   |
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| (54) WATER SENSOR AND ANALYTICS SYSTEM   | (87) CN2017098458   | United States of America   |
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| (72) RAVID, Shay   | (22) 22.08.2017   | H01L 41/053  |
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| TAHAN, Avy   | (73) Beijing Const Instruments Technology Inc.  | H04R 17/00   |
| GALRON, Dror   | (72) ZHAO, Shichun  | B06B 1/06  |
| GAL, Alon Haim   | DONG, Lijun   | G01F 1/66  |
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| (33) United States of America  | 10.01.2017  | (54) TRANSDUCER FOR ULTRASONIC FLOW METER                                  |
| (51) G01D 5/14   | (33) China  | (73) Micro Motion, Inc.  |
| G01D 5/244   | China   | (72) MEZHERITSKY, Alex   |
| (11) EP3885709   | (51) G01F 1/66  | ALLEN, Charles Robert  |
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| (47) 26.04.2023  | G01N 29/024   | (32) 20.03.2014  |
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| (54) DIGITAL PHASE TRACKING FILTER FOR POSITION SENSING                                      | (21) EP19717764.5   | (51) G01F 1/84   |
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| (51) G01D 5/244  | (22) 21.03.2019   | (11) EP3601963   |
| H03M 1/24  | (54) METHOD FOR NON-INVASIVE DETERMINATION OF THE FLOW OR OF THE FLOW RATE IN AN ELECTRICALLY CONDUCTIVE OBJECT THROUGH WHICH A GASEOUS MEDIUM FLOWS, AND ACOUSTIC FLOW METER FOR CARRYING OUT THE METHOD | (21) EP17714140.5  |
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| (21) EP18883419.6  | (72) BRÜCHER, Martin  | (87) US2017023158  |
| (47) 26.04.2023  | BAUERNSCHMITT, Rüdiger  | 27.09.2018   |
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| (22) 12.10.2018  | 102018106736  | (73) Micro Motion, Inc.  |
| (54) PHASE DEVIATION COMPENSATION METHOD AND DEVICE  | (32) 14.09.2018   | (72) GRECO, Salvatore D.   |
| (73) Gree Green Refrigeration Technology Center Co., Ltd. of Zhuhai                          | 21.03.2018  | (51) G01F 15/00  |
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| HU, Yusheng  | Germany   | (11) EP3665443   |
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| ZHONG, Chengbao  | G01F 1/66   | (47) 26.04.2023  |
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| (51) G01D 5/353  | (22) 02.11.2011   | (72) HELFENSTEIN, Markus   |
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| (47) 26.04.2023  | G01F 15/06  | G01D 4/02  |
| (22) 26.02.2019  | G01D 11/24  | G01D 11/26   |
| (54) DEVICE AND METHOD OF CALIBRATING FIBER BRAGG GRATING BASED FIBER OPTIC OVERHEAT SYSTEMS | (11) EP3701230  | (11) EP3701230   |
| (73) Kidde Technologies, Inc.  | (21) EP18796843.3   | (21) EP18796843.3  |
| (72) MILLER, Mark Sherwood   | (47) 26.04.2023   | (47) 26.04.2023  |
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| 02.05.2019                           | (54) CONVEYOR DEVICE AND METHOD           | (54) PROCESSING DEVICE AND METHOD,        |
| (22) 23.10.2018                      | FOR DETERMINING A CENTRE OF               | AIR POLLUTION DETECTION DEVICE            |
| (54) COUNTING DEVICE                 | GRAVITY OF A PIECE ITEM                   | AND METHOD                                |
| (73) Diehl Metering GmbH             | (73) BEUMER Group GmbH & Co. KG           | (73) Sony Semiconductor Solutions         |
| (72) GRONAUER, Christoph             | (72) Jesper, Jan                          | Corporation                               |
| (31) 102017009931                    | (51) G01H 1/00                            | (72) Eslier, Thomas                       |
| (32) 25.10.2017                      | G01H 9/00                                 | Siddiqui, Muhammad                        |
| (33) Germany                         | G10K 11/00                                | (31) 18199364                             |
| (51) G01F 23/26                      | (11) EP2801801                            | (32) 09.10.2018                           |
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| (47) 26.04.2023                      | (73) Hamilton Sundstrand Corporation      | G02B 21/14                                |
| (22) 05.02.2021                      | (72) Jalbert, Peter L                     | G02B 21/18                                |
| (54) MEASURING DEVICE WITH FLEXIBLE  | Mcbrien, Gary M                           | G02B 21/24                                |
| FASTENING DEVICE                     | (31) 201313889763                         | H04N 5/235                                |
| (73) VEGA Grieshaber KG              | (32) 08.05.2013                           | G02B 7/36                                 |
| (72) HENGSTLER, Clemens              | (33) United States of America             | H04N 5/232                                |
| HUMMEL, Jakob                        | (51) G01J 3/02                            | (11) EP2975444                            |
| DIETERLE, Marcel                     | G01J 3/453                                | (21) EP14763445.5                         |
| SCHMIDT, Matthias                    | G02B 21/36                                | (47) 26.04.2023                           |
| SECKINGER, Timo                      | G01J 3/28                                 | (87) JP2014001258                         |
| (51) G01F 23/28                      | G06T 7/11                                 | 18.09.2014                                |
| G01F 23/80                           | G06V 10/75                                | (22) 06.03.2014                           |
| G01F 25/20                           | G06V 20/69                                | (54) INFORMATION PROCESSING DEVICE,       |
| G01S 15/88                           | G01N 21/35                                | INFORMATION PROCESSING                    |
| G05B 19/042                          | G01J 3/10                                 | METHOD, AND INFORMATION                   |
| G06T 7/62                            | G06T 7/00                                 | PROCESSING PROGRAM                        |
| G01B 11/02                           | (11) EP2966433                            | (73) Sony Group Corporation               |
| G01F 17/00                           | (21) EP13876990.6                         | (72) OSHIMA, Takuya                       |
| (11) EP3724614                       | (47) 26.04.2023                           | (31) 2013049946                           |
| (21) EP18803654.5                    | (87) JP2013056538                         | (32) 13.03.2013                           |
| (47) 26.04.2023                      | 12.09.2014                                | (33) Japan                                |
| (87) EP2018081150                    | (22) 08.03.2013                           | (51) G01J 5/04                            |
| 20.06.2019                           | (54) DEVICE FOR SETTING REGION OF         | G01J 5/02                                 |
| (22) 14.11.2018                      | INTEREST FOR ANALYSIS                     | G01J 5/20                                 |
| (54) METHOD OF SIMPLIFIED INITIATION | (73) Shimadzu Corporation                 | G01J 5/10                                 |
| OF A FIELD DEVICE                    | (72) NODA, Akira                          | (11) EP3067675                            |
| (73) Endress+Hauser SE+Co. KG        | (51) G01J 3/02                            | (21) EP16156190.7                         |
| (72) PALATINI, Florian               | G01N 15/14                                | (47) 26.04.2023                           |
| BIRGEL, Eric                         | B01L 3/00                                 | (22) 17.02.2016                           |
| HAAG, Tanja                          | G02B 6/12                                 | (54) DEVICE FOR DETECTING                 |
| (31) 102017130138                    | G01N 21/05                                | ELECTROMAGNETIC RADIATION                 |
| (32) 15.12.2017                      | G01N 21/64                                | WITH SEALED ENCAPSULATION                 |
| (33) Germany                         | (11) EP3289321                            | STRUCTURE HAVING A RELEASE                |
| (51) G01G 15/00                      | (21) EP15890988.7                         | VENT                                      |
| B65B 1/46                            | (47) 26.04.2023                           | (73) Commissariat à l'Énergie Atomique et |
| B67C 3/20                            | (87) US2015028639                         | aux Énergies Alternatives                 |
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| (21) EP16700937.2                    | (22) 30.04.2015                           | CARLE, Laurent                            |
| (47) 26.04.2023                      | (54) OPTICAL SPECTROMETER                 | IMPERINETTI, Pierre                       |
| (87) US2016012291                    | (73) Hewlett-Packard Development Company, | POCAS, Stephane                           |
| 14.07.2016                           | L.P.                                      | YON, Jean-Jacques                         |
| (22) 06.01.2016                      | (72) SANTORI, Charles M.                  | (31) 1551489                              |
| (54) CHECKWEIGHER ASSEMBLY AND       | GOVYADINOV, Alexander                     | (32) 20.02.2015                           |
| METHOD OF WEIGHING AN OBJECT         | (51) G01J 3/42                            | (33) France                               |
| (73) The Procter & Gamble Company    | G01N 21/31                                | (51) G01J 5/04                            |
| (72) CASSONI, Robert, Paul           | G01N 21/53                                | G01J 5/20                                 |
| (31) 201514590034                    | G01N 33/00                                | (11) EP3752804                            |
| (32) 06.01.2015                      | G01J 3/28                                 | (21) EP19710453.2                         |
| (33) United States of America        | G01N 21/3504                              | (47) 26.04.2023                           |
| (51) G01G 19/03                      | G01J 3/12                                 | (87) FR2019050326                         |
| G01M 1/12                            | (11) EP3637068                            | 22.08.2019                                |
| (11) EP3712575                       | (21) EP19202281.2                         | (22) 14.02.2019                           |
| (21) EP19164676.9                    | (47) 26.04.2023                           | (54) PROCESS FOR MANUFACTURING            |
| (47) 26.04.2023                      | (22) 09.10.2019                           | A MICROBOLMETER CONTAINING                |
| (22) 22.03.2019                      |   |   |



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| <p>VANADIUM OXIDE-BASED SENSITIVE MATERIAL<br/>(73) COMMISSARIAT À L'ÉNERGIE ATOMIQUE ET AUX ÉNERGIES ALTERNATIVES<br/>(72) PELENC, Denis<br/>ZUCCHI, Xavier<br/>VIALLE, Claire<br/>GOUDON, Valérie<br/>ALIANE, Abdelkader<br/>(31) 1800145<br/>(32) 15.02.2018<br/>(33) France</p> <hr/> <p>(51) G01K 7/01<br/>H01L 23/13<br/>H01L 23/34<br/>(11) EP3896727<br/>(21) EP21165321.7<br/>(47) 26.04.2023<br/>(22) 26.03.2021<br/>(54) AMBIENT TEMPERATURE SENSOR WHICH MAY BE COUPLED TO A PRINTED CIRCUIT BOARD WITH AN IMPROVED PACKAGE<br/>(73) STMicroelectronics S.r.l.<br/>(72) PESATURO, Massimiliano<br/>GHIDONI, Marco Omar<br/>(31) 202000007009<br/>(32) 02.04.2020<br/>(33) Italy</p> <hr/> <p>(51) G01K 11/32<br/>G01K 15/00<br/>(11) EP3742140<br/>(21) EP19210188.9<br/>(47) 26.04.2023<br/>(22) 19.11.2019<br/>(54) OVERHEAT TESTING APPARATUS FOR OPTICAL FIBER<br/>(73) Kidde Technologies, Inc.<br/>(72) DeWitt, Darryl J.<br/>Liu, Lei<br/>(31) 201916417066<br/>(32) 20.05.2019<br/>(33) United States of America</p> <hr/> <p>(51) G01L 1/14<br/>G01L 5/20<br/>(11) EP3765828<br/>(21) EP19714483.5<br/>(47) 26.04.2023<br/>(87) IB2019052091<br/>19.09.2019<br/>(22) 14.03.2019<br/>(54) RIM WITH SENSOR AND WHEEL INCLUDING THAT RIM<br/>(73) Politecnico di Milano<br/>(72) GOBBI, Massimiliano<br/>MASTINU, Gianpiero<br/>DELL'AGOSTINO, Stefano<br/>(31) 201800003697<br/>(32) 16.03.2018<br/>(33) Italy</p> <hr/> <p>(51) G01M 11/06<br/>(11) EP3516363<br/>(21) EP17786860.1<br/>(47) 26.04.2023<br/>(87) EP2017075350<br/>19.04.2018<br/>(22) 05.10.2017</p> | <p>(54) HEADLIGHT SETTING TEST DEVICE, HEADLIGHT SETTING TEST STATION, HEADLIGHT SETTING DEVICE AND METHOD FOR TESTING A HEADLIGHT SETTING<br/>(73) Sherpa Autodiagnostik GmbH<br/>(72) RISCHKE, Manfred<br/>(31) 102016119633<br/>(32) 14.10.2016<br/>(33) Germany</p> <hr/> <p>(51) G01M 17/007<br/>G01M 17/06<br/>G05B 23/02<br/>G06F 16/2458<br/>(11) EP3869175<br/>(21) EP21178378.2<br/>(47) 26.04.2023<br/>(22) 08.06.2021<br/>(54) TESTING METHOD AND APPARATUS FOR AUTOMATED DRIVING SYSTEM, ELECTRONIC DEVICE, STORAGE MEDIUM AND COMPUTER PROGRAM PRODUCT<br/>(73) Beijing Baidu Netcom Science and Technology Co., Ltd.<br/>(72) FENG, Xi<br/>(31) 202011500891<br/>(32) 17.12.2020<br/>(33) China</p> <hr/> <p>(51) G01N 1/22<br/>G01N 1/44<br/>(11) EP3407051<br/>(21) EP18173850.1<br/>(47) 26.04.2023<br/>(22) 23.05.2018<br/>(54) EXHAUST GAS ANALYSIS APPARATUS AND EXHAUST GAS ANALYSIS METHOD<br/>(73) Horiba, Ltd.<br/>(72) OTSUKI, Yoshinori<br/>(31) 2017102703<br/>(32) 24.05.2017<br/>(33) Japan</p> <hr/> <p>(51) G01N 15/14<br/>G01J 3/00<br/>G01J 3/14<br/>G01J 4/00<br/>G02B 5/00<br/>G01J 1/04<br/>G01J 1/02<br/>H01S 3/00<br/>G01N 15/06<br/>G01N 21/53<br/>(11) EP3365657<br/>(21) EP16858193.2<br/>(47) 26.04.2023<br/>(87) US2016057852<br/>27.04.2017<br/>(22) 20.10.2016<br/>(54) DEVICE FOR REMOVING ENERGY FROM A BEAM AND A METHOD(S) OF USE THEREOF<br/>(73) Tintometer GmbH<br/>(72) PALUMBO, Perry<br/>(31) 201662315298 P<br/>201562244004 P<br/>(32) 30.03.2016<br/>(22) 20.10.2015</p> | <p>(33) United States of America<br/>United States of America</p> <hr/> <p>(51) G01N 15/14<br/>G01N 21/31<br/>G01N 21/63<br/>(11) EP2430424<br/>(21) EP09844734.5<br/>(47) 26.04.2023<br/>(87) US2009043811<br/>18.11.2010<br/>(22) 13.05.2009<br/>(54) FLOW MEASUREMENT AND CONTROL FOR IMPROVED QUANTIFICATION OF PARTICLES IN FLOW CYTOMETRY<br/>(73) Sartorius BioAnalytical Instruments, Inc.<br/>(72) ROWLEN, Kathy<br/>FERRIS, Matthew</p> <hr/> <p>(51) G01N 21/25<br/>G01N 21/31<br/>A01G 7/00<br/>G01J 3/36<br/>G01J 3/51<br/>G06Q 30/00<br/>G06Q 50/02<br/>G06V 20/10<br/>G01N 21/01<br/>G01N 21/17<br/>G01N 21/359<br/>G01N 21/84<br/>G01J 3/28<br/>G01N 33/00<br/>(11) EP2979079<br/>(21) EP14719877.4<br/>(47) 26.04.2023<br/>(87) JP2014001497<br/>02.10.2014<br/>(22) 17.03.2014<br/>(54) METHOD, SYSTEM, AND MEDIUM HAVING STORED THEREON INSTRUCTIONS THAT CAUSE A PROCESSOR TO EXECUTE A METHOD FOR OBTAINING IMAGE INFORMATION OF AN AGRICULTURAL PRODUCE COMPRISING A SET OF OPTICAL DATA<br/>(73) Sony Group Corporation<br/>(72) OGURA, Morio<br/>SUMI, Hirofumi<br/>(31) 2013062017<br/>(32) 25.03.2013<br/>(33) Japan</p> <hr/> <p>(51) G01N 21/25<br/>G01N 21/47<br/>G01J 3/10<br/>A61B 5/00<br/>G01N 21/31<br/>G01J 3/00<br/>G01J 3/28<br/>G01J 3/42<br/>(11) EP3929565<br/>(21) EP20217555.0<br/>(47) 26.04.2023<br/>(22) 29.12.2020<br/>(54) APPARATUS AND METHOD FOR OPTICALLY ANALYZING SUBSTANCE OF OBJECT<br/>(73) Samsung Electronics Co., Ltd.</p> |
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| (72) JUNG, Myoung Hoon<br>KIM, Sang Kyu<br>KIM, Yoon Jae<br>MOON, Hyun Seok<br>PARK, Jin Young<br>AHN, Sung Mo<br>EOM, Kun Sun  | (22) 08.12.2014<br>(54) PCR validation tubes<br>(73) Starna Scientific Limited<br>(72) Hulme, Keith<br>Hulme, Nathan<br>Hammond, John<br>(31) 201321609<br>(32) 06.12.2013<br>(33) United Kingdom   | GUYONNET, Benoît<br>(31) 1656931<br>1560026<br>(32) 21.07.2016<br>21.10.2015<br>(33) France<br>France  |
| (31) 20200077783<br>(32) 25.06.2020<br>(33) Korea (Republic)  | (51) G01N 21/27<br>G01N 21/31<br>G01N 21/47<br>G01N 21/64   | (51) G01N 21/64<br>(11) EP4095516<br>(21) EP21187043.1<br>(47) 26.04.2023<br>(22) 21.07.2021<br>(54) BIOSENSOR WITH GRATING ARRAY<br>(73) VisEra Technologies Company Limited<br>(72) HSIEH, Hsin-Yi<br>(31) 202117333870<br>(32) 28.05.2021<br>(33) United States of America  |
| (11) EP3614128<br>(21) EP18190123.2<br>(47) 26.04.2023<br>(22) 22.08.2018<br>(54) A METHOD TO CORRECT SIGNAL<br>LIGHT INTENSITIES MEASURED BY A<br>DETECTOR OF A DETECTION UNIT IN<br>A LABORATORY INSTRUMENT<br>(73) F. Hoffmann-La Roche AG<br>(72) BETSCHART, Florian<br>WASER, Patrick  | (51) G01N 21/27<br>G01N 21/31<br>G01N 21/47<br>G01N 21/64<br>(11) EP3880842<br>(21) EP19804666.6<br>(47) 26.04.2023<br>(87) EP2019080713<br>22.05.2020<br>(22) 08.11.2019<br>(54) METHOD AND DEVICE FOR<br>ANALYZING BIOLOGICAL MATERIAL<br>(73) Robert Bosch GmbH<br>(72) FRANK, Tino<br>(31) 102018219483<br>(32) 15.11.2018<br>(33) Germany  | (51) G01N 21/65<br>G01J 3/44<br>(11) EP2972238<br>(21) EP14765091.5<br>(47) 26.04.2023<br>(87) US2014029633<br>18.09.2014<br>(22) 14.03.2014<br>(54) USE OF RAMAN SPECTROSCOPY TO<br>MONITOR CULTURE MEDIUM<br>(73) Biogen MA Inc.<br>(72) MORETTO, Justin<br>BERRY, Brandon<br>DOANE, Alex<br>(31) 201361798187 P<br>(32) 15.03.2013<br>(33) United States of America   |
| (51) G01N 21/27<br>G01N 21/359<br>G01J 3/02<br>G01J 3/28<br>G06N 20/10<br>G06V 10/143<br>G06V 10/32<br>G06V 10/77<br>G01N 21/84<br>(11) EP3842787<br>(21) EP19219289.6<br>(47) 26.04.2023<br>(22) 23.12.2019<br>(54) SPECTRAL SENSOR<br>(73) SICK AG<br>(72) Albrecht, Roland<br>Eble, Johannes   | (51) G01N 21/31<br>G01N 21/35<br>G01N 21/3577<br>(11) EP3861321<br>(21) EP19782811.4<br>(47) 26.04.2023<br>(87) US2019050292<br>09.04.2020<br>(22) 10.09.2019<br>(54) METHOD OF DETERMINING OCTANE<br>NUMBER OF NAPHTHA AND OF<br>DETERMINING CETANE NUMBER OF<br>DIESEL FUEL OR JET FUEL USING<br>INFRARED SPECTROSCOPY<br>(73) ExxonMobil Technology and Engineering<br>Company<br>(72) BOWIE, Bryan T.<br>LEE, John E.<br>HAGEE, Bryan E.<br>(31) 201862740032 P<br>(32) 02.10.2018<br>(33) United States of America | (22) 14.03.2014<br>(54) USE OF RAMAN SPECTROSCOPY TO<br>MONITOR CULTURE MEDIUM<br>(73) Biogen MA Inc.<br>(72) MORETTO, Justin<br>BERRY, Brandon<br>DOANE, Alex<br>(31) 201361798187 P<br>(32) 15.03.2013<br>(33) United States of America<br>(51) G01N 21/65<br>G01N 33/543<br>G01N 33/574<br>(11) EP3420359<br>(21) EP17756930.8<br>(47) 26.04.2023<br>(87) SG2017050080<br>31.08.2017<br>(22) 22.02.2017<br>(54) METHOD FOR DETECTING<br>HAPTOGLOBIN USING SURFACE<br>ENHANCED RAMAN SPECTROSCOPY<br>(SERS)<br>(73) Agency for Science, Technology and<br>Research<br>(72) OLIVO, Malini<br>PERUMAL, Jayakumar<br>BALASUNDARAM, Ghayathri<br>(31) 201662297999 P<br>(32) 22.02.2016<br>(33) United States of America   |
| (51) G01N 21/27<br>G01N 21/47<br>G01N 21/53<br>G01N 15/06<br>G01N 33/18<br>G01N 21/85<br>G01N 15/00<br>(11) EP3472596<br>(21) EP17734433.0<br>(47) 26.04.2023<br>(87) GB2017051838<br>11.01.2018<br>(22) 23.06.2017<br>(54) TURBIDITY SENSOR AND METHOD<br>FOR MEASURING TURBIDITY<br>(73) Process Instruments (UK) Limited<br>(72) RIDING, Mike<br>TRACEY, Craig<br>(31) 201611650<br>(32) 04.07.2016<br>(33) United Kingdom | (51) G01N 21/35<br>A01K 67/02<br>C12N 5/076<br>G01N 33/487<br>(11) EP3365661<br>(21) EP16819125.2<br>(47) 26.04.2023<br>(87) FR2016052671<br>27.04.2017<br>(22) 15.10.2016<br>(54) METHOD FOR DETERMINING THE<br>SPERM QUALITY OF VERTEBRATE<br>ANIMALS<br>(73) SYNETICS FRANCE<br>(72) GUILLAUME, François<br>LE CORVEC, Maëna<br>DE BRETAGNE, Thomas<br>MICHEL, Gildas<br>BASQUIN, Stéphane<br>CHARREAUX, Frédéric<br>TARIEL, Hughes  | (51) G01N 21/64<br>(11) EP2881725<br>(21) EP14004134.4<br>(47) 26.04.2023<br>(51) G01N 21/64<br>(11) EP4095516<br>(21) EP21187043.1<br>(47) 26.04.2023<br>(22) 21.07.2021<br>(54) BIOSENSOR WITH GRATING ARRAY<br>(73) VisEra Technologies Company Limited<br>(72) HSIEH, Hsin-Yi<br>(31) 202117333870<br>(32) 28.05.2021<br>(33) United States of America<br>(51) G01N 21/65<br>G01J 3/44<br>(11) EP2972238<br>(21) EP14765091.5<br>(47) 26.04.2023<br>(87) US2014029633<br>18.09.2014<br>(22) 14.03.2014<br>(54) USE OF RAMAN SPECTROSCOPY TO<br>MONITOR CULTURE MEDIUM<br>(73) Biogen MA Inc.<br>(72) MORETTO, Justin<br>BERRY, Brandon<br>DOANE, Alex<br>(31) 201361798187 P<br>(32) 15.03.2013<br>(33) United States of America<br>(51) G01N 21/65<br>G01N 33/543<br>G01N 33/574<br>(11) EP3420359<br>(21) EP17756930.8<br>(47) 26.04.2023<br>(87) SG2017050080<br>31.08.2017<br>(22) 22.02.2017<br>(54) METHOD FOR DETECTING<br>HAPTOGLOBIN USING SURFACE<br>ENHANCED RAMAN SPECTROSCOPY<br>(SERS)<br>(73) Agency for Science, Technology and<br>Research<br>(72) OLIVO, Malini<br>PERUMAL, Jayakumar<br>BALASUNDARAM, Ghayathri<br>(31) 201662297999 P<br>(32) 22.02.2016<br>(33) United States of America<br>(51) G01N 22/04<br>G01N 33/28<br>G01N 27/22<br>(11) EP3924725<br>(21) EP20705906.4<br>(47) 26.04.2023<br>(87) EP2020053674<br>20.08.2020<br>(22) 13.02.2020<br>(54) SYSTEM AND METHOD FOR THE<br>DETECTION OF DRIFT OF THE WATER<br>VOLUME FRACTION IN A FLOW |

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| (73) Roxar Flow Measurement AS     | PROT, Alexandre                          | (31) 201313838509                 |
| (72) UNDHEIM, Erik                 | (31) 1451409                             | (32) 15.03.2013                   |
| (31) 20190211                      | (32) 21.02.2014                          | (33) United States of America     |
| (32) 15.02.2019                    | (33) France                              |                                   |
| (33) Norway                        | (51) G01N 27/327                         | (51) G01N 27/9013                 |
| (51) G01N 23/00                    | G01N 27/414                              | G01N 27/90                        |
| G01N 23/2206                       | (11) EP3159686                           | H01M 10/04                        |
| G01N 23/2209                       | (21) EP15812759.7                        | H01M 10/42                        |
| G01N 23/2252                       | (47) 26.04.2023                          | H01M 10/48                        |
| (11) EP3770589                     | (87) JP2015058903                        | (11) EP3835778                    |
| (21) EP20186786.8                  | 30.12.2015                               | (21) EP20790933.4                 |
| (47) 26.04.2023                    | (22) 24.03.2015                          | (47) 26.04.2023                   |
| (22) 20.07.2020                    | (54) SAMPLING UNIT AND BIOSENSOR         | (87) KR2020004036                 |
| (54) ANALYZER                      | (73) The University of Tokyo             | 22.10.2020                        |
| (73) JEOL Ltd.                     | (72) SAKATA, Toshiya                     | (22) 25.03.2020                   |
| (72) TSUKAMOTO, Kazunori           | KAJISA, Taira                            | (54) INSPECTION DEVICE FOR        |
| HONDA, Shigeru                     | MIYAZAWA, Yuya                           | DETECTING CRACK IN BATTERY CELL   |
| (31) 2019135951                    | (31) 2014127845                          | BY USING EDDY CURRENT             |
| (32) 24.07.2019                    | (32) 23.06.2014                          | (73) LG Energy Solution, Ltd.     |
| (33) Japan                         | (33) Japan                               | (72) KIM, Seok Jin                |
| (51) G01N 23/2252                  | (51) G01N 27/62                          | KOO, Sang Hyun                    |
| (11) EP4006531                     | G01N 30/72                               | KU, Cha Hun                       |
| (21) EP21210240.4                  | H01J 49/00                               | LEE, Jung Hoon                    |
| (47) 26.04.2023                    | (11) EP3605077                           | (31) 20190044954                  |
| (22) 24.11.2021                    | (21) EP17901546.6                        | (32) 17.04.2019                   |
| (54) X-RAY DETECTION APPARATUS AND | (47) 26.04.2023                          | (33) Korea (Republic)             |
| METHOD                             | (87) JP2017011852                        | (51) G01N 29/024                  |
| (73) JEOL Ltd.                     | 27.09.2018                               | G01S 7/527                        |
| (72) MURANO, Takanori              | (22) 23.03.2017                          | G01N 29/44                        |
| (31) 2021168081                    | (54) MASS SPECTROMETER AND               | G01N 29/38                        |
| 2020196725                         | CHROMATOGRAPHIC MASS                     | G01N 29/50                        |
| (32) 13.10.2021                    | SPECTROMETER                             | G01M 3/24                         |
| 27.11.2020                         | (73) Shimadzu Corporation                | G01S 7/539                        |
| (33) Japan                         | (72) YASUDA, Hiroyuki                    | (11) EP3696540                    |
| Japan                              | (51) G01N 27/80                          | (21) EP18865304.2                 |
| (51) G01N 25/72                    | (11) EP3654029                           | (47) 26.04.2023                   |
| G01N 29/44                         | (21) EP18831771.3                        | (87) JP2018036246                 |
| G06T 7/00                          | (47) 26.04.2023                          | 11.04.2019                        |
| (11) EP2979082                     | (87) JP2018024356                        | (22) 28.09.2018                   |
| (21) EP14718687.8                  | 17.01.2019                               | (54) PROPAGATION TIME MEASUREMENT |
| (47) 26.04.2023                    | (22) 27.06.2018                          | MACHINE, GAS CONCENTRATION        |
| (87) FR2014050730                  | (54) SURFACE CHARACTERISTIC              | MEASUREMENT DEVICE,               |
| 02.10.2014                         | EVALUATION METHOD, SURFACE               | PROPAGATION TIME MEASUREMENT      |
| (22) 27.03.2014                    | CHARACTERISTIC EVALUATION                | PROGRAM, AND PROPAGATION TIME     |
| (54) METHOD AND SYSTEM FOR         | DEVICE, AND SURFACE                      | MEASUREMENT METHOD                |
| DETECTING DEFECTS ON AN OBJECT     | CHARACTERISTIC EVALUATION                | (73) Ueda Japan Radio Co., Ltd.   |
| (73) Safran Aircraft Engines       | SYSTEM                                   | Japan Radio Co., Ltd.             |
| (72) BENSE, William                | (73) Sintokogio, Ltd.                    | Nisshinbo Holdings Inc.           |
| GEREZ, Valerio                     | (72) MAKINO Yoshiyasu                    | (72) TSUJIYA, Kouichi             |
| (31) 1352859                       | (31) 2017134382                          | SHINFUKU, Yoshifumi               |
| 1352860                            | (32) 10.07.2017                          | TORIYAMA, Yasuhiro                |
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| France                             | D07B 1/02                                | (51) G01N 29/12                   |
| (51) G01N 27/18                    | (11) EP2972286                           | G01N 29/04                        |
| A24F 40/50                         | (21) EP14708407.3                        | G01N 29/44                        |
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| (21) EP15709290.9                  | (87) US2014016884                        | G01N 29/14                        |
| (47) 26.04.2023                    | 18.09.2014                               | (11) EP3677908                    |
| (87) FR2015050416                  | (22) 18.02.2014                          | (21) EP19764057.6                 |
| 27.08.2015                         | (54) SYNTHETIC ROPE, FIBER OPTIC         | (47) 26.04.2023                   |
| (22) 20.02.2015                    | CABLE AND METHOD FOR NON-                | (87) KR2019002614                 |
| (54) ELECTRONIC CIGARETTE          | DESTRUCTIVE TESTING THEREOF              | 12.09.2019                        |
| (73) JT International SA           | (73) Whitehill Manufacturing Corporation | (22) 06.03.2019                   |
| (72) LOUVEAU, Eric                 | (72) HUNTLEY, Elizabeth W.               | (54) APPARATUS FOR DIAGNOSING     |
| MALCAVET, Didier                   | HUNTLEY, Mark B.                         | CRACK OF BATTERY PACK AND         |
| ANAVI, Steve                       | WHITEHILL, A. Simeon                     | BATTERY PACK AND VEHICLE          |
|                                    |  | INCLUDING SAME                    |

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| (73) LG Energy Solution, Ltd.          | G01N 29/34                           | (47) 26.04.2023                   |
| (72) SONG, Seung-Ho                    | (11) EP3505928                       | (87) US2016058438                 |
| PAK, Jeong-In                          | (21) EP18211186.4                    | 27.04.2017                        |
| HONG, Myung-Su                         | (47) 26.04.2023                      | (22) 24.10.2016                   |
| CHOI, Yong-Seok                        | (22) 07.12.2018                      | (54) METHOD AND SYSTEM FOR        |
| (31) 20180026445                       | (54) METHOD AND SYSTEM FOR           | CONTEMPORANEOUS ANALYSIS          |
| (32) 06.03.2018                        | MEASURING A WIDEBAND LOOP            | OF A CRUDE OIL FRONT END          |
| (33) Korea (Republic)                  | SENSITIVITY FOR AN ACOUSTIC          | AND A CRUDE OIL BOILING POINT     |
| (51) G01N 29/22                        | TRANSDUCER                           | DISTRIBUTION VIA A SINGLE GAS     |
| G01N 29/26                             | (73) Broadsound Corporation          | CHROMATOGRAPH                     |
| G01N 29/27                             | (72) YUAN, Ying-Wei                  | (73) Separation Systems Inc.      |
| G01N 29/28                             | YAO, Jen-Chih                        | (72) LUBKOWITZ, Joaquin A.        |
| (11) EP3223011                         | YANG, Fu-Chieh                       | CECCARELLI, Claudio M.            |
| (21) EP17162638.5                      | LAI, Wen-Pin                         | MENEGHINI, Roberto I.             |
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| (22) 23.03.2017                        | (32) 27.12.2017                      | 201562245127 P                    |
| (54) ULTRASONIC INSPECTION SYSTEM      | (33) United States of America        | (32) 21.10.2016                   |
| (73) Baker Hughes Holdings LLC         | (51) G01N 29/30                      | 22.10.2015                        |
| (72) SCHMITZ, Stephan                  | G01N 29/34                           | (33) United States of America     |
| FALTER, Stephan                        | G01N 29/46                           | United States of America          |
| DICK, Wolfgang                         | (11) EP3505926                       | (51) G01N 33/00                   |
| WEISE, Thomas                          | (21) EP18211184.9                    | (11) EP3861338                    |
| SCHWABE, Matthias                      | (47) 26.04.2023                      | (21) EP18936170.2                 |
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| (32) 21.03.2017                        | DETERMINING AN OPTIMUM               | 09.04.2020                        |
| 25.03.2016                             | DRIVE SIGNAL FOR AN ACOUSTIC         | (22) 02.10.2018                   |
| (33) United States of America          | TRANSDUCER                           | (54) GAS DETECTOR CALIBRATION CAP |
| United States of America               | (73) Broadsound Corporation          | WITH AN EXTENDED STRIP            |
| (51) G01N 29/265                       | (72) YUAN, Ying-Wei                  | (73) Honeywell International Inc. |
| G01N 29/28                             | YAO, Jen-Chih                        | (72) WU, Xingguo                  |
| G01N 29/04                             | YANG, Fu-Chieh                       | XU, Yuhui                         |
| G01N 29/22                             | LIN, Yi-Hsun                         | CHEN, Zengping                    |
| (11) EP3957987                         | (31) 201715855830                    | (51) G01N 33/00                   |
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| (47) 26.04.2023                        | (33) United States of America        | G01N 1/22                         |
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| (22) 15.04.2019                        | G01N 1/00                            | (47) 26.04.2023                   |
| (54) ULTRASONIC FLAW DETECTION         | B01D 15/40                           | (87) JP2017044936                 |
| DEVICE AND METHOD FOR                  | F16K 11/00                           | 21.06.2018                        |
| CONTROLLING SAME                       | G01N 30/28                           | (22) 14.12.2017                   |
| (73) Mitsubishi Heavy Industries, Ltd. | G01N 30/20                           | (54) METHOD OF ANALYZING RESINS   |
| Mitsubishi Heavy Industries Machinery  | (11) EP2823280                       | ADHERING TO CRUSHED               |
| Systems, Ltd.                          | (21) EP13757550.2                    | POLYSILICON                       |
| (72) UESHIRO, Kazuhiro                 | (47) 26.04.2023                      | (73) Tokuyama Corporation         |
| UEMATSU, Mitsuyoshi                    | (87) US2013029048                    | (72) NAMEKAWA, Manato             |
| TAKEMOTO, Hiroshi                      | 12.09.2013                           | TAKEMOTO, Mikie                   |
| TOKITA, Yuki                           | (22) 05.03.2013                      | (31) 2016244778                   |
| (51) G01N 29/30                        | (54) INTRODUCING SAMPLES             | (32) 16.12.2016                   |
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| (11) EP3505927                         | CHROMATOGRAPHY SYSTEMS               | (51) G01N 33/12                   |
| (21) EP18211185.6                      | (73) Waters Technologies Corporation | A22C 17/00                        |
| (47) 26.04.2023                        | (72) BERG, Emily, J.                 | B07C 5/00                         |
| (22) 07.12.2018                        | SHREVE, Joshua, A.                   | G01N 23/083                       |
| (54) METHOD AND SYSTEM FOR             | USOWICZ, James, E.                   | (11) EP3538886                    |
| MEASURING A CHARACTERISTIC             | WITTMER, Douglas, P.                 | (21) EP17803863.4                 |
| LOOP SENSITIVITY FOR AN                | LEBEAU, Aaron                        | (47) 26.04.2023                   |
| ACOUSTIC TRANSDUCER                    | (31) 201261608135 P                  | (87) EP2017079185                 |
| (73) Broadsound Corporation            | (32) 08.03.2012                      | 17.05.2018                        |
| (72) YUAN, Ying-Wei                    | (33) United States of America        | (22) 14.11.2017                   |
| YANG, Fu-Chieh                         | (51) G01N 30/24                      | (54) A SYSTEM AND A METHOD FOR    |
| YAO, Jen-Chih                          | G01N 30/88                           | PROCESSING MEAT PIECES            |
| YU, Yi-Lung                            | G01N 33/28                           | (73) Marel Iceland EHF            |
| (31) 201715855710                      | G01N 30/46                           | (72) SIGURDSSON, Arni             |
| (32) 27.12.2017                        | G01N 30/54                           | EINARSSON, Agust Örn              |
| (33) United States of America          | (11) EP3365670                       | (31) 16198637                     |
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| (51) G01N 33/18                                       | (51) G01N 33/574  | (73) KNORR-BREMSE Systeme für Nutzfahrzeuge GmbH                                  |
| G01N 21/64  | (11) EP3803402  | (72) ROHSE, Tobias  |
| C02F 5/10   | (21) EP19725195.2   | RAISER, Timo  |
| C02F 103/02   | (47) 26.04.2023   | (31) 102020101937   |
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| (47) 26.04.2023                                       | (54) ANTI-CANCER TREATMENT OF PRESELECTED SUBJECTS AND SCREENING METHODS TO IDENTIFY SUSCEPTIBLE SUBJECTS | H02K 9/197  |
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| FULMER, David, N.                                     | G01N 35/00  | (73) Ningbo Geely Automobile Research & Development Co. Ltd.                      |
| GUO, Bing, Bing                                       | (11) EP3517974  | (72) TRINH, Freddy  |
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| (33) United States of America                         | (87) JP2017028359   | B64D 43/02  |
| (51) G01N 33/49                                       | 29.03.2018  | G01S 11/14  |
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| (47) 26.04.2023                                       | (73) Hitachi High-Tech Corporation  | (21) EP21163820.0   |
| (87) US2018049761                                     | (72) TAKAHASHI, Takuya  | (47) 26.04.2023   |
| 21.03.2019  | TOKIEDA, Hitoshi  | (22) 19.03.2021   |
| (22) 06.09.2018                                       | TAKADA, Eiichiro  | (54) ACOUSTIC AIR DATA SYSTEM WITH RADIALLY PAIRED RECEIVERS                      |
| (54) CLOT DETECTION METHODS FOR CLOTTING TIME TESTING | FUKAYA, Masashi   | (73) Rosemount Aerospace Inc.   |
| (73) Medtronic Vascular Inc.                          | (31) 2016183626   | (72) ELL, Todd Anthony  |
| (72) YUAN, Charlene                                   | (32) 21.09.2016   | SLY, Jaime  |
| ERICKSON, Lawrence                                    | (33) Japan  | (31) 202016825491   |
| HUANG, Trevor   | (51) G01P 1/02  | (32) 20.03.2020   |
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| (73) The University Of Birmingham                     | KLUFTINGER, Andre   | (72) Grundmann, Bert  |
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| GRODZKI, David                    | G01S 13/88                                 | INTEREST OF AN OBJECT                       |
| VESTER, Markus                    | A61F 2/58                                  | (73) Centre national de la recherche        |
| NICHOLS, Ian Edward               | B25J 15/00                                 | scientifique                                |
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| (72) ARETHENS, Jean-Pierre        | FINDING                                    | G01S 7/497                                  |
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| BAE, Chulho                        | MISUMI, Ryota                             | 18.07.2019                          |
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| (32) 09.05.2019                    | (31) 2019157919                           | OF GAZE, CONTRAST ADJUSTMENT        |
| (33) Korea (Republic)              | (32) 30.08.2019                           | METHOD AND DEVICE, VIRTUAL          |
| (51) G06F 1/16                     | (33) Japan                                | REALITY APPARATUS, AND STORAGE      |
| H04M 1/22                          | (51) G06F 1/3225                          | MEDIUM                              |
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| (73) GUANGDONG OPPO MOBILE         | 25.01.2018                                | G06F 3/03                           |
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| (33) China                         | REQUEST INFORMATION                       | (47) 26.04.2023                     |
| (51) G06F 1/26                     | (73) Huawei Technologies Co., Ltd.        | (87) US2019044006                   |
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| (73) Microsoft Technology Licensing, LLC   | (22) 19.09.2019  | (73) Samsung Electronics Co., Ltd.   |
| (72) BLEYER, Michael   | (54) PIXEL AND DISPLAY DEVICE INCLUDING THE SAME             | (72) HEO, Nam Jo   |
| PEKELNY, Yuri  | (73) Samsung Display Co., Ltd.                               | LEE, Sang Yup  |
| PRICE, Raymond Kirk  | (72) LIM, Jae Keun   | KIM, Yong Seek   |
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| H04N 21/218  | (51) G06F 3/0481   | JEONG, Woojin  |
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| (72) LEE, Jong-in  | HARSCOET, Philippe   | (51) G06F 3/16   |
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| H04W 4/14  | (73) WASEDA UNIVERSITY  | (72) COLLINS, Melissa  |
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| (21) EP19764692.0  | Kimura, Keiji   | MCKENNA, David   |
| (47) 26.04.2023  | Umeda, Dan  | EDWARDS, Peter   |
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| KANG, Sangwook   | G06F 8/51   | G06F 9/54  |
| KANG, Hyunwoo  | G06F 13/24  | G06F 9/445   |
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| GOYAL, Nitesh                        | PERFORMING A REARRANGEMENT         | BASED COMPUTATIONS                     |
| AGARWAL, Ankit                       | OPERATION                          | (73) Ab Initio Technology LLC          |
| GARG, Deepak Kumar                   | (73) ARM Limited                   | (72) Atterbury, Matthew Darcy          |
| CHATURVEDI, Ayush                    | (72) GROCUIT, Thomas Christopher   | Bromley, H. Mark                       |
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| (54) SOFTWARE UPDATE DEVICE,         | G06F 9/50                          | INTERFACE DEVELOPMENT                  |
| SOFTWARE UPDATE METHOD, NON-         | G06F 9/30                          | ASSISTANCE METHOD, AND                 |
| TRANSITORY STORAGE MEDIUM,           | G06F 7/53                          | USER INTERFACE DEVELOPMENT             |
| AND VEHICLE                          | (11) EP3200068                     | ASSISTANCE PROGRAM                     |
| (73) TOYOTA JIDOSHA KABUSHIKI KAISHA | (21) EP16827042.9                  | (73) Omron Corporation                 |
| (72) SATOH, Yusuke                   | (47) 26.04.2023                    | (72) IWAMURA Shintaro                  |
| FUKUYO, Satoru                       | (87) CN2016075847                  | TAKAHASHI Daisuke                      |
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| LEAST ONE UPDATE PACKET FOR          | A63F 13/57                         | GENERATING A MOBILE APPLICATION        |
| AT LEAST ONE CONTROL UNIT OF A       | H04N 21/258                        | FROM A DESKTOP APPLICATION             |
| MOTOR VEHICLE                        | A63F 13/58                         | (73) Schneider Electric Industries SAS |
| (73) Mercedes-Benz Group AG          | G06T 19/00                         | (72) HIESER, Alexander                 |
| (72) BIERMANN, Sven                  | (11) EP3575958                     | ZINN, Marcus                           |
| FEIL, Volker                         | (21) EP18805620.4                  | PATRI, Michael                         |
| FOLK, Markus                         | (47) 26.04.2023                    | (51) G06F 9/455                        |
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| HOEHMANN, Peter                      | DEVICE, STORAGE MEDIUM, AND        | (21) EP14828093.6                      |
| NEUMEIER, Tobias                     | ELECTRONIC DEVICE                  | (47) 26.04.2023                        |
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| (51) G06F 9/455   | (72) Vembu, Balaji   | FRANSAZOV, Mariyan Dimitrov  |
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| (73) BULL SAS   | Ramadoss, Murali   | G06F 9/451   |
| (72) VALLEE, Florence   | Puffer, David  | G06F 8/35  |
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| (47) 26.04.2023                         | (32) 17.08.2018                            | BETWEEN A VEHICLE RECEIVING               |
| (22) 31.01.2019                         | (33) Germany                               | THE SERVICE AND A USER                    |
| (54) METHOD FOR DETERMINING THE         | (51) G06K 19/077                           | (73) Revenue Collection Systems France    |
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| METHOD FOR PATH PLANNING FOR A          | H01Q 1/12                                  | (72) Chamailard, Guy                      |
| MOBILE OBJECT, DEVICE THEREFOR,         | H01Q 1/22                                  | D'Athis, Thierry                          |
| DATA CARRIER                            | H01Q 19/28                                 | (51) G06Q 10/08                           |
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| (33) Germany                            | (22) 03.06.2020                            | HAVING POSITION DETECTING                 |
| (51) G06K 9/00                          | (54) HEATABLE VEHICLE PANE WITH A          | FUNCTION FOR ITEMS AND                    |
| H04N 7/18                               | TRANSPONDER                                | ASSOCIATED STORAGE AREAS                  |
| A63B 24/00                              | (73) Saint-Gobain Glass France             | (73) Würth International AG               |
| A61B 5/11                               | (72) HOLTSTIEGE, Thomas                    | (72) Marquette, Adrien                    |
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| THAT COMBINES SENSORS WITH              | 27.06.2019                                 | (72) WOLF-DIETRICH, Kley                  |
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(54) METHOD FOR OPERATING SPEECH  
RECOGNITION SERVICE AND  
ELECTRONIC DEVICE SUPPORTING  
THE SAME  
(73) Samsung Electronics Co., Ltd.  
(72) YOON, Young Min  
OH, Young Il  
KANG, Hyun Woo  
KIM, Jin Yeol  
KIM, Ji Hyun  
LEE, Da Som  
JEON, Yong Joon  
(31) 20170039593

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| (33) Korea (Republic)                     | PROCESSING MULTIMEDIA                     | (72) Keenan, Desmond Barry                |
| (51) G10L 19/008                          | INFORMATION                               | Mastrototaro, John J.                     |
| H04S 3/00                                 | (73) Samsung Electronics Co., Ltd.        | Grosman, Benyamin                         |
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| (54) ENCODING AND DECODING METHOD         | (31) 201610179848                         | 201261694961 P                            |
| AND ENCODING AND DECODING                 | (32) 25.03.2016                           | 201261694950 P                            |
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| (32) 25.07.2017                           | (22) 17.07.2017                           | (33) United States of America             |
| (33) China                                | (54) METHOD AND DEVICE FOR                | United States of America                  |
| (51) G10L 19/16                           | ANALYZING A DATASET                       | United States of America                  |
| G10L 19/24                                | (73) F. Hoffmann-La Roche AG              | United States of America                  |
| G10L 21/038                               | (72) Knobel, Rolf                         | United States of America                  |
| G10L 19/035                               | (51) G16H 10/60                           | United States of America                  |
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| REPLICATION METADATA IN AT LEAST          | (47) 26.04.2023                           | (47) 26.04.2023                           |
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| (72) VILLEMOES, Lars                      | PROVIDING MEDICAL DATA BASED              | (22) 30.09.2016                           |
| PUERNHAGEN, Heiko                         | ON A HANDOVER OF A MEDICAL                | (54) SYSTEM FOR MONITORING LEAKS OF       |
| EKSTRAND, Per                             | SENSOR                                    | LIQUID FROM A SPENT FUEL POOL             |
| (31) 201562133800 P                       | (73) Samsung Electronics Co., Ltd.        | (73) Joint-Stock Company Scientific       |
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| (33) United States of America             | (32) 28.02.2012                           | Innovations" ("Science and Innovations",  |
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| (72) Jinwei, Feng                         | (72) DEBERADINE, Robert                   | (72) CIS, Marcin                          |
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| (87) KR2017003258                         | (22) 24.07.2013                           | aux Energies Alternatives                 |
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| (22) 27.03.2017                           | insulin infusion system                   | DELETTE, Gérard                           |

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| (22) 02.11.2021   | (54) TEMPERATURE-DEPENDENT SWITCH  | (51) H01L 21/24  |
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| (51) H01H 33/53   | (72) BLACKMON, Terrance Edward   | (22) 05.05.2021  |
| H02B 1/50   | BANAS, Thomas Michael  | (54) METHOD FOR PROCESSING<br>SUBSTRATES, IN PARTICULAR<br>WAFERS, MASKS OR FLAT PANEL<br>DISPLAYS, WITH A SEMICONDUCTOR<br>INDUSTRY MACHINE |
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| RELATED METHODS                   | INTEGRATION OF PHOTONICS AND            | JIANG, Zhou                                |
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| H01L 29/417                       | PARALLEL TO AN NPN BIPOLAR              | ICHIKAWA, Takeshi                          |
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| NANOSHEET FIELD EFFECT            | H01L 23/485                             | PROCESSING METHOD, AND                     |
| TRANSISTOR DEVICES                | H01L 21/60                              | ELECTRONIC DEVICE INCLUDING                |
| (73) Imec VZW                     | H01L 23/58                              | THE IMAGE SENSOR                           |
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| H01L 21/336  | BEARDA, Twan  | (73) Commissariat à l'énergie atomique et aux énergies alternatives             |
| H10K 71/60   | SIVARAMAKRISHNAN  | Université Grenoble Alpes   |
| (11) EP3514822   | RADHAKRISHNAN, Hariharsudan   | Centre National de la Recherche Scientifique                                    |
| (21) EP17850763.8  | POORTMANS, Jef  | Institut Polytechnique de Grenoble  |
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| (73) Toray Industries, Inc.  | (47) 26.04.2023   | (32) 04.09.2020   |
| (72) SHIMIZU, Hiroji   | (87) KR2020007216   | (33) France   |
| MURASE, Seiichiro  | 21.01.2021  |   |
| KAWAI, Shota   | (22) 03.06.2020   | (51) H01L 51/52   |
| (31) 2016181246  | (54) MICRO-LED TRANSFER METHOD  | (11) EP3503237  |
| (32) 16.09.2016  | (73) Samsung Electronics Co., Ltd.  | (21) EP18210189.9   |
| (33) Japan   | (72) KWON, Ohjae  | (47) 26.04.2023   |
|  | KANG, Jinmo   | (22) 04.12.2018   |
| (51) H01L 31/02  | KIM, Donghwan   | (54) ORGANIC LIGHT EMITTING DISPLAY DEVICE AND METHOD OF MANUFACTURING THE SAME |
| H02S 40/34   | NAMKUNG, Yong   | (73) LG Display Co., Ltd.   |
| (11) EP3382763   | HWANG, Seondeok   | (72) GIL, Sung-Soo  |
| (21) EP18157805.5  | (31) 20190084598  | OH, Min-Ho  |
| (47) 26.04.2023  | (32) 12.07.2019   | (31) 20170176287  |
| (22) 21.02.2018  | (33) Korea (Republic)   | (32) 20.12.2017   |
| (54) PHOTOVOLTAIC RAPID SHUTDOWN DEVICE AND PHOTOVOLTAIC SYSTEM  | (51) H01L 33/16   | (33) Korea (Republic)   |
| (73) Sungrow Power Supply Co., Ltd.  | H01L 33/32  |   |
| (72) ZOU, Yunfei   | H01L 33/02  | (51) H01L 51/52   |
| YU, Yanfei   | H01L 33/24  | H01L 51/56  |
| NI, Hua  | H01L 33/14  | G09F 9/30   |
| YANG, Zongjun  | (11) EP3973579  | (11) EP3688824  |
| ZHAN, Liang  | (21) EP20731535.9   | (21) EP18857902.3   |
| (31) 201710114498  | (47) 26.04.2023   | (47) 26.04.2023   |
| (32) 28.02.2017  | (87) FR2020050725   | (87) KR2018009271   |
| (33) China   | 26.11.2020  | 28.03.2019  |
|  | (22) 29.04.2020   | (22) 13.08.2018   |
| (51) H01L 31/0687  | (54) OPTOELECTRONIC DEVICE WITH LIGHT-EMITTING DIODES A DOPED REGION OF WHICH INCORPORATES AN EXTERNAL SEGMENT BASED ON ALUMINIUM AND GALLIUM NITRIDE | (54) DISPLAY DEVICE   |
| H01L 31/078  | (73) Aledia   | (73) LG Electronics Inc.  |
| H01L 31/05   | (72) TCHOULFIAN, Pierre   | (72) PARK, Jaehoon  |
| H01L 31/0304   | AMSTATT, Benoît   |   |
| (11) EP3301727   | (31) 1905257  |   |
| (21) EP16197828.3  | (32) 20.05.2019   |   |
| (47) 26.04.2023  | (33) France   |   |
| (22) 08.11.2016  |   |   |

|                                    |   |                                       |
|------------------------------------|---|---------------------------------------|
| KIM, Jaekun                        | (22) 28.11.2016                               | SUN, Fan                              |
| BAEK, Manin                        | (54) COMPOSITION FOR NON-AQUEOUS              | ZOU, Qi Fan                           |
| LEE, Bosung                        | SECONDARY BATTERY ADHESIVE                    | WANG, Sheng Wei                       |
| (31) 20170123638                   | LAYER, NON-AQUEOUS SECONDARY                  | (31) 201611111106                     |
| (32) 25.09.2017                    | BATTERY ADHESIVE LAYER, AND                   | (32) 06.12.2016                       |
| (33) Korea (Republic)              | NON-AQUEOUS SECONDARY                         | (33) China                            |
| (51) H01L 51/56                    | BATTERY                                       | (51) H01M 4/36                        |
| H01L 51/54                         | (73) Zeon Corporation                         | H01M 4/485                            |
| C07F 15/00                         | (72) TANAKA, Keiichiro                        | (11) EP3907791                        |
| C07D 403/10                        | MARUHASHI, Yutaka                             | (21) EP20765642.2                     |
| C07D 471/04                        | OURA, Kei                                     | (47) 26.04.2023                       |
| C07D 403/04                        | ARAI, Kenji                                   | (87) KR2020003191                     |
| (11) EP3425693                     | (31) 2015233851                               | 10.09.2020                            |
| (21) EP18186425.7                  | (32) 30.11.2015                               | (22) 06.03.2020                       |
| (47) 26.04.2023                    | (33) Japan                                    | (54) NEGATIVE ELECTRODE ACTIVE        |
| (22) 14.08.2014                    | (51) H01M 4/133                               | MATERIAL AND LITHIUM SECONDARY        |
| (54) METHOD FOR PRODUCING AN       | H01M 4/587                                    | BATTERY COMPRISING THE SAME           |
| ORGANIC LIGHT-EMITTING DIODE       | H01M 4/04                                     | (73) LG Energy Solution, Ltd.         |
| (73) Universal Display Corporation | H01M 10/0525                                  | (72) PARK, Sung-Bin                   |
| (72) ADAMOVICH, Vadim              | H01M 4/02                                     | KIM, Bo-Na                            |
| YAMAMOTO, Hitoshi                  | (11) EP3817098                                | KIM, Dae-Hong                         |
| WANG, Ting-Chih                    | (21) EP20172417.6                             | YOO, In-Sun                           |
| WEAVER, Michael S.                 | (47) 26.04.2023                               | JUNG, Wang-Mo                         |
| XIA, Chuanjun                      | (22) 30.04.2020                               | (31) 20190025997                      |
| ALLEYNE, Bert                      | (54) NEGATIVE ELECTRODE FOR LITHIUM-          | (32) 06.03.2019                       |
| BOUDREAULT, Pierre-Luc T.          | ION BATTERY OF TERMINAL DEVICE                | (33) Korea (Republic)                 |
| DYATKIN, Alexey Borisovich         | (73) Beijing Xiaomi Mobile Software Co., Ltd. | (51) H01M 4/96                        |
| JOSEPH, Scott                      | (72) HE, Zhiming                              | H01M 4/90                             |
| (31) 201414253505                  | (31) 201911039621                             | H01M 12/06                            |
| 201461940603 P                     | (32) 29.10.2019                               | H01M 8/10                             |
| 201361920544 P                     | (33) China                                    | B01J 37/08                            |
| 201361894160 P                     | (51) H01M 4/134                               | B01J 21/18                            |
| 201361874444 P                     | H01M 4/38                                     | C01B 32/05                            |
| 201361867858 P                     | H01M 10/04                                    | (11) EP3466532                        |
| (32) 15.04.2014                    | H01M 10/0525                                  | (21) EP18201086.8                     |
| 17.02.2014                         | H01M 10/0562                                  | (47) 26.04.2023                       |
| 24.12.2013                         | H01M 10/0585                                  | (22) 30.11.2015                       |
| 22.10.2013                         | H01M 4/40                                     | (54) CARBON CATALYST, ELECTRODE,      |
| 06.09.2013                         | H01M 4/02                                     | AND BATTERY                           |
| 20.08.2013                         | (11) EP3557665                                | (73) Nissinbo Holdings Inc.           |
| (33) United States of America      | (21) EP19166311.1                             | National University Corporation Gunma |
| United States of America           | (47) 26.04.2023                               | University                            |
| United States of America           | (22) 29.03.2019                               | (72) Imashiro, Yasuo                  |
| United States of America           | (54) ALL-SOLID-STATE BATTERY                  | Kishimoto, Takeaki                    |
| United States of America           | (73) TOYOTA JIDOSHA KABUSHIKI KAISHA          | Sato, Tetsutaro                       |
| United States of America           | (72) SUZUKI, Tomoya                           | Ozaki, Jun-ichi                       |
| (51) H01M 4/04                     | SUGIYAMA, Shigetada                           | Maie, Takuya                          |
| H01M 4/62                          | ENOMOTO, Yoshihide                            | Kusadokoro, Sayaka                    |
| C09J 7/00                          | (31) 2018079960                               | (31) 2014246820                       |
| C09J 11/08                         | (32) 18.04.2018                               | (32) 05.12.2014                       |
| C09J 201/00                        | (33) Japan                                    | (33) Japan                            |
| H01M 4/13                          | (51) H01M 4/36                                | (51) H01M 8/10                        |
| H01M 10/058                        | C01B 32/156                                   | H01M 4/92                             |
| C09J 133/06                        | H01M 4/62                                     | H01M 4/90                             |
| H01M 10/0585                       | (11) EP3553854                                | (11) EP3662527                        |
| H01M 10/0587                       | (21) EP17877657.1                             | (21) EP18759761.2                     |
| H01M 10/0525                       | (47) 26.04.2023                               | (47) 26.04.2023                       |
| H01M 4/139                         | (87) CN2017092316                             | (87) IL2018050845                     |
| C09J 7/10                          | 14.06.2018                                    | 07.02.2019                            |
| H01M 50/417                        | (22) 09.07.2017                               | (22) 30.07.2018                       |
| H01M 50/443                        | (54) LITHIUM-ION BATTERY AND                  | (54) MULTI-METALLIC ELECTRO-          |
| H01M 50/46                         | NEGATIVE ELECTRODE MATERIAL                   | CATALYST FOR ALKALINE EXCHANGE        |
| H01M 4/36                          | THEREOF                                       | MEMBRANE FUEL CELLS AND               |
| (11) EP3386016                     | (73) Contemporary Amperex Technology Co.,     | METHOD OF MAKING SAME                 |
| (21) EP16870191.0                  | Limited                                       | (73) HYDROLITE LTD                    |
| (47) 26.04.2023                    | (72) XU, Wen Zhu                              | (72) PASKA, Yair                      |
| (87) JP2016004984                  | SUN, Jian Qing                                | PAGE, Miles                           |
| 08.06.2017                         | LU, Guang Bo                                  | AZRA, Charly David                    |



|                                      |                                    |  |
|--------------------------------------|------------------------------------|--|
| ACHRAI, Ben                          | (47) 26.04.2023                    | YAMAZAKI, Shigeaki                     |
| KITAYEV, Anna                        | (22) 11.09.2019                    | KINOSHITA, Shinichi                    |
| (31) 25381417                        | (54) METALLIC SALT CONTAINING      | (31) 2016144390                        |
| (32) 03.08.2017                      | ANION HAVING HETEROCYCLIC          | (32) 22.07.2016                        |
| (33) Israel                          | AROMATIC STRUCTURE, METHOD         | (33) Japan                             |
| (51) H01M 8/18                       | OF PREPARING THE SAME, AS          | (51) H01M 10/39                        |
| B01D 63/10                           | WELL AS ELECTROLYTE AND            | H01M 4/38                              |
| (11) EP3900095                       | ELECTROCHEMICAL DEVICE EACH        | H01M 4/58                              |
| (21) EP19835634.7                    | INCLUDING THE METALLIC SALT        | (11) EP3284134                         |
| (47) 26.04.2023                      | (73) Samsung Electronics Co., Ltd. | (21) EP16780924.3                      |
| (87) EP2019085567                    | Samsung SDI Co., Ltd.              | (47) 26.04.2023                        |
| 25.06.2020                           | (72) LEE, Myungjin                 | (87) US2016027930                      |
| (22) 17.12.2019                      | ROEV, Victor                       | 20.10.2016                             |
| (54) WOUND REDOX FLOW BATTERY        | CHOI, Hongsoo                      | (22) 15.04.2016                        |
| (73) Spiraltec GmbH                  | IM, Dongmin                        | (54) SODIUM-ALUMINUM BATTERY WITH      |
| (72) WEIMER, Thomas                  | KWAK, Yoonhyun                     | SODIUM ION CONDUCTIVE CERAMIC          |
| (31) 102018132669                    | MA, Sangbok                        | SEPARATOR                              |
| (32) 18.12.2018                      | PARK, Minsik                       | (73) Field Upgrading USA, Inc.         |
| (33) Germany                         | PARK, Sungjun                      | (72) ROBINS, Mathew                    |
| (51) H01M 10/04                      | (31) 20180141125                   | BHAVARAJU, Sai                         |
| H01M 50/258                          | (32) 15.11.2018                    | (31) 201562171695 P                    |
| H01M 50/204                          | (33) Korea (Republic)              | 201562149234 P                         |
| H01M 50/262                          | (51) H01M 10/0568                  | (32) 05.06.2015                        |
| B60L 50/60                           | H01M 10/052                        | 17.04.2015                             |
| (11) EP3552256                       | H01M 10/0566                       | (33) United States of America          |
| (21) EP17800775.3                    | H01M 10/0525                       | United States of America               |
| (47) 26.04.2023                      | C07D 233/58                        | (51) H01M 10/48                        |
| (87) EP2017078521                    | C07F 5/04                          | H01M 10/42                             |
| 14.06.2018                           | H01M 10/0567                       | H01M 10/643                            |
| (22) 08.11.2017                      | (11) EP3651255                     | H01M 10/613                            |
| (54) BATTERY AND METHOD FOR          | (21) EP18848321.8                  | H01M 50/264                            |
| PRODUCING A BATTERY                  | (47) 26.04.2023                    | H01M 50/298                            |
| (73) Robert Bosch GmbH               | (87) JP2018026382                  | H01M 50/213                            |
| (72) REIMER, Eduard                  | 28.02.2019                         | H01M 50/204                            |
| RUEHLE, Andreas                      | (22) 12.07.2018                    | H01M 10/6553                           |
| (31) 102016224442                    | (54) ELECTROLYTE FOR LITHIUM ION   | H01M 50/107                            |
| (32) 08.12.2016                      | SECONDARY BATTERY, LITHIUM ION     | (11) EP3306701                         |
| (33) Germany                         | SECONDARY BATTERY, AND MODULE      | (21) EP16827953.7                      |
| (51) H01M 10/0562                    | (73) Daikin Industries, Ltd.       | (47) 26.04.2023                        |
| H01M 4/04                            | (72) NAKAMURA, Hisako              | (87) KR2016007220                      |
| H01M 4/133                           | YAMAZAKI, Shigeaki                 | 26.01.2017                             |
| H01M 4/134                           | TAKAHASHI, Kenzou                  | (22) 05.07.2016                        |
| H01M 4/136                           | SUZUKI, Yuuki                      | (54) BATTERY MODULE HAVING             |
| H01M 4/1395                          | YAMAUCHI, Akiyoshi                 | STRUCTURE WHEREIN TERMINAL             |
| H01M 4/1397                          | HAYASHI, Kotaro                    | PLATES AND BMS ARE DIRECTLY            |
| H01M 4/58                            | (31) 2017162741                    | CONNECTED                              |
| H01M 4/583                           | (32) 25.08.2017                    | (73) LG Energy Solution, Ltd.          |
| (11) EP3319163                       | (33) Japan                         | (72) YANG, Seung Min                   |
| (21) EP17195309.4                    | (51) H01M 10/0569                  | YOON, Hyoung Chul                      |
| (47) 26.04.2023                      | H01M 10/0568                       | PARK, Chang Wook                       |
| (22) 06.10.2017                      | H01M 10/0567                       | (31) 20150102831                       |
| (54) FLUORIDE ION BATTERY AND        | H01M 10/0525                       | (32) 21.07.2015                        |
| METHOD FOR PRODUCING                 | H01G 11/60                         | (33) Korea (Republic)                  |
| FLUORIDE ION BATTERY                 | H01G 11/62                         | (51) H01M 10/613                       |
| (73) Toyota Jidosha Kabushiki Kaisha | H01G 11/64                         | H01M 10/655                            |
| (72) MIKI, Hidenori                  | (11) EP3483974                     | F16B 11/00                             |
| (31) 2016218172                      | (21) EP17830766.6                  | (11) EP3673525                         |
| (32) 08.11.2016                      | (47) 26.04.2023                    | (21) EP18756154.3                      |
| (33) Japan                           | (87) JP2017022251                  | (47) 26.04.2023                        |
| (51) H01M 10/0568                    | 25.01.2018                         | (87) EP2018070107                      |
| H01M 10/052                          | (22) 16.06.2017                    | 28.02.2019                             |
| H01M 6/16                            | (54) ELECTROLYTE SOLUTION,         | (22) 25.07.2018                        |
| H01G 11/62                           | ELECTROCHEMICAL DEVICE,            | (54) SYSTEM FOR FASTENING COOLING      |
| C07D 249/08                          | SECONDARY BATTERY, AND MODULE      | ELEMENTS                               |
| C07D 249/18                          | (73) Daikin Industries, Ltd.       | (73) Audi AG                           |
| H01M 10/0569                         | (72) SAKATA, Hideo                 | G.H. Induction Deutschland Induktions- |
| (11) EP3657590                       | TAKAHASHI, Kenzou                  | Erwärmungs-Anlagen GmbH                |
| (21) EP19196646.4                    | ARIMA, Hiroyuki                    | (72) ANDREAS, Kugler                   |

|                                    |                                      |   |
|------------------------------------|--------------------------------------|---|
| FRÜHTRUNK, Jürgen                  | F28F 1/02                            | (31) 20170117208                          |
| BALSS, Andreas                     | F28F 1/04                            | (32) 13.09.2017                           |
| SCHÖLCH, Frank                     | F28F 9/02                            | (33) Korea (Republic)                     |
| (31) 102017214881                  | H01M 10/6568                         | (51) H01M 50/209                          |
| (32) 25.08.2017                    | H01M 10/617                          | H01M 50/284                               |
| (33) Germany                       | H01M 10/613                          | H01M 50/503                               |
| (51) H01M 10/613                   | F28D 21/00                           | H01M 50/507                               |
| H01M 10/6556                       | (11) EP3243240                       | H01M 50/519                               |
| H01M 10/6561                       | (21) EP15876413.4                    | (11) EP3902057                            |
| H01M 10/659                        | (47) 26.04.2023                      | (21) EP20905634.0                         |
| H01M 50/204                        | (87) CA2015051340                    | (47) 26.04.2023                           |
| H05K 7/20                          | 14.07.2016                           | (87) CN2020125486                         |
| H05K 7/14                          | (22) 17.12.2015                      | 01.07.2021                                |
| G06F 1/18                          | (54) COUNTER-FLOW HEAT EXCHANGER     | (22) 30.10.2020                           |
| G06F 1/20                          | FOR BATTERY THERMAL                  | (54) SEPARATOR ASSEMBLY, BATTERY          |
| (11) EP3916514                     | MANAGEMENT APPLICATIONS              | MODULE, BATTERY PACK,                     |
| (21) EP20211034.2                  | (73) Dana Canada Corporation         | APPARATUS                                 |
| (47) 26.04.2023                    | (72) KENNEY, Benjamin A.             | (73) Contemporary Amperex Technology Co., |
| (22) 01.12.2020                    | BUCKRELL, Andrew J. M.               | Limited                                   |
| (54) THERMAL MANAGEMENT OF         | SHORE, Colin A.                      | (72) SHEN, Sheng                          |
| BATTERY UNITS ON DATA CENTER       | VANDERWEES, Doug                     | HUANG, Yangzhi                            |
| RACKS                              | ABELS, Kenneth M.A.                  | YAO, Jihua                                |
| (73) Google LLC                    | (31) 201562101527 P                  | XIANG, Yanhuo                             |
| (72) IYENGAR, Madhusudan K.        | (32) 09.01.2015                      | GAO, Haixing                              |
| BEAUCHEMIN, Melanie                | (33) United States of America        | (31) 201911377593                         |
| MALONE, Christopher                | (51) H01M 10/6556                    | (32) 27.12.2019                           |
| (31) 202016885500                  | H01M 10/625                          | (33) China                                |
| (32) 28.05.2020                    | H01M 10/613                          | (51) H01M 50/213                          |
| (33) United States of America      | H01M 10/647                          | H01M 50/296                               |
| (51) H01M 10/653                   | H01M 10/6567                         | H01M 50/50                                |
| H01M 10/613                        | (11) EP3671946                       | (11) EP2849260                            |
| H01M 50/507                        | (21) EP18897735.9                    | (21) EP14183877.1                         |
| H01M 10/655                        | (47) 26.04.2023                      | (47) 26.04.2023                           |
| H01M 50/211                        | (87) KR2018015340                    | (22) 08.09.2014                           |
| H01M 10/625                        | 04.07.2019                           | (54) Rechargeable battery                 |
| H01M 50/207                        | (22) 05.12.2018                      | (73) Robert Bosch GmbH                    |
| H01M 50/209                        | (54) BATTERY MODULE HAVING           | (72) Thornton, Darren                     |
| H01M 10/658                        | IMPROVED COOLING STRUCTURE           | Zahn, Wolf                                |
| (11) EP3796462                     | (73) LG Energy Solution, Ltd.        | Ling, Matthew                             |
| (21) EP20755693.7                  | (72) SEO, Sung-Won                   | Gilbert, Austen                           |
| (47) 26.04.2023                    | KANG, Dal-Mo                         | Seidel, Thorsten                          |
| (87) KR2020002049                  | MUN, Jeong-O                         | (31) 102013218531                         |
| 20.08.2020                         | LEE, Yoon-Koo                        | (32) 16.09.2013                           |
| (22) 13.02.2020                    | (31) 20170180560                     | (33) Germany                              |
| (54) BATTERY MODULE, MANUFACTURING | (32) 27.12.2017                      | (51) H01M 50/502                          |
| METHOD THEREOF AND BATTERY         | (33) Korea (Republic)                | H01M 10/613                               |
| PACK INCLUDING BATTERY MODULE      | (51) H01M 50/107                     | H01M 50/119                               |
| (73) LG Energy Solution, Ltd.      | H01M 50/166                          | H01M 50/213                               |
| (72) YOON, Jisu                    | H01M 50/169                          | H01M 50/224                               |
| JU, Jae Hyeon                      | H01M 50/184                          | (11) EP4070407                            |
| KANG, Dahoon                       | H01M 50/342                          | (21) EP21703853.8                         |
| SEO, Kyounggho                     | H01M 50/578                          | (47) 26.04.2023                           |
| (31) 20190108423                   | (11) EP3584853                       | (87) EP2021052223                         |
| 20190016864                        | (21) EP18857031.1                    | 12.08.2021                                |
| (32) 02.09.2019                    | (47) 26.04.2023                      | (22) 30.01.2021                           |
| 13.02.2019                         | (87) KR2018010740                    | (54) MODULE LAYER AND BATTERY             |
| (33) Korea (Republic)              | 21.03.2019                           | SYSTEM MADE THEREFROM                     |
| Korea (Republic)                   | (22) 13.09.2018                      | (73) ElringKlinger AG                     |
| (51) H01M 10/6556                  | (54) CYLINDRICAL BATTERY CELL HAVING | (72) HANTSCHHEL, Jochen                   |
| H01M 10/04                         | NO BEADING PART                      | SCHMIDT, B.Eng. Tobias                    |
| F28D 7/00                          | (73) LG Energy Solution, Ltd.        | (31) 102020103230                         |
| F28D 9/00                          | (72) SHIN, Hang Soo                  | (32) 07.02.2020                           |
| H01M 10/625                        | KIM, Do Gyun                         | (33) Germany                              |
| H01M 10/647                        | JUNG, Sang Sok                       | (51) H01P 1/18                            |
| H01M 10/6557                       | LEE, Byoung Kook                     | (11) EP3618173                            |
| H01M 10/6567                       | LEE, Byoung Gu                       | (21) EP18191306.2                         |
| B23P 15/26                         | MIN, Geon Woo                        | (47) 26.04.2023                           |
| F28F 3/12                          | KIM, Chan Bae                        | (22) 28.08.2018                           |

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| (54) APPARATUS FOR A PHASE SHIFTER AND A METHOD OF MANUFACTURE OF AN APPARATUS FOR A PHASE SHIFTER               | (21) EP20185508.7<br>(47) 26.04.2023<br>(22) 13.07.2020<br>(54) SPHERE ANTENNA         | TAYLOR, Robert M.<br>TOLEDO, Gustavo A.<br>WINTERS, Michael R.<br>Rosennier, Dana M.   |
| (73) Nokia Solutions and Networks Oy   | (73) THALES  | (31) 201916582807  |
| (72) HALLIVUORI, Juha  | (72) HUBERT, William   | (32) 25.09.2019  |
| (51) H01P 11/00  | (31) 1907914   | (33) United States of America  |
| G06F 30/27   | (32) 15.07.2019  | (51) H01Q 1/32   |
| G06F 30/367  | (33) France  | H01Q 1/38  |
| G06F 30/373  | (51) H01Q 1/24   | H01Q 9/04  |
| G06F 30/17   | H01Q 21/28   | H01Q 9/28  |
| (11) EP3832792   | (11) EP3561950   | (11) EP3503291   |
| (21) EP21164469.5  | (21) EP19169861.2  | (21) EP17382871.6  |
| (47) 26.04.2023  | (47) 26.04.2023  | (47) 26.04.2023  |
| (22) 24.03.2021  | (22) 17.04.2019  | (22) 20.12.2017  |
| (54) FILTER DEBUGGING METHOD, DEVICE, ELECTRONIC APPARATUS, READABLE STORAGE MEDIUM AND COMPUTER PROGRAM PRODUCT | (54) ELECTRONIC APPARATUS<br>(73) GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD. | (54) ANTENNA SYSTEM AND SIDE MIRROR FOR A VEHICLE INCORPORATING SAID ANTENNA SYSTEM  |
| (73) Beijing Baidu Netcom Science and Technology Co., Ltd.   | (72) ZHAO, Ning<br>LIANG, Tianping<br>LI, Yantao                                       | (73) Advanced Automotive Antennas, S.L.<br>(72) MARTÍNEZ ORTIGOSA, Enrique   |
| (72) XU, Ming<br>XIE, Xin<br>LIU, Ying<br>QI, Yuezhen<br>LI, Ruifeng<br>BAI, Lu                                  | (31) 201810402824<br>(32) 28.04.2018<br>(33) China                                     | FILATOV, Evgenii<br>QUINTERO ILLERA, Ramiro  |
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| (32) 30.06.2020  | H01Q 1/38  | H01Q 1/52  |
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| H01Q 1/48  | G04R 20/02   | (22) 18.03.2020  |
| H01Q 9/16  | G04R 60/02   | (54) INTEGRATION OF EBG STRUCTURES (SINGLE LAYER/MULTI-LAYER) FOR ISOLATION ENHANCEMENT IN MULTILAYER EMBEDDED PACKAGING TECHNOLOGY AT MMWAVE        |
| H01Q 19/30   | H01Q 1/24  | (73) Infineon Technologies AG  |
| H01Q 21/24   | H01Q 5/364   | (72) BAHETI, Ashutosh  |
| H01Q 21/26   | G04G 21/02   | ABDEL-AZIZ, Marwa  |
| (11) EP2946437   | G04R 60/12   | DOGAN, Mustafa   |
| (21) EP13820742.8  | H01Q 3/24  | QURESHI, Muhammad Tayyab   |
| (47) 26.04.2023  | H01Q 7/00  | TROTTA, Saverio  |
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| (73) Leonardo UK Ltd   | (87) KR2018010036  | (51) H01Q 1/32   |
| (72) PRYOR, Neil   | 07.03.2019   | H01Q 5/378   |
| ATKINS, David  | (22) 30.08.2018  | H01Q 9/36  |
| HALL, David  | (54) ANTENNA FOR WEARABLE DEVICE   | H01Q 1/38  |
| (31) 201223400   | (73) Samsung Electronics Co., Ltd.   | H01Q 9/40  |
| 201223399  | (72) KANG, Woo Suk   | H01Q 9/42  |
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| 201223396  | LEE, In Young  | (21) EP15766456.6  |
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| (33) United Kingdom  | CHUN, Jae Bong   | (54) MULTI-STRUCTURE BROADBAND MONOPOLE ANTENNA FOR TWO FREQUENCY BANDS IN THE DECIMETER WAVE RANGE SEPARATED BY A FREQUENCY GAP, FOR MOTOR VEHICLES |
| United Kingdom   | (31) 20170110533   | (73) Fuba Automotive Electronics GmbH  |
| United Kingdom   | (32) 30.08.2017  | (72) LINDENMEIER, Stefan   |
| United Kingdom   | (33) Korea (Republic)  | LINDENMEIER, Heinz   |
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|  | (54) DEPLOYABLE REFLECTOR ANTENNA SYSTEMS  |  |
|  | (73) Eagle Technology, LLC   |  |
|  | (72) HENDERSON, Philip J.  |  |

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| H01Q 11/08                                    | B21D 39/03                              | 22.03.2018                         |
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| H01Q 5/40                                     | H01R 11/01                              | (54) RF CONNECTOR SYSTEM           |
| (11) EP3522298                                | H02G 5/00                               | (73) TE Connectivity Corporation   |
| (21) EP19153719.0                             | H01R 4/06                               | (72) YI, Chong Hun                 |
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| (54) DUAL BAND OCTAFILAR ANTENNA              | (47) 26.04.2023                         | (33) United States of America      |
| (73) Harris Global Communications, Inc.       | (22) 05.04.2019                         | (51) H01R 12/72                    |
| (72) Malcolm J., Packer                       | (54) ASSEMBLY OF AT LEAST TWO           | H01R 13/6471                       |
| Majkowski, Joseph D.                          | BUSBARS AND METHOD FOR MAKING           | H01R 13/6594                       |
| (31) 201815890061                             | THE SAME                                | B60R 16/023                        |
| (32) 06.02.2018                               | (73) Weidmüller Interface GmbH & Co. KG | H01R 13/66                         |
| (33) United States of America                 | (72) HENZE, Roman                       | H01R 12/58                         |
| (51) H01Q 3/28                                | KRUPINSKI, Rudolf                       | (11) EP3656021                     |
| G01S 7/02                                     | HACKEMACK, Frank                        | (21) EP18742774.5                  |
| G01S 13/93                                    | FISCHER, Stefan                         | (47) 26.04.2023                    |
| H01Q 21/08                                    | RUTZ, Andreas                           | (87) EP2018069346                  |
| H01Q 21/22                                    | STJEPANOVIC, Karlo                      | 24.01.2019                         |
| H01Q 1/32                                     | FEHLING, Stephan                        | (22) 17.07.2018                    |
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| H01Q 21/06                                    | (32) 11.04.2018                         | (73) Robert Bosch GmbH             |
| (11) EP3392966                                | (33) Germany                            | (72) GUECKEL, Richard              |
| (21) EP16875738.3                             | (51) H01R 4/48                          | FRIESS, Gerald                     |
| (47) 26.04.2023                               | H01R 9/24                               | KROECKEL, Markus                   |
| (87) JP2016087426                             | H01R 13/506                             | (31) 102017212601                  |
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| (22) 15.12.2016                               | (21) EP17757776.4                       | (33) Germany                       |
| (54) ANTENNA DEVICE                           | (47) 26.04.2023                         | (51) H01R 13/05                    |
| (73) Mitsubishi Electric Corporation          | (87) EP2017071541                       | H01R 13/193                        |
| (72) UDAGAWA, Shigeo                          | 08.03.2018                              | H01R 13/66                         |
| (31) 2015246664                               | (22) 28.08.2017                         | (11) EP3815194                     |
| PCT/JP2016/068160                             | (54) CONDUCTOR CONNECTION CLAMP         | (21) EP18739476.2                  |
| (32) 17.12.2015                               | (73) Wago Verwaltungsgesellschaft mbH   | (47) 26.04.2023                    |
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| (33) Japan                                    | (31) 102016116510                       | 02.01.2020                         |
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| (51) H01Q 5/40                                | (33) Germany                            | (54) HIGH CURRENT CONTACT FOR      |
| H01Q 5/35                                     | (51) H01R 4/70                          | CONTACTING A HIGH CURRENT          |
| H01Q 1/24                                     | H01R 4/18                               | SOCKET                             |
| (11) EP3910738                                | (11) EP3360203                          | (73) Lisa Dräxlmaier GmbH          |
| (21) EP20216164.2                             | (21) EP16782201.4                       | PTR Hartmann GmbH                  |
| (47) 26.04.2023                               | (47) 26.04.2023                         | (72) KAGERHUBER, Manuel            |
| (22) 21.12.2020                               | (87) EP2016074112                       | MAYER, Anton                       |
| (54) ANTENNA MODULE AND USER                  | 13.04.2017                              | BRIESEMANN, Andreas                |
| EQUIPMENT                                     | (22) 07.10.2016                         | (51) H01R 13/11                    |
| (73) Beijing Xiaomi Mobile Software Co., Ltd. | (54) ELECTRICAL TERMINAL COMPRISING     | H01R 31/06                         |
| (72) DUAN, Xiaochao                           | A FOAMABLE SEALING MATERIAL,            | H01R 9/22                          |
| ZHANG, Lupeng                                 | METHOD FOR SEALING THE                  | H02G 3/08                          |
| (31) 202010401671                             | CONNECTION BETWEEN AN                   | (11) EP3804039                     |
| (32) 13.05.2020                               | ELECTRICAL CONDUCTOR AND AN             | (21) EP19734508.5                  |
| (33) China                                    | ELECTRICAL TERMINAL, AND USE OF         | (47) 26.04.2023                    |
| (51) H01Q 19/10                               | A SEALING MATERIAL                      | (87) IB2019053993                  |
| H01Q 15/00                                    | (73) TE Connectivity Germany GmbH       | 05.12.2019                         |
| H01Q 13/02                                    | (72) SCHMIDT, Helge                     | (22) 14.05.2019                    |
| H01Q 19/13                                    | HAGHIGHI, Maryam                        | (54) RECEPTACLE TERMINAL FOR A     |
| (11) EP3419117                                | THOSS, Stefan                           | JUNCTION BOX                       |
| (21) EP16918168.2                             | (31) 102015219654                       | (73) TE Connectivity Corporation   |
| (47) 26.04.2023                               | (32) 09.10.2015                         | (72) HEMNANI, Dinesh Loku          |
| (87) CN2016101595                             | (33) Germany                            | (31) 201815991059                  |
| 12.04.2018                                    | (51) H01R 9/05                          | (32) 29.05.2018                    |
| (22) 09.10.2016                               | H01R 13/518                             | (33) United States of America      |
| (54) HORN ANTENNA                             | H01R 24/40                              | (51) H01R 13/453                   |
| (73) Huawei Technologies Co., Ltd.            | H01R 24/50                              | (11) EP4071940                     |
| (72) LUO, Xin                                 | (11) EP3513460                          | (21) EP22165403.1                  |
| CHEN, Yi                                      | (21) EP17781187.4                       | (47) 26.04.2023                    |
| LV, Tinghai                                   | (47) 26.04.2023                         | (22) 30.03.2022                    |

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| (54) CONNECTOR                    | (47) 26.04.2023                  | (21) EP18204103.8                              |
| (73) Yazaki Corporation           | (87) EP2019061594                | (47) 26.04.2023                                |
| (72) Kozono, Seiji                | 12.11.2020                       | (22) 02.11.2018                                |
| Tsushima, Yoshitaka               | (22) 06.05.2019                  | (54) OPTICAL AMPLIFIER                         |
| Matsukawa, Tomoki                 | (54) EARTHING CONTACT AND METHOD | (73) Huawei Technologies Co., Ltd.             |
| (31) 2021064368                   | FOR DISSIPATING ELECTRIC         | (72) LEALMAN, Ian                              |
| (32) 05.04.2021                   | CURRENTS                         | (51) H02B 1/54                                 |
| (33) Japan                        | (73) Schunk Transit Systems GmbH | H02B 5/00                                      |
| (51) H01R 13/453                  | (72) SCHNEIDER, Lothar           | H02G 5/02                                      |
| (11) EP4071941                    | SCHNEIDER, Annette               | H01R 4/60                                      |
| (21) EP22165406.4                 | (51) H01S 3/00                   | H02G 5/00                                      |
| (47) 26.04.2023                   | G03F 7/20                        | H02G 11/00                                     |
| (22) 30.03.2022                   | (11) EP3117495                   | H01R 41/00                                     |
| (54) CONNECTOR                    | (21) EP15809376.5                | H01B 7/06                                      |
| (73) Yazaki Corporation           | (47) 26.04.2023                  | H01B 5/00                                      |
| (72) KOZONO, Seiji                | (87) US2015036374                | (11) EP4026208                                 |
| TSUSHIMA, Yoshitaka               | 23.12.2015                       | (21) EP19791228.0                              |
| OKAMOTO, Masaya                   | (22) 18.06.2015                  | (47) 26.04.2023                                |
| (31) 2021064369                   | (54) LASER REPETITION RATE       | (87) EP2019078535                              |
| (32) 05.04.2021                   | MULTIPLIER AND FLAT-TOP BEAM     | 29.04.2021                                     |
| (33) Japan                        | PROFILE GENERATORS USING         | (22) 21.10.2019                                |
| (51) H01R 13/506                  | MIRRORS AND/OR PRISMS            | (54) TELESCOPIC ELECTRIC CONDUCTOR             |
| H01R 13/52                        | (73) Kla-Tencor Corporation      | AND HIGH VOLTAGE ARRANGEMENT                   |
| H01R 24/40                        | (72) CHUANG, Yung-Ho Alex        | (73) Hitachi Energy Switzerland AG             |
| (11) EP3220487                    | LOIU, Justin Dianhuan            | (72) SANDIN, Björn                             |
| (21) EP17161385.4                 | LU, Xiaoxu                       | SANDIN, Jonas                                  |
| (47) 26.04.2023                   | ARMSTRONG, J. Joseph             | ANDERSSON, Olov                                |
| (22) 16.03.2017                   | DENG, Yujun                      | BUCAN, Neven                                   |
| (54) CONNECTOR DEVICE FOR A       | FIELDEN, John                    | (51) H02G 3/08                                 |
| WATERPROOF CONNECTOR,             | (31) 201514596738                | H01H 85/20                                     |
| WATERPROOF CONNECTOR AS WELL      | 201462038471 P                   | B60R 16/02                                     |
| AS ASSEMBLED CABLE                | 201462015016 P                   | B60R 16/023                                    |
| (73) TE Connectivity Germany GmbH | (32) 14.01.2015                  | (11) EP3496220                                 |
| (72) NGUYEN NHU, Lam              | 18.08.2014                       | (21) EP17836115.0                              |
| MUELLER, Wolfgang                 | 20.06.2014                       | (47) 26.04.2023                                |
| SATTLER, Andy                     | (33) United States of America    | (87) BR2017050216                              |
| (31) 102016104992                 | United States of America         | 08.02.2018                                     |
| (32) 17.03.2016                   | United States of America         | (22) 01.08.2017                                |
| (33) Germany                      | (51) H01S 3/094                  | (54) HYBRID ENERGY DISTRIBUTION                |
| (51) H01R 13/52                   | H01S 3/067                       | PLANT FOR VEHICLES                             |
| H01R 24/22                        | G02F 1/09                        | (73) FCA Fiat Chrysler Automóveis Brasil       |
| H01R 13/506                       | H01S 3/10                        | Ltda.  |
| H01R 4/18                         | H01S 3/13                        | (72) DE OLIVEIRA, José Willian                 |
| H01R 24/40                        | H01S 3/00                        | (31) 102017016090                              |
| (11) EP3586406                    | G02B 6/42                        | 102016017915                                   |
| (21) EP18708486.8                 | G02B 6/27                        | (32) 27.07.2017                                |
| (47) 26.04.2023                   | H01S 3/16                        | 02.08.2016                                     |
| (87) IB2018050928                 | (11) EP3667839                   | (33) Brazil                                    |
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| (22) 15.02.2018                   | (47) 26.04.2023                  | (51) H02G 3/12                                 |
| (54) WATERPROOF ELECTRICAL        | (87) IB2018056031                | H02B 1/40                                      |
| CONNECTOR                         | 14.02.2019                       | H05K 5/02                                      |
| (73) TE Connectivity Corporation  | (22) 10.08.2018                  | (11) EP2863501                                 |
| (72) LANE, David James            | (54) OPTICAL MODULE AND ERBIUM-  | (21) EP14181358.4                              |
| HARDY, Douglas John               | DOPED FIBER AMPLIFIER            | (47) 26.04.2023                                |
| HALL, John Wesley                 | (73) Molex, LLC                  | (22) 19.08.2014                                |
| SCHROLL, Neil Franklin            | (72) LV, Hai-Feng                | (54) Connecting element, box part, and kit for |
| RAUDENBUSH, James Michael         | ZHOU, Feng-Qing                  | forming a box which can be installed in a      |
| SREMCICH, Paul Steven             | Ji, Gui-Jun                      | wall recess                                    |
| (31) 201715440654                 | WANG, Zhong-Sheng                | (73) Hager Electro GmbH & Co. KG               |
| (32) 23.02.2017                   | CHEN, Da-Xin                     | (72) Theuer, Markus                            |
| (33) United States of America     | (31) 201710685457                | Tornos Nunez, Sergi                            |
| (51) H01R 39/26                   | (32) 11.08.2017                  | (31) 102013114754                              |
| B61F 15/28                        | (33) China                       | 102013221122                                   |
| H01R 39/64                        | (51) H01S 5/50                   | (32) 23.12.2013                                |
| H01R 4/64                         | H01S 5/10                        | 17.10.2013                                     |
| (11) EP3794688                    | H01S 5/20                        | (33) Germany                                   |
| (21) EP19726316.3                 | (11) EP3648269                   | Germany  |

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| (51) H02H 7/085                        | 22.09.2017                                  | (47) 26.04.2023                                |
| H02H 7/08                              | 19.09.2018                                  | (87) CN2018081925                              |
| (11) EP3750221                         | 13.09.2018                                  | 11.10.2018                                     |
| (21) EP19740370.2                      | 05.09.2018                                  | (22) 04.04.2018                                |
| (47) 26.04.2023                        | 17.07.2018                                  | (54) WIRELESS CHARGING METHOD,                 |
| (87) EP2019068994                      | 05.07.2018                                  | APPARATUS AND SYSTEM                           |
| 30.01.2020                             | 30.05.2018                                  | (73) GUANGDONG OPPO MOBILE                     |
| (22) 15.07.2019                        | 29.05.2018                                  | TELECOMMUNICATIONS CORP., LTD.                 |
| (54) CIRCUIT ASSEMBLY AND METHOD       | (33) United States of America               | (72) LIN, Shangbo                              |
| FOR PROTECTING AN EC MOTOR             | United States of America                    | WAN, Shiming                                   |
| FROM OVERLOADS                         | United States of America                    | ZHANG, Jialiang                                |
| (73) ebm-papst Mulfingen GmbH & Co. KG | United States of America                    | (31) PCT/CN2017/079784                         |
| (72) RUPP, Thomas                      | United States of America                    | (32) 07.04.2017                                |
| RÖSSLER, Jens                          | United States of America                    | (33) World Intellectual Property Office (WIPO) |
| WEIK, Thomas                           | United States of America                    | (51) H02J 7/34                                 |
| (31) 102018118180                      | United States of America                    | H02J 9/06                                      |
| (32) 27.07.2018                        | United States of America                    | H02J 4/00                                      |
| (33) Germany                           | World Intellectual Property Office (WIPO)   | H02J 7/00                                      |
| (51) H02J 1/10                         | World Intellectual Property Office (WIPO)   | (11) EP3996239                                 |
| H02J 7/00                              | World Intellectual Property Office (WIPO)   | (21) EP21196788.0                              |
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| H01H 19/38                             | World Intellectual Property Office (WIPO)   | (54) TROUBLESHOOTING METHOD AND                |
| H01M 10/04                             | World Intellectual Property Office (WIPO)   | APPARATUS FOR POWER SUPPLY                     |
| H01M 10/0525                           | (51) H02J 3/18                              | DEVICE   |
| H01M 50/204                            | (11) EP3949066                              | (73) Huawei Digital Power Technologies Co.,    |
| H01M 50/296                            | (21) EP20732746.1                           | Ltd.   |
| H02H 7/18                              | (47) 26.04.2023                             | (72) JIANG, Zhengdong                          |
| F02N 11/12                             | (87) EP2020064509                           | XIAO, Bo                                       |
| F02N 11/14                             | 21.01.2021                                  | (31) 201710712675                              |
| (11) EP3669436                         | (22) 26.05.2020                             | (32) 18.08.2017                                |
| (21) EP18857765.4                      | (54) METHOD FOR PRODUCING                   | (33) China                                     |
| (47) 26.04.2023                        | INDUCTIVE IDLE POWER BY MEANS               | (51) H02J 50/00                                |
| (87) US2018051964                      | OF AN ELECTRIC CONSUMER                     | H02J 7/02                                      |
| 28.03.2019                             | DEVICE, ELECTRIC CONSUMER                   | H02J 7/04                                      |
| (22) 20.09.2018                        | DEVICE AND ELECTROLYSIS DEVICE              | H02J 50/10                                     |
| (54) RECHARGEABLE BATTERY JUMP         | (73) Siemens Energy Global GmbH & Co. KG    | H02J 50/80                                     |
| STARTING DEVICE WITH BATTERY           | (72) UTZ, Peter                             | H02J 7/00                                      |
| DETECTION SYSTEM                       | (31) 19186743                               | (11) EP3493361                                 |
| (73) The Noco Company                  | (32) 17.07.2019                             | (21) EP17904431.8                              |
| (72) NOOK, Jonathan Lewis              | (33) European Patent Office (EPO)           | (47) 26.04.2023                                |
| NOOK, William Knight                   | (51) H02J 3/38                              | (87) CN2017085990                              |
| STANFIELD, James Richard               | H02J 3/32                                   | 11.10.2018                                     |
| UNDERHILL, Derek Michael               | H02J 3/46                                   | (22) 25.05.2017                                |
| (31) 201762568967 P                    | H02J 7/35                                   | (54) WIRELESS CHARGING SYSTEM,                 |
| 201762569243 P                         | (11) EP3742572                              | METHOD, AND DEVICE TO BE                       |
| 201762569355 P                         | (21) EP19747298.8                           | CHARGED  |
| 201762568537 P                         | (47) 26.04.2023                             | (73) GUANGDONG OPPO MOBILE                     |
| 201762568044 P                         | (87) CN2019072778                           | TELECOMMUNICATIONS CORP., LTD.                 |
| 201762567479 P                         | 08.08.2019                                  | (72) WAN, Shiming                              |
| 201762562713 P                         | (22) 23.01.2019                             | ZHANG, Jialiang                                |
| 201762561751 P                         | (54) PHOTOVOLTAIC POWER                     | (31) PCT/CN2017/079786                         |
| 201762561850 P                         | GENERATION SYSTEM AND                       | PCT/CN2017/079784                              |
| PCT/US2018/051655                      | PHOTOVOLTAIC POWER                          | (32) 07.04.2017                                |
| PCT/US2018/050904                      | TRANSMISSION METHOD                         | 07.04.2017                                     |
| PCT/US2018/049548                      | (73) Huawei Digital Power Technologies Co., | (33) World Intellectual Property Office (WIPO) |
| PCT/US2018/042474                      | Ltd.  | World Intellectual Property Office (WIPO)      |
| PCT/US2018/040919                      | (72) XU, Fei                                | (51) H02J 50/12                                |
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| (22) 18.03.2013  | (54) METHOD FOR RECOVERING FAULTY MULTI-LAYER LINK AND CONTROLLER                            | (32) 30.09.2019   |
| (54) WIRELESS COMMUNICATION SYSTEM WITH INTERFERENCE FILTERING AND METHOD OF OPERATION THEREOF | (73) Huawei Technologies Co. Ltd.  | 26.04.2019  |
| (73) Samsung Electronics Co., Ltd.   | (72) CHE, Jia  | (33) United States of America   |
| (72) LEE, Jung-Won   | HU, Zhilin   | United States of America  |
| KWON, Hyuk-Joon  | LIU, Changbao  | (51) H04L 41/0894   |
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| (21) EP19172491.3                  | 10.12.2020                             | (32) 30.11.2017                    |
| (47) 26.04.2023                    | (22) 01.04.2020                        | (33) China                         |
| (22) 03.05.2019                    | (54) METHOD AND DEVICE FOR             | (51) H04L 47/00                    |
| (54) MOBILE COMMUNICATION NETWORK  | IMPLEMENTING REROUTING                 | H04L 47/10                         |
| ARRANGEMENT AND METHOD             | (73) ZTE Corporation                   | H04L 47/263                        |
| FOR OPERATING A MOBILE             | (72) QIAN, Shaozheng                   | H04L 43/0829                       |
| COMMUNICATION NETWORK              | LU, Qianchun                           | H04L 43/0894                       |
| ARRANGEMENT TO SUPPORT A NON-      | ZHANG, Zuhong                          | H04L 43/50                         |
| PUBLIC NETWORK                     | ZHANG, Tianxiang                       | H04L 47/27                         |
| (73) NTT DOCOMO, INC.              | (31) 201910476716                      | (11) EP3754917                     |
| (72) THAKOLSRI, Srisakul           | (32) 03.06.2019                        | (21) EP19753721.0                  |
| SAMA, Malla Reddy                  | (33) China                             | (47) 26.04.2023                    |
| MINOKUCHI, Atsushi                 | (51) H04L 45/03                        | (87) CN2019075055                  |
| (51) H04L 41/12                    | H04L 45/00                             | 22.08.2019                         |
| H04L 41/40                         | (11) EP3379781                         | (22) 14.02.2019                    |
| (11) EP3522451                     | (21) EP17724304.5                      | (54) NETWORK CONGESTION CONTROL    |
| (21) EP18215043.3                  | (47) 26.04.2023                        | METHOD AND DEVICE                  |
| (47) 26.04.2023                    | (87) CN2017071319                      | (73) HUAWEI TECHNOLOGIES CO., LTD. |
| (22) 23.02.2014                    | 26.05.2017                             | (72) XU, Cong                      |
| (54) METHOD FOR IMPLEMENTING       | (22) 16.01.2017                        | ZHANG, Haibo                       |
| NETWORK VIRTUALIZATION             | (54) METHOD FOR COUNTING BGP           | LI, Guoping                        |
| AND RELATED APPARATUS AND          | COMMUNITY ATTRIBUTE OR                 | (31) 201810151212                  |
| COMMUNICATIONS SYSTEM              | EXTENDED COMMUNITY ATTRIBUTE           | (32) 14.02.2018                    |
| (73) Huawei Technologies Co., Ltd. | FLOW VALUE, AND DEVICE                 | (33) China                         |
| (72) HU, Shihui                    | (73) China Mobile Communications Group | (51) H04L 47/12                    |
| ZHU, Mingming                      | Co., Ltd                               | H04L 47/2425                       |
| LI, Guangpeng                      | (72) LI, Zhenqiang                     | H04L 47/25                         |
| LIU, Enhui                         | (51) H04L 45/24                        | (11) EP3742689                     |
| (51) H04L 41/142                   | H04L 47/41                             | (21) EP19901198.2                  |
| H04W 24/08                         | H04L 45/00                             | (47) 26.04.2023                    |
| H04L 43/0852                       | H04L 69/14                             | (87) CN2019124621                  |
| H04L 43/026                        | H04L 69/163                            | 25.06.2020                         |
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| (21) EP19851563.7                  | (21) EP18870460.5                      | (54) METHOD, APPARATUS AND SYSTEM  |
| (47) 26.04.2023                    | (47) 26.04.2023                        | FOR CONTROLLING NETWORK            |
| (87) CN2019098205                  | (87) CN2018112250                      | CONGESTION                         |
| 27.02.2020                         | 02.05.2019                             | (73) Huawei Technologies Co., Ltd. |
| (22) 29.07.2019                    | (22) 27.10.2018                        | (72) JIANG, Jingjie                |
| (54) TIME DELAY MEASURING METHOD   | (54) DATE TRANSMISSION METHOD,         | BAI, Bo                            |
| AND NETWORK DEVICE                 | APPARATUS AND DEVICE                   | ZHANG, Gong                        |
| (73) Huawei Technologies Co., Ltd. | (73) Huawei Technologies Co., Ltd.     | TIAN, Chen                         |
| (72) WANG, Renlei                  | (72) WANG, Fanzhao                     | HAN, Wei                           |
| LOU, Zhe                           | LIU, Wei                               | (31) 201811565434                  |
| ZHA, Min                           | ZHENG, Kai                             | (32) 20.12.2018                    |
| ZHU, Zhigang                       | LI, Weihua                             | (33) China                         |
| (31) 201810974558                  | YANG, Jun                              | (51) H04L 47/2483                  |
| (32) 24.08.2018                    | (31) 201711094016                      | H04L 45/0377                       |
| (33) China                         | (32) 28.10.2017                        | H04L 45/00                         |
| (51) H04L 41/50                    | (33) China                             | H04L 47/32                         |
| H04W 24/08                         | (51) H04L 45/64                        | H04L 45/74                         |
| (11) EP3652979                     | H04L 45/48                             | (11) EP3926898                     |
| (21) EP17917597.1                  | H04L 45/00                             | (21) EP21173814.1                  |
| (47) 26.04.2023                    | H04L 47/125                            | (47) 26.04.2023                    |
| (87) CN2017092361                  | H04L 49/1515                           | (22) 08.06.2015                    |
| 17.01.2019                         | H04L 49/15                             | (54) METHOD AND APPARATUS FOR      |
| (22) 10.07.2017                    | (11) EP3713161                         | UPDATING MANNER OF PROCESSING      |
| (54) ENHANCEMENT OF QUALITY OF     | (21) EP18883603.5                      | PACKET OF SERVICE FLOW             |
| EXPERIENCE MEASUREMENT             | (47) 26.04.2023                        | (73) Huawei Technologies Co., Ltd. |
| COLLECTION REPORTING               | (87) CN2018117821                      | (72) Lin, Junru                    |
| (73) Nokia Technologies Oy         | 06.06.2019                             | Niu, Lehong                        |
| (72) HE, Jing                      | (22) 28.11.2018                        | LI, Hongyu                         |
| TOMALA, Malgorzata                 | (54) DATA TRANSMISSION METHOD,         | Huang, Jing                        |
| (51) H04L 45/00                    | RELEVANT DEVICE AND NETWORK            | (31) 201410315759                  |
| H04L 45/64                         | (73) Huawei Technologies Co., Ltd.     | (32) 03.07.2014                    |
| (11) EP3979574                     | (72) LIU, Fang                         | (33) China                         |
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| (47) 26.04.2023                    | WU, Weijie                             | H04L 49/552                        |

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| H04L 49/55                         | (47) 26.04.2023                             | H04W 92/16                               |
| H04L 9/40                          | (22) 12.11.2013                             | H04W 48/18                               |
| (11) EP3691211                     | (54) METHOD AND SYSTEM FOR SHARING          | H04L 41/0893                             |
| (21) EP20153124.1                  | AN OUTPUT DEVICE BETWEEN                    | H04L 41/0806                             |
| (47) 26.04.2023                    | MULTIMEDIA DEVICES TO TRANSMIT              | H04L 41/0897                             |
| (22) 22.01.2020                    | AND RECEIVE DATA                            | H04L 61/4511                             |
| (54) APPARATUS AND METHOD OF       | (73) Samsung Electronics Co., Ltd.          | (11) EP3439425                           |
| CROSSCHECKING DATA COPIES          | (72) VERMA, Sagar Kumar                     | (21) EP17773215.3                        |
| USING ONE OR MORE VOTER            | (31) 4726CH2012                             | (47) 26.04.2023                          |
| ELEMENTS                           | 20130092717                                 | (87) CN2017078449                        |
| (73) The Boeing Company            | (32) 12.11.2012                             | 05.10.2017                               |
| (72) LE, Tu Q.                     | 05.08.2013                                  | (22) 28.03.2017                          |
| RAMEY, Sean                        | (33) India                                  | (54) NETWORK FUNCTION                    |
| YIN, Christina Joy                 | Korea (Republic)                            | COMMUNICATION                            |
| CHING, Lawrence Yiuming            | (51) H04L 67/02                             | (73) ZTE Corporation                     |
| (31) 201916262371                  | H04L 9/40                                   | (72) ZHU, Jinguo                         |
| (32) 30.01.2019                    | H04L 65/612                                 | WU, Se                                   |
| (33) United States of America      | H04L 65/70                                  | YAO, Qiang                               |
| (51) H04L 61/4511                  | H04L 65/80                                  | WANG, Weibin                             |
| (11) EP3723349                     | (11) EP3721595                              | (31) 201610203606                        |
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| (47) 26.04.2023                    | (47) 26.04.2023                             | (33) China                               |
| (22) 03.03.2020                    | (87) IB2017057618                           | (51) H04L 67/56                          |
| (54) ELECTRONIC DEVICE FOR         | 13.06.2019                                  | (11) EP3967023                           |
| SUPPORTING LOW-LATENCY DOMAIN      | (22) 04.12.2017                             | (21) EP20729352.3                        |
| NAME SYSTEM (DNS) PROCESSING       | (54) AUTOMATIC PROVISIONING OF              | (47) 26.04.2023                          |
| (73) Samsung Electronics Co., Ltd. | STREAMING POLICIES FOR VIDEO                | (87) US2020031547                        |
| (72) Lee, Jookwan                  | STREAMING CONTROL IN CDN                    | 24.12.2020                               |
| Kim, Hong                          | (73) Telefonaktiebolaget LM Ericsson (publ) | (22) 06.05.2020                          |
| Leem, Hansung                      | (72) PRED, Stere                            | (54) WEB APPLICATION WRAPPER             |
| Kim, Junsuk                        | MIGAULT, Daniel                             | (73) Microsoft Technology Licensing, LLC |
| Kim, Hyejeong                      | POURZANDI, Makan                            | (72) RAPPAPORT, Nir Mardiks              |
| Kim, Minjung                       | (51) H04L 67/104                            | MALIK, Vikas                             |
| (31) 20190041987                   | H04W 4/08                                   | (31) 201916448952                        |
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| (33) Korea (Republic)              | (21) EP19158390.5                           | (33) United States of America            |
| (51) H04L 65/1045                  | (47) 26.04.2023                             | (51) H04M 1/02                           |
| H04L 65/611                        | (22) 20.02.2019                             | (11) EP3934215                           |
| H04L 65/60                         | (54) ELECTRONIC DEVICE AND METHOD           | (21) EP20774365.9                        |
| H04L 67/568                        | FOR CONNECTING SHORT RANGE                  | (47) 26.04.2023                          |
| H04L 67/2866                       | COMMUNICATION                               | (87) CN2020078050                        |
| H04N 21/222                        | (73) Samsung Electronics Co., Ltd.          | 24.09.2020                               |
| H04N 21/239                        | (72) JUNG, Buseop                           | (22) 05.03.2020                          |
| H04N 21/2187                       | BANG, Hyejung                               | (54) COVER PLATE, DISPLAY SCREEN         |
| H04N 21/472                        | KANG, Doosuk                                | AND ELECTRONIC DEVICE                    |
| H04N 21/6437                       | LEE, Sunkey                                 | (73) GUANGDONG OPPO MOBILE               |
| H04N 21/6408                       | (31) 20180022256                            | TELECOMMUNICATIONS CORP., LTD.           |
| H04L 65/75                         | (32) 23.02.2018                             | (72) MU, Sinan                           |
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| (21) EP20796076.6                  | (51) H04L 67/1097                           | XIAO, Bo                                 |
| (47) 26.04.2023                    | H04L 67/565                                 | (31) 201920353579 U                      |
| (87) CN2020086335                  | (11) EP3790255                              | (32) 19.03.2019                          |
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| (54) MEDIA STREAM SENDING METHOD,  | (87) CN2019081169                           | H04M 1/72409                             |
| APPARATUS, DEVICE AND SYSTEM       | 05.12.2019                                  | G06F 3/16                                |
| (73) Huawei Technologies Co., Ltd. | (22) 03.04.2019                             | H04S 7/00                                |
| (72) QIAO, Naiqiang                | (54) DATA PROCESSING METHOD, MULTI-         | H04R 5/04                                |
| ZHOU, Jun                          | CLOUD MANAGEMENT SYSTEM AND                 | (11) EP3840345                           |
| ZHANG, Mingli                      | RELATED DEVICE                              | (21) EP19217228.6                        |
| KAI, Yi                            | (73) HUAWEI TECHNOLOGIES CO., LTD.          | (47) 26.04.2023                          |
| (31) 201910330890                  | (72) LU, Xin                                | (22) 17.12.2019                          |
| (32) 23.04.2019                    | SU, Liqing                                  | (54) AUDIO CONTROLLER AND AUDIO          |
| (33) China                         | CAO, Yaobing                                | COMMUNICATION SYSTEM                     |
| (51) H04L 65/1083                  | (31) 201810556527                           | (73) GN Audio A/S                        |
| H04L 65/1094                       | (32) 31.05.2018                             | (72) Skjoldborg, Erling                  |
| (11) EP3787301                     | (33) China                                  | (51) H04M 1/725                          |
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| (47) 26.04.2023                      | (87) US2019058685                          | 02.04.2020                         |
| (87) KR2016006278                    | 14.05.2020                                 | (22) 27.09.2018                    |
| 22.12.2016                           | (22) 30.10.2019                            | (54) CAMERA AND TERMINAL           |
| (22) 14.06.2016                      | (54) SEQUENCED DEVICE ALERTING             | (73) HUAWEI TECHNOLOGIES CO., LTD. |
| (54) USER TERMINAL DEVICE AND        | (73) Microsoft Technology Licensing, LLC   | (72) LIN, Weichih                  |
| METHOD FOR ADJUSTING                 | (72) HASSAN, Amer A.                       | PENG, Zhe                          |
| LUMINANCE THEREOF                    | DAVIS, Michael J.                          | (51) H04N 5/225                    |
| (73) Samsung Electronics Co., Ltd.   | SEKARAN, Mahendra                          | H04N 5/232                         |
| (72) LEE, Seung-Heon                 | (31) 201816182295                          | H04N 5/247                         |
| KIM, Se-Hoon                         | (32) 06.11.2018                            | (11) EP3713209                     |
| YEOM, Jee-Young                      | (33) United States of America              | (21) EP19775668.7                  |
| CHOE, Won-Hee                        | (51) H04N 1/32                             | (47) 26.04.2023                    |
| KWAK, Han-Tak                        | H04N 1/387                                 | (87) CN2019077640                  |
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| (32) 12.10.2015                      | (22) 26.05.2016                            | AND EQUIPMENT                      |
| 18.06.2015                           | (54) ELECTRONIC DEVICE AND METHOD          | (73) HUAWEI TECHNOLOGIES CO., LTD. |
| (33) Korea (Republic)                | FOR GENERATING IMAGE FILE IN               | (72) WANG, Yinting                 |
| United States of America             | ELECTRONIC DEVICE                          | ZHANG, Xi                          |
| (51) H04M 3/22                       | (73) Samsung Electronics Co., Ltd.         | ZHANG, Yifan                       |
| H04L 9/40                            | (72) LEE, Ja Kyoung                        | CHEN, Jinwei                       |
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| (47) 26.04.2023                      | (87) US2017041921                          | (47) 26.04.2023                    |
| (87) US2017041494                    | 17.01.2019                                 | (22) 04.12.2018                    |
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| (22) 11.07.2017                      | (54) MONITOR CALIBRATION                   | DEVICE, INFORMATION PROCESSING     |
| (54) METHODS AND APPARATUSES FOR     | (73) Hewlett-Packard Development Company,  | METHOD, AND STORAGE MEDIUM         |
| CORRELATING INTERCEPT RELATED        | L.P.                                       | (73) CANON KABUSHIKI KAISHA        |
| INFORMATION WITH CALL CONTENT        | (72) AZAM, Syed S.                         | (72) IWAMOTO, Kazunari             |
| (73) Nokia Solutions and Networks Oy | STATEN, Greg                               | (31) 2017233227                    |
| (72) RAO, Nagaraja                   | (51) H04N 5/225                            | (32) 05.12.2017                    |
| WONG, Curt                           | F16M 11/08                                 | (33) Japan                         |
| UNDERWOOD, Derek                     | G03B 37/04                                 | (51) H04N 5/32                     |
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| (47) 26.04.2023                      | 04.05.2017                                 | (22) 18.09.2019                    |
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| (54) METHOD AND DEVICE FOR           | (54) PANORAMA STITCHING CAMERA             | CONTROL METHOD FOR THE SAME,       |
| IDENTIFYING TELEPHONE CALL           | (73) Hangzhou Hikvision Digital Technology | AND RADIATION IMAGING SYSTEM       |
| (73) Xiaomi Inc.                     | Co., Ltd.                                  | (73) CANON KABUSHIKI KAISHA        |
| (72) LIU, Yuxiang                    | (72) GUAN, Hongjie                         | (72) TAMURA, Toshikazu             |
| BAI, Zhiyong                         | YE, Zhan                                   | YAGI, Tomoyuki                     |
| QIAO, Zhongliang                     | YAN, Caisheng                              | IWABUCHI, Yuki                     |
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| (51) H04M 3/46                       | H04M 1/02                                  | (33) Japan                         |
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| (47) 26.04.2023                    | INTRA MODE CODING FOR INTRA           | 14.09.2017                         |
| (22) 28.01.2020                    | PREDICTION                            | (22) 07.03.2017                    |
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| (73) JVCCKENWOOD CORPORATION       | (72) WANG, Biao                       | METHOD AND APPARATUS               |
| (72) YOSHIKAWA, Hiroshi            | ESENLIK, Semih                        | (73) Tencent Technology (Shenzhen) |
| (31) 2019013099                    | KOTRA, Anand Meher                    | Company Limited                    |
| 2019013098                         | GAO, Han                              | (72) SHI, Yongfang                 |
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| (33) Japan                         | (11) EP3407606                        | MAO, Xunan                         |
| Japan                              | (21) EP17750453.7                     | DENG, Haibo                        |
| Japan                              | (47) 26.04.2023                       | GUO, Licai                         |
| Japan                              | (87) KR2017001467                     | DAI, Chao                          |
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| B60Q 1/14                          | (54) VIDEO ENCODING METHOD AND        | (32) 11.03.2016                    |
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| (73) HELLA GmbH & Co. KGaA         | H04N 19/463                           | (54) METHOD OF FEEDING A           |
| (72) HÜSTER, Christian             | H04N 19/513                           | REPLACEMENT CLIP INTO THE          |
| KUBITZA, Boris                     | H04N 19/593                           | ONGOING TRANSMISSION OF A          |
| PLÜMPE, Martin                     | (11) EP3491824                        | VIDEO CLIP                         |
| VENKER, Udo                        | (21) EP16838091.3                     | (73) Deutsche Telekom AG           |
| WILKS, Carsten                     | (47) 26.04.2023                       | Alcatel Lucent                     |
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| (33) Germany                       | (22) 04.08.2016                       | (31) 102012104481                  |
| (51) H04N 13/194                   | (54) METHOD AND APPARATUS FOR DATA    | (32) 24.05.2012                    |
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| H04L 65/65                         | (73) Huawei Technologies Co., Ltd.    | (51) H04N 21/41                    |
| H04L 65/75                         | (72) FILIPPOV, Alexey Konstantinovich | H04N 21/482                        |
| (11) EP3860120                     | RUFITSKIY, Vasily Alexeevich          | H04N 21/258                        |
| (21) EP19865840.3                  | (51) H04N 19/597                      | H04N 21/422                        |
| (47) 26.04.2023                    | H04N 19/176                           | H04N 21/61                         |
| (87) CN2019108761                  | H04N 19/593                           | H04N 21/45                         |
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| (22) 27.09.2019                    | (21) EP17305833.0                     | (21) EP18708282.1                  |
| (54) METHOD FOR TRANSMITTING MEDIA | (47) 26.04.2023                       | (47) 26.04.2023                    |
| DATA, AND CLIENT AND SERVER        | (22) 30.06.2017                       | (87) US2018018385                  |
| (73) Huawei Technologies Co., Ltd. | (54) METHOD FOR ENCODING AND          | 01.11.2018                         |
| (72) FAN, Yuqun                    | DECODING AT LEAST ONE MATRIX          | (22) 15.02.2018                    |
| DI, Peiyun                         | OF IMAGE VIEWS OBTAINED FROM          | (54) FIRST-SCREEN NAVIGATION WITH  |
| WANG, Ye-Kui                       | DATA ACQUIRED BY A PLENOPTIC          | CHANNEL SURFING, BACKDROP          |
| (31) 201811142720                  | CAMERA, AND CORRESPONDING             | REVIEWING AND CONTENT PEEKING      |
| (32) 28.09.2018                    | ELECTRONIC DEVICES                    | (73) Google LLC                    |
| (33) China                         | (73) InterDigital VC Holdings, Inc.   | (72) MURRAY, Craig                 |
| (51) H04N 19/11                    | (72) VANDAME, Benoit                  | (31) 201715496825                  |
| H04N 19/593                        | RACAPE, Fabien                        | (32) 25.04.2017                    |
| (11) EP3912342                     | KERBIRIOU, Paul                       | (33) United States of America      |
| (21) EP20762968.4                  | (51) H04N 21/234                      | (51) H04N 21/422                   |
| (47) 26.04.2023                    | H04N 19/166                           | G06F 3/01                          |
| (87) CN2020076193                  | H04N 19/67                            | (11) EP3117622                     |
| 03.09.2020                         | H04N 19/89                            | (21) EP15760639.3                  |
| (22) 21.02.2020                    | (11) EP3429213                        | (47) 26.04.2023                    |
|                                    | (21) EP17762513.4                     | (87) KR2015002385                  |

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| (22) 12.03.2015   |  | (31) 102019213809  |
| (54) DISPLAY APPARATUS AND CONTROLLING METHOD THEREOF                               |  | (32) 11.09.2019  |
| (73) Samsung Electronics Co., Ltd.  | (73) TDK Corporation   | (33) Germany   |
| (72) LEE, Bong-seok   | (72) EDER, Florian   | (51) H04R 25/00  |
| LEE, Dong-hun   | PIHALE, Sven   | (11) EP3783919   |
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| (32) 14.03.2014   | PAHL, Wolfgang   | (47) 26.04.2023  |
| (33) Korea (Republic)   | (31) 102016124057  | (22) 22.08.2019  |
| (51) H04N 21/422  | (32) 12.12.2016  | (54) ADJUSTING TREBLE GAIN OF HEARING DEVICE   |
| H04N 21/4223  | (33) Germany   | (73) Sonova AG   |
| G11B 27/34  | (51) H04R 1/10   | (72) HILDEBRAND, Nicola  |
| H04H 60/33  | G10K 11/178  | CRAMERI, Erich   |
| H04N 21/25  | (11) EP3793209   | BEUCHERT, Marius   |
| (11) EP3659344  | (21) EP20190884.5  | (51) H04S 7/00   |
| (21) EP18779049.8   | (47) 26.04.2023  | (11) EP3668125   |
| (47) 26.04.2023   | (22) 13.08.2020  | (21) EP20150004.8  |
| (87) IB2018056897   | (54) HEARING DEVICE WITH ACTIVE NOISE CANCELLATION AND METHOD FOR OPERATING IT                 | (47) 26.04.2023  |
| 28.03.2019  | (73) Sivantos Pte. Ltd.  | (22) 30.03.2015  |
| (22) 10.09.2018   | (72) NAUMANN, Frank  | (54) METHOD AND APPARATUS FOR RENDERING ACOUSTIC SIGNAL  |
| (54) CALIBRATION SYSTEM FOR AUDIENCE RESPONSE CAPTURE AND ANALYSIS OF MEDIA CONTENT | GÖKAY, Umut  | (73) Samsung Electronics Co., Ltd.   |
| (73) Sony Group Corporation   | (31) 102019213807  | (72) CHO, Sang-bae   |
| (72) SRIVASTAVA, Anubhav  | (32) 11.09.2019  | KIM, Sun-min   |
| DHARAMUKKALA, Venkatesh   | (33) Germany   | (31) 201461971647 P  |
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| (32) 14.03.2018   | H04R 3/00  | (51) H04S 7/00   |
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| (33) United States of America   | H04L 12/40   | G01H 7/00  |
| United States of America  | H04R 1/08  | (11) EP3232691   |
| (51) H04N 23/63   | B60Q 1/00  | (21) EP17157887.5  |
| G06F 3/01   | B60Q 9/00  | (47) 26.04.2023  |
| G06F 3/03   | G10K 11/162  | (22) 24.02.2017  |
| G06F 3/0481   | G10K 11/172  | (54) METHOD FOR DETERMINING THE SPACIAL IMPULSE RESPONSE OF A PASSENGER CABIN OF A MOTOR VEHICLE |
| G06F 3/04842  | H04R 1/26  | (73) ASK Industries GmbH   |
| G06F 3/04845  | (11) EP3621864   | (72) Kalinichenko, Victor  |
| G06T 19/00  | (21) EP18794635.5  | (31) 102016103344  |
| G06Q 30/0601  | (47) 26.04.2023  | (32) 25.02.2016  |
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| (47) 26.04.2023   | (54) AUDIO PROCESSING FOR VEHICLE SENSORY SYSTEMS  | G08G 1/0967  |
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| 16.04.2020  | (72) MOORE, Brian  | H04W 64/00   |
| (22) 19.02.2019   | HOANG, Viet  | (11) EP3491855   |
| (54) MOBILE DEVICE AND CONTROL METHOD FOR MOBILE DEVICE                             | BRIZEL, Ken  | (21) EP17836463.4  |
| (73) Samsung Electronics Co., Ltd.  | ESFAHANY, Siamak Akhlaghi  | (47) 26.04.2023  |
| (72) PARK, Min Sun  | SHEYDWASSER, Warren  | (87) FI2017050547  |
| JANG, Sung Hyun   | SANDHU, Ajay   | 08.02.2018   |
| CHOI, Eun Young   | (31) 201762532532 P  | (22) 20.07.2017  |
| HAN, Ji-Youn  | 201762500987 P   | (54) METHOD AND APPARATUS RELATING TO V2X COMMUNICATION  |
| (31) 20180121724  | (32) 14.07.2017  | (73) Nokia Technologies Oy   |
| (32) 12.10.2018   | 03.05.2017   | (72) DRAZYNSKI, Karol  |
| (33) Korea (Republic)   | (33) United States of America  | KORDYBACH, Krzysztof   |
| (51) H04R 1/06  | United States of America   | JANUSZEWSKI, Maciej  |
| H04R 19/00  | (51) H04R 25/00  | STANCZAK, Jędrzej  |
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| H04R 1/04   | (21) EP20192180.6  | (32) 01.08.2016  |
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| (21) EP17804880.7   | (22) 21.08.2020  | (51) H04W 4/44   |
| (47) 26.04.2023   | (54) HEARING DEVICE AND METHOD FOR OPERATING A HEARING DEVICE                                  |  |
| (87) EP2017080348   | (73) Sivantos Pte. Ltd.  |  |
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| (21) EP20725848.4                 | FOR SERVICE LAYER CACHE          | 06.05.2021                                     |
| (47) 26.04.2023                   | MANAGEMENT                       | (22) 28.10.2020                                |
| (87) FR2020050467                 | (73) Convida Wireless, LLC       | (54) REPORT APPLICATION                        |
| 22.10.2020                        | (72) CHEN, Zhuo                  | PROGRAMMING INTERFACE (API)                    |
| (22) 06.03.2020                   | SEED, Dale, N.                   | CAPABILITY CHANGE BASED ON API                 |
| (54) COMMUNICATION METHOD AND     | STARSINIC, Michael, F.           | FILTER   |
| DEVICE FOR A VEHICLE IN AN AD-    | FLYNN, William, Robert, IV       | (73) Telefonaktiebolaget LM Ericsson (publ)    |
| HOC WIRELESS NETWORK              | DI GIROLAMO, Rocco               | (72) XU, Wenliang                              |
| (73) PSA Automobiles SA           | LY, Quang                        | (31) PCT/CN2019/114816                         |
| (72) BENSATOR, Saleh              | RAHMAN, Shamim, Akbar            | (32) 31.10.2019                                |
| MAFRICA, Stefano                  | STERNBERG, Gregory, S.           | (33) World Intellectual Property Office (WIPO) |
| SERVEL, Alain                     | MLADIN, Catalina, Mihaela        | (51) H04W 8/18                                 |
| (31) 1904073                      | SHAH, Yogendra, C.               | (11) EP3476142                                 |
| (32) 16.04.2019                   | CHOYI, Vinod, Kumar              | (21) EP16732588.5                              |
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| H04L 67/00                        | H04W 88/04                       | (54) METHODS AND ENTITIES FOR                  |
| H04W 4/20                         | H04L 12/403                      | ENDING A SUBSCRIPTION                          |
| (11) EP3652968                    | G01R 31/371                      | (73) Telefonaktiebolaget LM Ericsson (PUBL)    |
| (21) EP18739616.3                 | G01R 31/396                      | (72) AHMED, Abu, Shohel                        |
| (47) 26.04.2023                   | H01M 10/48                       | ULLAH, Kazi, Wali                              |
| (87) GB2018051840                 | H04W 24/10                       | SALMELA, Patrik                                |
| 17.01.2019                        | H04W 4/38                        | (51) H04W 8/20                                 |
| (22) 29.06.2018                   | G01R 31/36                       | H04W 4/44                                      |
| (54) TELECOMMUNICATIONS APPARATUS | H04W 84/18                       | H04W 4/46                                      |
| WITH A RADIO-LINKED SMART CARD    | (11) EP3758304                   | H04W 4/02                                      |
| (73) NORBIT ITS AS                | (21) EP19888028.8                | H04W 52/02                                     |
| (72) VIKEN, Brynjar               | (47) 26.04.2023                  | (11) EP3400727                                 |
| BREDE, Steinar                    | (87) KR2019014838                | (21) EP17756871.4                              |
| (31) 201711387                    | 28.05.2020                       | (47) 26.04.2023                                |
| (32) 14.07.2017                   | (22) 04.11.2019                  | (87) KR2017002091                              |
| (33) United Kingdom               | (54) WIRELESS CONTROL SYSTEM,    | 31.08.2017                                     |
| (51) H04W 4/70                    | WIRELESS CONTROL METHOD, AND     | (22) 24.02.2017                                |
| H04L 67/125                       | BATTERY PACK                     | (54) METHOD AND APPARATUS FOR                  |
| H04L 67/12                        | (73) LG Energy Solution, Ltd.    | TRACKING LOCATION USING V2X                    |
| H04L 67/51                        | (72) PARK, Chan-Ha               | COMMUNICATION IN A WIRELESS                    |
| H04L 67/563                       | (31) 20180144857                 | COMMUNICATION SYSTEM                           |
| (11) EP3701734                    | (32) 21.11.2018                  | (73) LG Electronics Inc.                       |
| (21) EP18803821.0                 | (33) Korea (Republic)            | (72) LEE, Ki-Dong                              |
| (47) 26.04.2023                   | (51) H04W 8/00                   | KIM, Sanggook                                  |
| (87) US2018057013                 | H04W 8/26                        | (31) 201662299523 P                            |
| 02.05.2019                        | H04W 24/04                       | (32) 24.02.2016                                |
| (22) 23.10.2018                   | (11) EP3610633                   | (33) United States of America                  |
| (54) METHODS TO ENABLE DATA       | (21) EP18784775.1                | (51) H04W 12/041                               |
| CONTINUITY SERVICE                | (47) 26.04.2023                  | H04W 12/0433                                   |
| (73) Convida Wireless, LLC        | (87) US2018027142                | H04W 36/00                                     |
| (72) DI GIROLAMO, Rocco           | 18.10.2018                       | (11) EP3614709                                 |
| LY, Quang                         | (22) 11.04.2018                  | (21) EP17908666.5                              |
| SEED, Dale, N.                    | (54) SYSTEM AND METHOD FOR       | (47) 26.04.2023                                |
| MLADIN, Catalina, Mihaela         | DETECTING AND CONTROLLING        | (87) CN2017083010                              |
| FLYNN, William, Robert IV         | CONTRABAND DEVICES               | 08.11.2018                                     |
| LOEB, Shoshana                    | (73) Global Tel*Link Corporation | (22) 04.05.2017                                |
| CHEN, Zhuo                        | (72) HODGE, Stephen Lee          | (54) KEY GENERATION METHOD AND                 |
| STARSINIC, Michael, F.            | (31) 201715484883                | RELATED DEVICES                                |
| (31) 201762575990 P               | (32) 11.04.2017                  | (73) Huawei Technologies Co., Ltd.             |
| (32) 23.10.2017                   | (33) United States of America    | (72) XIONG, Xiaochun                           |
| (33) United States of America     | (51) H04W 8/12                   | YIN, Xinxing                                   |
| (51) H04W 4/70                    | H04W 8/20                        | (51) H04W 12/06                                |
| H04L 67/51                        | H04W 48/18                       | H04L 9/40                                      |
| (11) EP3469782                    | H04W 24/02                       | H04W 4/02                                      |
| (21) EP17733250.9                 | H04W 24/10                       | H04W 12/04                                     |
| (47) 26.04.2023                   | H04W 28/02                       | H04W 12/082                                    |
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| (21) EP18719434.5                           | (33) United States of America                 | (72) XU, Haibo                     |
| (47) 26.04.2023                             | (51) H04W 16/04                               | WANG, Jian                         |
| (87) EP2018000107                           | H04W 72/04                                    | LIU, Haitao                        |
| 27.09.2018                                  | H04L 41/0896                                  | (31) 201810912060                  |
| (22) 22.03.2018                             | H04L 43/0882                                  | (32) 10.08.2018                    |
| (54) AUTOMATED DELIVERY SECURITY            | H04L 47/22                                    | (33) China                         |
| SYSTEM                                      | H04W 24/10                                    | (51) H04W 24/10                    |
| (73) Glue AB                                | H04W 28/02                                    | H04L 5/00                          |
| (72) BIGERT, Johnny                         | H04W 88/08                                    | (11) EP3525510                     |
| PESIRIDIS, Konstantinos Ioannis             | H04W 92/12                                    | (21) EP17868274.6                  |
| Sotiropoulos                                | (11) EP3706392                                | (47) 26.04.2023                    |
| HULT, Magnus Olof Lorentz                   | (21) EP17930924.0                             | (87) CN2017109379                  |
| BATTERS, Richard John                       | (47) 26.04.2023                               | 11.05.2018                         |
| KAFOUROU, Stavros                           | (87) CN2017109263                             | (22) 03.11.2017                    |
| BLACKWELL, Timothy, Charles                 | 09.05.2019                                    | (54) REFERENCE SIGNAL MEASUREMENT  |
| (31) 201704629                              | (22) 03.11.2017                               | METHOD AND APPARATUS               |
| (32) 23.03.2017                             | (54) BACKHAUL BANDWIDTH ADJUSTING             | (73) Huawei Technologies Co., Ltd. |
| (33) United Kingdom                         | METHOD AND APPARATUS                          | (72) LI, Xueru                     |
| (51) H04W 12/08                             | (73) Beijing Xiaomi Mobile Software Co., Ltd. | LIU, Kunpeng                       |
| B06B 1/02                                   | (72) HONG, Wei                                | QU, Bingyu                         |
| F41A 17/06                                  | (51) H04W 16/14                               | (31) 201610978479                  |
| (11) EP3549363                              | H04W 4/08                                     | (32) 04.11.2016                    |
| (21) EP17825291.2                           | H04W 16/28                                    | (33) China                         |
| (47) 26.04.2023                             | H04W 72/04                                    | (51) H04W 28/02                    |
| (87) IB2017057451                           | (11) EP3742779                                | H04L 47/20                         |
| 07.06.2018                                  | (21) EP18901230.5                             | H04W 8/04                          |
| (22) 28.11.2017                             | (47) 26.04.2023                               | (11) EP3820091                     |
| (54) PREVENTING UNAUTHORIZED USE            | (87) JP2018040340                             | (21) EP19208093.5                  |
| OF DEVICES                                  | 25.07.2019                                    | (47) 26.04.2023                    |
| (73) P&P Ultra G Ltd.                       | (22) 30.10.2018                               | (22) 08.11.2019                    |
| (72) PALTI, Yoram                           | (54) MANAGEMENT CONTROL DEVICE                | (54) COMMUNICATION SYSTEM AND      |
| (31) 201662427225 P                         | AND COMMUNICATION CONTROL                     | METHOD FOR OPERATING A             |
| (32) 29.11.2016                             | DEVICE  | COMMUNICATION SYSTEM               |
| (33) United States of America               | (73) Sony Group Corporation                   | (73) NTT DOCOMO, INC.              |
| (51) H04W 12/08                             | (72) FURUICHI, Sho                            | (72) THAKOLSRI, Srisakul           |
| H04W 48/02                                  | (31) 2018004696                               | SAMA, Malla Reddy                  |
| H04W 48/16                                  | (32) 16.01.2018                               | (51) H04W 28/02                    |
| H04W 60/00                                  | (33) Japan                                    | H04W 72/04                         |
| H04W 48/18                                  | (51) H04W 24/00                               | H04L 5/00                          |
| (11) EP3846521                              | H04W 16/14                                    | (11) EP3629619                     |
| (21) EP18940269.6                           | (11) EP3817431                                | (21) EP18817787.7                  |
| (47) 26.04.2023                             | (21) EP19206494.7                             | (47) 26.04.2023                    |
| (87) CN2018115989                           | (47) 26.04.2023                               | (87) CN2018090731                  |
| 22.05.2020                                  | (22) 31.10.2019                               | 20.12.2018                         |
| (22) 16.11.2018                             | (54) MONITORING A CELLULAR WIRELESS           | (22) 12.06.2018                    |
| (54) NETWORK ACCESS METHOD AND              | NETWORK FOR A SPECTRAL                        | (54) COMMUNICATIONS METHOD, USER   |
| DEVICE                                      | ANOMALY AND TRAINING A                        | EQUIPMENT, NETWORK EQUIPMENT       |
| (73) GUANGDONG OPPO MOBILE                  | SPECTRAL ANOMALY NEURAL                       | AND COMMUNICATIONS SYSTEM          |
| TELECOMMUNICATIONS CORP., LTD.              | NETWORK                                       | (73) Huawei Technologies Co., Ltd. |
| (72) TANG, Hai                              | (73) Rohde & Schwarz GmbH & Co. KG            | (72) LIU, Zhe                      |
| (51) H04W 12/47                             | (72) Kottkamp, Meik                           | TANG, Hao                          |
| H04L 9/40                                   | Roessler, Andreas                             | WANG, Fan                          |
| H04W 4/80                                   | Stuhlfauth, Reiner                            | LI, Junchao                        |
| G06Q 20/32                                  | Rosier, Holger                                | ZHOU, Guohua                       |
| G06Q 20/34                                  | (51) H04W 24/02                               | (31) 201710459638                  |
| G06Q 20/36                                  | H04W 52/02                                    | (32) 16.06.2017                    |
| G07F 7/08                                   | H04W 76/28                                    | (33) China                         |
| (11) EP3800915                              | (11) EP3817436                                | (51) H04W 28/08                    |
| (21) EP20199551.1                           | (21) EP19847833.1                             | (11) EP3829130                     |
| (47) 26.04.2023                             | (47) 26.04.2023                               | (21) EP19849792.7                  |
| (22) 01.10.2020                             | (87) CN2019085160                             | (47) 26.04.2023                    |
| (54) TYPE 4 NFC TAGS AS PROTOCOL            | 13.02.2020                                    | (87) CN2019099353                  |
| INTERFACE                                   | (22) 30.04.2019                               | 20.02.2020                         |
| (73) Visa International Service Association | (54) METHOD FOR MONITORING                    | (22) 06.08.2019                    |
| (72) TOP, Mustafa                           | PHYSICAL DOWNLINK CONTROL                     | (54) SERVICE FLOW TRANSMISSION     |
| PIRZADEH, Kiushan                           | CHANNEL AND COMMUNICATION                     | METHOD AND APPARATUS               |
| (31) 201916593281                           | APPARATUS                                     | (73) HUAWEI TECHNOLOGIES CO., LTD. |
| (32) 04.10.2019                             | (73) HUAWEI TECHNOLOGIES CO., LTD.            | (72) YU, Youyang                   |



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| (31) 201811163077<br>201810925079  | WANG, Hong<br>XU, Lixiang  | (11) EP3603202<br>(21) EP18709901.5   |
| (32) 30.09.2018<br>14.08.2018  | (31) 201610875793<br>201610204757  | (47) 26.04.2023<br>(87) US2018019518  |
| (33) China<br>China  | (32) 30.09.2016<br>01.04.2016  | 27.09.2018<br>(22) 23.02.2018   |
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| AND EXTENSION BY USER                         | (33) China                         | SYSTEM                             |
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**Voor Nederland verleende Europese octrooien waarvoor een vertaling is ingediend conform artikel 52 (1, 6) van de Octrooiwet 1995.**

**Contains data concerning European patents granted for The Netherlands in which a translation was filed confirm Article 52 par. 1 or 6 of the Patents Act 1995.**

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| (72) LIPSCOMB, Randy   | (22) 17.10.2019   | B05B 14/45   |
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| (22) 23.11.2018                              | (74) ir. W.J.J.M. Kempes   | (47) 25.01.2023  |
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| (74) dr. R.C. van Duijvenbode c.s.           | (51) B26B 19/38  | H02G 11/00   |
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| (51) B09B 3/00                               | (54) ELECTRIC BEARD TRIMMER  | (21) EP19717288.5  |
| A61L 2/08                                    | (73) Braun GmbH  | (22) 09.04.2019  |
| A61L 2/10                                    | (72) XU, Xiaolan   | (54) MARKING ON INJECTION MOULDED PARTS FOR CABLE CARRIERS |
| A61L 2/18                                    | RÖDER, Roman   | (73) Igus GmbH   |
| A61L 2/20                                    | PETER, Andreas   | (72) BLASE, Frank  |
| B09B 5/00                                    | (74) ir. W.J.J.M. Kempes   | (74) dr. ir. G.J.C. Verdijck c.s.                          |
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| KONISHI, Takayoshi                           | (73) Studio Werner Sobek GmbH  | B33Y 10/00   |
| HIRAOKA, Toshio                              | (72) SOBEK, Werner   | B33Y 30/00   |
| KURITA, Noritomo                             | (74) dr. R.C. van Duijvenbode c.s.   | B33Y 50/00   |
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| 01.11.2017                                   | B28B 3/06  | (73) KraussMaffei Extrusion GmbH                           |
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| (73) Kennametal Inc.                         | MOTHES, Steffen  | B65H 1/30  |
| (72) FILHO, Ruy Frota de Souza               | (74) dr. R.C. van Duijvenbode c.s.   | B65H 5/00  |
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| (51) B25J 15/00                              | (22) 02.12.2019  | (54) DEVICE AND METHOD FOR LOADING A MAGAZINE              |
| B25J 15/02                                   | (54) PRESS FOR IN-SITU MANUFACTURING A THERMOPLASTIC SANDWICH PANEL                            | (73) SIDEL PARTICIPATIONS                                  |
| B65B 35/16                                   | (73) FITS Holding BV   | (72) GAUTHERON, Anthony                                    |
| B25J 11/00                                   | (72) DE GROOT, Martin Theodoor   | (74) J.M.H. Duyver lic.                                    |
| B65B 25/06                                   | (74) ir. W.J.J.M. Kempes   | (31) 1556107   |
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| (72) OVERBY, Jens                            |  | C08F 2/48  |
| HUNDTOFTE, Niels, Bjarne                     |  |  |

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| C09J 5/00  | (54) METHOD AND APPARATUS FOR PRINTING ON AN OBJECT HAVING A CURVED SURFACE   | (73) Xiamen Hongji Weiye Industrial Co., Ltd  |
| C09J 107/00  | (73) Gen-Probe Incorporated   | (72) WANG, Jingnan  |
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| (73) Immunolight, LLC.   | TAMMER, Olev  | LIAO, Shuhui  |
| (72) BOURKE, Frederic Avery Jr.  | (74) ir. W.J.J.M. Kempes  | (74) ir. W.J.J.M. Kempes  |
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| B32B 27/28   | (73) Technical Institute of Physics and Chemistry of the Chinese Academy of Sciences                                      | (21) EP19842822.9   |
| B32B 27/30   | (72) LIU, Jinying   | (22) 16.12.2019   |
| B32B 27/32   | ZHOU, Shuyun  | (54) METHOD FOR OBTAINING THE DEFORMATION OF A TYRE UNDER LOAD DURING RUNNING                                       |
| B65D 77/22   | XING, Fang  | (73) COMPAGNIE GENERALE DES ETABLISSEMENTS MICHELIN   |
| B65D 51/16   | ZHAO, Jian  | (72) ALFF, Denis  |
| F16K 15/14   | ZOU, Yingquan   | (74) ir. W.J.J.M. Kempes  |
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| (72) HANSEN, Peter   | (33) China  | France  |
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| (51) B32B 37/00  | B41F 35/06  | (22) 16.12.2019   |
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| F16C 13/00   | (22) 19.05.2017   | (72) ALFF, Denis  |
| B32B 37/20   | (54) METHOD FOR PRODUCING PRINTED MATTER  | (74) ir. W.J.J.M. Kempes  |
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| (22) 25.11.2020  | INOUE, Takejiro   | (32) 30.01.2019   |
| (54) AIR-FLOATING THIN FILM BONDING APPARATUS                          | (74) J.M.H. Duyver lic.   | 21.12.2018  |
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| (72) YANG, Szu-Nan   | (33) Japan  | (47) 08.02.2023   |
| WANG, Ching-Ho   | (47) 15.03.2023   | (51) B60D 5/00  |
| (74) dr. R.C. van Duijvenbode c.s.                                     | (51) B60B 1/00  | B61D 17/20  |
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| (51) B41J 3/407  | (11) EP3459759  | (54) JOINT MODULE FOR AN ARTICULATED VEHICLE, ARTICULATED VEHICLE, AND METHOD FOR MANUFACTURING SUCH A JOINT MODULE |
| G01N 35/10   | (21) EP18739445.7   | (73) JOST-WERKE Deutschland GmbH  |
| G01N 35/00   | (22) 23.05.2018   |   |
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| (72) KNOOK, Ruud<br>DOBBELAAR, Jos Robertus Leonardus  | (73) Thiele GmbH & Co. KG<br>(72) Norpoth, Bernd   | United States of America<br>(47) 05.04.2023   |
| (74) ir. F.A. Geurts c.s.<br>(47) 15.02.2023   | (74) J.M.H. Duyver lic.<br>(31) 202019101641 U   | (51) B62D 21/15<br>B60N 3/00<br>B62D 33/06  |
| (51) B60J 5/00<br>E05F 15/00<br>E05F 15/77<br>E05F 15/63   | (32) 21.03.2019<br>(33) Germany<br>(47) 22.03.2023   | (11) EP3962779<br>(21) EP20723225.7<br>(22) 29.04.2020  |
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| (73) Tesla, Inc.<br>(72) WHEELER, David<br>HUGHES, John<br>NEWMAN, Austin<br>WARMAN, Jacob<br>MCCARTHY, Chris  | (11) EP3947117<br>(21) EP19716312.4<br>(22) 25.03.2019<br>(54) A VEHICLE COMPRISING A WIND<br>DEFLECTING ASSEMBLY AND A<br>LIGHTING ASSEMBLY   | (74) ir. H.A. Witmans c.s.<br>(31) 2023025<br>(32) 29.04.2019<br>(33) Netherlands<br>(47) 12.04.2023  |
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| (33) United States of America<br>United States of America<br>(47) 15.03.2023   | (51) B61L 23/06<br>(11) EP2990296<br>(21) EP15181063.7<br>(22) 14.08.2015<br>(54) A DECOMMISSIONING SYSTEM<br>FOR DECOMMISSIONING A<br>RAILWAY TRACK SECTION, AS<br>WELL AS INTERFACE MEANS FOR<br>CONNECTING A DECOMMISSIONING<br>SYSTEM TO A TRAIN SAFETY<br>SYSTEM OF THE RAILWAY TRACK | (73) FMC Technologies<br>(72) PAQUET, Stéphane<br>LE DEVEHAT, Renaud<br>(74) ir. F.A. Geurts c.s.<br>(31) 1761186<br>(32) 24.11.2017<br>(33) France<br>(47) 22.03.2023  |
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| (73) Carrier Corporation<br>(72) RENAULT, Loïc<br>(74) J.M.H. Duyver lic.<br>(47) 29.03.2023   | (51) B62B 1/26<br>B62B 1/00<br>B62B 1/10<br>B62B 1/18<br>B62B 1/24<br>A45C 5/14<br>(11) EP3577008<br>(21) EP18747591.8<br>(22) 01.02.2018<br>(54) WHEEL AXLE ASSEMBLY WITH<br>STABILIZING BRACES   | (51) B65C 1/04<br>(11) EP3478589<br>(21) EP17734300.1<br>(22) 29.06.2017<br>(54) A LABELLING APPARATUS<br>(73) Marel Limited<br>(72) MILLS, Sean, James<br>(74) ir. W.J.J.M. Kempes<br>(31) 16176962<br>(32) 29.06.2016<br>(33) European Patent Office (EPO)<br>(47) 22.02.2023 |
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| (73) Dress Robin  | HOOK, William, J.   | (33) Austria  |
| (72) ROBIN, Sébastien   | DARR, Richard, C.   | (47) 08.02.2023   |
| (74) ir. W.J.J.M. Kempes  | (74) dr. R.C. van Duijvenbode c.s.                              | (51) B65G 17/08   |
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| B65D 55/16  | (47) 29.03.2023   | (54) CONVEYOR BELT WITH ARTICULATED<br>LINKS PROVIDED WITH ROLLING<br>BALLS |
| (11) EP3816062  | (51) B65D 85/804  | (73) Movex S.p.A.   |
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| (22) 20.10.2020   | (21) EP20725916.9   | Sergio, MARSETTI  |
| (54) CONTAINER WITH POURING SPOUT   | (22) 16.04.2020   | (74) ir. H.A. Witmans c.s.  |
| (73) Dethapak Innovation B.V.   | (54) CAPSULE  | (31) 202000023095   |
| (72) DETHMERS, Nicola Louis   | (73) Aroma System SRL   | (32) 30.09.2020   |
| (74) ir. H.A. Witmans c.s.  | (72) RAPPARINI, Gino  | (33) Italy  |
| (31) 2024149  | GENERALI, Maurizio  | (47) 22.03.2023   |
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| B65D 85/72  | (51) B65F 1/14  | (73) MULTIVAC Sepp Haggenmüller SE & Co.<br>KG                              |
| C08G 65/38  | B65F 3/00   | (72) NEGELE, Wolfgang   |
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| C30B 17/00                         | (11) EP3835488                     | LOCKING STRIP, METHOD FOR              |
| C30B 19/04                         | (21) EP18929745.0                  | MANUFACTURING SUCH SET OF              |
| C30B 19/12                         | (22) 09.08.2018                    | PANELS, AND ASSEMBLY OF THE            |
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| A61B 6/03                           | (54) LOW PROFILE, NESTING CAPACITOR      | AND METHOD FOR MANUFACTURING       |
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(68) EP3215165  
(54) METHODS OF SELECTING T CELL  
LINE AND DONOR THEREOF FOR  
ADOPTIVE CELLULAR THERAPY  
(94) 773  
(95) Tabelecleucel  
(93) EU/1/22/1700 16.12.2022
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**VB1**

**Rechten waarvoor een verzoek of bezwaarschrift is ingediend conform Octrooiwet 1995 en de Algemene Wet Bestuursrecht.**

**Contains data concerning requests and notices of opposition under the General administrative law.**

(11) EP2959894

(51) A61K 31/137

A61P 37/06

A61K 31/397

(00) 41/22

12.10.2022

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(11) EP3703633

(51) A61F 13/00

A61L 15/64

(00) 24/22

15.06.2022

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**VB2**

**Rechten waarvoor een beslissing is genomen op een verzoek- of bezwaarschrift conform de Octrooiwet 1995.**

**Contains data concerning requests and notices of opposition under the General administrative law in respect of which a decision has been taken or in respect for which a report has been made.**

(11) EP2087346

(51) G01N 31/12  
G01N 33/28

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(11) EP2384210

(51) A61M 5/34

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(11) EP3180408

(51) C02F 1/00  
C09K 8/05

(00) 35/19  
28.08.2019

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(11) EP3214923

(51) A01J 5/00  
A01K 1/00  
A01K 1/12

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(11) EP3221578

(51) F03D 1/00  
F03D 1/06

(00) 03/22  
19.01.2022

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(11) EP3295808

(51) A23L 27/30  
A23L 29/30

(00) 16/22  
20.04.2022

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(11) EP3402857

(51) B32B 3/04  
B32B 5/02  
B32B 5/04  
B32B 5/26  
B32B 7/12  
B32B 27/12  
B32B 27/32  
B32B 37/12  
C08L 23/10  
C08L 23/12  
C08L 23/14  
C09J 123/10  
C09J 123/12  
C09J 123/14

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(11) EP3513984

(51) B42D 25/328  
B42D 25/387

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(11) EP3667966

(51) H04L 1/00  
H04L 5/00  
H04W 72/00  
H04W 84/12  
H04L 27/26

(00) 01/23  
04.01.2023

(00) 25.04.2023

(00) Positive

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**MED**

**Overige mededelingen.  
Contains data concerning other communications.**

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| (11) 2003957<br>(00) 14.04.2023<br>(51) E04D 13/03<br>(00) Removed  | (00) Deze akte vervangt RC202002429,<br>behalve EP2266096.   | (00) Deze akte vervangt RC202002429,<br>behalve EP2266096.   |
| (11) 2006832<br>(00) 14.04.2023<br>(51) E04D 1/22<br>E04D 13/03<br>F16B 41/00<br>(00) Removed   | (11) EP2113152<br>(00) 03.12.2020<br>(51) H04L 29/06<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                           | (11) EP2983373<br>(00) 03.12.2020<br>(51) H04N 21/2387<br>H04N 21/4147<br>H04N 21/433<br>H04N 21/472<br>H04N 21/6587<br>H04N 21/81<br>G11B 27/00<br>H04N 5/76<br>H04N 5/783<br>H04N 9/82 |
| (11) 2029095<br>(00) 13.04.2023<br>(51) C12M 1/06<br>B01F 27/191<br>C12M 1/34   | (11) EP2126884<br>(00) 03.12.2020<br>(51) G09G 3/34<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                            | (00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.   |
| (11) EP1658553<br>(00) 03.12.2020<br>(51) G06F 3/14<br>G09G 3/00<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.  | (11) EP2211901<br>(51) A61K 39/145<br>(11) EP2327205<br>(00) 03.12.2020<br>(51) H04N 5/44<br>H04N 7/16<br>H04N 7/24<br>H04N 7/52<br>H04N 5/50                                | (11) EP3142117<br>(00) 03.12.2020<br>(51) H04N 21/433<br>H04N 21/8549<br>G11B 27/034<br>G11B 27/10   |
| (11) EP1704726<br>(00) 03.12.2020<br>(51) H04N 9/73<br>H05B 37/02<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                                       | (00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.   | (00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.   |
| (11) EP1704729<br>(00) 03.12.2020<br>(51) H04N 9/73<br>H05B 37/02<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                                       | (11) EP2382788<br>(00) 03.12.2020<br>(51) H04N 9/73<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                            | (11) EP3142468<br>(00) 03.12.2020<br>(51) H05K 1/02<br>H05K 1/18<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                           |
| (11) EP1855720<br>(51) A61K 39/285<br>A61K 39/145<br>A61K 39/29<br>A61K 39/12<br>A61P 37/04   | (11) EP2577157<br>(00) 03.12.2020<br>(51) F21V 33/00<br>H05B 37/02<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.             | (11) EP3143902<br>(51) A47C 1/034<br>A47C 1/032<br>A47C 1/024  |
| (11) EP1969839<br>(51) H04N 5/765   | (11) EP1855720<br>(51) A61K 39/285<br>A61K 39/145<br>A61K 39/29<br>A61K 39/12<br>A61P 37/04  | (11) EP3224376<br>(51) C12Q 1/6869<br>C12Q 1/6851<br>C12Q 1/70   |
| (11) EP2076898<br>(00) 03.12.2020<br>(51) G09G 3/20<br>G09G 3/36<br>G09G 5/02<br>H04N 9/31<br>H04N 9/67<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096. | (11) EP2786366<br>(00) 03.12.2020<br>(51) G09G 3/34<br>G09G 3/36<br>H04N 13/04<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096. |  |
| (11) EP2104932<br>(00) 03.12.2020<br>(51) G09G 3/20<br>G09G 3/36<br>(00) Based on clerical error  | (11) EP2812752<br>(00) 03.12.2020<br>(51) G02F 1/13357<br>(00) Based on clerical error<br>(00) Deze akte vervangt RC202002429,<br>behalve EP2266096.                         |  |
|   | (11) EP2942725<br>(00) 03.12.2020<br>(51) H04N 21/418<br>H04N 21/436<br>H04N 21/4405<br>H04N 21/462<br>G06F 21/10<br>(00) Based on clerical error                            |  |

## VRV

## Verval of nietigverklaring.

## Contains data concerning lapse or annulment.

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| (11) 1023270        | (00) Patent Expired | (00) Patent Expired    |
| (00) 25.04.2023     | (11) EP1497438      | (11) EP1501935         |
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| (11) 300447         | (00) Patent Expired | (00) Patent Expired    |
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| (11) EP1356789      | (00) Patent Expired | (00) Patent Expired    |
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| (00) 24.04.2023     | (11) EP1501916      | (11) EP1957110         |
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**VRB**

**Verbeteringen op eerdere publicaties.  
Contains data concerning corrections.**

## CO

## Ingeschreven overdrachten.

## Contains data concerning registered assignments or change of owners.

|  |  |                                 |
|--|--|---------------------------------|
| (71) Profile Products LLC              | (11) EP2349582                         | (11) 2015930                    |
| (73) Profile Products LLC              | (00) 14.04.2023                        | (00) 14.04.2023                 |
| (11) 2012270                           | (51) B05B 3/10                         | (51) A01G 9/02                  |
| (00) 14.04.2023                        | B05B 5/04                              | (00) Assignment                 |
| (51) A01G 9/10                         | (00) Change of Legal Entity            | (71) Profile Products LLC       |
| (00) Assignment                        | (71) Profile Products LLC              | (73) Profile Products LLC       |
| (71) Profile Products LLC              | (73) Profile Products LLC              | (11) 2016863                    |
| (73) Profile Products LLC              | (11) EP2326162                         | (00) 14.04.2023                 |
| (11) 2007469                           | (00) 14.04.2023                        | (51) A01G 9/08                  |
| (00) 14.04.2023                        | (51) A01G 9/10                         | (00) Assignment                 |
| (51) A01G 9/10                         | A01G 31/00                             | (71) Illumina, Inc.             |
| (00) Assignment                        | (00) Assignment                        | (73) Illumina, Inc.             |
| (71) Profile Products LLC              | (71) Calliditas Therapeutics Suisse SA | (11) EP2664678                  |
| (73) Profile Products LLC              | (73) Calliditas Therapeutics Suisse SA | (00) 12.04.2023                 |
| (11) 2013782                           | (11) EP2545918                         | (51) C12Q 1/68                  |
| (00) 14.04.2023                        | (00) 12.04.2023                        | (00) Merge                      |
| (51) A01G 9/10                         | (51) A61K 31/437                       | (71) Profile Products LLC       |
| (00) Assignment                        | A61P 35/00                             | (73) Profile Products LLC       |
| (71) EMQ Ltd                           | C07D 471/04                            | (11) 2015411                    |
| (73) EMQ Ltd                           | (00) Change of owner(s) name           | (00) 14.04.2023                 |
| (11) EP1609945                         | (71) KETER HOME AND GARDEN             | (51) A01G 9/02                  |
| (00) 14.04.2023                        | PRODUCTS LTD                           | A01G 9/10                       |
| (51) E21B 31/107                       | (73) KETER HOME AND GARDEN             | (00) Assignment                 |
| (00) Assignment                        | PRODUCTS LTD                           | (71) Profile Products LLC       |
| (71) EMQ Ltd                           | (11) EP2205418                         | (73) Profile Products LLC       |
| (73) EMQ Ltd                           | (00) 17.04.2023                        | (11) EP2572571                  |
| (11) EP1610047                         | (51) B29C 33/42                        | (00) 14.04.2023                 |
| (00) 14.04.2023                        | B29C 45/26                             | (51) A01G 9/10                  |
| (51) E21B 17/042                       | (00) Change of owner(s) name           | (00) Assignment                 |
| E21B 31/113                            | (71) Profile Products LLC              | (71) Osaka University           |
| F16L 15/00                             | (73) Profile Products LLC              | Resonac Corporation             |
| (00) Assignment                        | (11) 2017170                           | (73) Osaka University           |
| (71) Calliditas Therapeutics Suisse SA | (00) 14.04.2023                        | Resonac Corporation             |
| (73) Calliditas Therapeutics Suisse SA | (51) A01G 9/10                         | (11) EP2843667                  |
| (11) EP2139477                         | (00) Assignment                        | (00) 17.04.2023                 |
| (00) 12.04.2023                        | (71) Illumina, Inc.                    | (51) H01B 1/00                  |
| (51) A61K 31/437                       | (73) Illumina, Inc.                    | H01B 1/22                       |
| A61K 31/5377                           | (11) EP2376517                         | H01B 13/00                      |
| A61P 35/00                             | (00) 12.04.2023                        | H05K 1/09                       |
| C07D 471/04                            | (51) C07H 21/00                        | H05K 3/12                       |
| (00) Change of owner(s) name           | C12N 9/00                              | C09D 11/00                      |
| (71) Calliditas Therapeutics Suisse SA | C12P 19/34                             | (00) Change of Legal Entity     |
| (73) Calliditas Therapeutics Suisse SA | (00) Merge                             | (71) Kai Stabler               |
| (11) EP2344492                         | (71) Illumina, Inc.                    | (73) Kai Stabler               |
| (00) 12.04.2023                        | (73) Illumina, Inc.                    | (11) EP2821550                  |
| (51) A61K 31/437                       | (11) EP2396430                         | (00) 13.04.2023                 |
| A61P 3/00                              | (00) 12.04.2023                        | (51) E01C 9/00                  |
| A61P 9/00                              | (51) A61K 31/7105                      | E01C 11/22                      |
| A61P 11/00                             | C07H 21/04                             | E01C 13/04                      |
| A61P 13/00                             | C12P 19/34                             | (00) Assignment                 |
| A61P 17/00                             | C12Q 1/68                              | (71) peRAIL GmbH                |
| A61P 19/00                             | (00) Merge                             | (73) peRAIL GmbH                |
| A61P 25/00                             | (71) VRET B.V.                         | (11) EP2837542                  |
| A61P 27/00                             | (73) VRET B.V.                         | (00) 13.04.2023                 |
| A61P 29/00                             | (11) 2018432                           | (51) B61D 3/20                  |
| A61P 35/00                             | (00) 14.04.2023                        | (00) Assignment                 |
| C07D 471/04                            | (51) A41D 13/05                        | (71) Osaka University           |
| (00) Change of owner(s) name           | F41H 1/02                              | Showa Denko Materials Co., Ltd. |
| (71) Durr Systems AG                   | (00) Assignment                        | (73) Osaka University           |
| (73) Durr Systems AG                   | (71) Profile Products LLC              | Resonac Corporation             |
|  | (73) Profile Products LLC              | (11) EP2843667                  |

|                                   |  |                                   |
|-----------------------------------|--|-----------------------------------|
| (00) 17.04.2023                   | Resonac Corporation                    | A61P 11/00                        |
| (51) H01B 1/00                    | (11) EP2855148                         | A61P 13/00                        |
| H01B 1/22                         | (00) 17.04.2023                        | A61P 17/00                        |
| H01B 13/00                        | (51) B41M 3/00                         | A61P 19/00                        |
| H05K 1/09                         | H05K 1/03                              | A61P 25/00                        |
| H05K 3/12                         | H05K 1/09                              | A61P 27/00                        |
| C09D 11/00                        | H05K 3/12                              | A61P 29/00                        |
| (00) Demerger                     | (00) Change of Legal Entity            | A61P 35/00                        |
| (71) Profile Products LLC         | (71) peRAIL GmbH                       | C07D 471/04                       |
| (73) Profile Products LLC         | (73) peRAIL GmbH                       | (00) Change of owner(s) name      |
| (11) 2018818                      | (11) EP2871141                         | (71) Samsung Electronics Co. Ltd. |
| (00) 14.04.2023                   | (00) 13.04.2023                        | (73) Samsung Electronics Co. Ltd. |
| (51) A01G 9/029                   | (51) B61D 3/20                         | (11) EP2970763                    |
| A01G 24/00                        | B61D 7/04                              | (00) 13.04.2023                   |
| A01G 24/44                        | B61D 7/28                              | (51) C09K 11/02                   |
| (00) Assignment                   | B65D 88/12                             | C09K 11/70                        |
| (71) Profile Products LLC         | B65D 88/54                             | (00) Assignment                   |
| (73) Profile Products LLC         | B65D 90/62                             | (71) Profile Products LLC         |
| (11) 2020979                      | (00) Assignment                        | (73) Profile Products LLC         |
| (00) 14.04.2023                   | (71) Osaka University                  | (11) 2020943                      |
| (51) A01G 24/44                   | Showa Denko Materials Co., Ltd.        | (00) 14.04.2023                   |
| (00) Assignment                   | (73) Osaka University                  | (51) A01G 24/20                   |
| (71) Samsung Electronics Co. Ltd. | Resonac Corporation                    | A01G 24/44                        |
| (73) Samsung Electronics Co. Ltd. | (11) EP2824676                         | A01G 24/10                        |
| (11) EP2481100                    | (00) 17.04.2023                        | (00) Assignment                   |
| (00) 13.04.2023                   | (51) H01B 13/00                        | (71) Samsung Electronics Co. Ltd. |
| (51) C09K 11/02                   | H05K 3/10                              | (73) Samsung Electronics Co. Ltd. |
| C09K 11/56                        | (00) Demerger                          | (11) EP2904604                    |
| C09K 11/70                        | (71) Osaka University                  | (00) 13.04.2023                   |
| C09K 11/88                        | Resonac Corporation                    | (51) G09F 13/02                   |
| H01L 33/50                        | (73) Osaka University                  | G09F 13/18                        |
| (00) Assignment                   | Resonac Corporation                    | G09F 13/20                        |
| (71) Kai Stähler                  | (11) EP2824676                         | G09F 13/22                        |
| (73) Kai Stähler                  | (00) 17.04.2023                        | G09F 13/42                        |
| (11) EP2452018                    | (51) H01B 13/00                        | (00) Assignment                   |
| (00) 13.04.2023                   | H05K 3/10                              | (71) NCC Nano, LLC                |
| (51) E01C 3/00                    | (00) Change of Legal Entity            | Showa Denko Materials Co., Ltd.   |
| E01C 9/00                         | (71) The University of Tokyo           | (73) NCC Nano, LLC                |
| E01C 11/22                        | Showa Denko Materials Co., Ltd.        | Resonac Corporation               |
| (00) Assignment                   | (73) The University of Tokyo           | (11) EP2855148                    |
| (71) The University of Tokyo      | Resonac Corporation                    | (00) 17.04.2023                   |
| Resonac Corporation               | (11) EP2848623                         | (51) B41M 3/00                    |
| (73) The University of Tokyo      | (00) 17.04.2023                        | H05K 1/03                         |
| Resonac Corporation               | (51) C07F 9/53                         | H05K 1/09                         |
| (11) EP2848623                    | C07F 15/00                             | H05K 3/12                         |
| (00) 17.04.2023                   | C08F 4/70                              | (00) Demerger                     |
| (51) C07F 9/53                    | C08F 4/80                              | (71) Samsung Electronics Co. Ltd. |
| C07F 15/00                        | C08F 210/00                            | (73) Samsung Electronics Co. Ltd. |
| C08F 4/70                         | C08F 214/14                            | (11) EP3102649                    |
| C08F 4/80                         | C08F 216/18                            | (00) 13.04.2023                   |
| C08F 210/00                       | C08F 218/08                            | (51) C09K 11/02                   |
| C08F 214/14                       | C08F 218/12                            | C09K 11/70                        |
| C08F 216/18                       | C08F 220/44                            | (00) Assignment                   |
| C08F 218/08                       | (00) Demerger                          | (71) Shuttle Catheters PC         |
| C08F 218/12                       | (71) Siemens Logistics GmbH            | (73) Shuttle Catheters PC         |
| C08F 220/44                       | (73) Siemens Logistics GmbH            | (11) EP3310424                    |
| (00) Change of Legal Entity       | (11) EP2828830                         | (00) 13.04.2023                   |
| (71) Profile Products LLC         | (00) 13.04.2023                        | (51) A61B 17/3207                 |
| (73) Profile Products LLC         | (51) G06T 15/00                        | A61M 25/00                        |
| (11) 2018354                      | (00) Assignment                        | A61M 25/09                        |
| (00) 14.04.2023                   | (71) Calliditas Therapeutics Suisse SA | A61M 25/10                        |
| (51) A01G 9/10                    | (73) Calliditas Therapeutics Suisse SA | (00) Assignment                   |
| A01G 31/00                        | (11) EP2860179                         | (71) peRAIL GmbH                  |
| (00) Assignment                   | (00) 12.04.2023                        | (73) peRAIL GmbH                  |
| (71) NCC Nano, LLC                | (51) A61K 31/437                       | (11) EP3199474                    |
| Resonac Corporation               | A61P 3/00                              | (00) 13.04.2023                   |
| (73) NCC Nano, LLC                | A61P 9/00                              | (51) B65D 88/12                   |

|                                      |   |   |
|--------------------------------------|---|---|
| (00) Assignment                      | (00) Assignment                         | (73) KETER HOME AND GARDEN PRODUCTS LTD |
| (71) Quooker International B.V.      | (71) ForCyte Medical, LLC               | (11) EP3186053                          |
| (73) Quooker International B.V.      | (73) ForCyte Medical, LLC               | (00) 17.04.2023                         |
| (11) EP2313697                       | (11) EP3057600                          | (51) B29C 33/48                         |
| (00) 17.04.2023                      | (00) 12.04.2023                         | B29C 45/26                              |
| (51) F24H 1/18                       | (51) A61L 27/36                         | B29C 45/44                              |
| (00) Change of owner(s) name         | A61L 27/38                              | (00) Change of owner(s) name            |
| (71) Resonac Corporation             | C12N 5/00                               | (71) SYNTHOS DWORY 7                    |
| (73) Resonac Corporation             | C12N 5/077                              | SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ |
| (11) EP3428198                       | A61K 35/28                              | (73) SYNTHOS DWORY 7                    |
| (00) 17.04.2023                      | A61K 35/32                              | SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ |
| (51) C08F 2/40                       | (00) Assignment                         | (11) EP3087125                          |
| C08F 2/46                            | (71) SYNTHOS DWORY 7                    | (00) 13.04.2023                         |
| C08F 220/10                          | SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ | (51) C08J 9/00                          |
| (00) Change of Legal Entity          | (73) SYNTHOS DWORY 7                    | C08J 9/14                               |
| (71) Samsung Electronics Co. Ltd.    | SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ | C08J 9/18                               |
| (73) Samsung Electronics Co. Ltd.    | (11) EP3475241                          | C08J 9/20                               |
| (11) EP3033404                       | (00) 13.04.2023                         | C08K 3/04                               |
| (00) 13.04.2023                      | (51) C04B 28/00                         | C08K 3/32                               |
| (51) B82Y 20/00                      | C04B 103/63                             | C08K 3/36                               |
| B32B 37/24                           | C04B 111/28                             | C08L 25/04                              |
| C09K 11/02                           | C08J 9/16                               | (00) Change of Legal Entity             |
| C09K 11/70                           | C08J 9/228                              | (71) Samsung Electronics Co. Ltd.       |
| (00) Assignment                      | C08K 3/34                               | (73) Samsung Electronics Co. Ltd.       |
| (71) Showa Denko Materials Co., Ltd. | (00) Change of Legal Entity             | (11) EP3428244                          |
| (73) Resonac Corporation             | (71) Samsung Electronics Co. Ltd.       | (00) 13.04.2023                         |
| (11) EP3428198                       | (73) Samsung Electronics Co. Ltd.       | (51) B82Y 20/00                         |
| (00) 17.04.2023                      | (11) EP3473692                          | B32B 37/24                              |
| (51) C08F 2/40                       | (00) 13.04.2023                         | C09K 11/02                              |
| C08F 2/46                            | (51) C09K 11/02                         | C09K 11/70                              |
| C08F 220/10                          | C09K 11/70                              | H01L 33/50                              |
| (00) Demerger                        | (00) Assignment                         | (00) Assignment                         |
| (71) Greenlux Lighting Solutions Oy  | (71) Melkus Mechatronic GmbH            | (71) SYNTHOS DWORY 7                    |
| (73) Greenlux Lighting Solutions Oy  | SEW-EURODRIVE GmbH & Co. KG             | SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ |
| (11) EP2963333                       | (73) Melkus Mechatronic GmbH            | (73) SYNTHOS DWORY 7                    |
| (00) 14.04.2023                      | SEW-EURODRIVE GmbH & Co. KG             | SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ |
| (51) F21K 99/00                      | (11) EP3426593                          | (11) EP3087127                          |
| A01G 7/04                            | (00) 12.04.2023                         | (00) 13.04.2023                         |
| H01L 33/30                           | (51) B62B 3/06                          | (51) C08J 9/00                          |
| H05B 33/08                           | B62B 5/00                               | C08J 9/14                               |
| H01L 25/075                          | B66F 9/06                               | C08J 9/18                               |
| H01L 33/50                           | B66F 9/075                              | C08J 9/20                               |
| H01L 33/60                           | (00) Assignment                         | (00) Change of Legal Entity             |
| (00) Assignment                      | (71) The Cleveland Clinic Foundation    | (71) KETER HOME AND GARDEN PRODUCTS LTD |
| (71) The Cleveland Clinic Foundation | ForCyte Medical, LLC                    | (73) KETER HOME AND GARDEN PRODUCTS LTD |
| (73) The Cleveland Clinic Foundation | ForCyte Medical, LLC                    | (11) EP3283268                          |
| (11) EP3509520                       | (11) EP3371834                          | (00) 17.04.2023                         |
| (00) 12.04.2023                      | (00) 13.04.2023                         | (51) B29C 45/16                         |
| (51) A61B 17/88                      | (51) C09K 11/02                         | B32B 3/06                               |
| A61J 1/14                            | C09K 11/61                              | (00) Change of owner(s) name            |
| A61J 1/16                            | C09K 11/70                              | (71) Profile Products LLC               |
| A61L 27/36                           | H05B 33/14                              | (73) Profile Products LLC               |
| A61L 27/38                           | H01L 33/50                              | (11) EP3000314                          |
| A61L 27/40                           | (00) Assignment                         | (00) 14.04.2023                         |
| A61L 27/54                           | (71) Iks Co., Ltd.                      | (51) A01G 9/029                         |
| A61K 35/28                           | (73) Iks Co., Ltd.                      | (00) Assignment                         |
| (00) Assignment                      | (11) EP3506446                          | (71) Samsung Electronics Co. Ltd.       |
| (71) Signify Holding B.V.            | (00) 12.04.2023                         | (73) Samsung Electronics Co. Ltd.       |
| (73) Signify Holding B.V.            | (51) H02J 3/14                          | (11) EP3625309                          |
| (11) EP3053413                       | H02J 3/32                               | (00) 13.04.2023                         |
| (00) 13.04.2023                      | H02J 3/38                               |   |
| (51) H05B 33/08                      | H02J 3/46                               |   |
| H05B 37/00                           | H02J 13/00                              |   |
| F21V 29/00                           | (00) Assignment                         |   |
| F21K 99/00                           | (71) KETER HOME AND GARDEN PRODUCTS LTD |   |

|  |  |
|--|--|
| (51) C09K 11/02  | B29C 48/09                                   |
| C01B 25/08   | B29C 48/12                                   |
| C09K 11/56   | B29C 48/265                                  |
| C09K 11/70   | B33Y 10/00                                   |
| C09K 11/88   | B33Y 30/00                                   |
| G02F 1/13  | B33Y 50/00                                   |
| G09G 3/36  | B33Y 80/00                                   |
| G02F 1/13357   | (00) Assignment                              |
| (00) Assignment  | (71) Dental Imaging Technologies Corporation |
| (71) BOSTON SCIENTIFIC MEDICAL<br>DEVICE LIMITED                   | (73) Dental Imaging Technologies Corporation |
| (73) BOSTON SCIENTIFIC MEDICAL<br>DEVICE LIMITED                   | (11) EP3794556                               |
| (11) EP3581132   | (00) 17.04.2023                              |
| (00) 14.04.2023  | (51) G06T 7/90                               |
| (51) A61B 18/00  | G01J 3/50                                    |
| A61B 18/14   | (00) Assignment                              |
| A61B 90/00   |  |
| (00) Assignment  |  |
| (71) SYNTHOS DWORY 7<br>SPÓŁKA Z OGRANICZONĄ<br>ODPOWIEDZIALNOŚCIĄ |  |
| (73) SYNTHOS DWORY 7<br>SPÓŁKA Z OGRANICZONĄ<br>ODPOWIEDZIALNOŚCIĄ |  |
| (11) EP3487829   |  |
| (00) 13.04.2023  |  |
| (51) C04B 28/00  |  |
| (00) Change of Legal Entity  |  |
| (71) Adicet Therapeutics, Inc.                                     |  |
| (73) Adicet Therapeutics, Inc.                                     |  |
| (11) EP3302538   |  |
| (00) 14.04.2023  |  |
| (51) A61K 39/00  |  |
| A61P 35/00   |  |
| C07K 16/28   |  |
| C07K 16/30   |  |
| C07K 16/40   |  |
| (00) Merge   |  |
| (71) BOSTON SCIENTIFIC MEDICAL<br>DEVICE LIMITED                   |  |
| (73) BOSTON SCIENTIFIC MEDICAL<br>DEVICE LIMITED                   |  |
| (11) EP2854927   |  |
| (00) 14.04.2023  |  |
| (51) A61M 25/095   |  |
| A61B 18/12   |  |
| A61B 5/06  |  |
| A61M 25/098  |  |
| A61M 25/14   |  |
| (00) Assignment  |  |
| (71) DSM Nutritional Products, LLC                                 |  |
| (73) DSM Nutritional Products, LLC                                 |  |
| (11) EP3636077   |  |
| (00) 14.04.2023  |  |
| (51) A23K 20/163   |  |
| A23K 50/30   |  |
| A23K 50/75   |  |
| A23K 10/00   |  |
| (00) Assignment  |  |
| (71) KraussMaffei Extrusion GmbH                                   |  |
| (73) KraussMaffei Extrusion GmbH                                   |  |
| (11) EP3921132   |  |
| (00) 14.04.2023  |  |
| (51) B29C 48/90  |  |
| B22F 3/105   |  |
| B22F 5/10  |  |

**TVH**

**Topografieën van halfgeleiderproducten.  
Contains data concerning Semiconductors.**

**UP1**

**Bevat gegevens over Europese octrooien met geregistreerde eenheidswerking.  
Contains data concerning European patents with registered Unitary Effect.**

## **UP2**

**Bevat gegevens over Europese octrooien met geregistreerd verzoek ex. artikel 52a (herstel recht op validatie).**

**Contains data concerning European patents with registered request ex article 52a (restoration of validation right).**



### **UP3**

**Bevat gegevens over Europese octrooien met geaccepteerd verzoek ex. artikel 52a (herstel recht op validatie) en complete validatie.**

**Contains data concerning European patents with accepted ex article 52a (restoration of validation right) and validation completed.**

#### **UP4**

**Bevat gegevens over Europese octrooien met geaccepteerd verzoek ex. artikel 52a (herstel recht op validatie) en geen complete validatie.**

**Contains data concerning European patents with accepted request ex article 52a (restoration of validation right) and incomplete validation.**

## **UP5**

**Bevat gegevens over Europese octrooien met afgewezen verzoek ex. artikel 52a (herstel recht op validatie).**

**Contains data concerning European patents with rejected request ex article 52a (restoration of validation right).**

**UP6**

**Bevat gegevens over Europese octrooien met ingetrokken verzoek ex. artikel 52a (herstel recht op validatie).**

**Contains data concerning European patents with withdrawn request ex article 52a (restoration of validation right).**