(19)



# 

# (11) **EP 4 432 779 A3**

(12)

### **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: 15.01.2025 Bulletin 2025/03

(43) Date of publication A2: 18.09.2024 Bulletin 2024/38

(21) Application number: 24192283.0

(22) Date of filing: 26.10.2018

(51) International Patent Classification (IPC):

A24F 47/00 (2020.01)

A24F 40/46 (2020.01)

H05B 3/04 (2006.01)

H05B 3/42 (2006.01)

(52) Cooperative Patent Classification (CPC): A24F 40/40; A24F 40/46; H05B 3/04; H05B 3/42; A24F 40/20; H05B 2203/021; H05B 2203/022

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 18938078.5 / 3 871 533

(71) Applicant: Japan Tobacco Inc. Tokyo 105-6927 (JP)

(72) Inventors:

 YAMADA, Manabu Sumida-ku, Tokyo, 130-8603 (JP) • TAKEUCHI, Manabu Sumida-ku, Tokyo, 130-8603 (JP)

 INOUE, Yasunobu Sumida-ku, Tokyo, 130-8603 (JP)

 SUMII, Tateki Sumida-ku, Tokyo, 130-8603 (JP)

(74) Representative: Hoffmann Eitle
Patent- und Rechtsanwälte PartmbB
Arabellastraße 30
81925 München (DE)

#### (54) HEATING ASSEMBLY AND FLAVOR INHALER PROVIDED WITH SAME

(57) Provided is a cartridge for an inhalation device and an inhalation device which have a new structure. Provided is a heating assembly comprising a first cylindrical member provided in one end with a first opening, in which a flavor generating article can be inserted, and in the other end with a second opening that forms an air inlet; a heating member; and heat insulating material.

The heating assembly further comprises a second cylindrical member disposed to enclose the first cylindrical member A sealed region is provided between the first cylindrical member and the second cylindrical member. The heating member and the heat insulating material are accommodated in the sealed region.



# **EUROPEAN SEARCH REPORT**

**Application Number** 

EP 24 19 2283

	-	)		

		DOCUMENTS CONSID	ERED TO BE	RELEVA	ANT		
	Category	Citation of document with in of relevant pass		oropriate,		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
	A	US 2017/055583 A1 ( ET AL) 2 March 2017 * the whole document	7 (2017-03-0		[US] 1	L-17	INV. A24F47/00 A24F40/40 A24F40/46
	A	US 2008/092912 A1 ( [US] ET AL) 24 Apri * the whole document	1 2008 (200			L-17	H05B3/04 H05B3/42
	A	CN 203 618 782 U (CIND CO) 4 June 2014 * the whole document	(2014-06-0		ANG 1	L-17	
	A	US 2014/270726 A1 (ALEXANDROVICH [RU] 18 September 2014 (* the whole document)	ET AL) (2014-09-18)	ГR	1	L-17	
							TECHNICAL FIELDS SEARCHED (IPC)
							A24F
1		The present search report has	been drawn up for a	ıll claims			
		Place of search	Date of co	mpletion of the s	search		Examiner
4C01		Munich	26 N	ovember	2024	Pau	lson, Bo
EPO FORM 1503 03.82 (P04C01)	X : part Y : part doc A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anotument of the same category inological backgroundwritten disclosure		E : earlier p after the D : docume L : docume	patent docur e filing date ent cited in the ent cited for d		nvention shed on, or

### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

Patent focument cited in search report date Publication date Patent family rember(s) date date date date Cited in search report date Publication date Patent family rember(s) date date date Patent family rember(s) date date Patent family rember(s) date Patent family 2016313705 A1 10:03-2017 AD 2016313705 A1 09:03-2017 CL 2018000521 A1 07:12-2018 CN 107920602 A 17:04-2018 CN 107920602 A 17:04-2018 CN 115281389 A 04-11-2022 CN 116711888 A 08:09-2023 A1 1671288 A2 11:07-2018 EP 3394476 A2 11:07-2018 EP 3394476 A2 11:07-2018 EP 3394476 A2 11:07-2018 EP 3394476 A2 19:01-2022 EP 4046510 A1 24:08-2022 EP 4046510 A1 24:08-2022 EP 4046510 A1 24:08-2022 EP 4233603 A2 30:08-2023 HK 1251416 A1 10:02-2019 JP 6833155 B2 20:08-2023 JP 7268080 B2 02:05-2023 JP 7268080 B2 02:05-2023 JP 7335058 B2 29:08-2023 JP 7335058 B2 29:08-2023 JP 7335058 B2 29:08-2023 JP 7335058 B2 29:08-2023 JP 20212141891 A 11:03-2021 JP 20212141891 A 14:09-2021 JP 20212141891 A 14:09-2021 JP 202121356 A 16:04-2021 JP 202121356 A 16:04-2021 JP 2022172195 A 15:11-2022 JP 2022172195 A 15:11-2022 JP 2022172195 A 15:11-2022 JP 2022172195 A 15:11-2023							
AU 2016313705 A1 01-03-2018 CA 2996342 A1 09-03-2017 CA 3193096 A1 09-03-2017 CL 2018000521 A1 07-12-2018 CN 107920602 A 17-04-2018 CN 115281389 A 04-11-2022 CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3394476 A2 11-07-2018 EP 3394476 A2 26-05-2021 EP 3892446 A2 26-05-2021 EP 4046510 A1 24-08-2022 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 433603 A2 30-08-2023 EP 433603 A2 40-08-2023 EP 433	10						
AU 2016313705 A1 01-03-2018 CA 2996342 A1 09-03-2017 CA 3193096 A1 09-03-2017 CL 2018000521 A1 07-12-2018 CN 107920602 A 17-04-2018 CN 115281389 A 04-11-2022 CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3394476 A2 11-07-2018 EP 3394476 A2 26-05-2021 EP 3892446 A2 26-05-2021 EP 4046510 A1 24-08-2022 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 433603 A2 30-08-2023 EP 433603 A2 40-08-2023 EP 433		US 2017055583 A	L 02-03-2017	AR	105828	A1	15-11-2017
15 CA 3193096 A1 09-03-2017 CL 201800521 A1 07-12-2018 CN 107920502 A 17-04-2018 CN 115281389 A 04-11-2022 CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3799741 A2 07-04-2021 EP 3824746 A2 26-05-2021 EP 3939446 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4046510 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7312155 B2 22-07-2023 JP 7312155 B2 20-07-2023 JP 7312155 B2 20-07-2023 JP 7312155 B2 20-07-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2022062135 A 19-04-2021 JP 2022062135 A 19-04-2021 JP 2022062135 A 19-04-2021 JP 2022062135 A 19-04-2022 JP 20223036939 A 14-03-2023 JP 2023036939 A 14-03-2020 KR 20200024369 A 06-03-2020 KR 20200024369 A 06-03-2020 KR 20200024369 A 06-03-2020 KR 20200024369 A 06-07-2021 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 RR 2021035839 A 13-06-2019 RU 202135838 A 13-06-2019 RU 2020135838 A 13-06-2019 RU 2020135858 A 14-01-2021 RU 2020135858 A 14-01-2021 RU 2020135858 A 14-01-2021 RU 2020135858 A 14-01-2021				AU	2016313705	A1	01-03-2018
CA 3193096 A1 07-12-2018 CL 2018000521 A1 07-12-2018 CN 107920602 A 17-04-2018 CN 107920602 A 17-04-2018 CN 115281389 A 04-11-2022 CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3799741 A2 07-04-2021 EP 399446 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4046510 A1 24-08-2022 EP 4038515 A1 22-02-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 77968080 B2 02-05-2021 JP 77268080 B2 02-05-2023 JP 7325058 B2 29-08-2023 JP 7335058 B2 29-08-2023 JP 7335058 B2 29-08-2023 JP 2012036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 2022062135 A 19-04-2022 JP 2023103264 A 26-07-2021 JP 2023103264 A 26-07-2023 JP 2023103264 A 26-07-2023 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024367 A 10-03-2020 KR 20200024367 A 10-03-2020 KR 20200024367 A 10-03-2020 KR 20210084706 A 07-077-2021 KR 202108593 A 06-07-2021 KR 202108593				CA	2996342	A1	09-03-2017
CN 107920602 A 177-04-2018 CN 115281389 A 04-11-2022 CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3799741 A2 07-04-2021 EP 3824746 A2 26-05-2021 EP 38324746 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4138515 A1 22-02-2023 EP 4138515 A1 22-02-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 718842 B2 04-01-2023 JP 7268080 B2 02-05-2023 JP 732155 B2 20-07-2023 JP 7312155 B2 20-07-2023 JP 7335058 B2 29-08-2023 JP 2018529324 A 11-03-2021 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021141891 A 24-09-2021 JP 2022172195 A 15-11-2022 JP 2022172195 A 15-11-2022 JP 2022172195 A 15-11-2022 JP 2022172195 A 15-11-2022 JP 202306939 A 14-03-2023 JP 2023103464 A 26-07-2023 JP 2023103464 A 04-04-2018 KR 2020024369 A 06-03-2020 KR 20200024369 A 06-03-2020 KR 2020008317 A 10-03-2020 KR 2021008916 A 04-05-2021 KR 2021008916 A 04-05-2021 KR 2021008916 A 04-05-2021 KR 2021008916 A 04-05-2021 KR 2021008917 A 13-08-2020 KR 2021008917 A 13-08-2020 KR 2021008917 A 10-03-2020 KR 2021008917 A 13-08-2021 KR 2021008917 A 10-03-2020 KR 2021008917 A 10-05-2021 KR 20210089188 A 13-06-2019 KR 2021018589 A 13-06-2019 KR 2021018589 A 13-06-2019 KR 2021018589 A 13-06-2019 KR 2021018585 A 14-01-2021 KR 2021018589 A 11-06-5-2021 KR 2021018589 A 11-06-5-2	15			CA	3193096	A1	09-03-2017
CN 115281389 A 04-11-2022 CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3799741 A2 07-04-2021 EP 3824746 A2 10-07-2018 EP 3799741 A2 07-04-2021 EP 3824746 A2 10-01-2022 EP 4046510 A1 24-08-2022 EP 4046510 A1 24-08-2022 EP 4138515 A1 22-02-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7266080 B2 02-05-2023 JP 7312155 B2 20-07-2023 JP 7312155 B2 20-07-2023 JP 7315058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 202104894 A 01-04-2021 JP 2021049844 A 01-04-2021 JP 2021049844 A 01-04-2021 JP 2021049844 A 01-04-2021 JP 202104884 A 01-04-2021 JP 202104884 A 01-04-2021 JP 2021036874 A 11-03-2021 JP 202104884 A 01-04-2021 JP 202104884 A 01-04-2021 JP 202104884 A 01-04-2021 JP 202104884 A 01-04-2021 JP 202104884 A 01-03-2020 KR 2020024317 A 10-03-2020 KR 2020024317 A 10-03-2020 KR 20200024317 A 10-03-2020 KR 20200024317 A 10-03-2020 KR 2021008711 A 10-03-2020 KR 2021008711 A 10-03-2020 KR 2021008712 A 09-07-2021 KR 2021008712 A 09-07-2021 KR 2021008711 C1 16-05-2019 KU 202131885 A 13-06-2019 KU 2020135859 A 01-02-2021 KU 202135859 A 01-02-2021				$\mathtt{CL}$	2018000521	A1	07-12-2018
CN 116711888 A 08-09-2023 EP 3344076 A2 11-07-2018 EP 3799741 A2 07-04-2021 EP 3799741 A2 07-04-2021 EP 3824746 A2 26-05-2021 EP 393446 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4046510 A1 24-08-2022 EP 433603 A2 30-08-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 77198442 B2 04-01-2023 JP 7768080 B2 02-05-2023 JP 7312155 B2 20-07-2023 JP 7315058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 11-04-2021 JP 2022172195 A 15-11-2022 JP 2023036939 A 14-03-2023 JP 20230026315 A 06-03-2020 KR 20200026317 A 10-03-2023 KR 20180034640 A 04-04-2018 KR 20210049206 A 04-05-2021 KR 20210049206 A 04-05-2021 KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 2021084706 A 07-07-2021 KR 2021				CN	107920602	A	17-04-2018
EP 3344076 A2 11-07-2018 EP 3799741 A2 07-04-2021 EP 3924746 A2 19-01-2022 EP 3939446 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4036515 A1 22-02-2023 EP 433603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 736808 B2 02-05-2023 JP 7312155 B2 04-01-2023 JP 735058 B2 29-08-2023 JP 7335058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 20221048842 A 01-04-2021 JP 20221048842 A 01-04-2021 JP 2022104884 A 01-04-2021 JP 202210486 A 11-03-2021 JP 202210486 A 11-03-2021 JP 202210486 A 06-03-2021 KR 2020024369 A 16-03-2022 JP 2023103664 A 60-07-2023 KR 20180034640 A 04-04-2018 KR 20210084706 A 07-07-2021 KR				CN	115281389	A	04-11-2022
EP 3799741 A2 07-04-2021 EPP 3824746 A2 26-05-2021 EPP 3939446 A2 19-01-2022 EPP 4046510 A1 24-08-2022 EPP 4046510 A1 22-02-2023 EPP 4138515 A1 22-02-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7368080 B2 02-05-2023 JP 7312155 B2 20-07-2023 JP 7335058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 2022162135 A 19-04-2021 JP 2022172195 A 15-11-2022 JP 20223036939 A 14-03-2023 JP 2023303694 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200026317 A 10-03-2020 KR 2021008712 A 09-07-2021 KR 20210087112 A 09-07-2021 KR 2021088711 C1 16-05-2019 KR 2021035839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 202135839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 202135839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 2021035839 A 01-02-2021 KR 2021335839 A 01-02-2021 KR 2021033639 A 01-02-2021				CN	116711888	A	08-09-2023
EP 3824746 A2 26-05-2021 EP 3939446 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4046510 A1 22-02-2023 EP 4233603 A2 30-08-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2021 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7768080 B2 02-05-2023 JP 7312155 B2 20-07-2023 JP 7312155 B2 20-07-2023 JP 2018529324 A 11-10-2018 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 20221048842 A 01-04-2021 JP 2023036939 A 14-03-2021 JP 2023036939 A 14-03-2023 JP 2023036939 A 14-03-2023 JP 2023036939 A 14-03-2023 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20180034640 A 04-04-2018 KR 20180034640 A 04-04-2018 KR 20210049206 A 06-03-2020 KR 20210049206 A 07-07-2021 KR 20210049206 A 07-07-2021 KR 20210049206 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 2021084706 A 07-07-2021 KR 2021084706 A 07-07-	20			EP	3344076	A2	11-07-2018
EP 3939446 A2 19-01-2022 EP 4046510 A1 24-08-2022 EP 4036510 A1 22-02-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7738442 B2 04-01-2023 JP 77268080 B2 02-05-2023 JP 77312155 B2 20-07-2023 JP 77312155 B2 29-08-2023 JP 77312155 B2 29-08-2023 JP 77312155 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 11-03-2021 JP 2022141891 A 24-09-2021 JP 2022162135 A 19-04-2022 JP 2023103264 A 26-07-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 2021004916 A 07-07-2021 KR 20210087112 A 09-07-2021 KR 20210087112 A 10-03-2020 KR 2021087112 A 10-03-				EP	3799741	A2	07-04-2021
EF 4046510 A1 24-08-2022 EF 4138515 A1 22-02-2023 EF 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7268080 B2 02-05-2023 JP 7312155 B2 20-07-2023 JP 7335058 B2 29-08-2023 JP 7335058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 20221036874 A 11-03-2021 JP 2022062135 A 19-04-2022 JP 2022172195 A 15-11-2022 JP 20223036939 A 14-03-2020 KR 20180034640 A 04-04-2018 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 20210084712 A 09-07-2021 KR 20210087112 A 09-07-2021 KR 2022116579 A 23-08-2028 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 202113858 A 13-06-2019 RU 202113858 A 13-06-2019 RU 202113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135839 A 04-05-2022 TW 201720319 A 16-06-2017				EP	3824746	A2	26-05-2021
EP 4138515 A1 22-02-2023 EP 4233603 A2 30-08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7268080 B2 02-05-2023 JP 7312155 B2 20-07-2023 JP 7335058 B2 29-08-2023 JP 7335058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 20221741891 A 24-09-2021 JP 2022172195 A 15-11-2022 JP 20223036939 A 14-03-2023 JP 2023036939 A 14-03-2023 JP 2023036939 A 14-03-2023 JP 202303640 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210084706 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 20210084712 A 09-07-2021 KR 20210084712 A 09-07-2021 KR 20210084711 A 10-03-2020 KR 20210084711 A 10-03-2021 KR 2021008471 A 10-03-2021 KR 2021008470 A 04-05-2021 KR 20210850 A 04-05-2022 KR 20220115579 A 23-08-2022 KR 20220115579 A 24-05-2022 KR 2022011579 A 24-05-2022				EP	3939446	A2	19-01-2022
EP 4233603 A2 30.08-2023 HK 1251416 A1 01-02-2019 JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7268080 B2 02-05-2023 JP 7368080 B2 02-05-2023 JP 7368080 B2 02-05-2023 JP 7368080 B2 02-07-2023 JP 7368080 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 11-03-2021 JP 2021141891 A 24-09-2021 JP 2022062135 A 19-04-2021 JP 2022062135 A 19-04-2022 JP 2022172195 A 15-11-2022 JP 20223103264 A 26-07-2023 JP 20223103264 A 26-07-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20210087112 A 10-03-2020 KR 20210087112 A 09-07-2021 KR 20210087112 A 09-07-2021 KR 20210087112 A 09-07-2021 JP 186293 A 06-07-2021 JP 202135854 A 14-01-2021 JP 2020135854 A 14-01-2021 JP 2020135858 A 13-06-2019 JP 2020135854 A 14-01-2021 JP 2020135854 A 14-01-2021 JP 2020135854 A 14-01-2021 JP 2020135859 A 16-06-2017				EP	4046510	A1	24-08-2022
## 423303 A2 30-08-2023 ## 1251416 A1 01-02-2019 ## 1251416 A1 01-02-2019 ## 1251416 A1 01-02-2019 ## 17198442 B2 04-01-2023 ## 1719842 B2 02-08-2023 ## 1719842 B2 02-08-2023 ## 11-02-203 ## 11-02-203 ## 11-02-203 ## 11-02-203 ## 11-02-203 ## 12021048842 A 01-04-2021 ## 12021141891 A 24-09-2021 ## 12021141891 A 24-09-2021 ## 12022172195 A 19-04-2022 ## 12022172195 A 19-04-2022 ## 12023103264 A 26-07-2023 ## 12023036939 A 14-03-2020 ## 12023103264 A 26-07-2023 ## 12023036939 A 14-03-2020 ## 12023103264 A 26-07-2023 ## 120230026317 A 10-03-2020 ## 120200026317 A 10-03-2020 ## 120200026317 A 10-03-2020 ## 120210084706 A 04-05-2021 ## 12018500255 A1 13-08-2018 ## 120210084706 A 07-07-2021 ## 12018500255 A1 13-08-2018 ## 12018500255 A1 13-08-2022 ## 12020135854 A 14-01-2021 ## 12018500255 A1	0.5			EP	4138515	A1	22-02-2023
JP 6833155 B2 24-02-2021 JP 7198442 B2 04-01-2023 JP 7268080 B2 02-05-2023 JP 7332155 B2 20-07-2023 JP 7335058 B2 29-08-2023 JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021048842 A 01-04-2021 JP 20221041891 A 24-09-2021 JP 2022172195 A 15-11-2022 JP 2022172195 A 15-11-2022 JP 2023036939 A 14-03-2023 JP 202303693 A 04-05-2021 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-04-2018 KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20220016579 A 23-08-2022 MY 186293 A 06-07-2021 JP 12018500255 A1 13-08-2018 RU 2020135839 A 01-02-2021	25			EP	4233603	A2	30-08-2023
30 30 30 30 30 30 30 30 30 30 30 30 30 3				HK	1251416	A1	01-02-2019
30  30  30  30  30  30  30  30  30  30				JP	6833155	в2	24-02-2021
30  JP 7312155 B2 20-07-2023  JP 7335058 B2 29-08-2023  JP 2018529324 A 11-10-2018  JP 2021036874 A 11-03-2021  JP 2021048842 A 01-04-2021  JP 2021141891 A 24-09-2021  JP 2022162135 A 19-04-2022  JP 2022172195 A 15-11-2022  JP 20223036939 A 14-03-2023  JP 2023103264 A 26-07-2023  JP 2023103264 A 26-07-2023  KR 20180034640 A 04-04-2018  40  KR 20180034640 A 04-04-2018  KR 20210024369 A 06-03-2020  KR 20200026317 A 10-03-2020  KR 20210049206 A 04-05-2021  KR 20210084706 A 07-07-2021  KR 20210084712 A 09-07-2021  KR 20210087112 A 09-07-2021  KR 20210087112 A 09-07-2021  KR 20210087112 A 10-03-2020  KR 2021088711 C1 16-05-2019  RU 2087811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				JP	7198442	в2	04-01-2023
JP 7335058 B2 29 08 2023  JP 2018529324 A 11-10-2018  JP 2021036874 A 11-03-2021  JP 2021048842 A 01-04-2021  JP 2021141891 A 24-09-2021  JP 202212155 A 19-04-2022  JP 2022172195 A 15-11-2022  JP 2023036939 A 14-03-2023  JP 2023103264 A 26-07-2023  KR 20180034640 A 04-04-2018  KR 20180034640 A 04-04-2018  KR 20200024369 A 06-03-2020  KR 20200024369 A 06-03-2020  KR 20200026317 A 10-03-2020  KR 20210049206 A 04-05-2021  KR 20210049206 A 04-05-2021  KR 20210087112 A 09-07-2021  KR 20221068711 C 1 06-05-2019  H 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2020135854 A 13-06-2019  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2021  RU 2021112053 A 04-05-2021  RU 2021132053 A 04-05-2021  RU 2021132053 A 04-05-2021  RU 2021132053 A 04-05-2021				JP	7268080	в2	02-05-2023
JP 2018529324 A 11-10-2018 JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021141891 A 24-09-2021 JP 2022062135 A 19-04-2022 JP 2022172195 A 15-11-2022 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 JP 2023103264 A 26-07-2023 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200024369 A 06-03-2020 KR 20200024317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210087112 A 09-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135834 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017	30			JP	7312155	в2	20-07-2023
JP 2021036874 A 11-03-2021 JP 2021048842 A 01-04-2021 JP 2021141891 A 24-09-2021 JP 2022062135 A 19-04-2022 JP 20223036939 A 14-03-2023 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210087112 A 09-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				JP	7335058	в2	29-08-2023
JP 2021048842 A 01-04-2021 JP 2021141891 A 24-09-2021 JP 2022062135 A 19-04-2022 JP 2022172195 A 15-11-2022 JP 2023103264 A 26-07-2023 JP 2023103264 A 26-07-2023 JP 20231034640 A 04-04-2018  KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20210084706 A 07-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135839 A 04-05-2022 RU 202011553 A 04-05-2022 RU 202011553 A 04-05-2022 RU 202011553 A 04-05-2022 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135839 A 04-05-2022				JP	2018529324	A	11-10-2018
35  JP 2021141891 A 24-09-2021  JP 2022062135 A 19-04-2022  JP 2022172195 A 15-11-2022  JP 2023036939 A 14-03-2023  JP 2023103264 A 26-07-2023  KR 20180034640 A 04-04-2018  KR 20200024369 A 06-03-2020  KR 20200024369 A 06-03-2020  KR 20210049206 A 04-05-2021  KR 20210084706 A 07-07-2021  KR 20210087112 A 09-07-2021  KR 20220116579 A 23-08-2022  MY 186293 A 06-07-2021  PH 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				JP	2021036874	A	11-03-2021
JP 2022062135 A 19-04-2022 JP 2022172195 A 15-11-2022 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 RU 2021112053 A 04-05-2022				JP	2021048842	A	01-04-2021
JP 2022062135 A 19-04-2022 JP 2022172195 A 15-11-2022 JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2087811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 20211553 A 04-05-2022 RU 20211553 A 04-05-2022 RU 20211553 A 04-05-2022	35			JP	2021141891	A	24-09-2021
JP 2023036939 A 14-03-2023 JP 2023103264 A 26-07-2023 KR 20180034640 A 04-04-2018 KR 20200024369 A 06-03-2020 KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017	00			JP	2022062135	A	19-04-2022
JP 2023103264 A 26-07-2023  KR 20180034640 A 04-04-2018  KR 20200024369 A 06-03-2020  KR 20210049206 A 04-05-2021  KR 20210084706 A 07-07-2021  KR 20210087112 A 09-07-2021  KR 20220116579 A 23-08-2022  MY 186293 A 06-07-2021  PH 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				JP	2022172195	A	15-11-2022
KR 20180034640 A 04-04-2018  KR 20200024369 A 06-03-2020  KR 20210049206 A 10-03-2020  KR 20210084706 A 07-07-2021  KR 20210087112 A 09-07-2021  KR 20220116579 A 23-08-2022  MY 186293 A 06-07-2021  PH 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				JP	2023036939	A	14-03-2023
40  KR 20200024369 A 06-03-2020  KR 20200026317 A 10-03-2020  KR 20210049206 A 04-05-2021  KR 20210084706 A 07-07-2021  KR 20210087112 A 09-07-2021  KR 20220116579 A 23-08-2022  MY 186293 A 06-07-2021  PH 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				JP	2023103264	A	26-07-2023
KR 20200026317 A 10-03-2020 KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				KR	20180034640	A	04-04-2018
KR 20210049206 A 04-05-2021 KR 20210084706 A 07-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017	40			KR	20200024369	A	06-03-2020
KR 20210084706 A 07-07-2021 KR 20210087112 A 09-07-2021 KR 20220116579 A 23-08-2022 MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				KR	20200026317	A	10-03-2020
KR 20210087112 A 09-07-2021  KR 20220116579 A 23-08-2022  MY 186293 A 06-07-2021  PH 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				KR	20210049206	A	04-05-2021
45  KR 20220116579 A 23-08-2022  MY 186293 A 06-07-2021  PH 12018500255 A1 13-08-2018  RU 2687811 C1 16-05-2019  RU 2019113858 A 13-06-2019  RU 2020135839 A 01-02-2021  RU 2020135854 A 14-01-2021  RU 2021112053 A 04-05-2022  TW 201720319 A 16-06-2017				KR	20210084706	A	07-07-2021
MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				KR	20210087112	A	09-07-2021
MY 186293 A 06-07-2021 PH 12018500255 A1 13-08-2018 RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017	45			KR	20220116579	A	23-08-2022
RU 2687811 C1 16-05-2019 RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				MY	186293	A	06-07-2021
RU 2019113858 A 13-06-2019 RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				PH	12018500255	A1	13-08-2018
RU 2020135839 A 01-02-2021 RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				RU	2687811	C1	16-05-2019
RU 2020135854 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				RŲ	2019113858	A	13-06-2019
RU 2021135654 A 14-01-2021 RU 2021112053 A 04-05-2022 TW 201720319 A 16-06-2017				RŲ	2020135839	A	01-02-2021
TW 201720319 A 16-06-2017	50			RU	2020135854	A	14-01-2021
				RU	2021112053	A	04-05-2022
UA 124729 C2 10-11-2021 US 2017055583 A1 02-03-2017	_			TW	201720319	A	16-06-2017
US 2017055583 A1 02-03-2017	)459			UA	124729	C2	10-11-2021
55 💆	∑ ∑			US	2017055583	A1	02-03-2017
	55 🖺						

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

page 1 of 4

### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

10	Patent document cited in search report	Publication date		Patent family member(s)		Publication date
			ບຮ	2020054069	A1	20-02-2020
			US	2022394824	A1	08-12-2022
15			WO	2017036955	A2	09-03-2017
. •	US 2008092912 A1	24-04-2008	CN	101557728	A	14-10-2009
			CY	1122411	Т1	27-01-2021
			CY	1123276	Т1	31-12-2021
			DK	3398460	т3	22-07-2019
20			DK	3491944	т3	08-06-2020
			EP	2083643	A1	05-08-2009
			EP	3260002	A1	27-12-2017
			EP	3266322	A1	10-01-2018
			EP	3345496	A1	11-07-2018
			EP	3398460	A1	07-11-2018
?5			EP	3491944	A1	05-06-2019
			EP	3494819	A1	12-06-2019
			EP	3508076	A1	10-07-2019
			EP	3677129	A1	08-07-2020
			EP	3831225	A1	09-06-2021
80			ES	2646180	Т3	12-12-2017
			ES	2735215	Т3	17-12-2019
			ES	2795364	т3	23-11-2020
			ES	2862174	т3	07-10-2021
			ES	2862208	Т3	07-10-2021
			ES	2982274	т3	15-10-2024
35			HK	1248477	A1	19-10-2018
			HK	1249373	A1	02-11-2018
			HK	1258137	A1	08-11-2019
			HU	E044786		28-11-2019
			HU	E049177	т2	28-09-2020
0			HU	E054098	т2	30-08-2021
			HU	E054433	Т2	28-09-2021
			JP	5247711	в2	24-07-2013
			JР	2010506594		04-03-2010
			ЬT	3398460	т	10-09-2019
5			$\mathbf{L}\mathbf{T}$	3491944		25-06-2020
15			$_{ m PL}$	3260002		26-07-2021
			$_{ m PL}$	3266322		10-06-2024
			$_{ m PL}$	3345496		27-09-2021
			$_{ m PL}$	3398460		30-09-2019
			$_{ m PL}$	3491944		05-10-2020
50			PT	3398460		18-07-2019
			PT	3491944		02-06-2020
			SI	3398460		30-10-2019
	429		SI	3491944		30-09-2020
	D FORM P0459		TR	201910343		22-07-2019

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

page 2 of 4

### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

0	Patent document cited in search report	Publication date		Patent family member(s)		Publication date
			US	2008092912	A1	24 - 04 - 2008
			US	2010200006	A1	12-08-2010
			US	2012060853	A1	15-03-2012
5			US	2015040930	A1	12-02-2015
			US	2015047656	A1	19-02-2015
			US	2017020200	A1	26-01-2017
			US	2018146713	A1	31-05-2018
			US	2018235285	A1	23-08-2018
9			US	2018235286		23-08-2018
			US	2019142070	A1	16-05-2019
			US	2019166916	A1	06-06-2019
			US	2019166917	A1	06-06-2019
			US	2021352954	A1	18-11-2021
			US	2022167656	A1	02-06-2022
5			US	2022256907	A1	18-08-2022
			US	2023232886	A1	27-07-2023
			US	2024000129	A1	04-01-2024
			US	2024206521	A1	27-06-2024
•			WO	2008108889	A1	12-09-2008
0	CN 203618782 U	04-06-2014	NON	IE		
	US 2014270726 A1	18-09-2014	AR	088435	A1	11-06-2014
			ΑŲ	2012306503	A1	16-01-2014
5			BR	112013032671	A2	24-01-2017
			BR	122016030996	A2	27-08-2019
			CA	2839806	A1	14-03-2013
			CL	2013003637	A1	25-07-2014
			CN	103826482	A	28-05-2014
			CN	106213591	A	14-12-2016
			CN	106307620	A	11-01-2017
			CN	106418701	A	22-02-2017
			EP	2753204	A1	16-07-2014
			EP	3033954	A1	22-06-2016
			EP	4242508	A2	13-09-2023
			ES	2570931	т3	23-05-2016
			ES	2962257	т3	18-03-2024
			HK	1194629	A1	24-10-2014
			HU	E027407		28-10-2016
			HU	E065301		28-05-2024
			JP	6014132		25-10-2016
			JР	6736608		05-08-2020
			JP	7452821		19-03-2024
			JP	7577106		01-11-2024
	04 05 05		JP	2014520542		25-08-2014
	O COLOR OF C		JP	2016178937		13-10-2016
	€					TO TO 5010

 $\frac{Q}{m}$  For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

page 3 of 4

### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

10	Patent document cited in search report	Publication date		Patent family member(s)		Publication date
			JP	2018166513		01-11-2018
			JP	2020184998		19-11-2020
45			JΡ	2022132557	A	08-09-2022
15			JΡ	2023024672	A	16-02-2023
			JΡ	2023184570	A	28-12-2023
			KR	20140068808	A	09-06-2014
			KR	20190040079	A	16-04-2019
			KR	20200004440		13-01-2020
20			KR	20200128182	A	11-11-2020
			LT	3033954	T	11-12-2023
			MX	355927	В	27-04-2018
			MY	168756	A	04-12-2018
			MY	194229	A	23-11-2022
25			${f PL}$	2753204	Т3	31-08-2016
25			$_{ m PL}$	3033954	Т3	19-02-2024
			PT	3033954	T	23-11-2023
			RU	2640438	C1	09-01-2018
			RU	2675712	C1	24-12-2018
			RU	2013156469	A	20-10-2015
30			RU	2018135854	A	10-04-2020
			RU	2020135861	A	05-04-2021
			UA	111846	C2	24-06-2016
			UA	117923	C2	25-10-2018
			UA	122162	C2	25-09-2020
35			US	2014270726	A1	18-09-2014
00			US	2016088875	A1	31-03-2016
			US	2017095006	A1	06-04-2017
			WO	2013034458	A1	14-03-2013
40						
45						
50						
50						
	645 3.					
	O CO CHAIR POLICE					
55	<u> </u>					
4	0					

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

page 4 of 4