



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 91 21 56

Classification of the application (IPC):

C23C 16/455, C23C 16/56, C23C 16/02, C23C 16/40, C23C 16/34,
C23C 16/448, B65D 23/02, C23C 16/04, C23C 16/54

Technical fields searched (IPC):

B65D, C23C, B01L, A61L, A61B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2014242365 A1 (DE VRIES HINDRIK [NL] ET AL) 28 August 2014 (2014-08-28) * paragraph [0060] - paragraph [0062] * * paragraph [0020] * * paragraph [0050] *	1, 4
X	US 2010255625 A1 (DE VRIES HINDRIK WILLEM [NL]) 07 October 2010 (2010-10-07) * paragraph [0060] * * paragraphs [0072], [0073] * * paragraph [0071] *	1, 6
X Y	EP 2929938 A1 (PLASMA ELECTRONIC GMBH [DE]) 14 October 2015 (2015-10-14) * paragraph [0020] * * paragraph [0037] * * paragraph [0023] * * paragraph [0025] * * paragraph [0014] *	1-4, 6-9 5, 10-15
Y	EP 3239066 A1 (TAKEMOTO YOHKI CO LTD [JP]; HIROSE FUMIHIKO [JP]) 01 November 2017 (2017-11-01) * paragraph [0033] * * paragraph [0034] * * paragraph [0040] *	11-14

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 06 January 2023	Examiner Kudelka, Stephan
------------------------------	-----------------------------------------------------	------------------------------

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 91 21 56

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
Y	US 6165566 A (TROPSHA YELENA G [US]) 26 December 2000 (2000-12-26) * column 3, line 47 * * column 1, line 28 - line 32 * * column 2, line 65 - line 67 * * column 4, line 29 - line 33 * * column 3, line 47 - line 53 * * column 11, line 62 - column 12, line 59; example 1 *	5, 10, 15
Y	US 5654054 A (TROPSHA YELENA G [US] ET AL) 05 August 1997 (1997-08-05) * column 1, line 37 - line 40 * * column 4, line 1 - line 12 *	5, 10, 15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 06 January 2023	Examiner Kudelka, Stephan
------------------------------	-----------------------------------------------------	------------------------------

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 91 21 56

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4, 6-9, 11-14
subject matter of claims 1-4, 6-9, 11-14

2. claims: 5, 10, 15
subject matter of claims 5, 10, 15

All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 06 January 2023	Examiner Kudelka, Stephan
------------------------------	-----------------------------------------------------	------------------------------

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.


**ANNEX TO SUPPLEMENTARY EUROPEAN
SEARCH REPORT**

 Application number:
EP 19 91 21 56

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 06-01-2023
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014242365 A1	28-08-2014	EP 2764133 A1	13-08-2014
		JP 6096783 B2	15-03-2017
		JP 2014534336 A	18-12-2014
		US 2014242365 A1	28-08-2014
		WO 2013050741 A1	11-04-2013
US 2010255625 A1	07-10-2010	EP 2188413 A2	26-05-2010
		JP 5663305 B2	04-02-2015
		JP 2010538165 A	09-12-2010
		US 2010255625 A1	07-10-2010
		WO 2009031886 A2	12-03-2009
EP 2929938 A1	14-10-2015	DE 102014105219 A1	15-10-2015
		EP 2929938 A1	14-10-2015
EP 3239066 A1	01-11-2017	CN 107108073 A	29-08-2017
		EP 3239066 A1	01-11-2017
		JP 5795427 B1	14-10-2015
		JP 2016124576 A	11-07-2016
		US 2017350010 A1	07-12-2017
		WO 2016103915 A1	30-06-2016
US 6165566 A	26-12-2000	AU 1232397 A	07-08-1997
		BR 9700742 A	03-11-1998
		CA 2194636 A1	31-07-1997
		DE 69714798 T2	10-04-2003
		EP 0787826 A1	06-08-1997
		ES 2181936 T3	01-03-2003
		JP 3226820 B2	05-11-2001
		JP H09253077 A	30-09-1997
		KR 970058682 A	12-08-1997
		SG 43456 A1	17-10-1997
		TW 381018 B	01-02-2000
		US 5955161 A	21-09-1999
		US 6165566 A	26-12-2000



ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 91 21 56

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 06-01-2023.
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5654054	A	05-08-1997	
		AU 669754 B2	20-06-1996
		BR 9305111 A	28-06-1994
		CA 2111269 A1	19-06-1994
		DE 69314458 T2	23-04-1998
		EP 0607573 A1	27-07-1994
		ES 2107604 T3	01-12-1997
		JP 2589942 B2	12-03-1997
		JP H07311194 A	28-11-1995
		KR 940013460 A	15-07-1994
		SG 49313 A1	18-05-1998
		TW 351700 B	01-02-1999
		US 5654054 A	05-08-1997