

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference OERLIKON	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2018/000053	International filing date ( <i>day/month/year</i> ) 9 February 2018 (09-02-2018)	(Earliest) Priority Date ( <i>day/month/year</i> ) 13 February 2017 (13-02-2017)
Applicant  OERLIKON SURFACE SOLUTIONS AG, PFÄFFIKON		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

- the international application in the language in which it was filed
- a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b.  This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.  **Certain claims were found unsearchable** (See Box No. II)

3.  **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- the text is approved as submitted by the applicant
- the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant
- the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 2b

- as suggested by the applicant
- as selected by this Authority, because the applicant failed to suggest a figure
- as selected by this Authority, because this figure better characterizes the invention

b.  none of the figures is to be published with the abstract

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/EP2018/000053

A. CLASSIFICATION OF SUBJECT MATTER					
INV.	B22F3/105	C22C29/00	C22C29/06	C22C29/12	C22C29/14
	C22C29/16	C22C29/18	C22C32/00	B33Y10/00	B33Y40/00
ADD.					
According to International Patent Classification (IPC) or to both national classification and IPC					

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols) B22F C22C B33Y

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2016/011290 A1 (APPLIED MATERIALS INC [US]) 21 January 2016 (2016-01-21) page 2, lines 19-24 page 4, line 5 page 9, lines 10-14 page 10, lines 1-3 page 13, lines 15-27	1-4
A	----- US 2016/256926 A1 (RUPPERT BERND [DE]) 8 September 2016 (2016-09-08) the whole document	1-4
A	----- US 2015/042017 A1 (RAMASWAMY KARTIK [US] ET AL) 12 February 2015 (2015-02-12) the whole document -----	1-4

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  21 June 2018	Date of mailing of the international search report  05/07/2018
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Helgadóttir, Inga

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/000053

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2016011290 A1	21-01-2016	CN 106660270 A DE 112015003334 T5 JP 2017526815 A SG 11201610906X A TW 201613744 A US 2017203364 A1 WO 2016011290 A1	10-05-2017 30-03-2017 14-09-2017 27-02-2017 16-04-2016 20-07-2017 21-01-2016
US 2016256926 A1	08-09-2016	DE 102015203873 A1 US 2016256926 A1	08-09-2016 08-09-2016
US 2015042017 A1	12-02-2015	TW 201505820 A US 2015042017 A1 WO 2015020760 A1	16-02-2015 12-02-2015 12-02-2015