

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 16204IMr00WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2016/064953	International filing date ( <i>day/month/year</i> ) 28 June 2016 (28-06-2016)	(Earliest) Priority Date ( <i>day/month/year</i> ) 30 June 2015 (30-06-2015)
Applicant  IMEC VZW		

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 4 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. 1

- 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/EP2016/064953

A. CLASSIFICATION OF SUBJECT MATTER  
INV. G01N33/543 G01N33/547  
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)  
G01N B01J

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, EMBASE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MISRA ET AL: "Immobilization of oligonucleotides on glass surface using an efficient heterobifunctional reagent through maleimide-thiol combination chemistry", ANALYTICAL BIOCHEMISTRY, vol. 369, no. 2, 2007, pages 248-255, XP022231381, Scheme 1, Approach I	15
X	----- WO 2014/056896 A2 (ALBERT LUDWIGS UNIVERSITÄT FREIBURG) 17 April 2014 (2014-04-17)	1,2,10, 11,15-17
Y	claims 1,7,19; figure 1 ----- -/--	3-9, 12-14

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  4 October 2016	Date of mailing of the international search report  13/10/2016
---	--

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  Gunster, Marco
--	--

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2016/064953

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NALINIKANTH KOTAGIRI ET AL: "Antibody Quantum Dot Conjugates Developed via Copper-Free Click Chemistry for Rapid Analysis of Biological Samples Using a Microfluidic Microsphere Array System", BIOCONJUGATE CHEMISTRY., vol. 25, no. 7, 2014, pages 1272-1281, XP055307278, page 1279, left-hand column, paragraph 2; figure 1	15
X	ZHOU X ET AL: "IMPROVING THE SIGNAL SENSITIVITY AND PHOTOSTABILITY OF DNA HYBRIDIZATIONS ON MICROARRAYS BY USING DYE-DOPED CORE-SHELL SILICA NANOPARTICLES", ANALYTICAL CHEMISTRY, vol. 76, no. 18, 2004, pages 5302-5312, XP001209769, Scheme 1; page 5305, left-hand column, paragraph 2	15
X	WO 2013/181697 A1 (UNIV MELBOURNE) 12 December 2013 (2013-12-12) claims 50,52,54; examples 10,16	15
Y	EP 2 532 639 A1 (MODIQUEST B V) 12 December 2012 (2012-12-12) figure 1	3-9, 12-14
Y	YONGFENG ZHAO ET AL: "Chemoselective fabrication of high density peptide microarray by hetero-bifunctional tetra(ethylene glycol) linker for click chemistry conjugation", JOURNAL OF BIOMEDICAL MATERIALS RESEARCH. PART A, vol. 100A, no. 1, 2012, pages 103-110, XP055307077, figure 1	3-9, 12-14
Y	WO 2012/079030 A2 (UNIV CALIFORNIA) 14 June 2012 (2012-06-14) figure 1	3-9, 12-14
Y	Scientific Thermo: "Crosslinking Handbook", 2012, Thermo Fischer Scientific, XP055307610, pages 1-54, the whole document	3-9, 12-14

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2016/064953

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2014056896 A2	17-04-2014	EP 2903740 A2 WO 2014056896 A2	12-08-2015 17-04-2014
-----			
WO 2013181697 A1	12-12-2013	NONE	
-----			
EP 2532639 A1	12-12-2012	NONE	
-----			
WO 2012079030 A2	14-06-2012	US 2013338044 A1 WO 2012079030 A2	19-12-2013 14-06-2012
-----			