# **PATENT COOPERATION TREATY**

# **PCT**

# **INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER			
		see Form PCT/ISA/220 as well as, where applicable, item 5 below.		
International application No.	International filing date (day/month/ye	(Earliest) Priority Date (day/month/year)		
PCT/IT2015/000298	9 December 2015 (09-12-2015) 9 December 2014 (09-12-2014)			
Applicant				
LAVANGA VITO	_			
This international search report has been according to Article 18. A copy is being tra		Authority and is transmitted to the applicant		
This international search report consists o	f a total of 4 sheets.			
	a copy of each prior art document cited	in this report		
it is also accompanied by	a copy of each prior art document cited	птинетерот.		
1. Basis of the report				
a. With regard to the language, the i	nternational search was carried out on t	he basis of:		
X the international a	upplication in the language in which it wa	s filed		
a translation of the of a translation ful	e international application into rnished for the purposes of international	, which is the language search (Rules 12.3(a) and 23.1(b))		
	report has been established taking into a o this Authority under Rule 91 (Rule 43.6	account the <b>rectification of an obvious mistake</b>		
c. With regard to any <b>nucle</b> c	otide and/or amino acid sequence disc	closed in the international application, see Box No. I.		
2. Certain claims were fou	nd unsearchable (See Box No. II)			
3. Unity of invention is lack	king (see Box No III)			
4 NACIAL was ward to the atitle				
4. With regard to the <b>title</b> ,	handete al leve the complice and			
the text is approved as su				
	hed by this Authority to read as follows:			
DEVICE FOR PRODUCI	NG HYDROGEN			
5. With regard to the <b>abstract,</b>				
X the text is approved as su	bmitted by the applicant			
		nority as it appears in Box No. IV. The applicant		
may, within one month fro	m the date of mailing of this internationa	I search report, submit comments to this Authority		
6. With regard to the <b>drawings,</b>				
a. the figure of the <b>drawings</b> to be p	ublished with the abstract is Figure No	1		
as suggested by t	_			
X as selected by this	s Authority, because the applicant failed	to suggest a figure		
as selected by this	s Authority, because this figure better ch	aracterizes the invention		
b. none of the figures is to be	e published with the abstract			

#### INTERNATIONAL SEARCH REPORT

International application No PCT/IT2015/000298

A. CLASSIFICATION OF SUBJECT MATTER INV. C25B1/10 C25B9/00 INV. C02F1/461 ADD.

H01M8/16 H01M8/00 H01M8/10

H01M8/1018

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)

C25B C02F H01M

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. DOCUME	ENTS CONSIDERED TO BE RELEVANT	TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
Х	EP 1 939 968 A1 (EBARA CORP [JP]) 2 July 2008 (2008-07-02)	1,2,5-11		
Y	claim 1 figures 2-4 paragraphs [0034], [0036], [0106], [0107], [0111] - [0114]	3,4		
X	US 2013/256149 A1 (POPAT SUDEEP [US] ET AL) 3 October 2013 (2013-10-03)	1,2,5-11		
Y	claims 1,3,8-10,14 figures 6,8 paragraphs [0036] - [0038], [0046]	3,4		
Υ	US 2010/190039 A1 (HAMELERS HUBERTUS VICTOR MARIE [NL] ET AL) 29 July 2010 (2010-07-29) claims 21,23-26,31,36 paragraphs [0026], [0028]	1-11		

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
- 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 Date of mailing of the international search report 27 April 2016 06/05/2016

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

Perednis, Dainius

# **INTERNATIONAL SEARCH REPORT**

International application No
PCT/IT2015/000298

Category* Citation of document, with indication, where appropriate, of the relevant passages  Y US 2008/213632 A1 (NOGUERA DANIEL R [US] ET AL) 4 September 2008 (2008-09-04) claims 1,4 figures 1-3	Relevant to claim No.  1-11
Y US 2008/213632 A1 (NOGUERA DANIEL R [US] ET AL) 4 September 2008 (2008-09-04) claims 1,4	
claims 1,4	1-11
Y EP 1 742 288 A1 (UNIV GENT [BE]) 10 January 2007 (2007-01-10) claims 1,4,10,12,21,23 figure 1 example 1	1-11
example 1  US 2012/082868 A1 (HUANG YUELONG [US] ET AL) 5 April 2012 (2012-04-05) claims 1-3,8-11,20 paragraphs [0027] - [0030]	1-11

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### **INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No
PCT/IT2015/000298

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1939968 A1	02-07-2008	EP 1939968 A1 US 2009142627 A1 WO 2007037261 A1	02-07-2008 04-06-2009 05-04-2007
US 2013256149 A1	03-10-2013	NONE	
US 2010190039 A1	29-07-2010	BR PI0810389 A2 EP 2137782 A1 NL 2000598 C2 US 2010190039 A1 WO 2008127109 A1	04-11-2014 30-12-2009 20-10-2008 29-07-2010 23-10-2008
US 2008213632 A1	04-09-2008	US 2008213632 A1 WO 2008112371 A2	04-09-2008 18-09-2008
EP 1742288 A1	10-01-2007	AU 2006269756 A1 CA 2614204 A1 EP 1742288 A1 EP 1902489 A2 US 2008220292 A1 WO 2007006107 A2	18-01-2007 18-01-2007 10-01-2007 26-03-2008 11-09-2008 18-01-2007
US 2012082868 A1	05-04-2012	NONE	