

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No.	International filing date (<i>day/month/year</i>)	(Earliest) Priority Date (<i>day/month/year</i>)	
PCT/IT2016/000090	11 April 2016 (11-04-2016)	9 April 2015 (09-04-2015)	
Applicant			
LAVANGA VITO			

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 5 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

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

This invention refers to a method and a device for desalinating sea water, brackish water or from industrial processes. The device is suitable to use renewable energy sources such as solar or geothermal energy.

The device is of the type that includes a tank (1) for the containment of the water to desalinate, in which there are heating means fitted to cause the evaporation of said water to desalinate, cooling means fitted to favour the subsequent condensation of the steam and means fitted to the collection of the condensed water and it is characterized in that:

said tank (1), fitted to contain said water to desalinate, is filled up to a certain level (2);

said heating means, for evaporating said water include a first heat exchanger (3), immersed in the water to desalinate and positioned nearby said level (2); said cooling means (5a), fitted to cause the condensation of the steam, are in heat exchange connection with the heating means (5b), immersed in said water to desalinate, said heat exchange simultaneously causing:

- a) the reduction of the temperature of said means (5a), therefore the suitable conditions for the condensation of the steam;
- b) the increase in temperature, into the depths, of said water to desalinate.

INTERNATIONAL SEARCH REPORT

International application No
PCT/IT2016/000090

A. CLASSIFICATION OF SUBJECT MATTER
INV. B01D5/00 B01D1/00 B01D1/30 C02F1/14
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)
B01D C02F
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

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2007/011201 A1 (ZONNEWATER B V [NL]; DE KONING JAN CORNELIS [NL]) 25 January 2007 (2007-01-25) abstract; figures page 4, line 21 - page 5, line 10 -----	1-7,9-15
A	WO 2011/004416 A1 (ESAE S R L [IT]; LAVANGA VITO [IT]; SPARACINO ANTONIO CESARE [IT]) 13 January 2011 (2011-01-13) abstract; figures page 9, paragraph 35 page 10, paragraphs 36,37 page 11, paragraphs 44,45 page 12, paragraph 47 page 17, paragraph 66 page 27, paragraph 100 ----- -/--	1-5

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 2 September 2016	Date of mailing of the international search report 12/09/2016
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 Lapeyrère, Jean

INTERNATIONAL SEARCH REPORT

International application No
PCT/IT2016/000090

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2010/034043 A1 (GIG KARASEK GMBH [AT]; KARASEK ANDREAS [AT]; BETHGE DANIEL [AT]) 1 April 2010 (2010-04-01) abstract; figures columns 5,6 -----	1-5
A	FR 2 853 895 A1 (COSTES DIDIER [FR]) 22 October 2004 (2004-10-22) abstract; figures pages 2,3 -----	1-5

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IT2016/000090

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007011201 A1	25-01-2007	EP 1910228 A1 US 2009308810 A1 WO 2007011201 A1	16-04-2008 17-12-2009 25-01-2007

WO 2011004416 A1	13-01-2011	NONE	

WO 2010034043 A1	01-04-2010	AT 506691 A4 DE 112009002216 A5 WO 2010034043 A1	15-11-2009 29-09-2011 01-04-2010

FR 2853895 A1	22-10-2004	NONE	
