

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b>		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/IT2015/000300	9 December 2015 (09-12-2015)	9 December 2014 (09-12-2014)	
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 7 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)

Method for selectively picking up some frequencies of a radiative spectrum, for a first use and, at the same time, to use the residual frequencies for thermal purposes, including following steps:

- to pick up said electromagnetic radiation;-
- to induce the reflection of said one or more frequencies using a reflector (3) coloured by colours corresponding to said one or more frequencies;
- to receive said one or more frequencies reflected by said coloured reflector;
- to convey said one or more received frequencies towards a user device;
- to use said residual frequencies for increasing the temperature of said coloured reflector;
- to take the thermal energy produced by said coloured reflector.

Device (A) for implementation of said method including:

- first means (3), fitted to reflect said one or more frequencies and to absorb said residual frequencies, in such a way to produce thermal energy, said first means (3) being coloured by one or more colours corresponding to said frequencies to be reflected;
- second means (5), fitted to receive said one or more frequencies reflected by said first means (3) and to transmit them to a user device.

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/IT2015/000300

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. F24J2/06 F24J2/08 F24J2/10 F24J2/12 F24J2/18  
 F24J2/26 G02B5/08 G02B5/22  
 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)  
 F24J C12M G02B

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	US 5 578 140 A (YOGEV AMNON [IL] ET AL) 26 November 1996 (1996-11-26)	1,3
Y	column 4, line 54 - line 57 column 7, line 11 - column 9, line 61; claims 8,37-38; figures 2-5	2,4-9
Y	----- US 2011/174359 A1 (GOEI ESMOND [US] ET AL) 21 July 2011 (2011-07-21) paragraph [0036] - paragraph [0057]; figures 1A-6	2,4-7,9
Y	----- US 2008/276929 A1 (GERWING DAVE [CA] ET AL) 13 November 2008 (2008-11-13) paragraph [0036] - paragraph [0041]; figures 1A-8 ----- -/--	8

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&amp;" document member of the same patent family</p>
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Date of the actual completion of the international search <b>21 June 2016</b>	Date of mailing of the international search report <b>05/07/2016</b>
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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 <b>Beltzung, Francis</b>
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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2014/137941 A1 (ORSLEY TIMOTHY JAMES [US]) 22 May 2014 (2014-05-22) paragraph [0066] - paragraph [0088]; figures 4,5	1
A	----- US 8 277 632 B2 (MURAHARA MASATAKA [JP]) 2 October 2012 (2012-10-02) column 21, line 32 - column 22, line 21; figures 4,5	1-14
A	----- JP 2010 097973 A (MURAKAMI CORP) 30 April 2010 (2010-04-30) abstract; figures 1-7	1-14
A	----- US 2007/157614 A1 (GOLDMAN ARNOLD J [IL]) 12 July 2007 (2007-07-12) paragraph [0048] - paragraph [0059]; figures 4, 8	1-14
A	----- EP 2 230 439 A2 (ACPA ENERGY CONVERSION DEVICES [TW]) 22 September 2010 (2010-09-22) paragraph [0011] - paragraph [0016]; figures 1-3b	1-14
A	----- WO 2007/079657 A1 (XIA QIU [CN]) 19 July 2007 (2007-07-19) abstract; figures 1-3	1-14
A	----- WO 03/038348 A1 (UT BATTELLE LLC [US]) 8 May 2003 (2003-05-08) page 3, line 26 - page 8, line 14; figures 1-16	1-14
A	----- WO 2010/132955 A1 (OMEGA 3 INNOVATIONS PTY LTD [AU]; EDWARDS SCOTT R [AU]; FITZPATRICK IA) 25 November 2010 (2010-11-25) page 9, line 1 - page 24, line 3; figures 1-3C	1-14
A	----- WO 2010/149177 A2 (SAMAK NABIL MAHMOUD TALAT WAHBA [EG]) 29 December 2010 (2010-12-29) page 7, line 1 - page 11, line 17; figures 1,2	1-14
A	----- US 2011/240009 A1 (HASKINS DAVID R [US] ET AL) 6 October 2011 (2011-10-06) paragraph [0048] - paragraph [0049]; figure 2	1-14
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International application No  
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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A	FR 2 443 592 A1 (MESSERSCHMITT BOELKOW BLOHM [DE]) 4 July 1980 (1980-07-04) page 3, line 23 - page 4, line 12; figures 4,5	1-14
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A	WO 2011/149554 A1 (HILLIARD DONALD BENNETT [US]) 1 December 2011 (2011-12-01) page 19, line 10 - page 26, line 6; figures 4b -6b	1-14
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International application No

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