Concentrated solar power systems using solar receivers, and related devices and methods, are generally described.

Abstract:

Title: Concentrated solar power generation using solar receivers

[Continued on next page]
before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

INV. F03G6/06

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)
F03G

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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>US 4 403 601 A (HUNT ARLON J [US])</td>
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* 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 document published on or after the international filing date

"L" document(s) 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 of theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered to be obvious from the prior art considered alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is taken alone

"Z" document member of the same patent family

Date of the actual completion of the international search

17 January 2012

Date of mailing of the international search report

24/04/2012

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

de Martino, Marcello

Form PCT/ISA/210 (second sheet) (April 2005)
### DOCUMENTS CONSIDERED TO BE RELEVANT

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<tr>
<td>A</td>
<td>US 4 215 553 A (NUSSDORFER THEODORE J [US] ET AL) 5 August 1980 (1980-08-05) column 7, line 57 - column 8, line 35; figure 1</td>
<td>1, 2, 25, 26</td>
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</tbody>
</table>
INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☑ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

"see additional sheet(s)"

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-48
   The subject-matter of the first group of inventions (independent claims 1, 2, 25, 26) refers to a power generation system respecting a method of generating power with a solar receiver, a heat exchanger and a gas turbine.

2. claims: 49-67
   The subject-matter of the second group of inventions (independent claims 49, 50) refers to a system respecting a method with a solar receiver, a heat exchanger and a thermal storage system.

3. claims: 68-86
   The subject-matter of the third group of inventions (independent claims 68, 69) refers to a power generation system respecting a method of generating power with a solar receiver, a gas turbine and a blower.

4. claims: 87-99
   The subject-matter of the fourth group of inventions (independent claim 87) refers to a power generation system respecting a method of generating power with a solar receiver, a gas turbine and a blower.

5. claims: 100-151
   The subject-matter of the fifth group of inventions (independent claim 100) refers to a system with a solar receiver and two heat exchangers.

6. claims: 152-169
   The subject-matter of the sixth group of inventions (independent claim 152) refers to a concentrator for a solar receiver.

7. claim: 170
   The subject-matter of the seventh group of inventions (independent claim 170) refers to a method for producing a solar receiver.
8. claims: 171-179

The subject-matter of the eighth group of inventions (independent claim 171) refers to a system for cooling a concentrator for a solar receiver.

9. claim: 180

The subject-matter of the ninth group of inventions (independent claim 180) refers to a method for modifying a reflective panel for a concentrator.

10. claims: 181-188

The subject-matter of the tenth group of inventions (independent claim 181) refers to a method for producing a concentrator.

11. claims: 189-201

The subject-matter of the eleventh group of inventions (independent claim 189) refers to a power generation system providing a method of generating power with one or more modular units.

12. claims: 202-234

The subject-matter of the twelfth group of inventions (independent claims 202 and 218) refers to a power generation system providing a method of operating a power generation system with a tower structure.

13. claims: 235-240

The subject-matter of the thirteenth group of inventions (independent claims 235 and 236) refers to a system respecting a method with a first and a second solar receiver.

14. claims: 241-262

The subject-matter of the fourteenth group of inventions (independent claim 241) refers to a solar receiver with a high pressure solar absorber.
<table>
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