Title: ENERGY-CONVERSION APPARATUS AND PROCESS

Abstract: One embodiment of an energy-conversion apparatus includes a first container to contain working fluid under pressure, a first heat-transfer component in the first container, a second container to contain fluid under pressure, a second heat-transfer component in the second container, and an energy converter coupled to the first and second containers that performs work in response to a flow of fluid through the energy converter, wherein the flow is motivated by varying a pressure within the first container or within the second container (or both) caused by the first heat-transfer component or the second heat-transfer component, respectively, without a need for heat conduction through an exterior surface of either container. An energy-conversion method includes, from within one or both of first or second containers, varying an internal temperature to cause a resultant pressure differential that motivates the fluid to flow between the first and second containers, and performing work as fluid flows through the energy converter between the containers.
INTERNATIONAL SEARCH REPORT

International application No
PCT/US 07/83337

A  CLASSIFICATION OF SUBJECT MATTER
IPC(8) - F01K 27/00 (2008.01)
USPC - 60/643

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) 60/643

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched F01K 27/00 (2008.01), 60/203 1, 204, 221, 238, 641 1, 641 3, 650, 698, 322/2R, 126/569, 714

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST database (DB=PGPB, USPT, EPAB, JPAB), DialogPro (Engineering), Google (search terms: energy conversion, pressure differential, generator, container, vessel, heat exchanger, oscillating, solar collector)

C  DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 5,613,362 A (DIXON) 25 March 1997 (25 03 1997) col 3, in 18-49, col 4, in 4-33, col 4, in 49-54, col 5, in 6-12, Fig 1</td>
<td>1-6, 8-10, 14-16, 22, 24, 26-29, 31-34, 37-40 and 44</td>
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<td>Y</td>
<td>US 6,286,315 B1 (Stachle), 11 Sep 2001 (11 09 2001), entire document, especially Fig 1, and col 2, in 1-15</td>
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<tr>
<td>Y</td>
<td>US 6,286,315 B1 (Stachle), 11 Sep 2001 (11 09 2001), entire document, especially Fig 1, and col 2, in 1-15</td>
<td>7, 15, 23, 25, 30 and 41-43</td>
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D  further documents are listed in the continuation of RON C

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Date of the actual completion of the international search
6 April 2008 (06 04 2008)

Date of mailing of the international search report
06 MAY

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PCT/ISA/2 10 (second sheet) (April 2007)