Abstract: An apparatus for temperature controlling an endocavity such as the rectum during thermal therapy of nearby tissues is disclosed. In some aspects the apparatus is mechanically configured to best conform to the patient. In other aspects the apparatus is designed to eliminate gas bubbles from forming or accumulating in certain volumes that would interfere with the thermal therapy. In other aspects the apparatus is optimized for use in cooling the rectum during ultrasound thermal therapy of the prostate.
# INTERNATIONAL SEARCH REPORT

**INTERNATIONAL APPLICATION NO.**

PCT/IB2016/000439

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: A61F 7/12 (2006.01)

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)

IPC: A61F 7/12 (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Canadian Patent Database: inventor, applicant, IPC

Questel-Orbit: CAVITY, ANGLE, RECTUM, THERMAL, FLUID, PROSTATE, PROBE

**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>
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<tbody>
<tr>
<td>Y</td>
<td>US 2011/03/19748 A1 (BRONSKILL et al.) 29 December 2011 (29-12-2011) Cited in description</td>
<td>1 to 18</td>
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<tr>
<td>Y</td>
<td>US 2009/0171238 A1 (HANLEY et al.) 2 May 2009 (02-07-2009)</td>
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Further documents are listed in the continuation of Box C.

See patent family annex.

<table>
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<th>Category*</th>
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<td>&quot;Y&quot;</td>
<td>Special categories of cited documents:</td>
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<td>&quot;A&quot;</td>
<td>&quot;A&quot; document defining the general state of the art which is not considered to be of particular relevance</td>
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<tr>
<td>&quot;E&quot;</td>
<td>&quot;E&quot; earlier application or patent but published on or after the international filing date</td>
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<tr>
<td>&quot;L&quot;</td>
<td>&quot;L&quot; 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)</td>
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<tr>
<td>&quot;O&quot;</td>
<td>&quot;O&quot; document referring to an oral disclosure, use, exhibition or other means</td>
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<td>&quot;P&quot;</td>
<td>&quot;P&quot; document published prior to the international filing date but later than</td>
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**Date of the actual completion of the international search**

08 July 2016 (08-07-2016)

**Date of mailing of the international search report**

14 July 2016 (14-07-2016)

Name and mailing address of the ISA/CA

Canadian Intellectual Property Office

Place du Portage 1, C114 - 1st Floor, Box PCT

50 Victoria Street

Gatineau, Quebec K1A 0C9

[ ] [ ] [ ]

Emilie Clement (819) 639-5731

Authorized officer

Form PCT/ISA/210 (second sheet) (January 2015)
INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2016/000439

Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of the 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.  Claim Nos.: 19 and 20
    because they relate to subject matter not required to be searched by this Authority, namely:
    Claims 19 and 20 are directed to a method for treatment of the human or animal body by surgery or therapy, which the International Searching Authority is not required to search under PCT Rule 39.1(iv). However, this Authority has carried out a search based on the alleged effect or purpose/use of the product defined in claims 19 and 20.

2.  Claim 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.  Claim 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:

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 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 claim 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 claim Nos.:

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.

Form PCT/ISA/210 (continuation of first sheet (2)) (January 2015)
<table>
<thead>
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Form PCT/ISA/210 (patent family annex) (January 2015)