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[US/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US).

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(74) Agents: THOMAS, Justin et al.; SHAY GLENN LLP, 2755 Campus Drive, Suite 210, San Mateo, CA 94403 (US).

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(71) Applicant (for all designated States except US): VARIX MEDICAL CORPORATION [US/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JACKSON, Jerome [US/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US). TREBOTICH, Steven, H. [US/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US). GLAZE, Grant, Michael [US/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US). CHENG, Chun-chih [CN/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US). TARTAGLIA, Joseph, M. [US/US]; 1364 Bordeaux Drive, Suite 200, Sunnyvale, CA 94089 (US). SANDER, Fiona, M.

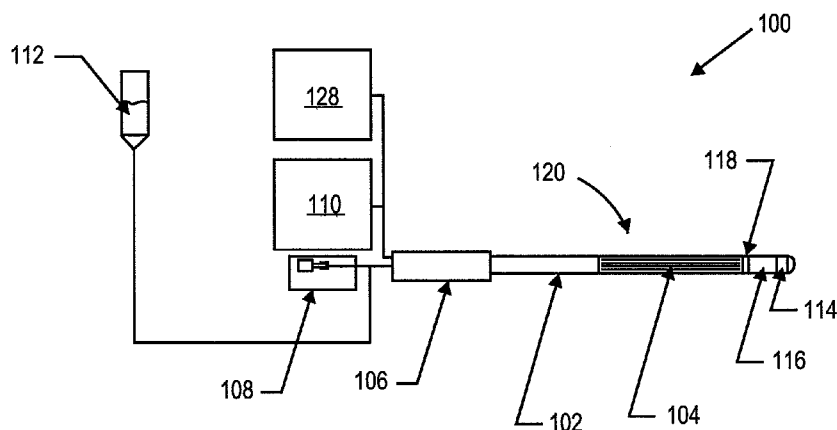
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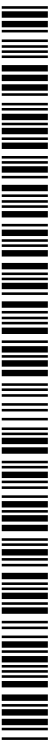
[Continued on next page]

(54) Title: HOT TIP VEIN THERAPY DEVICE



**FIG. 1**

(57) Abstract: Methods and apparatus for generating vapor within a catheter are provided which may include any number of features. One feature is generating vapor with an electrode array within a catheter. Another feature is sensing an impedance of the electrode array, and adjusting the power delivered to the electrode array to fully generate vapor within the catheter. Another feature is delivering the vapor to a vein of a patient for vein reduction therapy.



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— *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))*

**(15) Information about Correction:**

**Previous Correction:**  
see Notice of 8 July 2010

**(88) Date of publication of the international search report:**  
26 August 2010

**A. CLASSIFICATION OF SUBJECT MATTER***A61B 18/12(2006.01)i, A61M 25/00(2006.01)i, A61B 17/22(2006.01)i, A61N 1/00(2006.01)i*

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)

A61B 18/12; A61B 17/36; A61B 18/04; A61B 18/14; A61B 18/18

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) &amp; Keywords: vapor generation, varicose vein, catheter, electrode array

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6911028 B2 (JOHN H. SHADDUCK) 28 June 2005 See Figs. 1-4, Col.3 Line 52-Col.4 Line 57	1-9, 13-16, 32-38
A	US 5643257 A1 (COHEN; DONALD et al.) 01 July 1997 See Figs. 1-2, Col. 4Lines 8-62.	1-9, 13-16, 32-38
A	US 7294126 B2 (RUSSELL M. SAMPSON et al.) 13 November 2007 See Col.2 Lines 9-37	1-9, 13-16, 32-38
A	US 2005-0070894 A1 (MICHAEL, E. MCCLURKEN) 31 March 2005 See Abstract, Fig. 9	1-9, 13-16, 32-38
A	US 2007-0088346 A1 (MICHAEL MIRIZZI et al.) 19 April 2007 See paragraphs [0008]-[0019]	1-9, 13-16, 32-38

 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 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

23 JUNE 2010 (23.06.2010)

Date of mailing of the international search report

**24 JUNE 2010 (24.06.2010)**

Name and mailing address of the ISA/KR

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Facsimile No. 82-42-472-7140

Authorized officer

OH Seung Jae

Telephone No. 82-42-481-8469



**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.: 10-12, 17-31  
because they relate to subject matter not required to be searched by this Authority, namely:  
The methods of claims 10-12 and 17-31 fall into the category of a method for treatment of the human body by surgery, therapy or diagnostic methods. [Article 17(2)(a)(i), Rule 39.1(iv) PCT].
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:

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 fee, this Authority did not invite payment of any additional fee.
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.:

**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.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2009/064894**

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