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(71) Applicant (for all designated States except US): LUMENIS LTD. [IL/IL]; P.O. box 240, 20692 Yokneam (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): AVIAD, Idan [IL/IL]; 61 Hagdud Haevry Street, 26305 Kiryat Haim (IL). GELSTEIN, Assaf [IL/IL]; Soroka 31/7, 34759 Haifa (IL). IGER, Yoni [IL/IL]; 35 Givat Downs Street, 34349 Haifa (IL). PELED, Omer [—/IL]; PO Box 240, 20692 Yokneam (IL). MIRABITO, A., Jason [US/US]; 10 Azalea Drive, Andover, MA 01810 (US).

(74) Agents: MIRABITO, A., Jason et al.; Mintz Levin Cohn Ferris Glovsky And Popeo, P.C., One Financial Center, Boston, MA 02111 (US).

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(54) Title: SYSTEM AND METHODS OF TISSUE MICROABLATION USING FRACTIONAL TREATMENT PATTERNS

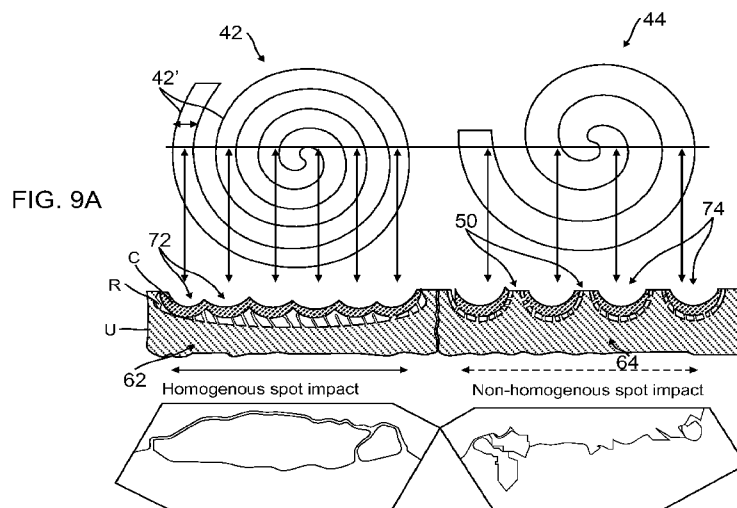


FIG. 9B

(57) Abstract: An apparatus for treating tissue includes a first energy application device to direct energy at tissue of a patient to cause at least one channel to be formed and a controller to control application of energy from the first energy application device to form the at least one channel. The at least one channel may be in the shape of a spiral-like shape or may be in a flower-like shape. Mechanisms are provided to help open channels formed in the human skin structure. A second energy application source may be used to maintain the channel open after formation. The controller may cause the first energy application device to form a plurality of channels of varying depth, width and distribution over the human skin surface. The apparatus to control the application of energy may be operated using a foot-activated pedal.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/026833**A. CLASSIFICATION OF SUBJECT MATTER*****A61B 18/00(2006.01)i, A61B 18/20(2006.01)i, A61N 7/00(2006.01)i, A61N 5/067(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 18/00; A61B 18/04; A61M 5/158; A61B 17/36; 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) & Keywords: microablation, tissue, channel, energy application device, controller

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99-04709 A1 (UNITED STATES SURGICAL CORPORATION) 04 February 1999 See the whole document, especially Claims 1,11-18; Figures 1,2,6,7; Page 6 line 11- line 25; Abstract	18-21
A		1-17,22-37
A	US 2003-0083607 A1 (DONALD E. BOBO) 01 May 2003 See the whole document, especially Claims 1,9,23,26; Figures 1,2,9,16,17; Abstract	1-37
A	US 2008-0071258 A1 (VLADIMIR LEMBERG et al.) 20 March 2008 See the whole document, especially Claims 1-4,10,14; Figure 1; Abstract	1-37
A	US 2001-0020166 A1 (MICHAEL DALY et al.) 06 September 2001 See the whole document, especially Claims 1,11,28; Figures 1,2; Abstract	1-37

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

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"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

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Date of the actual completion of the international search

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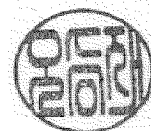
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Authorized officer

OH Seung Jae

Telephone No. 82-42-481-8469



INTERNATIONAL SEARCH REPORT

Information on patent family members

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