## ${\bf (19)}\ World\ Intellectual\ Property\ Organization$

International Bureau





(43) International Publication Date 13 September 2007 (13.09.2007) PCT

## (10) International Publication Number WO 2007/102154 A3

(51) International Patent Classification: *A61B 18/18* (2006.01)

(21) International Application Number:

PCT/IL2007/000290

**(22) International Filing Date:** 7 March 2007 (07.03.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

11/370,230 8 March 2006 (08.03.2006) US

(71) Applicant and

(72) Inventor: PERL, Paul [IL/IL]; Israel Galili 7/7, 69377 Tel Aviv (IL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): FRANCISCO, Arriaza [ES/ES]; Tetuan 10, E-08203 Sabadell (ES).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

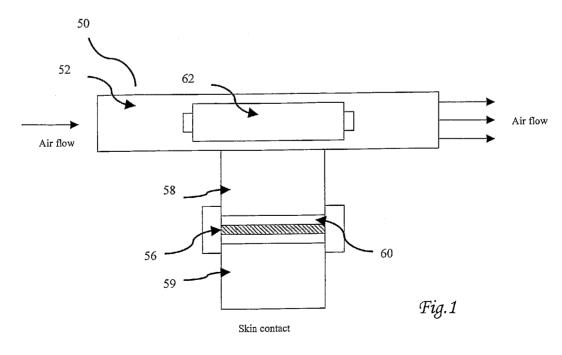
## **Published:**

with international search report

(74) Agent: FRIEDMAN, Mark; 7 Jabotinsky St., 52520 Ramat Gan (IL).

(88) Date of publication of the international search report: 16 April 2009

(54) Title: A CONTINUOUS SKIN CONTACT HANDPIECE SYSTEM FOR COOLING DURING CONTROLLED EMISSION OF LIGHT AND A METHOD THEREOF



(57) Abstract: A skin contact handpiece system for cooling an internal light source and treated skin, during controlled emission of light from the source combines an internal air-cooled light source adapted to controllably emit light towards the treated skin while preserving the absorption characteristic of the emitted light and a liquid-cooled skin contact adapted to provide a painless dermal treatment and to prevent overheating of the treated skin by the light.

## INTERNATIONAL SEARCH REPORT

International application No. PCT/IL 07/00290

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61B 18/18 (2008.04) USPC - 606/9 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(8) - A61B 18/18 (2008.04) USPC - 606/9			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched 606/9, 1, 2, 11, 12, 13 607/1, 88			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar; Search Terms Used: skin, treat\$6, air, gas, water, liquid, fluid, cool\$5, light, lamp, LED, optic fiber, flash, thermal\$4, isolat\$4, hermetic chamber, optical filter, filter, NTC resistor, temperature, sensor, hot plate, cold plate, peltier, spot size, broadband, spectrum.			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
Х	US 2006/0009750 A1 (ALTSHULER et al.) 12 January 2006 (12.01.2006) Entire document, especially para[0008], para[0014], para[0016], para[0017], para[0053], para[0064], FIG. 2.		1 and 17
Y			3-16 and 19-25
x	US 2005/0215987 A1 (SLATKINE) 29 September 2005 (29.09.2005) Entire document, especially para[0112], para[0206], para[0311], para[329], para[0339], FIG. 18,FIG. 6b.		2 and 18
Υ			3-16 and 19-25
Y	US 6,488,623 B1 to (OZAROWSKI et al.) 03 December 2002 (03.12.2002) col 1, in 45-66; col 5, in 52-col 6, in 23.		5, 6 and 9
Y	US 6,017,337 A to (PIRA) 25 January 2000 (25.01.2000) col 6, in 57-65.		11
Υ	US 6,383,177 B1 to (BALLE-PETERSEN et al.) 07 May 2002 (07.05.2002) col 2, ln 61-67; col 8, ln 26-34; col 24, ln 60-col 25, ln 13.		13-16, 20 and 21
Further documents are listed in the continuation of Box C.			
* Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "Believe 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			
"E" earlier application or patent but published on or after the international "X" document of particular relevance; the claimed invention cannot be filing date			claimed invention cannot be ered to involve an inventive
"L" 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)  "Y" 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)  "Gournett 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)			claimed invention cannot be
"O" document referring to an oral disclosure, use, exhibition or other means combined with one or more other such documents, such combination being obvious to a person skilled in the art			
"P" document published prior to the international filing date but later than "&" document member of the same patent family the priority date claimed			
Date of the actual completion of the international search  13 October 2008 (13.10.2008)		Date of mailing of the international search report  2 8 OCT 2008	
Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450		Authorized officer: Lee W. Young	9/1000
Facsimile No. 571-273-3201 PCT Helpdesk: 571-272-4600 PCT OSP: 571-272-7774			