

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 February 2008 (28.02.2008)

PCT

(10) International Publication Number
WO 2008/024222 A3

(51) International Patent Classification:
A61B 3/10 (2006.01)

(21) International Application Number:
PCT/US2007/017897

(22) International Filing Date: 15 August 2007 (15.08.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/507,248 19 August 2006 (19.08.2006) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, ME, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
7 August 2008

(54) Title: DEVICE TO MONITOR RETINAL ISCHEMIA

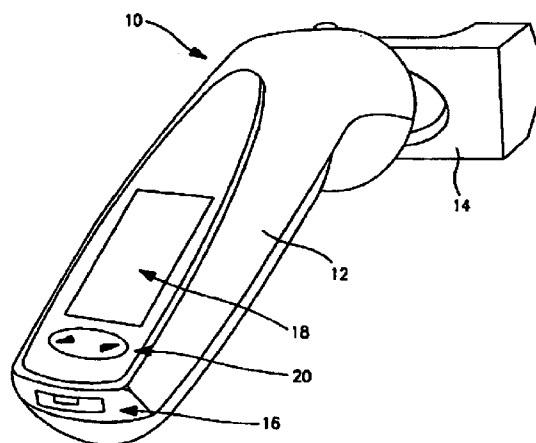


FIG. 1

(57) **Abstract:** A battery powered, hand held device to determine if there is significant retinal ischemia in the eye of a patient. The device detects the consequences of impaired blood flow in the eye of the patient and has a light source for emitting a light and a diffuser or diffuse spheroidal reflector that redirects the light from the light source toward the patient's eye. A set of electrodes contact the patient's skin proximate to the eye and receives an electrical signal representing the eye's electrical response to the light stimulus. A microcontroller interprets the electrical signal sensed by the electrodes by using an algorithm to determine the degree of retinal ischemia of the patient. In one embodiment, there is a control that establishes the intensity of the light stimulus by measuring and using the area of the pupil.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/17897

A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61B 3/10(2006.01)

USPC: 351/205

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)

U.S. : 351/205

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	2005/0254008 A1 (Ferguson et al.) 17 November 2005 (17.11.2005), paragraphs 3-4, 16, 55-56, 58-62, 66, 71, 82, 111, 114, 122, 126, 140 and Figures 1, 16	1-11, 14-30
Y	Bresnick, G.H. et al. Electroretinographic Oscillatory Potentials Predict Progression of Diabetic Retinopathy Preliminary Report Arch Ophthalmol September 1984, Vol. 102, pages 1307-1311, especially 1308	1-11, 14-30
Y	US 2002/0024633 A1 (Kim et al.) 28 February 2002 (28.2.2002), paragraphs 39, 41, 109	24-28
A	US 4,181,407 (Razran) 1 January 1980 (1.1.1980), abstract	1, 15, 21
A	US 4,846,567 (SUTTER) 11 July 1989 (11.7.1989), abstract	1, 15, 21



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"&"

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Date of the actual completion of the international search

13 May 2008 (13.05.2008)

Date of mailing of the international search report

30 MAY 2008

Name and mailing address of the ISA/US

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