(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 December 2005 (22.12.2005)

PCT

(10) International Publication Number
WO 2005/120334 A1

(51) International Patent Classification: A61B 5/00

(21) International Application Number:
PCT/EP2005/006316

(22) International Filing Date: 13 June 2005 (13.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04013850.5 14 June 2004 (14.06.2004) EP

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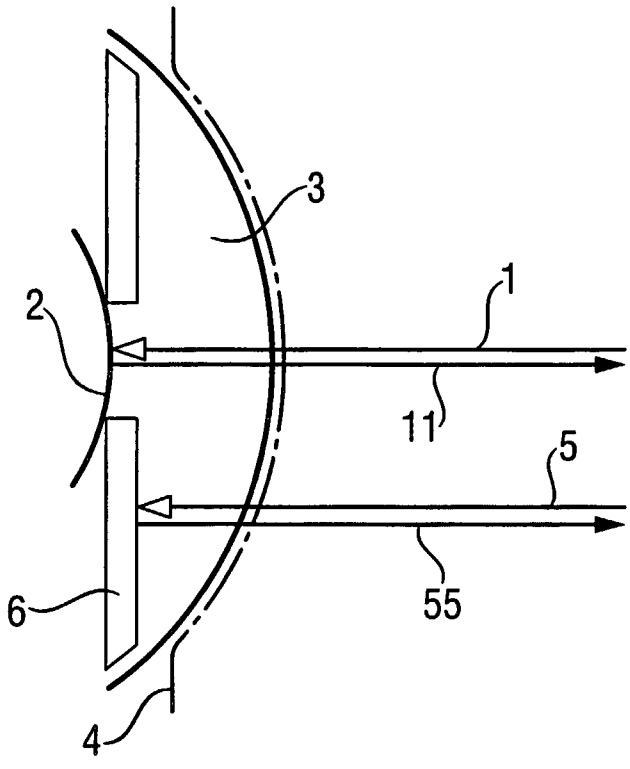
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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR,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

[Continued on next page]

(54) Title: COMBINED APPARATUS FOR MEASURING THE BLOOD GLUCOSE LEVEL FROM AN OCULAR FLUID



(57) Abstract: A combined apparatus for measuring the blood glucose level from an ocular fluid comprises a hand-held fluorescence photometer (D1) for determining the glucose level of the ocular fluid and a device (D2) for the amperometric or photometric determination of the blood glucose level. The fluorescence photometer (D1) comprises: first irradiating means (7,8,10) for providing a pilot beam (1) for irradiation of the eye (3) in order to excite a first fluorescence comprising a first wavelength band; first detecting means (8,9,12,13) for measuring the intensity of the of the pupil fluorescence within the first wavelength band; second irradiating means (17,18,21) for providing a measurement beam (5) for irradiation of the eye in order to excite an ocular sensor (4) to emit a second fluorescence comprising a second wavelength band; second detecting means (18,19,20,22,23,24,25) for measuring the intensity of the second fluorescence within the second wavelength band. The first and second irradiating means are arranged such that the measurement beam irradiates the eye under a predetermined angle (a) between 0^0 and 90° and at a predetermined distance from the pilot beam.

WO 2005/120334 A1

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*

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