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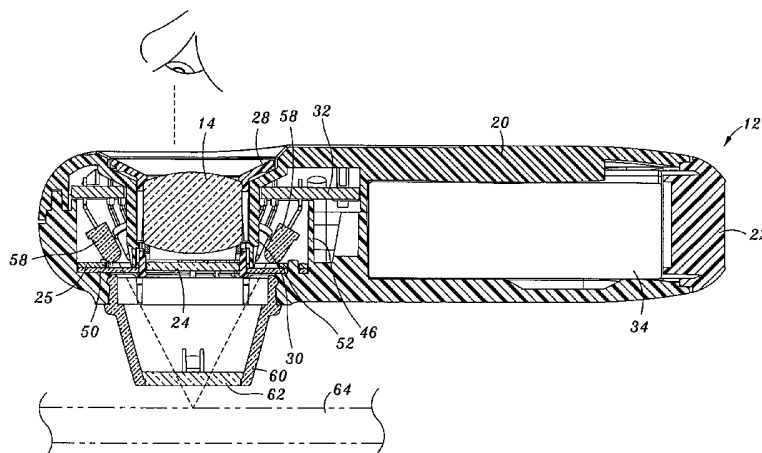
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(54) Title: DERMOSCOPY EPILUMINESCENCE DEVICE EMPLOYING CROSS AND PARALLEL POLARIZATION



(57) Abstract: The present invention is a hand held dermoscopy epiluminescence device (12) with a magnification lens (14) and an associated ring of luminous diodes (58) powered by an on board battery (34). Every other diode in the ring operates as first and second light sources. The even diodes are filtered by a first polarization ring (50) and the odd diodes are filtered by a second polarization ring (52). Each polarization ring (50, 52) has an open center for the lens (14) and openings sized and positioned to correspond to the even or odd diodes to only filter one set. A viewing polarizer (24) is provided and is cross-polarized relative to the first polarization ring (50) and is parallel-polarized with the second polarization ring (52). A three way switch which provides on demand cross-polarized, parallel-polarized and a combination thereof for epiluminescence. A second embodiment provides even diodes of a first color and odd diodes of a second color. A third embodiment employs the alternating colored diodes of the second embodiment as well as the cross and parallel polarization of the light from the diodes as found in the first embodiment.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/05505

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : G01J 4/00; A61B 5/00, 6/00
 US CL : 356/369; 600/476, 410, 425
 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. : 356/364-369, 445, 446, 39; 600/476, 410, 425, 477, 478; 606/3, 10, 16; 250/461.1, 461.2, 459.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 NONE

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


C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,069,565 A (STERN et al) 30 May 2000 (30.05.2000), Figures 3A, 4A.	1-4, 11-22, 29-36
X --- Y	US 2003/0026110 A1 (SATO et al) 06 February 2003 (06.02.2003), Figures 1, 5.	1-4, 12, 15, 16, 19-22, 30, 33, 34 ----- 5-11, 13, 14, 17, 18, 23-29, 31, 32, 35-47
Y	US 6,032,071 A (BINDER) 29 February 2000 (29.02.2000), Figures 5, 6, 9.	5-11, 13, 14, 17, 18, 23-29, 31, 32, 35-47
A	US 4,773,097 A (SUZAKI et al) 20 September 1988 (20.09.1988), Figure 1.	1-47
A,P	US 6,587,711 B1 (ALFANO et al) 01 July 2003 (01.07.2003), Figures 1, 4.	1-47

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

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