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

# (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 24 July 2003 (24.07.2003)

**PCT** 

# (10) International Publication Number WO 2003/060441 A3

(51) International Patent Classification<sup>7</sup>: G02B 17/00

(21) International Application Number:

PCT/US2003/000182

(22) International Filing Date: 3 January 2003 (03.01.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10/043,977 10 January 2002 (10.01.2002)

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- (81) Designated States (national): AT, AU, BG, BR, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, ID, IL, IN, JP, KR, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SK, TR, UA, YU, ZA.
- (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR).

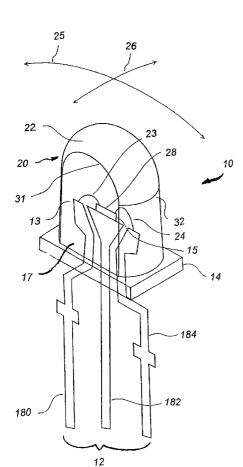
#### **Published:**

with international search report

(88) Date of publication of the international search report: 1 April 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## (54) Title: SENSOR DEVICE HAVING AN INTEGRAL BI-RADIAL LENS



(57) Abstract: The inventive sensor device (10) provides different fields of view in transverse directions. The sensor device include a support structure (12), a sensing element (15) mounted on the support structure for sensing optical radiation and generating an electrical output signal in response thereto, and an encapsulant (17) encapsulating the sensing element on the support structure. The encapsulant includes an integral lens (20) having a bi-radial surface (22). Alternatively or additionally, the encapsulant may have at least a first zone (102) and a second zone (104), where the second zone exhibits at least one different characteristic from the first zone, such as a different optical, physical, thermal, or compositional characteristic.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/00182 CLASSIFICATION OF SUBJECT MATTER : G02B 17/00 IPC(7) US CL 359/603, 604, 605 According to International Patent Classification (IPC) or to both national classification and IPC FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 359/603, 604, 605 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) DOCUMENTS CONSIDERED TO BE RELEVANT Category \* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. US 6,097,023 A (SCHOFIELD et al) 01 August 2000 (01.08.2000), see whole document. Y 1-66 US 3,749,477 A (WILLOUGHBY et al) 31 July 1973 (31.07.1973), see whole document. Y 1-66 Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: later document published after 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 document defining the general state of the art which is not considered to be "A" of particular relevance "X" document of particular relevance; the claimed invention cannot be "E" earlier application or patent published on or after the international filing date considered novel or cannot be considered to involve an inventive step when the document is taken alone "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 document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination "O" document referring to an oral disclosure, use, exhibition or other means being obvious to a person skilled in the art document published prior to the international filing date but later than the "&" document member of the same patent family priority date claimed Date of the actual completion of the international search Date of mailing of the international search report 19 DEC 2003 01 October 2003 (01.10.2003) Authorized officer Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US MOHAMMAD Y SIKDER Commissioner for Patents P.O. Box 1450

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