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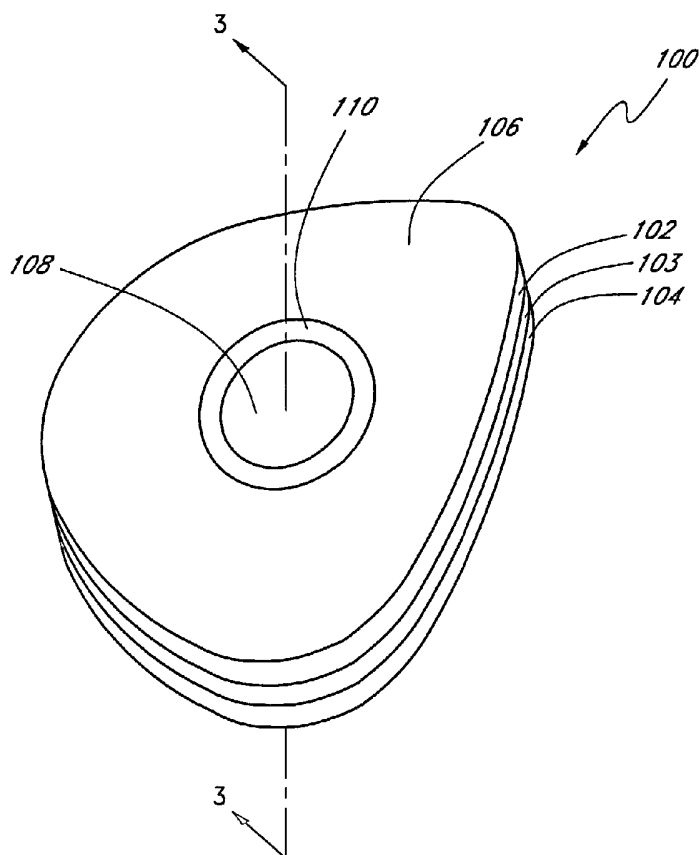
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[Continued on next page]

(54) Title: EYEGLASS MANUFACTURING METHOD USING VARIABLE INDEX LAYER



(57) Abstract: An Eyeglass Manufacturing Method Using Epoxy Aberrator includes two lenses (102, 104) with a variable index material (103), such as epoxy, sandwiched in between. The epoxy is then cured to different indexes of refraction that provide precise corrections for the patient's wavefront aberrations. The present invention further provides a method to produce an eyeglass that corrects higher order aberrations, such as those that occur when retinal tissue is damaged due to glaucoma or macular degeneration. The manufacturing method allows for many different applications including, but not limited to, supervision and transition lenses.



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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.

INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/US 02/34334

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B29D11/00 G02C7/02 G02B3/00

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 7 B29D G02C G02B

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 practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 969 729 A (MERLE JOSEPH) 13 November 1990 (1990-11-13) column 7, line 35 - line 41; claim 14 ---	1-3
X	US 4 883 548 A (ONOKI FUMIO) 28 November 1989 (1989-11-28) column 6, line 43 - line 54; claim 1 ---	1-3
X	FR 1 411 976 A (BAUSCH & LOMB) 24 September 1965 (1965-09-24) figure 1 ---	4,5,7,8
X	WO 99 13361 A (BIANCO GRAZIANO) 18 March 1999 (1999-03-18) figure 5 --- -/--	4,5,7,8



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *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)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* 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
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* 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 being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

11 June 2003

Date of mailing of the international search report

10. 07. 2003

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/34334

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 007, no. 054 (P-180), 4 March 1983 (1983-03-04) & JP 57 201216 A (SUWA SEIKOSHA KK), 9 December 1982 (1982-12-09) abstract ---	4,5,7,8
X	PATENT ABSTRACTS OF JAPAN vol. 006, no. 121 (P-126), 6 July 1982 (1982-07-06) & JP 57 046202 A (AGENCY OF IND SCIENCE & TECHNOL), 16 March 1982 (1982-03-16) abstract ---	4,5,7
X	US 4 422 733 A (KIKUCHI KEISUKE ET AL) 27 December 1983 (1983-12-27) column 4, line 15 - line 51; figure 3A -----	4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 02/34334

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 10, 11
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-3

Method for making a lens involving placing a second lens on a first lens and curing with ultraviolet

2. Claims: 4-9

Lens with at least one area of varying refractive index

INTERNATIONAL SEARCH REPORT

Information on patent family members

Intern Application No

PCT/US 02/34334

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