Title: MULTILAYER POLYMER GRADIENT INDEX (GRIN) LENSES

Abstract: Disclosed are axial, radial or spherical gradient index (GRIN) lenses fabricated by layering composite polymer films into an hierarchical structure.
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:
25 August 2005

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

International application No.
PCT/US04/30355

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G02B 9/00, 3/00
US CL : 359/652

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. : 359/652, 653, 654

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)

Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 5,044,737 A (BLANKENBECLEER) 03 September 1991 (.03.09.1991) see entire document.</td>
<td>1-31</td>
</tr>
<tr>
<td>Y, P</td>
<td>US 2004/0105163 A1 (ERYAN et al) 03 June 2004 (03.06.2004) see entire document.</td>
<td>11</td>
</tr>
<tr>
<td>A</td>
<td>US 5,689,374 A (XU et al) 18 November 1997 (18.11.1997) see entire document.</td>
<td>1-31</td>
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</tbody>
</table>

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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*E* document member of the same patent family

Date of the actual completion of the international search
24 June 2005 (24.06.2005)

Date of mailing of the international search report
06 JUL 2005

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Form PCT/ISA/210 (second sheet) (January 2004)
Continuation of B. FIELDS SEARCHED Item 3:
EAST; US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB; (grin near4 lens), (grad$6 near 4 indes near6 lens), (multilayer$4 or (multiple adj layer$4)) near20.