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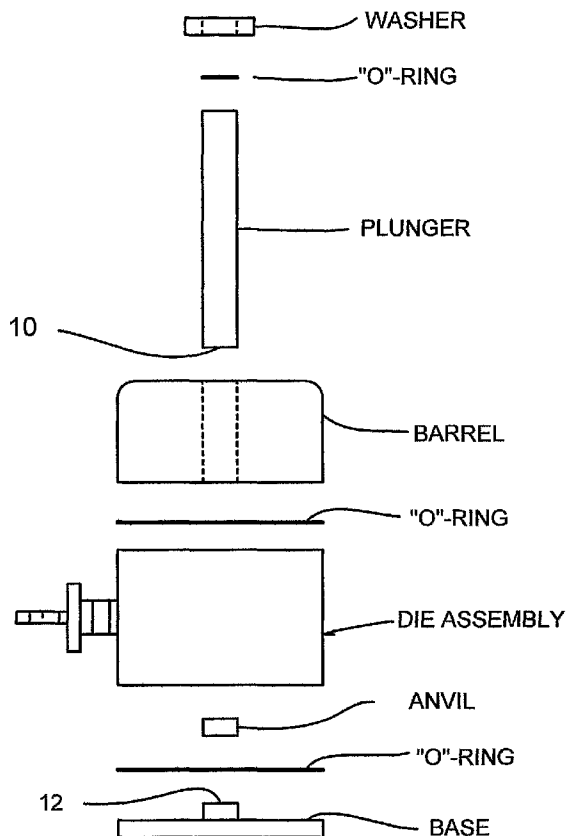
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[Continued on next page]

(54) Title: SOLID STATE METHOD AND APPARATUS FOR MAKING LENSES AND LENS COMPONENTS



(57) Abstract: A solid state, compression method for fabricating lenses, lens blanks, and lens components from materials ground into fine powders having mechanical properties that make them capable of being formed into cohesive monolithic masses that are low in scattering. The fine powders may be admixtures of host matrix materials and others which, when combined, provide preferred optical properties such as index and dispersion. Parts possessing transmission from within the range from the ultraviolet to the infrared are possible. The method is particularly suited to low temperature formation of aspheric lenses transmissive in the near and far IR.

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<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) U.S. : 264/1.1, 1.32, 2.2; 2.7; 359/350, 355, 356</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p>																					
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <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 4,013,796 A (SWINEHART et al) 22 March 1977 (22.03.1977), col. 1, lines 45-46 and col. 5, lines 6-43</td> <td>1-54</td> </tr> <tr> <td>Y</td> <td>US 3,794,704 A (STRONG) 26 February 1974 (26.02.1974), col. 3, lines 31-63 and col. 4, lines 34-47</td> <td>1-54</td> </tr> </tbody> </table>		Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 4,013,796 A (SWINEHART et al) 22 March 1977 (22.03.1977), col. 1, lines 45-46 and col. 5, lines 6-43	1-54	Y	US 3,794,704 A (STRONG) 26 February 1974 (26.02.1974), col. 3, lines 31-63 and col. 4, lines 34-47	1-54											
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.</p>																					
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T"</td> <td>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</td> </tr> <tr> <td>"B"</td> <td>earlier application or patent published on or after the international filing date</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"L"</td> <td>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)</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td>"&"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>		"A"	document defining the general state of the art which is not considered to be of particular relevance	"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	"B"	earlier application or patent published on or after the international filing date	"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	"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)	"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	"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family	"P"	document published prior to the international filing date but later than the priority date claimed		
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<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201</p>	<p>Authorized officer Mathieu D. Vargot Telephone No. 571 272-1700</p> <p style="text-align: right;">Jean Proctor Paralegal Specialist</p> 