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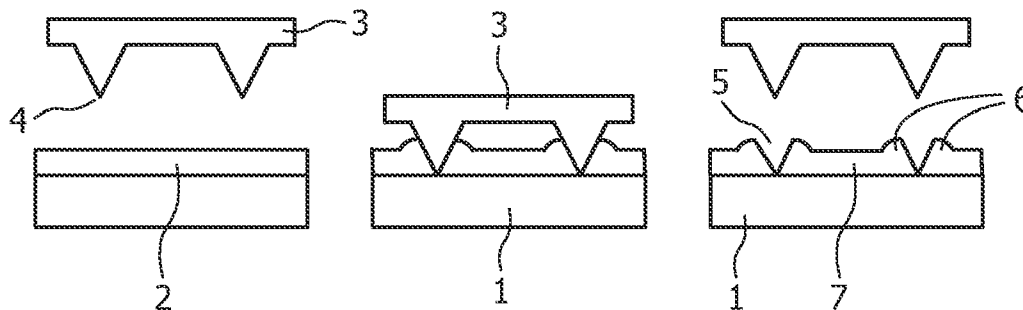
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(54) Title: OPTICAL DEVICE WITH CHANNEL WAVEGUIDE STRUCTURE AND METHOD OF FABRICATING



(57) Abstract: The present invention prefers to an optical device with a channel waveguide structure as well as a method of fabrication. A thin waveguide layer (2) of a fluoride glass, in particular a Zirconium fluoride glass, especially ZBLAN, is applied on a substrate (1) and structured to form waveguide channels (7) by pressing a stamp (3) onto said layer (2). The stamp (3) is designed having cutting edges (4) formed according to desired contours of channels (7) of the waveguide structure and providing free space for displacement of material of the waveguide layer (2). The stamp (3) and/or the waveguide layer (2) are preheated to a temperature allowing the displacement of the material of the waveguide layer (2) by the cutting edges (4). The invention allows a fast and cheap production of a channel waveguide structure.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. G02B6/12

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)

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 867 735 A (SUISSE ELECTRONIQUE MICROTECH [CH])	1, 3-17
A	30 September 1998 (1998-09-30) column 4; figure 1	2



Further documents are listed in the continuation of Box C.



See patent family annex.

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- * & * document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0867735	A	30-09-1998	NONE