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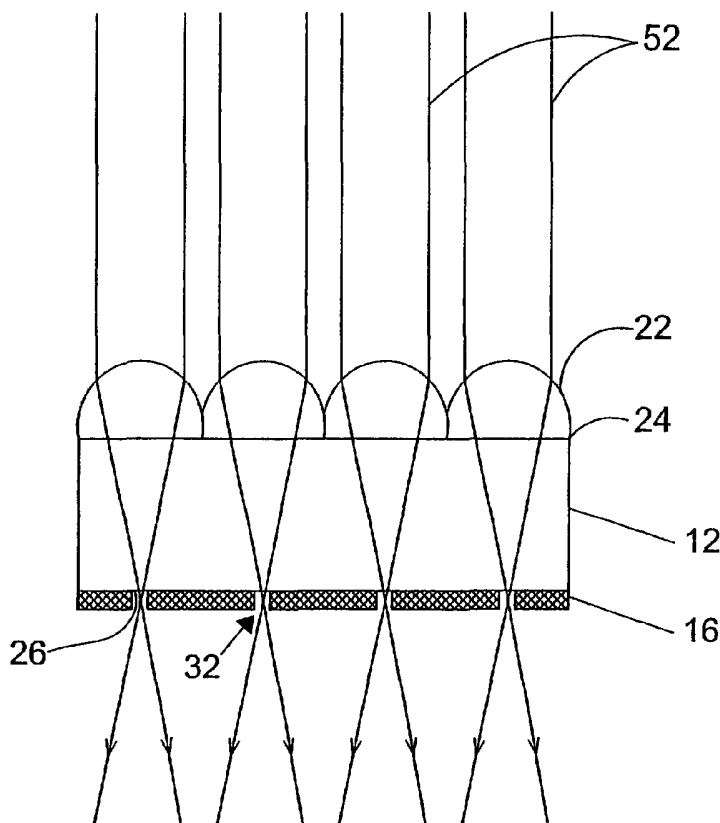
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(54) Title: MICRO-LENS ARRAY WITH PRECISELY ALIGNED APERTURE MASK AND METHODS OF PRODUCING SAME



(57) Abstract: A micro-lens array (11) with
a precisely aligned aperture mask (17), and a
method of forming the same, is provided. The
aperture mask is formed by projecting light
(52) onto a mask layer (16) using each lenslet
(22) in the micro-lens array. The intensity
of the light and the mask layer material are
chosen so that the light forms apertures (32)
in the mask layer via a non-ablative process.
The resulting apertures are automatically
aligned with their respective lenslets.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/17449

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G02B 27/10 US CL : 359/619, 626 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. : 359/619, 626, 620, 621, 900; 65/37 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) Please See Continuation Sheet		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 405313153A (KUREMATSU) 26 November 1993 (26.11.1978).	1-123
A	JP 409258007 A (ASUNAMU et al) 03 October 1997 (03.10.1997).	1-123
A	JP 11295504 A (NAKAMAE et al) 29 October 1999 (29.10.1999).	1-123
A,P	US 6,639,705 A (HIRA) 28 October 2003 (28.10.2003).	1-123
☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
* Special categories of cited documents:		
"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
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"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	
Date of the actual completion of the international search 29 October 2004 (29.10.2004)		Date of mailing of the international search report 29 DEC 2004
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. (703) 305-3230		Authorized officer Ricky L Mack Telephone No. (571) 272-1562 DEBORAH A. THOMAS PARALEGAL SPECIALIST GROUP 1300 <i>pat</i>

INTERNATIONAL SEARCH REPORT

International application No.

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Continuation of B. FIELDS SEARCHED Item 3:

USPAT, EPO, JPO, DERWENT:

(lens or lenslet or lenticul\$ or microlens or micro-lens), mask, aperture, electromagnetic adj2 radiation