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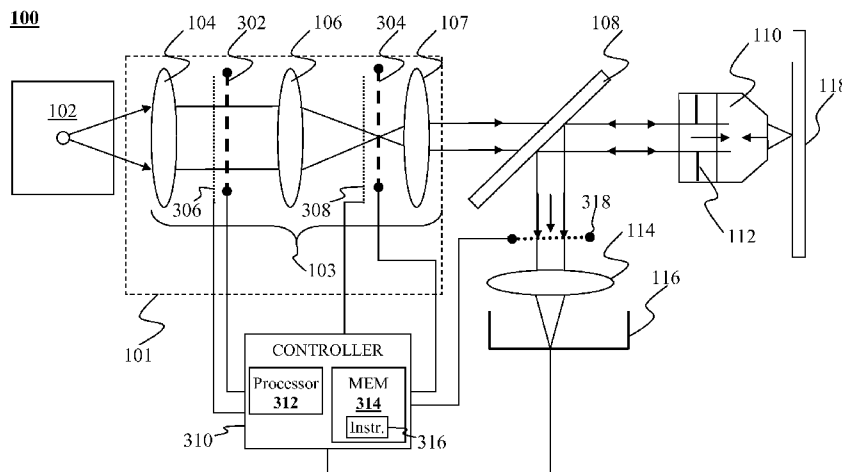
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(54) **Title:** ILLUMINATION CONTROL



**FIG. 1**

(57) **Abstract:** An optical system may include an objective, a source of illumination, an illumination system having illumination optics configured to direct the illumination onto the objective, and at least two dynamic optical array devices located at a pupil conjugate plane and a field conjugate plane, respectively in the illumination optics. The dynamic optical array devices are configured to control one or more properties of illumination coupled from the illumination system to the objective.

WO 2013/002988 A3

**A. CLASSIFICATION OF SUBJECT MATTER*****H01L 21/027(2006.01)i***

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)

H01L 21/027; G09G 5/02; G02B 7/18; G03F 7/20

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; keywords: pupil conjugate plane, field conjugate plane, DMD

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2010-525589 A (CARL ZEISS SMT AG) 22 July 2010 See abstract, paragraphs [0039], [0043]-[0044], [0053] and figure 2.	1-46
A	WO 2010-100078 A1 (ASML NETHERLANDS BV et al.) 10 September 2010 See abstract, paragraphs [0044], [0067] and figure 3.	1-46
A	US 2004-0130561 A1 (KANTI JAIN) 08 July 2004 See abstract, paragraphs [0020]-[0021] and figure 1.	1-46
A	KR 10-2010-0107014 A (CARL ZEISS SMT AG) 04 October 2010 See abstract, paragraph [0115] and figure 3.	1-46
A	KR 10-2007-0087507 A (ASML NETHERLANDS BV) 28 August 2007 See abstract, page 5 and figure 2.	1-46

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

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"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

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

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Date of mailing of the international search report

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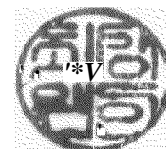


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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/041273

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