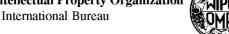
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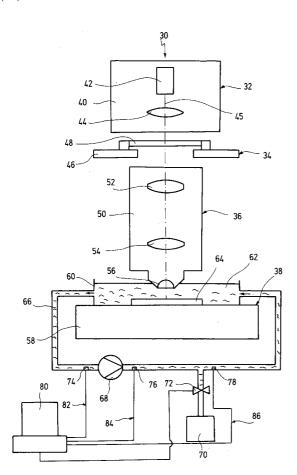
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[Continued on next page]

(54) Title: MONITORING ELEMENT FOR LITHOGRAPHIC PROJECTION SYSTEMS



(57) Abstract: A monitoring element for use in a lithographic projection system is provided, comprising a sensor element for detecting at least one chemical compound present in a fluid present in said projection system and a data collection element collecting data from said sensor element.

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PCT/EP2005/009841 A. CLASSIFICATION OF SUBJECT MATTER INV. G03F7/20 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) GO3F GO3B 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, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 5 685 895 A (HAGIWARA ET AL) 1-4,9-29, 11 November 1997 (1997-11-11) 54-57, 61-63 column 4, line 1 - line 20Υ column 5, line 56 - line 67 45-47 column 10, line 25 - column 15, line 58; figures 1,2 column 17, line 26 - column 20, line 18; figure 4 column 22, line 18 - line 34 -/--X Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: "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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date 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) involve an inventive step when the document is taken alone "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 docu-ments, such combination being obvious to a person skilled in the art. O document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 18 July 2006 28/07/2006

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International application No. PCT/EP2005/009841

INTERNATIONAL SEARCH REPORT

Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)	
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:	
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:	
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:	
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).	
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)	
This International Searching Authority found multiple inventions in this international application, as follows:	
see additional sheet	
As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.	
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.	
3. $\boxed{\chi}$ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: $1-29$, $34-49$, $54-63$	
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:	
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,9-29,54-57,61-63

Means of making available the data from a gas monitor in a lithographic projection apparatus

2. claims: 5-8,34-49,58-60

Control of a dispensing element in a liquid immersion lithographic projection apparatus using a liquid sensor

3. claims: 30-33,50-53,64-67

Dose control in a lithographic projection apparatus by coupling data from a chemical compound monitor to the radiation system ${\sf radiation}$

MITERNATIONAL SEARCH REPORT

Information on patent family members

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