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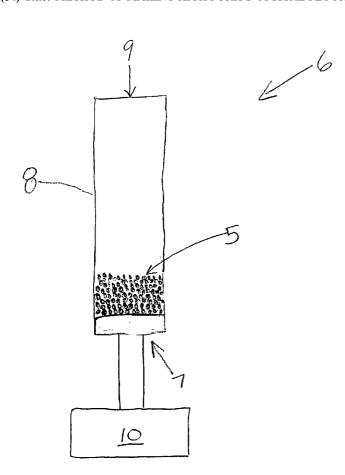
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(54) Title: METHOD OF MAKING HIGH PURITY OPTICAL FLUORIDE CRYSTALS



(57) Abstract: The present invention relates to the manufacturing of high purity optical fluoride crystals, the making of purified optical fluoride crystal feedstocks and to the anionic purification of optical fluoride crystalline materials. The invention relates generally to methods for removing oxide impurities from optical fluoride crystal feedstocks. More specifically, the invention relates to a method for preparing purified optical fluoride crystal feedstocks and the use of the feedstock in manufacturing VUV< 200nm transmission optical fluoride crystals for VUV lithography/laser systems.

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INTERNATIONAL SEARCH REPORT

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PCT/US 02/22927 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C30B11/00 C30B C30B29/12 CO1F11/22 C01F5/28 C01B9/08 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) CO1F CO1B C30B IPC 7 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 9 Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. US 6 153 011 A (PANDELISEV KIRIL A) A 1,18,21, 28 November 2000 (2000-11-28) column 5, line 44 -column 6, line 11; figure 2 Α EP 1 076 117 A (OPTOSCINT INC) 1,18,21, 14 February 2001 (2001-02-14) column 5, line 11 - line 34 US 3 372 126 A (ITALO CAMMARATA ET AL) Α 21 5 March 1968 (1968-03-05) column 1, line 26 - line 47 US 6 238 479 B1 (OBA TOMORU) Α 29 May 2001 (2001-05-29) cited in the application -/--Patent family members are listed in annex. X Further documents are listed in the continuation of box C. ° 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 leveration. "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to "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) 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 documents, such combination being obvious to a person skilled "O" document referring to an oral disclosure, use, exhibition or in the art. 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 14 January 2003 22/01/2003 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 Tel. (+31–70) 340–3016 Tel. (+31–70) 340–3016 Cook, S

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