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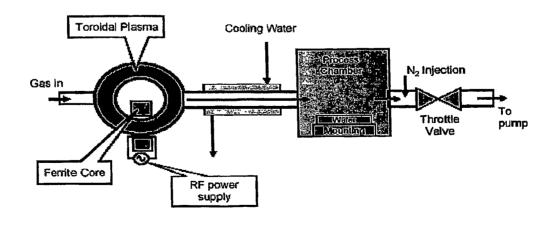
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(54) Title: REMOTE CHAMBER METHOD USING SULFUR FLUORIDE FOR REMOVING SURFACE DEPOSITS FROM THE INTERIOR OF A CVD /PECVD- PLASMA CHAMBER



(57) Abstract: The present invention relates to an improved remote plasma cleaning method for removing surface deposits from a surface, such as the interior of a process chamber that is used in fabricating electronic devices. The improvement involves addition of a nitrogen source to the feeding gas mixture comprising an oxygen source and sulfur fluoride.

#### INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/030101 CLASSIFICATION OF SUBJECT MATTER INV. C23C16/44 B08B7/00 C23C16/452 C23C16/455 H01L21/3065 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) C23C B08B H01L 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, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X US 2005/112901 A1 (JI BING [US] ET AL) 1 - 1726 May 2005 (2005-05-26) paragraphs [0005], [0006], [0009], [0011], [0026] - [0029], [0032] abstract; figures 1,2 EP 1 619 269 A (AIR PROD & CHEM [US]) P,X 1 - 1725 January 2006 (2006-01-25) paragraphs [0001] - [0007], [0017] -[0022], [0025] abstract; figure 1 X US 6 569 257 B1 (NGUYEN HUONG THANH [US] 1-17 ET AL) 27 May 2003 (2003-05-27) column 1, line 61 - column 2, line 12 column 4, lines 1-21 column 5, lines 44-63 abstract; claims 1-3,15; figures 1-5 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 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 involve an inventive step when the document is taken alone 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 docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled 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 5 July 2007 17/07/2007 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

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