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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD FOR CONTROLLED APPLICATION OF REACTIVE VAPORS TO PRODUCE THIN FILMS AND COATINGS

(57) Abstract: A vapor phase deposition method and apparatus for the application of thin layers and coatings on substrates. The method and apparatus are useful in the fabrication of electronic devices, micro-electromechanical systems (MEMS), Bio-MEMS devices, micro and nano imprinting lithography, and microfluidic devices. The apparatus used to carry out the method provides for the addition of a precise amount of each of the reactants to be consumed in a single reaction step of the coating formation process. The apparatus provides for precise addition of quantities of different combinations of reactants during a single step or when there are a number of different individual steps in the coating formation process. The precise addition of each of the reactants in vapor form is metered into predetermined set volume at a specified temperature to a specified pressure, to provide a highly accurate amount of reactant.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

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 US CL : 118/715

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. : 118/715

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)
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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,989,345 (HATANO) 23 November 1999 (23.11.1999), entire document.	1, 2, 9/1, 9/2, 10, 11
Y		3-8, 9/4, 9/5, 12-25
Y	US 6,503,330 B1 (SNEH et al) 07 January 2003 (07.01.2003), entire document.	1-25
A	US 5,966,499A (HINKLE et al) 12 October 1999 (12.10.1999), entire document.	1-25
A	US 5,480,488 A (BITTNER et al) 02 January 1996 (02.01.1996), entire document.	1-25
A	US 5,879,459 A (GADGIL et al) 09 March 1999 (09.03.1999), entire document.	1-25
A	US 2002/0164420 A1 (DERDERIAN et al) 07 November 2002 (07.11.2002), entire document.	1-25

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See patent family annex.

* Special categories of cited documents:	
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