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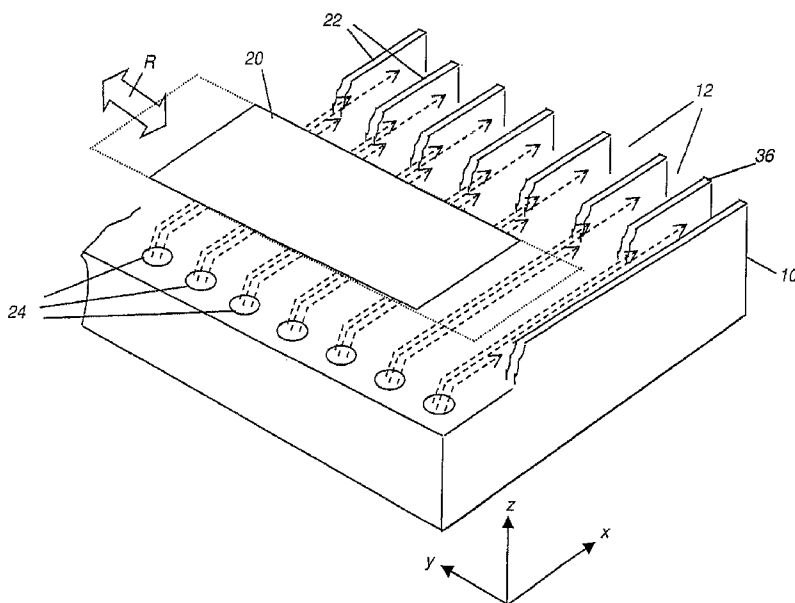
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(54) Title: APPARATUS FOR ATOMIC LAYER DEPOSITION



(57) Abstract: The present invention provides a distribution manifold (10) for thin-film material deposition onto a substrate (20) comprising a plurality of inlet ports (18) for a sequence of gaseous materials, an output face comprising a plurality of open elongated output channels (12), each channel extending in a length direction substantially in parallel. The distribution manifold (10) can be employed in a deposition system for thin film deposition, further comprising a plurality of sources for a plurality of gaseous materials and a support for positioning a substrate in pre-designed close proximity to the output face of the distribution manifold (10). During operation of the system, relative movement between the output face and the substrate support is accomplished.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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C23C

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| A | US 2004/067641 A1 (YUDOVSKY JOSEPH [US]) 8 April 2004 (2004-04-08) cited in the application paragraph [0036] - paragraph [0049]; figures 1,5,7 | 1-33 |
| A | US 2004/216665 A1 (SOININEN PEKKA J [FI] ET AL) 4 November 2004 (2004-11-04) paragraph [0067] - paragraph [0083]; figures 9-14 | 1-33 |
| A | EP 1 283 279 A2 (ASML US INC [US]) 12 February 2003 (2003-02-12) the whole document | 1-33 |

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| US 2004216665 | A1 | 04-11-2004 | US 2004216668 A1 04-11-2004 |
| EP 1283279 | A2 | 12-02-2003 | CN 1397662 A 19-02-2003 DE 60203971 D1 09-06-2005 DE 60203971 T2 23-02-2006 JP 2003133243 A 09-05-2003 KR 20030007175 A 23-01-2003 SG 104976 A1 30-07-2004 TW 548724 B 21-08-2003 |