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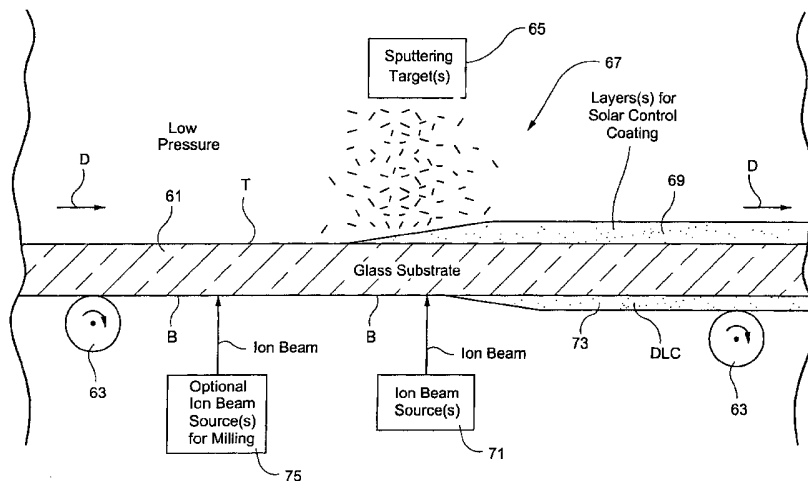
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(54) Title: SPUTTER COATING APPARATUS INCLUDING ION BEAM SOURCE(S), AND CORRESPONDING METHOD



(57) Abstract: A coating apparatus deposits a first coating (single or multi-layered) onto a first side of a substrate (e.g., glass substrate) passing through the apparatus, and a second coating (single or multi-layered) onto the other or second side of the substrate. In certain example embodiments, the first coating may be deposited via sputtering while the second coating is deposited via ion beam deposition. In such a manner, it is possible to coat both sides of the substrate in a single apparatus in an efficient manner. In other embodiments, the coating apparatus may sputter a coating onto a first side of the substrate and ion beam mill at least one surface of the substrate as the substrate passes through the coating apparatus. In other embodiments of this invention, a dual mode chamber may be provided that is adapted to receive a removable ion beam module on one side of a substrate and a removable sputtering module on the other side of the substrate. The different removable modules may or may not be used simultaneously in different embodiments of this invention.

WO 2003/095695 A3

**INTERNATIONAL SEARCH REPORT**

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**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C23C14/22 C23C14/34 C23C14/02 C23C14/56 C03C17/34

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)  
IPC 7 C23C C03C

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)  
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**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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Further documents are listed in the continuation of box C.  Patent family members are listed in annex.

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*O* document referring to an oral disclosure, use, exhibition or other means	* & * document member of the same patent family
*P* document published prior to the international filing date but later than the priority date claimed	

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Name and mailing address of the ISA 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	Authorized officer  Joffreau, P-0
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