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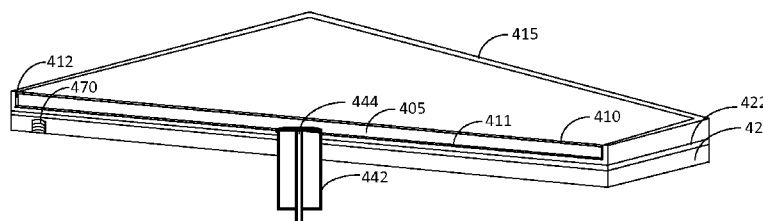
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(54) Title: SYSTEM ARCHITECTURE FOR PLASMA PROCESSING SOLAR WAFERS



(57) Abstract: A system for plasma processing of wafers at high throughput, particularly suitable for processing solar cells. A loading station has a loading conveyor, a loading transport mechanism, and a chuck loading station accepting transportable electrostatic chucks, wherein the loading transport mechanism is configured to remove wafers from the conveyor and place them on the transportable electrostatic chucks. The transportable chuck is delivered to at least one processing chamber to perform plasma processing of wafers. An unloading station has an unloading conveyor, an unloading transport mechanism, and a chuck unloading station accepting the transportable electrostatic chucks from the processing chamber, wherein the unloading transport mechanism is configured to remove wafers from the transportable electrostatic chucks and place them on the conveyor. A chuck return module configured for transporting the transportable electrostatic chucks from the chuck unloading station to the chuck loading station.



INTERNATIONAL SEARCH REPORT

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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H01L 21/687 (2013.01) USPC - 414/173 According to International Patent Classification (IPC) or to both national classification and IPC</p>																				
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC(8) - H01L 21/00, 302, 3065, 67, 673, 677, 687 (2013.01) USPC - 118, 728, 729; 414/147, 160, 172, 173, 196, 222.01, 222.08, 222.09, 222.11, 422, 749.2; 438/61</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched CPC: H01L 21/02, 02002, 0201, 302, 3065, 67, 67155, 67161, 67207, 67236, 673, 677, 67739, 67742, 6776, 67763, 67778, 687 (2013.01)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents, Google Scholar</p>																				
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 2011/0097518 A1 (OLGADO) 28 April 2011 (28.04.2011) entire document</td> <td>1-20</td> </tr> <tr> <td>Y</td> <td>US 2007/0291242 A1 (SATO) 20 December 2007 (20.12.2007) entire document</td> <td>1-20</td> </tr> <tr> <td>Y</td> <td>US 2011/0158773 A1 (BLUCK et al) 30 June 2011 (30.06.2011) entire document</td> <td>6-9, 12</td> </tr> <tr> <td>Y</td> <td>US 5,641,375 A (NITESCU et al) 24 June 1997 (24.06.1997) entire document</td> <td>14</td> </tr> <tr> <td>Y</td> <td>US 5,314,541 A (SAITO et al) 24 May 1994 (24.05.1994) entire document</td> <td>15-17</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 2011/0097518 A1 (OLGADO) 28 April 2011 (28.04.2011) entire document	1-20	Y	US 2007/0291242 A1 (SATO) 20 December 2007 (20.12.2007) entire document	1-20	Y	US 2011/0158773 A1 (BLUCK et al) 30 June 2011 (30.06.2011) entire document	6-9, 12	Y	US 5,641,375 A (NITESCU et al) 24 June 1997 (24.06.1997) entire document	14	Y	US 5,314,541 A (SAITO et al) 24 May 1994 (24.05.1994) entire document	15-17
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<p>Name and mailing address of the ISA/US</p> <p>Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer:</p> <p>Blaine R. Copenheaver</p> <p>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>																		