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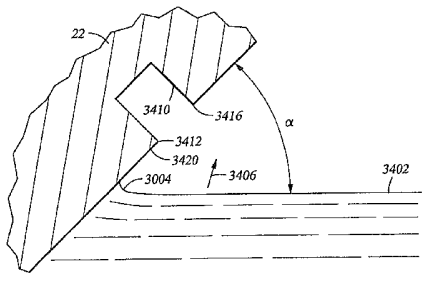
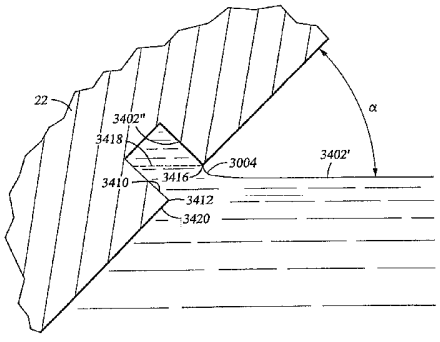
(54) Title: METHOD AND ASSOCIATED APPARATUS FOR TILTING A SUBSTRATE UPON ENTRY FOR METAL DEPOSITION





(57) Abstract: An electro-chemical plating system is described. A method is performed by the electro-chemical plating system in which a seed layer formed on a substrate is immersed into an electrolyte solution. In one aspect, a substrate is immersed in the electrochemical plating system by tilting the substrate as it enters the electrolyte solution to limit the trapping or formation of air bubbles in the electrolyte solution between the substrate and the substrate holder. In another aspect, an apparatus is provided for electroplating that comprises a cell, a substrate holder, and an actuator. The actuator can displace the substrate holder assembly in the x and z directions and also tilt the substrate. In another aspect, a method is provided of driving a meniscus formed by electrolyte solution across a surface of a substrate. The method comprises enhancing the interaction between the electrolyte solution meniscus and the surface as the substrate is immersed into the electrolyte solution.

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C25D7/12 H01L21/00 C25D21/00

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 C25D 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, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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P,X	US 2001/000396 A1 (DORDI YEZDI N ET AL) 26 April 2001 (2001-04-26) paragraphs '0070!-'0075!,'0102! figures 13,12 ---	1,4,7, 9-21
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[X] Patent family members are listed in annex.

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