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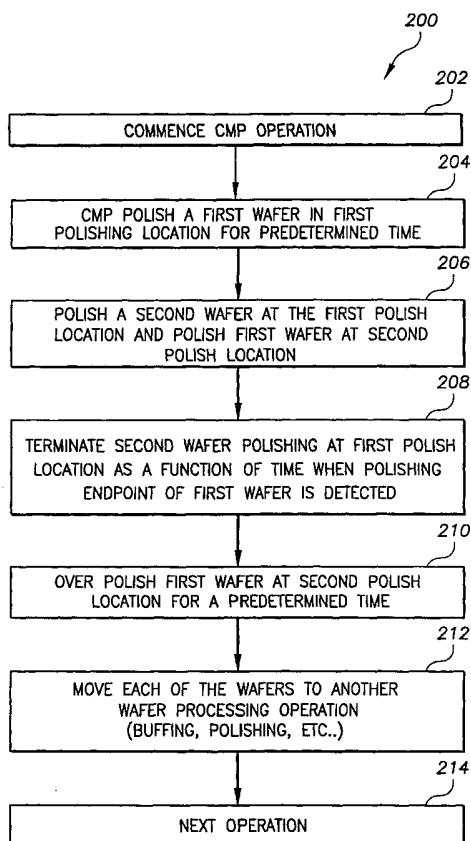
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(54) Title: METHOD FOR PREVENTING DAMAGE TO WAFERS IN A SEQUENTIAL MULTIPLE STEPS POLISHING PROCESS



(57) Abstract: A method for preventing the drying of a residue on a wafer surface in a multiple stage polishing operation increases wafer processing throughput and extends the useful life of polishing pads used in a CMP operation. The method includes detecting a polishing endpoint for a wafer polished in a second polishing step following a first polishing operation for the wafer. Endpoint detection terminates polishing of another wafer in the first polishing operation and triggers overpolishing of the prior wafer in the second polishing operation. After a set period, overpolishing of the prior wafer in the second polishing operation ends. Finally each of the wafers moves to a subsequent processing operation, which may include a polishing operation or a buffing operation. One of the advantages of the invention is the maximization of total platen pad usage between platen pad changes since total processing time has been increased for the same polishing pads, thus permitting polishing of greater numbers of wafers between platen pad changes.

WO 02/017381 A3



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L21/3105

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 H01L B24B

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)

INSPEC, EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	the whole document	1,12,15
X	WO 99 43465 A (SPEEDFAM CORP) 2 September 1999 (1999-09-02)	14
A	the whole document	1,12,15
X	US 5 951 373 A (SHENDON NORM ET AL) 14 September 1999 (1999-09-14)	14
A	column 16 -column 18	1,12,15
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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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- * & * document member of the same patent family

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