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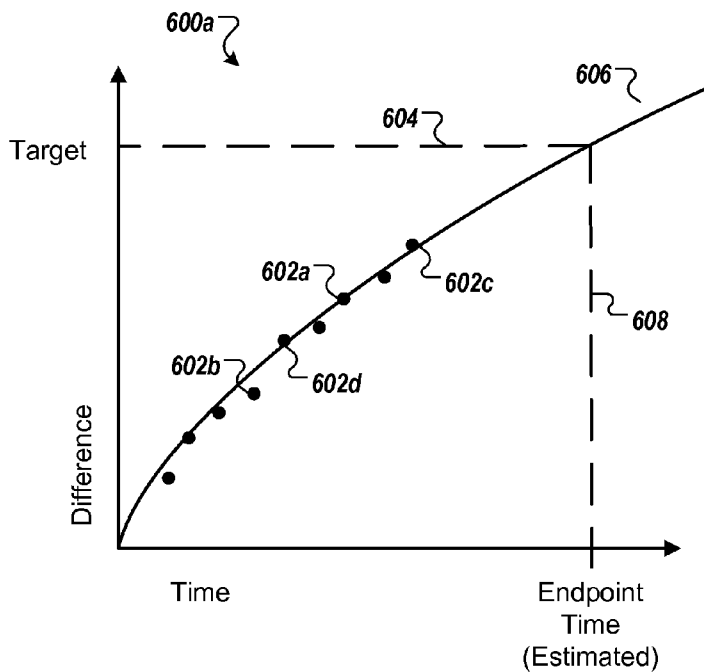
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[Continued on next page]

(54) Title: ADAPTIVELY TRACKING SPECTRUM FEATURES FOR ENDPOINT DETECTION



(57) Abstract: A method of controlling polishing includes polishing a substrate, monitoring a substrate during polishing with an in-situ monitoring system, generating a sequence of values from measurements from the in-situ monitoring system, fitting a non-linear function to the sequence of values, determining a projected time at which the non-linear function reaches a target value; and determining at least one of a polishing endpoint or an adjustment for a polishing rate based on the projected time.

FIG. 6A

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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A. CLASSIFICATION OF SUBJECT MATTER**H01L 21/304(2006.01)i, H01L 21/66(2006.01)i**

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)

H01L 21/304; B24B 49/02; B24B 49/06; H01L 21/66; B24B 49/00; H01L 21/461

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: chemical mechanical polishing, optical monitoring, tracking spectrum feature, endpoint detection, adjustment polishing rate, fitting non-linear function

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010-0124870 A1 (BENVEGNI DOMINIC J. et al.) 20 May 2010. See abstract, pages 2-5, claims 1-8, and figures 1, 9-10.	1-14
A	US 6431953 B1 (CARTER; PHILLIP W. et al.) 13 August 2002. See abstract, columns 2-7, claims 1-13, and figures 1-4.	1-14
A	US 2002-0086531 A1 (NIKOLAY KOROVIN) 04 July 2002. See abstract, pages 1-2, claims 1-7, and figure 1.	1-14
A	WO 2010-062497 A2 (APPLIED MATERIALS, INC. et al.) 03 June 2010. See abstract, pages 6-8, claim 1, and figure 6.	1-14

 Further documents are listed in the continuation of Box C. See patent family annex.

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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