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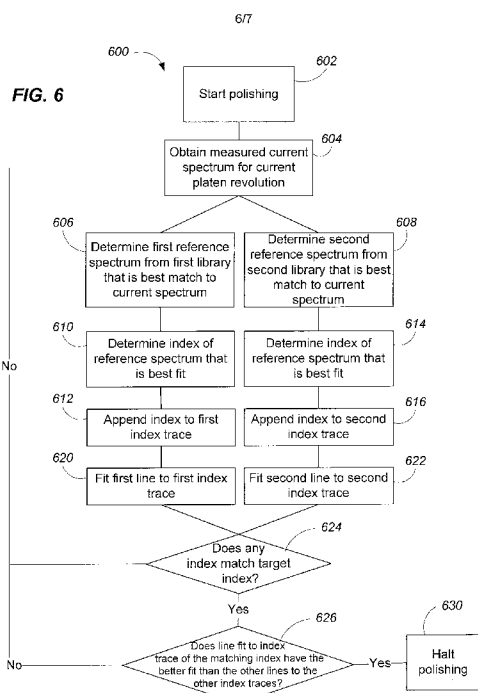
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[Continued on next page]

(54) Title: GOODNESS OF FIT IN SPECTROGRAPHIC MONITORING OF A SUBSTRATE DURING PROCESSING



(57) Abstract: A sequence of current spectra is obtained with an in-situ optical monitoring system, and each current spectrum is compared to a plurality of reference spectra from a plurality of reference spectra libraries. The library that provides a best fit to the sequence of current spectra is determined, and a polishing endpoint is determined based on the sequence of current spectra and the library that provides a best fit to the sequence of current spectra. First and second sequences of current spectra of reflected light can be received from first and second zones of a substrate. Each current spectrum from the first and second sequence of current spectra is compared to a plurality of reference spectra from first and second reference spectra libraries, respectively, to generate first and second sequences of best match reference spectra, respectively. The second reference spectra library is distinct from the first reference spectra library.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/061351**A. CLASSIFICATION OF SUBJECT MATTER****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 21/66; B24B 49/00; B24B 49/12; G01J 3/00; 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
(Chinese Patents and application for patent)

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

eKOMPASS(KIPO internal) & Keywords: endpoint ,spectrum ,polish

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2007-0224915 A1 (JEFFREY DAVID et al.) 27 September 2007 See the abstract, figures 1-18, and paragraph [0033]-[0137].	1-15
X A	US 2008-0206993 A1 (LEE HARRY Q. et al.) 28 August 2008 See the abstract, figures 1-7, and paragraph [0017]-[0057].	10-11, 13-15 1-9, 12
A	US 2003-0184732 A1 (VLADIMIR KATZ et al.) 02 October 2003 See the abstract, figures 1-13, and paragraph [0046]-[0086].	1-15

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

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"&" document member of the same patent family

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Information on patent family members

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