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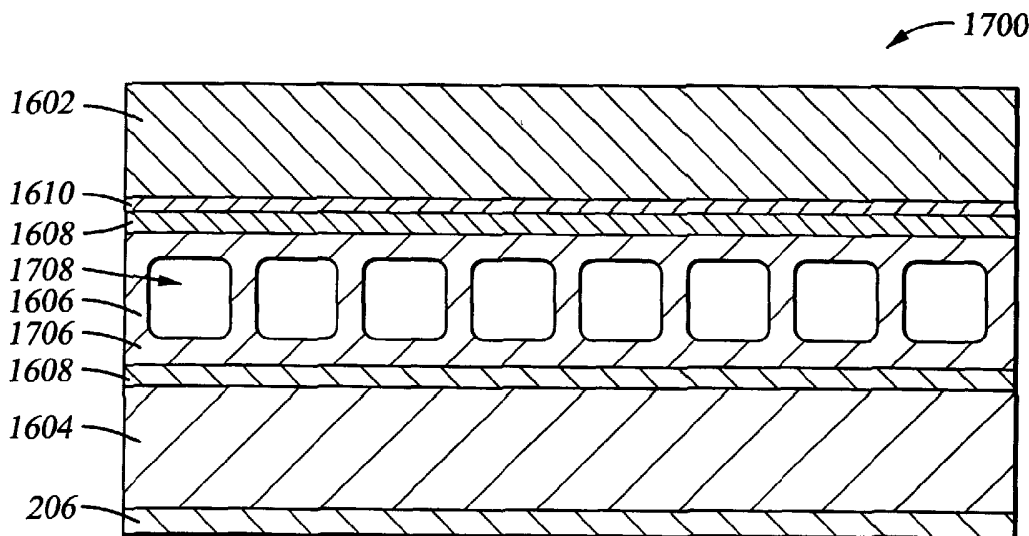
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[Continued on next page]

(54) Title: CONDUCTIVE POLISHING ARTICLE FOR ELECTROCHEMICAL MECHANICAL POLISHING



(57) Abstract: Embodiments of a polishing article for processing a substrate are provided. In one embodiment, a polishing article for processing a substrate comprises a fabric layer having a conductive layer disposed thereover. The conductive layer may be woven or non-woven. The conductive layer may be comprised of a soft material and, in one embodiment, the exposed surface may be planar.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/017827

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B24B37/04 H01L21/321

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 B24B 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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/119286 A1 (CARL DANIEL A ET AL) 29 August 2002 (2002-08-29) paragraphs [0010] - [0014], [0064], [0066], [0067], [0074], [0075], [0078] - [0080], [0083] - [0086], [0088], [0092] - [0098], [0107], [0109] paragraphs [0114] - [0116], [0122] - [0125], [0131] - [0135], [0150] - [0161], [0163] - [0167], [0169] figure 6	1,5,7-9, 11,17, 22,27,28
P,X	EP 1 361 023 A (APPLIED MATERIALS INC) 12 November 2003 (2003-11-12) the whole document	1-5,7-9, 11,17, 22,27,28

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier document but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"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.
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 27 October 2004	Date of mailing of the international search report 14. 03. 2005
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Eder, R
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/017827

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5, 7-9, 11, 17, 22, 27, 28

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5,7-9,11,17,22,27,28

A polishing article for processing a substrate comprising a fabric layer and a conductive layer disposed on the fabric layer and having an exposed surface adapted to polish a substrate wherein

- the fabric layer comprises a woven material.

2. claims: 10,20,21

A polishing article for processing a substrate comprising a fabric layer and a conductive layer disposed on the fabric layer and having an exposed surface adapted to polish a substrate wherein

- the conductive layer comprises an embossed upper surface or
- a plurality of balls extending partially above the exposed surface of the conductive layer and a soft conductive material coating at least partially and covering the balls

3. claims: 12,13

A polishing article for processing a substrate comprising a fabric layer and a conductive layer disposed on the fabric layer and having an exposed surface adapted to polish a substrate wherein

- the polishing article comprises a window disposed through the conductive layer and the fabric layer.

4. claims: 14-16,29-39

A polishing article for processing a substrate comprising a conductive layer having an upper or exposed surface, respectively, and adapted to polish a substrate; an article support layer fabricated from a dielectric material; and an interposed layer coupled between the article support layer and the conductive layer, wherein

- the interposed layer has a hardness greater than the article support layer.

5. claims: 18,19

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A polishing article for processing a substrate comprising a fabric layer and a conductive layer disposed on the fabric layer and having an exposed surface adapted to polish a substrate further comprising

- an electrode coupled to the fabric layer opposite the conductive layer.

6. claims: 6,23-26

A polishing article for processing a substrate comprising a fabric layer and a conductive layer disposed on the fabric layer and having an exposed surface adapted to polish a substrate, the conductive layer comprising a polymer matrix having conductive material disposed therein, wherein

- the conductive material may be an alternative material to gold or platinum.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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