

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/017389 A3

(51) International Patent Classification⁷: **H01L 21/68**

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(21) International Application Number:
PCT/US2003/024894

(81) Designated States (*national*): CN, JP, KR, SG.

(22) International Filing Date: 7 August 2003 (07.08.2003)

(84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(25) Filing Language: English

(26) Publication Language: English

Published:

— with international search report

(30) Priority Data:
10/224,304 19 August 2002 (19.08.2002) US

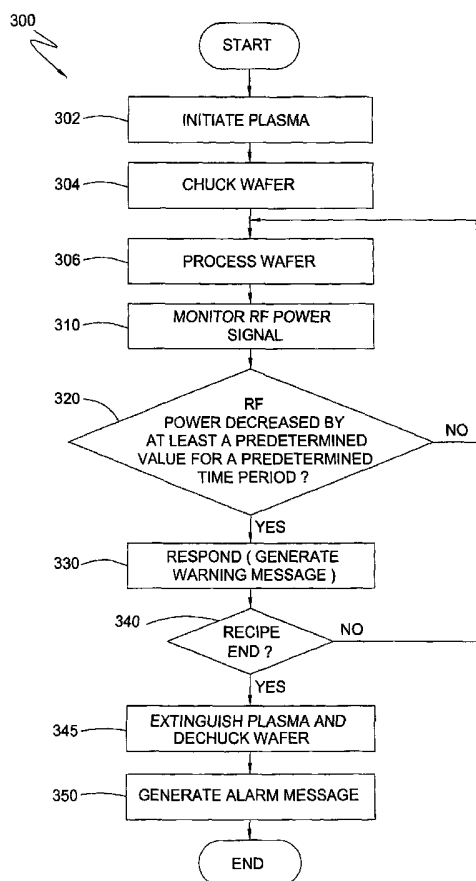
(88) Date of publication of the international search report:
17 June 2004

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR PERFORMING REAL TIME ARCING DETECTION



(57) Abstract: A method of detecting arcing in a semiconductor substrate processing system. In one embodiment, the method includes monitoring a signal, identifying an indicia of arcing in the signal, and performing an action in response to the indicia of arcing when the indicia of arcing is identified.

WO 2004/017389 A3

INTERNATIONAL SEARCH REPORT

Internal ication No
PCT/US 03/24894

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L21/68

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

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	EP 0 837 500 A (APPLIED MATERIALS INC) 22 April 1998 (1998-04-22) abstract figure 1 the whole document	1-22, 29-37
X	WO 97/37382 A (LAM RES CORP) 9 October 1997 (1997-10-09) page 13, line 9 - line 13 the whole document	1-22, 29-37
X	WO 00/07232 A (APPLIED MATERIALS INC) 10 February 2000 (2000-02-10) figure 2 page 3, line 19 - page 4, line 12	23-28, 38



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
- *E* earlier document but published on or after the international filing date
- *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)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *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
- *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
- *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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

13 February 2004

Date of mailing of the international search report

24/02/2004

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/24894

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 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.:

Remark on Protest

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

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

1. claims: 1-22, 29-37

A method of detecting arcing and a computer readable medium containing a program for causing a semiconductor processing system to perform that method

2. claims: 23-28, 38

A method of operating an electrostatic chuck and a computer readable medium containing a program for causing a semiconductor processing system to perform that method

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/24894

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