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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

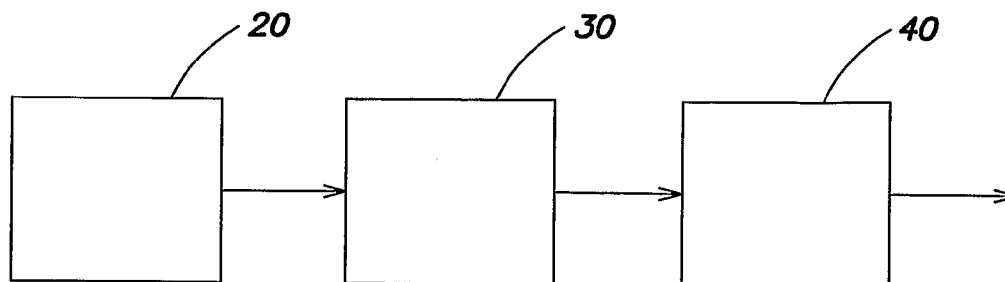
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYSTEM AND METHOD OF SLURRY TREATMENT



(57) Abstract: Wastewater streams from semiconductor processing operations are treated to reduce the concentration therein of one or more metal species to a satisfactory level. The disclosed systems and technique utilize complexing ion exchange media to treat the wastewater streams having a significant concentration of oxidizing species.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/26336

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - C02F 1/42 (2007.01)

USPC - 210/251

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)
USPC: 210/251Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 210/284, 638, 656, 668, 681 (text search)Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(USPT,PGPB,EPAB,JPAB); DialogPRO(Engineering); Google Scholar
Search Terms Used: wastewater, slurry stream, ion exchange, strip, stripping, oxidizer, iminodiacetate, peroxide, metal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 6,818,129 B2 (KEMP et al.) 16 November 2004 (16.11.2004); see col 5, ln 36 to col 6, ln 5; col 6, ln 62 to col 8, ln 15; see col 9, ln 19-40; col 11, ln 1-22	1-11, 13, 15-30 ----- 12, 14
Y	US 6,521,131 B1 (HAMILTON et al.) 18 February 2003 (18.02.2003); see abstract; Fig 2; col 6, ln 23-49.	14
Y	US 6,069,209 A (DARLING et al.) 30 May 2000 (30.05.2000); see col 5, ln 26-35 and 54-59; col 10, ln 26-31.	12
A	US 6,346,195 B1 (FILSON et al.) 12 February 2002 (12.02.2002); see col 5, ln 32 to col 6, ln 3; col 7, ln 1 to col 8, ln 31; col 9, ln 20-35.	1, 5-11, 23-25, 28-30
A	US 6,896,808 B1 (JAY) 24 May 2005 (24.05.2005); see col 1, ln 18-48.	1, 2
A	US 6,878,285 B2 (HUGHES) 12 April 2005 (12.04.2005); see abstract; col 8, ln 7-53.	1, 2, 8
A	US 2003/0044335 A1 (JANGBARWALA) 06 March 2003 (06.03.2003); see para [0007]-[0018].	1, 2, 16, 8, 9, 12, 16

☐ Further documents are listed in the continuation of Box C.

* 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 application or patent 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

"&" document member of the same patent family

Date of the actual completion of the international search

17 August 2007 (17.08.2007)

Date of mailing of the international search report

02 OCT 2007

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/26336

Box No. 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 No. 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:
Group (1) 1, 5-15, and 23-27; and Group (2) 2-4, 16-22, and 28-30.

Group 1 is drawn to inventions related to slurry treating methods that include the non-novel combinations of introducing slurry streams containing metals and an oxidizer into an ion exchange column and optionally neutralizing an oxidizer.

Group 2 is drawn to inventions related to slurry treating methods that include ion exchange material having specialized complexing groups.

The principle inventive feature of the applicants invention is the use of specific types of ion exchange materials such as resins that are capable of treating slurries having metals and an oxidizer. The groups do not share a common unknown technical feature such as resins having complexing groups for example chelating ion exchange resins that would otherwise provide a unifying contribution over the prior art. Further, Group 1 is drawn to inventions that include only known elements as explained in the Discussion of Related Art section of the Applicants application.

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 additional fees, this Authority did not invite payment of additional fees.
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 and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.