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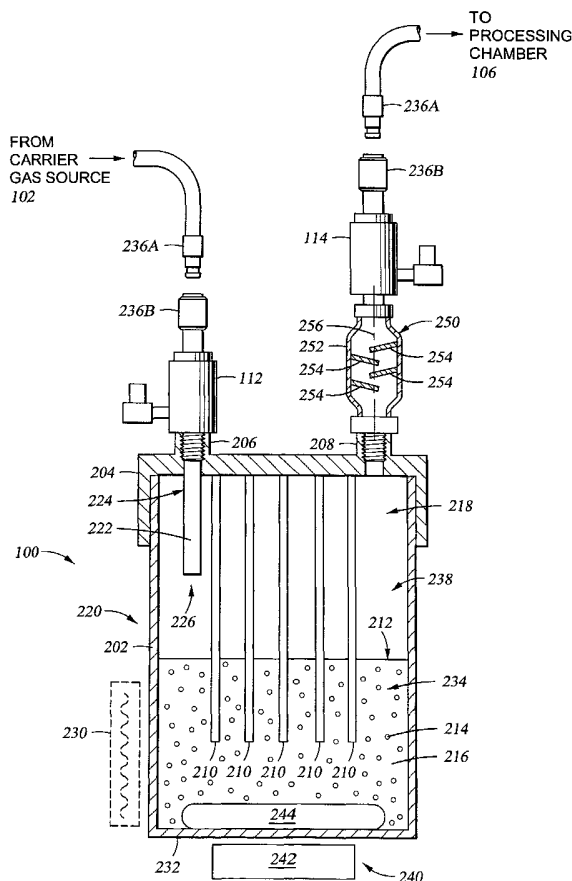
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 - (74) Agents: PATTERSON, B., Todd et al.; Moser, Patterson & Sheridan, L.L.P., Suite 1500, 3040 Post Oak Boulevard, Houston, TX 77056 (US).
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHOD AND APPARATUS FOR PROVIDING GAS TO A PROCESSING CHAMBER



(57) Abstract: A method and apparatus for generating gas for a processing system is provided. In one embodiment, an apparatus for generating gas for a processing system includes a canister having at least one baffle disposed between two ports and containing a precursor material. The precursor material is adapted to produce a gas vapor when heated to a defined temperature at a defined pressure. The baffle forces a carrier gas to travel an extended mean path between the inlet and outlet ports. In another embodiment, an apparatus for generating gas includes a canister having a tube that directs a carrier gas flowing into the canister away from a precursor material disposed within the canister.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/22186

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C23C16/448 C23C16/44 H01L21/00 B01D7/00

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 C23C H01L B01D

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, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 079 001 A (MORTON INT INC) 28 February 2001 (2001-02-28) paragraphs [0023],[0024]; claims; figures 2,3	1-4,13, 14, 16-19, 44,45, 48,49, 51,54,55
X	GB 2 151 662 A (PHILIPS NV) 24 July 1985 (1985-07-24)	1-19, 34-36, 40-59
A	page 1, line 53 -page 2, line 4; claims; figures	20-33, 37-39
	-/--	

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.
- "&" document member of the same patent family

Date of the actual completion of the international search

29 March 2004

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/22186

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 005, no. 091 (E-061), 13 June 1981 (1981-06-13) & JP 56 035426 A (FUJITSU LTD), 8 April 1981 (1981-04-08)	1-8, 15-18, 34-36, 40, 42, 44-54, 56, 58, 59
A	abstract	20-33, 37-39
A	<p style="text-align: center;">---</p> GB 2 223 509 A (STC PLC) 11 April 1990 (1990-04-11) page 3, line 21 -page 5, line 20; figure 2	20-33, 37-39
A	<p style="text-align: center;">---</p> US 2002/009544 A1 (YURKAS JOHN J ET AL) 24 January 2002 (2002-01-24) the whole document <p style="text-align: center;">-----</p>	1-19, 34-36, 40-59

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/22186

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. Claims: 1-19, 34-36 and 40-49

Apparatus and methods for generating gas for a semiconductor processing system in which a carrier gas flows through a canister containing a precursor in which the canister is provided with structures (notably baffles) which force the carrier gas to flow in an extended or tortuous path through the canister.

2. Claims: 20-33 and 37-39

Apparatus for generating gas for a semiconductor processing system in which a carrier gas flows through a canister containing a precursor in which a tube is connected to the carrier gas inlet port and has an aperture orientated towards the sidewall or top of the canister.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 03/22186

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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