(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 April 2001 (19.04.2001)

PCT

(10) International Publication Number
WO 01/26829 A1

(51) International Patent Classification[7]: B08B 3/00

(21) International Application Number: PCT/US00/26705

(22) International Filing Date:
28 September 2000 (28.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/416,225 8 October 1999 (08.10.1999) US

(71) Applicant: SEMITOOL, INC. [US/US]; 655 West Reserve Drive, Kalispell, MT 59901 (US).

(72) Inventors: SCRANTON, Dana; 655 West Reserve Drive, Kalispell, MT 59901 (US). CURTIS, Gary, L.; 655 West Reserve Drive, Kalispell, MT 59901 (US).

(74) Agent: OHRINER, Kenneth, H.; Lyon & Lyon LLP, 633 West Fifth Street, Suite 4700, Los Angeles, CA 90071-2066 (US).

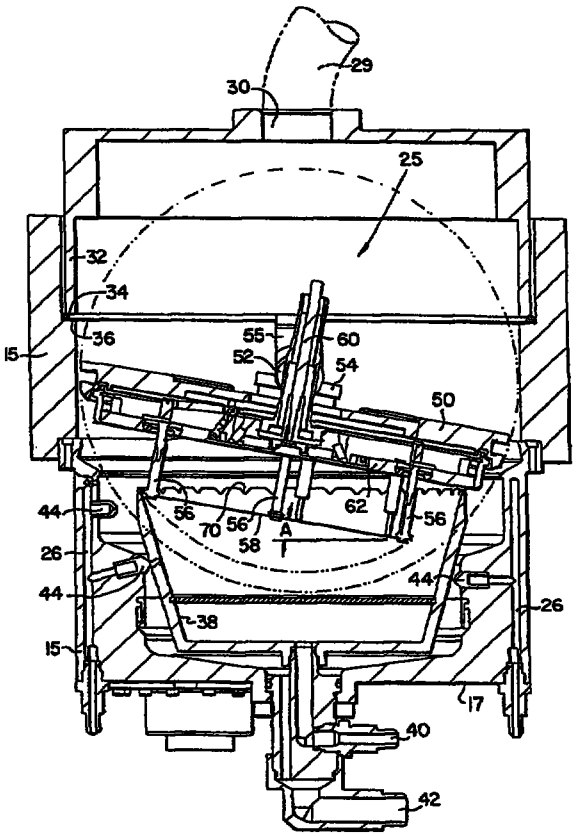
(81) Designated States *(national)*: CN, JP, KR, SG.

(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published:
— *With international search report.*

[Continued on next page]

(54) Title: SINGLE SEMICONDUCTOR WAFER PROCESSOR



(57) Abstract: In a method of processing or drying a semiconductor wafer (58), the wafer (58) is withdrawn from a fluid bath (38) at an inclined angle (A), and at a selected withdrawal speed. A solvent vapor is provided at the surface of the bath (38), to create a surface tension gradient and promote drying, or removal of the fluid from the wafer surface (58). After the wafer (58) is entirely withdrawn from the rinsing liquid (39), the wafer is rotated briefly, to remove any remaining fluid via centrifugal force, without the fluid drying on the wafer. The wafer is held onto a rotor assembly (50) which rotates the wafer within an enclosed chamber (25), and which is also pivoted within the chamber, to position the wafer at the inclined angle (A).

WO 01/26829 A1

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.