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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 February 2001 (08.02.2001)

PCT

(10) International Publication Number
WO 01/09926 A1

(51) International Patent Classification[7]: H01L 21/00

(21) International Application Number: PCT/EP00/07042

(22) International Filing Date: 21 July 2000 (21.07.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
99480068.8 29 July 1999 (29.07.1999) EP

(71) Applicant *(for all designated States except MC)*: INTERNATIONAL BUSINESS MACHINES CORPORATION [US/US]; Old Orchard Road, Armonk, NY 10504 (US).

(71) Applicant *(for MC only)*: IBM FRANCE [FR/FR]; Tour Descartes, 2, Avenue Gambetta, F-92066 Paris la Défense Cedex (FR).

(72) Inventors: BEYAERT, Olivier; 20 Rue Paul Bert, F-59240 Dunkerque (FR). MAZUR, Jean-Pierre; 4 Rue Les Babins, F-91890 Videlles (FR). RAFFIN, Patrick; 5-7 Rue Hyppolyte Pinson, F-93340 Joinville le Pont (FR). RODIER, Francis; 6 Rue de Corbeil, F-91590 Mondeville (FR).

(74) Agent: KLEIN, Daniel; Compagnie IBM France, Direction de la Propriété Intellectuelle, F-06610 La Gaude (FR).

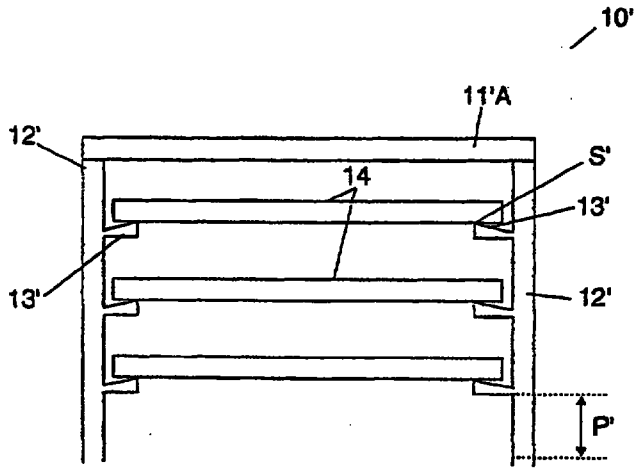
(81) Designated States *(national)*: CN, CZ, HU, IL, JP, KR, PL, RU, SG.

(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.*
— *With amended claims.*

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: IMPROVED LADDER BOAT FOR SUPPORTING WAFERS



(57) Abstract: An improved ladder boat for supporting semiconductor wafers during thermal treatments which comprises top and bottom plates vertically opposing each other and support rods secured to said plates. Said support rods are provided with dividers for supporting a plurality of wafers one above another in a parallel arrangement. The dividers have a special profile to include a ramp portion so that the wafer is seated at a sharp corner thereof. Therefore, the contact surface between the wafer backside at its periphery and the dividers is segmental or punctual. This contact is preferably performed outside the contact area between the wafer backside and the wafer support zones of the electrostatic chuck of the photolithography tool to be subsequently used in the course of the wafer manufacturing.

WO 01/09926 A1