3/9/02

2002053163

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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 September 2001 (27.09.2001)

PCT

(10) International Publication Number
WO 01/71795 A3

(51) International Patent Classification[7]: H01L 21/316, 21/311, 21/306

(21) International Application Number: PCT/US01/08861

(22) International Filing Date: 20 March 2001 (20.03.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/535,256 23 March 2000 (23.03.2000) US

(71) Applicants: ADVANCED MICRO DEVICES, INC. [US/US]; One AMD Place, Mail Stop 68, Sunnyvale, CA 94088-3453 (US). FUJITSU LIMITED [JP/JP]; 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kuwasaki-shi, Kanagawa 211 (JP).

(72) Inventors: HUI, Angela, T.: 362 Pilgrim Loop, Fremont, CA 94539 (US). OGURA, Jusuke; 10183 Denison Avenue, Cupertino, CA 95014 (US).

(74) Agent: RODDY, Richard, J.; Advanced Micro Devices, Inc., One AMD Place, Mail Stop 68, Sunnyvale, CA 94088-3453 (US).

(81) Designated States *(national)*: BR, 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, TR).

Published:
— *with international search report*

(88) Date of publication of the international search report:
28 February 2002

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.



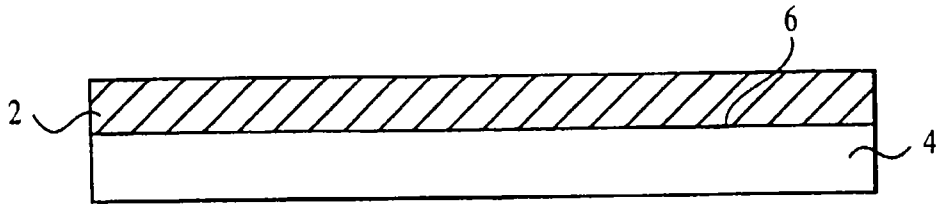
162162



ACTION

(54) Title: METHOD FOR FORMING HIGH QUALITY MULTIPLE THICKNESS OXIDE LAYERS BY REDUCING DESCUM INDUCED DEFECTS

WO 01/71795 A3



(57) Abstract: A method for forming high quality oxide layers having different thicknesses by eliminating descum induced defects is disclosed. A semiconductor substrate is subjected to reactive ion etching. The semiconductor substrate includes a wafer (4), an oxide layer (2) on the wafer, and a developed photoresist mask (8) on the oxide layer. The oxide layer (2) is then etched, and the remaining photoresist mask (8) is stripped before another layer of oxide (14) is grown on the substrate.