26/11/03

20030706 38

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

(19) World Intellectual Property Organization
International Bureau

162162

(43) International Publication Date
3 January 2003 (03.01.2003)

PCT

(10) International Publication Number
WO 03/001593 A3

(51) International Patent Classification[7]: H01L 21/8242, 27/108

(21) International Application Number: PCT/US02/19892

(22) International Filing Date: 21 June 2002 (21.06.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/888,287 22 June 2001 (22.06.2001) US

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(81) Designated State *(national)*: SG.

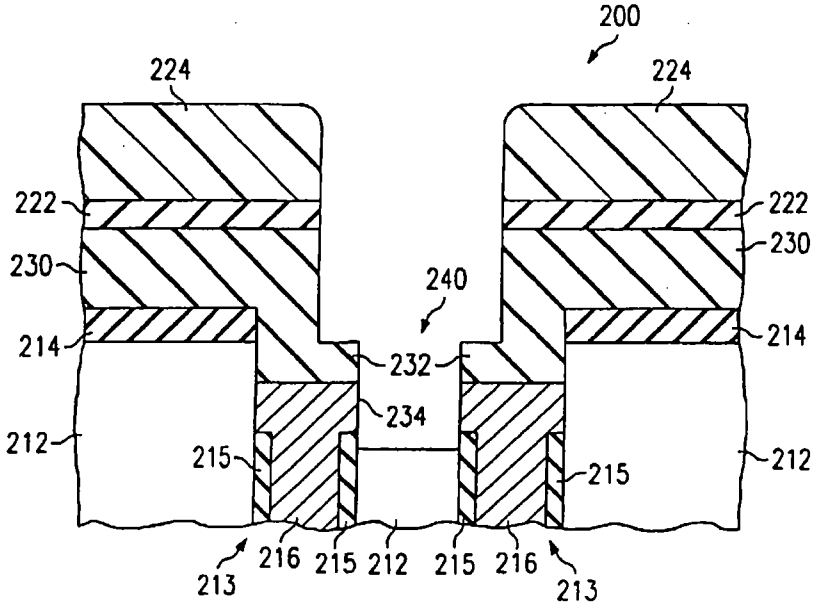
(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT. SE, TR).

Published:
— *with international search report*

(88) Date of publication of the international search report:
4 December 2003

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: STI PROCESS FOR DRAM



(57) Abstract: A nitride hard mask (230) is used to isolate active areas of a DRAM cell. The shallow trench isolation (STI) method includes forming memory cells comprising deep trenches (216) on a semiconductor wafer (200). The memory cell deep trenches (216) are separated from active areas (212) by a region of substrate (212). A nitride hard mask (230) is formed over the semiconductor wafer (200). The wafer (200) is patterned with the nitride hard mask (230), and the wafer (200) is etched to remove the region of substrate (212) between the deep trenches and active areas to provide shallow trench isolation. An etch chemistry selective to the nitride hard mask (230) is used.

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