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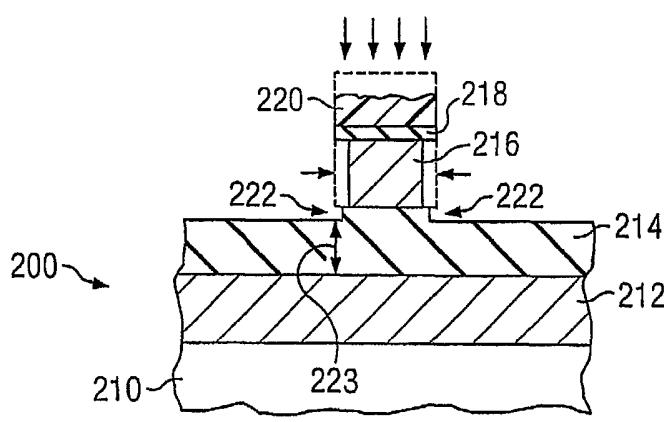
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(54) Title: ISOTROPIC ETCH PROCESS FOR TOP PLATE PULL-BACK IN A METAL- INSULATOR- METAL CAPACITOR



(57) Abstract: A MIM capacitor includes a bottom plate (212), a capacitor dielectric (214) disposed over the bottom plate, and a top plate (216) disposed over the capacitor dielectric. An etch stop material (218) is disposed over the top plate, and the top plate has a width that is less than the width of the etch stop material width. The top plate edges may be pulled back during the removal of the resist (220) used to pattern the top plate, by the addition of chemistries in the resist etch that are adapted to pull-back or undercut the top plate edges (224) beneath the etch stop material.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/003540

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H01L21/02 H01L29/92

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 H01L

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)

EP0-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/123008 A1 (NING XIANG J) 5 September 2002 (2002-09-05) the whole document -----	1-35
Y	US 6 319 767 B1 (LIM YEOW KHENG ET AL) 20 November 2001 (2001-11-20) the whole document -----	1-35
A	US 5 338 700 A (AHMAD AFTAB ET AL) 16 August 1994 (1994-08-16) column 6, lines 2-24; figure 7 -----	1-35

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

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**INTERNATIONAL SEARCH REPORT**

International application No.

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**Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)**

A MIM capacitor includes a bottom plate (212), a capacitor dielectric (214) disposed over the bottom plate, and a top plate (216) disposed over the capacitor dielectric. An etch stop material (218) is disposed over the top plate, and the top plate has a width that is less than the width of the etch stop material width. The top plate edges may be pulled back during the removal of the resist (220) used to pattern the top plate, by the addition of chemistries in the resist etch that are adapted to pull-back or undercut the top plate edges (224) beneath the etch stop material.