

Title (en)

REACTIVE ION ETCHING OF SILICA STRUCTURES

Title (de)

REAKTIVES IONENAETZEN VON SILIZIUMDIOXIDSTRUKTUREN

Title (fr)

GRAVURE DE STRUCTURES DE SILICIUM PAR IONS REACTIFS

Publication

EP 0968142 A1 20000105 (EN)

Application

EP 97942702 A 19971003

Priority

- AU 9700663 W 19971003
- AU PO281896 A 19961004

Abstract (en)

[origin: WO9815504A1] The invention relates to a method for etching of silica-based layers/substrates by reactive ion etching system (10) using an etching gas mixture of CHF₃/AR through a photoresist mask. Reactive ion etching is carried out under conditions of simultaneous isotropic deposition of a carbon-based polymer where the polymer deposition rate is controlled by adjusting process control parameters of RF power, sample temperature, O₂ and CF₄ additions.

IPC 1-7

C03C 15/00; C03C 17/32; C23C 14/04; C23C 14/12; C23C 14/32; C23C 14/54; G02B 6/136; G02B 6/13; G02B 6/12

IPC 8 full level

G02B 6/13 (2006.01); **C03C 15/00** (2006.01); **C23C 16/30** (2006.01); **G02B 6/136** (2006.01); **H01L 21/302** (2006.01); **H01L 21/3065** (2006.01); **G02B 6/12** (2006.01)

CPC (source: EP KR US)

C03C 15/00 (2013.01 - EP KR US); **C23C 16/30** (2013.01 - EP US); **G02B 6/136** (2013.01 - EP US); **H01J 37/32082** (2013.01 - EP US); **G02B 2006/12173** (2013.01 - EP US); **G02B 2006/12176** (2013.01 - EP US); **H01J 2237/334** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 9815504 A1 19980416; AU PO281896 A0 19961031; CA 2265617 A1 19980416; EP 0968142 A1 20000105; EP 0968142 A4 20030806; JP 2001501573 A 20010206; KR 20000048865 A 20000725; US 2002104821 A1 20020808

DOCDB simple family (application)

AU 9700663 W 19971003; AU PO281896 A 19961004; CA 2265617 A 19971003; EP 97942702 A 19971003; JP 51701798 A 19971003; KR 19997002873 A 19990402; US 25453299 A 19990601