

Title (en)

CHEMICAL VAPOR DEPOSITION OF HIGH QUALITY FLOW-LIKE SILICON DIOXIDE USING A SILICON CONTAINING PRECURSOR AND ATOMIC OXYGEN

Title (de)

CHEMISCHE DAMPFABLAGERUNG VON FLUSSÄHNLICHEM HOCHQUALITÄTSSILICIUMDIOXID ÜBER EINEN SILICIUMHALTIGEN VORLÄUFER UND ATOMISCHEN SAUERSTOFF

Title (fr)

DEPOT CHIMIQUE EN PHASE VAPEUR DE DIOXYDE DE SILICIUM A ECOULEMENT DE HAUTE QUALITE A PARTIR D'UN PRECURSEUR CONTENANT DU SILICIUM ET D'OXYGENE ATOMIQUE

Publication

EP 2024532 A2 20090218 (EN)

Application

EP 07797890 A 20070530

Priority

- US 2007069999 W 20070530
- US 80348306 P 20060530
- US 75444007 A 20070529

Abstract (en)

[origin: WO2007140424A2] Methods of depositing a silicon oxide layer on a substrate are described. The methods may include the steps of providing a substrate to a deposition chamber, generating an atomic oxygen precursor outside the deposition chamber, and introducing the atomic oxygen precursor into the chamber. The methods may also include introducing a silicon precursor to the deposition chamber, where the silicon precursor and the atomic oxygen precursor are first mixed in the chamber. The silicon precursor and the atomic oxygen precursor react to form the silicon oxide layer on the substrate, and the deposited silicon oxide layer may be annealed. Systems to deposit a silicon oxide layer on a substrate are also described.

IPC 8 full level

C23C 16/40 (2006.01); **C23C 16/452** (2006.01); **C23C 16/56** (2006.01); **H01L 21/02** (2006.01); **H01L 21/3105** (2006.01); **H01L 21/316** (2006.01)

CPC (source: EP)

C23C 16/402 (2013.01); **C23C 16/452** (2013.01); **C23C 16/56** (2013.01); **H01L 21/02126** (2013.01); **H01L 21/02164** (2013.01); **H01L 21/02216** (2013.01); **H01L 21/02274** (2013.01); **H01L 21/02315** (2013.01); **H01L 21/02337** (2013.01); **H01L 21/3105** (2013.01)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

WO 2007140424 A2 20071206; **WO 2007140424 A3 20080221**; EP 2024532 A2 20090218; EP 2024532 A4 20140806; JP 2009539268 A 20091112

DOCDB simple family (application)

US 2007069999 W 20070530; EP 07797890 A 20070530; JP 2009513437 A 20070530