

Title (en)

MGO-BASE COATING FOR ELECTRICALLY INSULATING SEMI-CONDUCTOR SUBSTRATES AND PRODUCTION METHOD

Title (de)

MGO-BASIERTE BESCHICHTUNG FÜR ELEKTRISCH ISOLIERENDE HALBLEITERSUBSTRATE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

REVETEMENT A BASE DE MGO POUR L'ISOLATION ELECTRIQUE DE SUBSTRATS SEMI-CONDUCTEURS ET PROCEDE DE FABRICATION

Publication

EP 1800336 A1 20070627 (FR)

Application

EP 05810812 A 20051012

Priority

- FR 2005050844 W 20051012
- FR 0410789 A 20041013

Abstract (en)

[origin: WO2006040499A1] The invention relates to an inorganic magnesium oxide-based coating (MgO) for electrically insulating semi-conductor substrates such as a silicon carbide (SiC) and to a method for producing said insulating coating. The inventive method consists in preparing a treating solution of at least one type of water-soluble organomagnesium and/or of at least one type of a water-soluble magnesium salt for forming a homogenous polymer magnesium oxide/hydroxide layer by a hydrolysis-condensation reaction with water, in applying the treating water-soluble organomagnesium or water-soluble magnesium salt solution to a surface for forming a magnesium oxide-base layer and in densifying the thus formed layer at a temperature equal to or less than 1000 °C.

IPC 8 full level

H01L 21/316 (2006.01)

CPC (source: EP US)

C01F 5/08 (2013.01 - US); **H01B 3/10** (2013.01 - US); **H01L 21/02107** (2013.01 - US); **H01L 21/02175** (2013.01 - US);
H01L 21/02205 (2013.01 - US); **H01L 21/02282** (2013.01 - US); **H01L 21/316** (2013.01 - US); **H01L 23/3171** (2013.01 - EP US);
H01L 23/564 (2013.01 - US); **C23C 16/403** (2013.01 - US); **H01L 21/02172** (2013.01 - US); **H01L 21/02175** (2013.01 - EP);
H01L 21/02178 (2013.01 - EP); **H01L 21/02282** (2013.01 - EP); **H01L 23/5329** (2013.01 - US); **H01L 2924/0002** (2013.01 - EP US)

C-Set (source: EP US)

H01L 2924/0002 + H01L 2924/00

Citation (examination)

US 6071555 A 20000606 - SENGUPTA SOMNATH [US], et al

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 NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2876497 A1 20060414; FR 2876497 B1 20070323; EP 1800336 A1 20070627; JP 2008516459 A 20080515; JP 5373287 B2 20131218;
US 2008258270 A1 20081023; US 2014332935 A1 20141113; US 8821961 B2 20140902; WO 2006040499 A1 20060420

DOCDB simple family (application)

FR 0410789 A 20041013; EP 05810812 A 20051012; FR 2005050844 W 20051012; JP 2007536235 A 20051012;
US 201414338706 A 20140723; US 66476505 A 20051012