

Title (en)

Method for preparing metal oxide film

Title (de)

Verfahren zur Herstellung einer Metalloxydschicht

Title (fr)

Procédé de préparation d'un film d'oxyde métallique

Publication

**EP 1164207 A3 20040324 (EN)**

Application

**EP 00308173 A 20000919**

Priority

JP 2000162454 A 20000531

Abstract (en)

[origin: EP1164207A2] A method for preparing a metal oxide film using a sol-gel method including the steps of: forming a solution containing a complex including a metal oxide oligomer and an organic solvent; depositing the solution on a substrate; removing at least part of the organic solvent from the solution on the substrate; and thermally treating the substrate for converting the metal oxide oligomer into the corresponding metal oxide film. In this method, since at least part of the solvent in the oligomer-solvent complex is removed before converting the metal oxide oligomer into the metal oxide film by the thermal treatment, the mutual diffusion between the substrate metal and in the metal oxide oligomer is prevented to provide a crack-free homogeneous metal oxide film on the substrate. <IMAGE>

IPC 1-7

**C23C 18/12**

IPC 8 full level

**C01G 1/02** (2006.01); **C01B 33/12** (2006.01); **C01G 19/02** (2006.01); **C01G 23/00** (2006.01); **C01G 23/04** (2006.01); **C01G 25/00** (2006.01);  
**C07C 31/30** (2006.01); **C07F 7/00** (2006.01); **C07F 7/02** (2006.01); **C07F 7/22** (2006.01); **C07F 7/28** (2006.01); **C23C 18/12** (2006.01);  
**C23C 22/06** (2006.01)

CPC (source: EP KR US)

**C23C 18/1216** (2013.01 - EP); **C23C 18/1254** (2013.01 - EP US); **C23C 18/143** (2019.04 - EP US); **C23C 22/06** (2013.01 - KR)

Citation (search report)

- [A] PATENT ABSTRACTS OF JAPAN vol. 0133, no. 72 (C - 627) 17 August 1989 (1989-08-17)
- [AD] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 13 30 November 1999 (1999-11-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 14 22 December 1999 (1999-12-22)

Cited by

CN109053462A; US2011168249A1; EP2181066A4; US8529795B2; US8883291B2; US8802027B2; WO2009020633A3

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 1164207 A2 20011219; EP 1164207 A3 20040324**; JP 2001342019 A 20011211; JP 3985887 B2 20071003; KR 20010096478 A 20011107

DOCDB simple family (application)

**EP 00308173 A 20000919**; JP 2000162454 A 20000531; KR 20000055028 A 20000919