

Title (en)

METHOD AND APPARATUS FOR MATERIAL DEPOSITION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR MATERIALABSCHIEDUNG

Title (fr)

PROCÉDÉ ET APPAREIL DE DÉPÔT DE MATÉRIAU

Publication

EP 1692324 B1 20181003 (EN)

Application

EP 04813286 A 20041207

Priority

- US 2004040951 W 20041207
- US 73521603 A 20031212
- US 73470403 A 20031212

Abstract (en)

[origin: WO2005061760A1] A method and an apparatus are provided for selective heating of a surface of a wafer exposed to an electroless plating solution. Selective heating by a radiant energy source causes a temperature increase at an interface between the wafer surface and the electroless plating solution. This temperature increase causes a plating reaction to occur at the wafer surface. Thus, material is deposited on the wafer surface through an electroless plating reaction that is initiated and controlled by varying the temperature of the wafer surface using an appropriately defined radiant energy source. Additionally, a planar member can be positioned over and proximate to the wafer surface to entrap electroless plating solution between the planar member and the wafer surface. Material deposited through the plating reactions forms a planarizing layer that conforms to a planarity of the planar member.

IPC 8 full level

C23C 18/16 (2006.01); **C23C 18/54** (2006.01)

CPC (source: EP KR US)

C23C 18/14 (2013.01 - EP US); **C23C 18/16** (2013.01 - KR); **C23C 18/1612** (2013.01 - EP); **C23C 18/1667** (2013.01 - EP US);
C23C 18/1676 (2013.01 - EP); **C23C 18/54** (2013.01 - KR)

Citation (examination)

- EP 0965656 A1 19991222 - UNIV COLLEGE CORK NATIONAL UNI [IE]
- WO 0035259 A2 20000615 - NAUNDORF GERHARD [DE], et al
- US 5989653 A 19991123 - CHEN KEN S [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 MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005061760 A1 20050707; EP 1692324 A1 20060823; EP 1692324 B1 20181003; JP 2007525594 A 20070906; JP 4742047 B2 20110810;
KR 101233444 B1 20130214; KR 20060123313 A 20061201; MY 184648 A 20210414; SG 149018 A1 20090129; SG 149019 A1 20090129;
SG 182190 A1 20120730; TW 200526811 A 20050816; TW I319784 B 20100121

DOCDB simple family (application)

US 2004040951 W 20041207; EP 04813286 A 20041207; JP 2006543928 A 20041207; KR 20067011581 A 20041207;
MY PI20044983 A 20041202; SG 2008092041 A 20041207; SG 2008092058 A 20041207; SG 2012043196 A 20041207;
TW 93138385 A 20041210