

Title (en)

APPARATUS AND METHOD OF FORMING THIN LAYERS ON SUBSTRATE SURFACES

Title (de)

VORRICHTUNG UND VERFAHREN ZUR AUSBILDUNG DÜNNER SCHICHTEN AUF SUBSTRATOBERFLÄCHEN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE FORMATION DE COUCHES FINES SUR DES SURFACES DE SUBSTRATS

Publication

EP 2069551 A2 20090617 (DE)

Application

EP 07801316 A 20070829

Priority

- DE 2007001579 W 20070829
- DE 102006042328 A 20060901

Abstract (en)

[origin: WO2008025352A2] The invention relates to an apparatus and a method of forming thin layers on substrate surfaces. It is an object of the invention to provide possibilities allowing thin layers to be produced on substrate surfaces, exhibiting a defined layered-material formation having desired properties. The apparatus of the invention is designed so that at a reaction chamber region, above a substrate surface to be coated, there is a supply for at least one gaseous precursor that contributes to layer formation. Moreover, a source emitting electromagnetic radiation, which is a plasma source, is disposed in such a way that the electromagnetic radiation emitted effects photolytic activation of atoms and/or molecules of the precursor(s). The plasma source ought to be so disposed, and is also to be operated in such a way, that there is no direct influence of the plasma on the substrate surface and on the precursors that lead to layer formation.

IPC 8 full level

C23C 16/452 (2006.01); **C23C 16/455** (2006.01); **C23C 16/48** (2006.01); **C23C 16/54** (2006.01)

CPC (source: EP US)

C23C 16/452 (2013.01 - EP US); **C23C 16/45519** (2013.01 - EP US); **C23C 16/45595** (2013.01 - EP US); **C23C 16/48** (2013.01 - EP US); **C23C 16/545** (2013.01 - EP US)

Citation (search report)

See references of WO 2008025352A2

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 2008025352 A2 20080306; **WO 2008025352 A3 20080410**; DE 102006042328 A1 20080320; DE 102006042328 B4 20120705; EP 2069551 A2 20090617; US 2010233385 A1 20100916

DOCDB simple family (application)

DE 2007001579 W 20070829; DE 102006042328 A 20060901; EP 07801316 A 20070829; US 37765807 A 20070829