

Title (en)  
METHOD FOR OPTIMIZING A DEPOSITION PROCESS, METHOD FOR ADJUSTING A DEPOSITION DEVICE, AND DEPOSITION DEVICE

Title (de)  
VERFAHREN ZUM OPTIMIEREN EINES ABSCHIEDUNGSPROZESSES, VERFAHREN ZUM EINSTELLEN EINER DEPOSITIONSANLAGE UND DEPOSITIONSANLAGE

Title (fr)  
PROCÉDÉ D'OPTIMISATION D'UN PROCESSUS DE DÉPÔT, PROCÉDÉ DE RÉGLAGE D'UNE INSTALLATION DE DÉPÔT ET INSTALLATION DE DÉPÔT

Publication  
**EP 2964804 A1 20160113 (DE)**

Application  
**EP 14711149 A 20140310**

Priority  
• DE 102013004116 A 20130308  
• EP 2014000617 W 20140310

Abstract (en)  
[origin: WO2014135283A1] The invention relates to a method for optimizing a deposition process for preparing an electrically conductive layer, preferably having a layer thickness of less than 20 nm, by means of an electron beam or ion beam induced deposition device, the method comprising step 1, selecting at least one deposition-specific setting parameter to be optimized, such as an electron beam or ion beam parameter of the deposition device, wherein optionally, at least one further setting parameter of the deposition device is kept constant; step 2, determining a plurality of parameter values of the at least one setting parameter for defining a parameter value population of first generation; step 3, depositing a layer for each parameter value of the parameter value population of first generation by means of the deposition device; step 4, determining an electrical characteristic value for each layer of each parameter value of the parameter value population of first generation; step 5, using a generic algorithm, which carries out an optimization assessment of the determined electrical characteristic values with respect to a pre-determined electrical target characteristic value and based on the optimization assessment determines a further parameter value population of second generation; and step 6, a repetition of steps 3 to 5 with the proviso that the parameter values of the second generation, or optionally, a further generation are used until the electrical target characteristic value is reached, or the genetic algorithm for the last predetermined generation is completed.

IPC 8 full level  
**C23C 16/52** (2006.01); **C23C 16/04** (2006.01); **C23C 16/30** (2006.01); **C23C 16/48** (2006.01)

CPC (source: EP US)  
**C23C 16/047** (2013.01 - EP US); **C23C 16/16** (2013.01 - US); **C23C 16/30** (2013.01 - EP US); **C23C 16/486** (2013.01 - EP US); **C23C 16/487** (2013.01 - EP US); **C23C 16/52** (2013.01 - EP US)

Citation (search report)  
See references of WO 2014135283A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102013004116 A1 20140911**; EP 2964804 A1 20160113; JP 2016516889 A 20160609; KR 20160030075 A 20160316; US 2016017496 A1 20160121; WO 2014135283 A1 20140912

DOCDB simple family (application)  
**DE 102013004116 A 20130308**; EP 14711149 A 20140310; EP 2014000617 W 20140310; JP 2015560587 A 20140310; KR 20157025869 A 20140310; US 201414773494 A 20140310