

Title (en)

METHOD AND DEVICE FOR DEPOSITING SINGLE COMPONENT OR MULTICOMPONENT LAYERS AND SERIES OF LAYERS USING NON-CONTINUOUS INJECTION OF LIQUID AND DISSOLVED STARTING MATERIAL BY A MULTI-CHANNEL INJECTION UNIT

Title (de)

VERFAHREN UND VORRICHTUNG ZUR SCHICHTENABSCHEIDUNG UNTER VERWENDUNG VON NICHT-KONTINUIERLICHER INJEKTION

Title (fr)

PROCEDE ET DISPOSITIF POUR DEPOSER DES COUCHES OU DES SERIES DE COUCHES MONOCOMPOSANTS OU MULTICOMPOSANTS PAR INJECTION NON CONTINUE DE SUBSTANCES DE DEPART LIQUIDES OU DISSOUTES AU MOYEN D'UNE UNITE D'INJECTION A PLUSIEURS CANAUX

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Abstract (en)

[origin: WO2005026401A2] The invention relates to a method and device for depositing at least one layer on at least one substrate in a process chamber (2). Said layer comprises several components and is insulating, passivating or electrically conductive. The components are vaporized in a tempered vaporization chamber (4) by means of non-continuous injection of a liquid starting material (3) or a starting material (3) dissolved in a liquid using a respective injector unit (5). Said vapor is guided to the process chamber by means of a carrier gas (7). It is important to individually adjust or vary the material flow parameters, such as injection frequency and the pulse/pause ratio and the phase relation of the pulse/pauses to the pulse/pauses of the other injector unit (s), determining the time response of the flow of material through each injector unit (5). The pressure in the process chamber (2) is less than 100 mbars, the process chamber (2) is tempered and several series of layers are deposited on the substrate (1) during one process step.

IPC 1-7

C23C 16/52

IPC 8 full level

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