Title (en)

METHOD AND SYSTEM FOR INLINE CHEMICAL VAPOR DEPOSITION

Title (de)

VERFAHREN UND SYSTEM FÜR EINE GEREIHTE CHEMISCHE DAMPFABLAGERUNG

Title (fr)

PROCÉDÉ ET SYSTÈME POUR UN DÉPÔT CHIMIQUE EN PHASE VAPEUR EN LIGNE

Publication

EP 2718963 A4 20141203 (EN)

Application

EP 12796599 A 20120517

Priority

- US 201113156465 A 20110609
- US 2012038256 W 20120517

Abstract (en)

[origin: WO2012170166A2] Disclosed are an inline chemical vapor deposition method and system for fabricating a device. The method includes transporting a web or discrete substrate through a deposition chamber having a plurality of deposition modules. A buffer layer, a window layer and a transparent conductive layer are deposited onto the substrate during passage through a first deposition module, a second deposition module and a third deposition module, respectively. Advantageously, the steps for generating the buffer layer, window layer and transparent conductive layer are performed sequentially in a common vacuum environment of a single deposition chamber and the use of a conventional chemical bath deposition process to deposit the buffer layer is eliminated. The method is suitable for the manufacture of different types of devices including various types of solar cells such as copper indium gallium diselenide solar cells.

IPC 8 full level

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CPC (source: CN EP KR)

C23C 16/407 (2013.01 - CN EP); **C23C 16/45514** (2013.01 - CN EP); **C23C 16/45517** (2013.01 - CN EP); **C23C 16/45574** (2013.01 - CN EP); **C23C 16/45578** (2013.01 - CN EP); **C23C 16/545** (2013.01 - CN EP); **H01L 21/02422** (2013.01 - CN EP KR); **H01L 21/02474** (2013.01 - CN EP KR); **H01L 21/02485** (2013.01 - CN EP KR); **H01L 21/02554** (2013.01 - CN EP KR); **H01L 21/02568** (2013.01 - CN EP KR); **H01L 21/0262** (2013.01 - EP KR); **H01L 31/0322** (2013.01 - CN EP KR); **H01L 31/0749** (2013.01 - CN EP); **H01L 31/206** (2013.01 - CN EP KR); Y02E 10/541 (2013.01 - EP); Y02P 70/50 (2015.11 - EP)

Citation (search report)

- [XP] WO 2011139472 A2 20111110 - AVENTA SYSTEMS LLC [US], et al
- [XI] US 2010310766 A1 20101209 - ARMOUR ERIC A [US], et al
- See references of WO 2012170166A2

Designated contracting state (EPC)

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DOCDB simple family (application)

US 2012038256 W 20120517; CN 201280028157 A 20120517; EP 12796599 A 20120517; JP 2014514471 A 20120517; KR 20147000434 A 20120517