

Title (en)
HIGH-PRECISION SHADOW-MASK-DEPOSITION SYSTEM AND METHOD THEREFOR

Title (de)
HOCHPRÄZISES SCHATTENMASKENABSCHEIDUNGSSYSTEM UND VERFAHREN DAFÜR

Title (fr)
SYSTÈME DE DÉPÔT HAUTE PRÉCISION PAR MASQUE PERFORÉ ET PROCÉDÉ ASSOCIÉ

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Application
EP 17803308 A 20170517

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Abstract (en)
[origin: CN109642313A] A direct-deposition system capable of forming a high-resolution pattern of material on a substrate is disclosed. Vaporized atoms from an evaporation source pass through an aperture pattern of a shadowmask to deposit on the substrate in the desired pattern. Prior to reaching the shadow mask, the vaporized atoms pass through a collimator that operates as a spatial filter that blocks any atoms not travelling along directions that are nearly normal to the substrate surface. As a result, the vaporized atoms that pass through the shadow mask exhibit little or no lateral spread (i.e., feathering) after passing through its apertures and the material deposits on the substrate in a pattern that has very high fidelity with the aperture pattern of the shadow mask. The present invention, therefore, mitigates the need for relatively large space between regions of deposited material normally required in the prior art, thereby enabling high-resolution patterning.

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Citation (search report)
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• See also references of WO 2017205147A1

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