

Title (en)

SYSTEMS AND METHODS FOR CREATING CRYSTALLOGRAPHIC-ORIENTATION CONTROLLED POLY-SILICON FILMS

Title (de)

SYSTEME UND VERFAHREN ZUR ERZEUGUNG VON BEZÜGLICH KRISTALLOGRAPHISCHER ORIENTIERUNG GESTEUERTEN POLYSILIZIUMFILMEN

Title (fr)

SYSTEMES ET PROCEDES PERMETTANT DE PRODUIRE DES FILMS DE POLYSILICIUM A ORIENTATION CRYSTALLOGRAPHIQUE CONTROLEE

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Application

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Abstract (en)

[origin: WO2006055003A1] In accordance with one aspect, the present invention provides a method for providing polycrystalline films having a controlled microstructure as well as a crystallographic texture. The methods provide elongated grains or single-crystal islands of a specified crystallographic orientation. In particular, a method of processing a film on a substrate includes generating a textured film having crystal grains oriented predominantly in one preferred crystallographic orientation; and then generating a microstructure using sequential lateral solidification crystallization that provides a location-controlled growth of the grains orientated in the preferred crystallographic orientation.

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