

Title (en)  
INTEGRATION OF BARRIER LAYER AND SEED LAYER

Title (de)  
INTEGRATION VON BARRIERE- UND KEIMSCHICHT

Title (fr)  
INTEGRATION D'UNE COUCHE BARRIERE ET D'UNE COUCHE GERME

Publication  
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Application  
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Abstract (en)  
[origin: WO03028090A2] The present invention generally relates to filling of a feature by depositing a barrier layer, depositing a seed layer over the barrier layer, and depositing a conductive layer over the seed layer. In one embodiment, the seed layer comprises a copper alloy seed layer deposited over the barrier layer. For example, the copper alloy seed layer may comprise copper and a metal, such as aluminum, magnesium, titanium, zirconium, tin, and combinations thereof. In another embodiment, the seed layer comprises a copper alloy seed layer deposited over the barrier layer and a second seed layer deposited over the copper alloy seed layer. The copper alloy seed layer may comprise copper and a metal, such as aluminum, magnesium, titanium, zirconium, tin, and combinations thereof. The second seed layer may comprise a metal, such as undoped copper. In still another embodiment, the seed layer comprises a first seed layer and a second seed layer. The first seed layer may comprise a metal, such as aluminum, magnesium, titanium, zirconium, tin, and combinations thereof. The second seed layer may comprise a metal, such as undoped copper.

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