Title (en)

METHOD FOR FORMING AN IMPROVED METAL SILICIDE CONTACT TO A SILICON-CONTAINING CONDUCTIVE REGION

Title (de)

HERSTELLUNG EINES VERBESSERTEN METALL-SILIZID-KONTAKTES ZU EINEM SILIZIUM ENTHALTENDEN LEITENDEN BEREICH

Title (fr)

PROCEDE DE FORMATION D'UN CONTACT AMELIORE AUX SILICIURES DE METAUX SUR UNE REGIO CONDUCTRICE CONTENANT DU SILICIUM

Publication

EP 1490901 A1 20041229 (EN)

Application

EP 02787066 A 20021220

Priority

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- US 28266502 A 20021029

Abstract (en)

[origin: WO03083936A1] A layer stack (220) comprising at least three material layers (221, 222, and 223) is provided on a silicon-containing conductive region to form a silicide portion (208) on and in the silicon-containing conductive region, wherein the layer (221) next to the silicon provides the metal atoms for the silicide reaction, the intermediate layer (222) is a metal-nitrogen-compound formed by supplying a nitrogen containing as during deposition, and for formation of the top layer (223), supply for said gas is discontinued. The method may be carried out as an in situ method, thereby significantly improving throughput and deposition tool performance compared to typical prior art processes, in which at least two deposition chambers have to be used

IPC 1-7

H01L 21/768

IPC 8 full level

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CPC (source: EP)

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