Title (en)

METHOD FOR FABRICATING A SEMICONDUCTOR DEVICE HAVING DIFFERENT METAL SILICIDE PORTIONS

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES HALBLEITERBAUELEMENTS MIT VERSCHIEDENEN METALLSILIZIDTEILEN

Title (fr)

PROCEDE DE FABRICATION D'UN DISPOSITIF SEMI-CONDUCTEUR COMPORTANT DIFFERENTES PORTIONS DE SILICIURE METALLIQUE

Publication

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Application

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Abstract (en)

[origin: WO03079424A1] A method is disclosed in which differing metal layers are sequentially deposited on silicon-containing regions so that the type and thickness of the metal layers may be adapted to specific characteristics of the underlying silicon-containing regions. Subsequently, a heat treatment is performed to convert the metals into metal silicides so as to improve the electrical conductivity of the silicon-containing regions. In this way, silicide portions may be formed that are individually adapted to specific silicon-containing regions so that device performance of individual semiconductor elements or the overall performance of a plurality of semiconductor elements may be significantly improved. Moreover, a semiconductor device is disclosed comprising at least two silicon-containing regions having formed therein differing silicide portions, wherein at least one silicide portion comprises a noble metal.

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