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(54) **Title:** METHOD OF DEPOSITING METALLIC LAYERS BASED ON NICKEL OR COBALT ON A SEMICONDUCTING SOLID SUBSTRATE; KIT FOR APPLICATION OF SAID METHOD

(57) **Abstract:** The present invention relates to a kit intended for the deposition of nickel or cobalt in the cavities of a semiconductor substrate intended to form through-silicon vias (TSV) for making interconnections in integrated circuits in three dimensions. The invention also relates to a method of metallization of the insulating surface of such a substrate which comprises contacting the surface with a liquid aqueous solution containing: - at least one metal salt of nickel or cobalt; - at least one reducing agent; - at least one polymer bearing amine functions, and - at least one agent stabilizing the metal ions. The step coverage of the layer of nickel or cobalt obtained can be greater than 80%, which facilitates subsequent filling of the vias with copper by electrodeposition.



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