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(54) **Title:** COATING METHOD FOR ENHANCED ELECTROMIGRATION RESISTANCE OF COPPER

(57) **Abstract:** Method for preparing a multi layer composite device comprising (A) forming a dielectric layer on a surface having a copper area in a dielectric layer by bringing said surface into contact: a) either with a solution, comprising the diazonium salt of aniline, a diazonium salt bearing at least one functional group or an amine compound of formula H2N-A-X-Z as defined in claim 1 : b or with a first solution containing an aryl diazonium salt and successively a second solution containing a compound bearing at least one functional group selected from the group of silane, silazane, siloxane, amine, hydroxil and carboxyl groups, and bearing at least one functional group capable of reacting with the aryl radical grafted on the surface of the composite material thanks to the aryl diazonium salt; (B) forming an overlayer consisting of a Si-containing dielectric Cu-Etch Stop Layer and/or copper diffusion barrier.