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(54) Title: METHODS FOR FORMING COPPER INTERCONNECT STRUCTURES BY CO-PLATING OF NOBLE METALS  
AND STRUCTURES FORMED THEREBY

(57) Abstract: A method of forming a copper interconnect, comprising forming an opening in a dielectric layer disposed on a substrate, forming a barrier layer over the opening, forming a seed layer over the metal layer, and forming a copper-noble metal alloy layer by electroplating and/or electroless deposition on the seed layer. The copper-noble metal alloy improves the electrical characteristics and reliability of the copper interconnect.

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