ABSTRACT

A NOVEL METHOD TO FABRICATE DISH-FREE COPPER INTERCONNECTS

A method of fabricating at least one metal interconnect comprising the following steps. A structure having at least one exposed conductive structure is provided. A non-stick material layer is formed over the structure and the at least one exposed conductive structure. The non-stick material layer having an upper surface. The non-stick material layer is patterned to form a patterned non-stick material layer having at least one trench therethrough exposing at least a portion of the at least one conductive structure. A metal interconnect is formed in contact with the exposed portion of the at least one conductive structure within the at least one trench wherein the non-stick properties of the patterned non-stick material layer prevent accumulation of the metal comprising the metal interconnect upon the patterned upper surface of the patterned non-stick material layer. The at least one metal interconnect having an upper surface. The patterned non-stick material layer is removed. A planarized dielectric layer is formed over the structure exposing the upper surface of the at least one metal interconnect.

FIGURE 8



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