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(54) Title: ENHANCEMENT OF AN INTERCONNECT

(57) Abstract: A method, apparatus, system, and machine-readable medium for an interconnect structure in a semiconductor device and its method of formation is disclosed. Embodiments comprise a carbon-doped and silicon-doped interconnect having a concentration of silicon to avoid forming a copper silicide layer between an interconnect and a passivation layer. Some embodiments provide unexpected results in electromigration reliability in regards to activation energy and/or mean time to failure.



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