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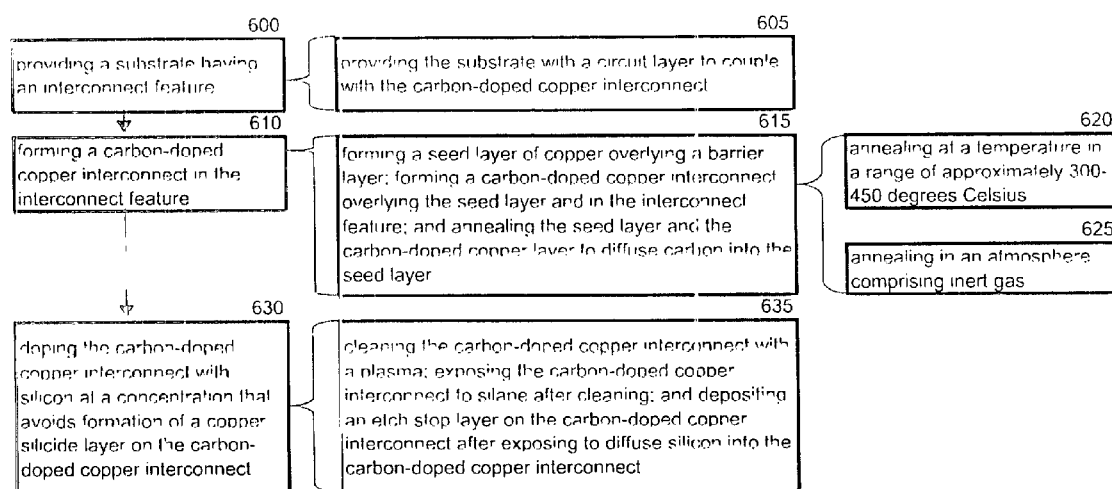
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(54) Title: COPPER INTERCONNECT DOPED WITH CARBON AND SILICON



(57) Abstract: 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 to form 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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