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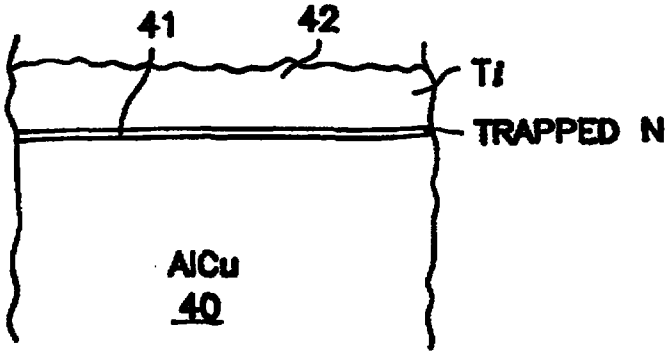
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(54) Title: IMPROVED INTERFACE BETWEEN TITANIUM AND ALUMINUM-ALLOY IN METAL STACK FOR INTEGRATED CIRCUIT



(57) Abstract

An improvement in a metal stack used for interconnecting structures in an integrated circuit. The improvement comprises the entrapping in a titanium layer of nitrogen at the interface where the titanium layer contacts a bulk conductor layer such as an aluminum-copper alloy layer. The entrapped nitrogen prevents the formation of any substantial amount of titanium aluminide thereby reducing current densities and also improving the electromigration properties of the stack. As currently preferred, the nitrogen is entrapped in approximately the first 30 Å of the titanium layer.