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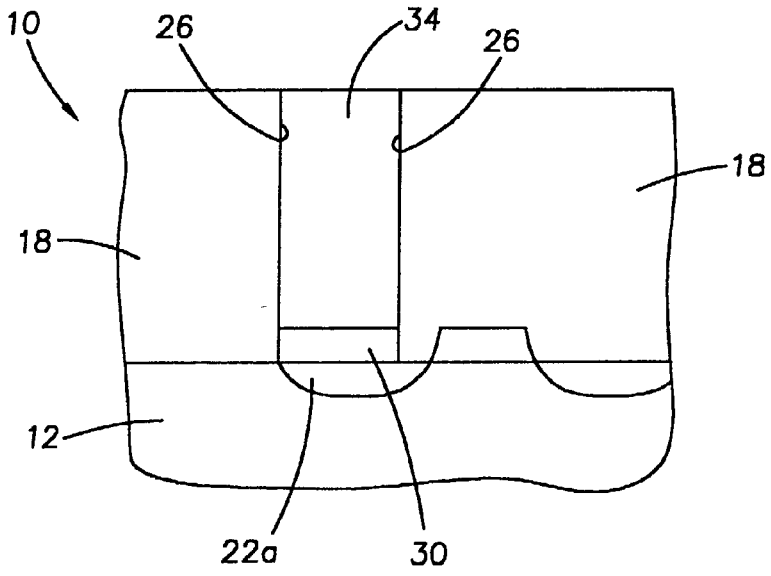
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(54) Title: BORON-DOPED TITANIUM NITRIDE LAYER FOR HIGH ASPECT RATIO SEMICONDUCTOR DEVICES



(57) Abstract: Conductive contacts in a semiconductor structure, and methods for forming the conductive components are provided. The contacts are useful for providing electrical connection to active components beneath an insulation layer (18) in integrated circuits such as memory devices. The conductive contacts comprise boron-doped $TiCl_4$- based titanium nitride (34), and possess a sufficient level adhesion to the insulative layer to eliminate peeling from the sidewalls of the contact opening and cracking of the insulative layer when formed to a thickness of greater than about 200 angstroms.

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