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(54) Title: ENHANCED STRESS TUNING AND INTERFACIAL ADHESION FOR TUNGSTEN (W) GAP FILL

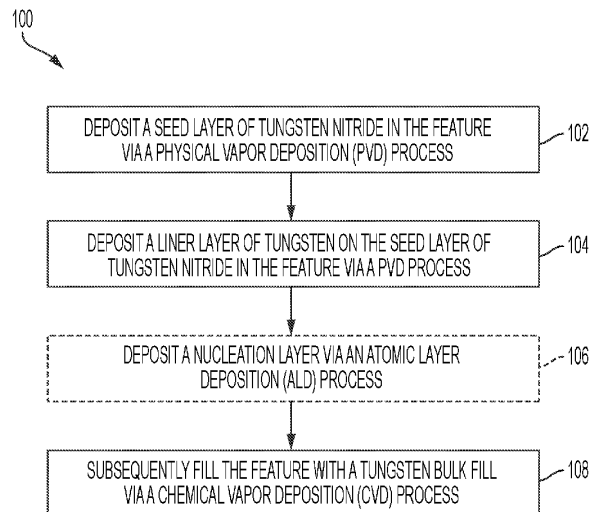


FIG. 1

(57) Abstract: Embodiments of methods and associated apparatus for filling a feature in a substrate are provided herein. In some embodiments, a method of filling a feature in a substrate includes: depositing a seed layer of tungsten nitride in the feature via a physical vapor deposition (PVD) process; depositing a liner layer of tungsten on the seed layer of tungsten nitride in the feature via a PVD process; and subsequently filling the feature with a tungsten bulk fill via a chemical vapor deposition (CVD) process.

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