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(54) Title: METHODS FOR DETECTING DEFECTS IN A SINGLE CRYSTAL SILICON STRUCTURE

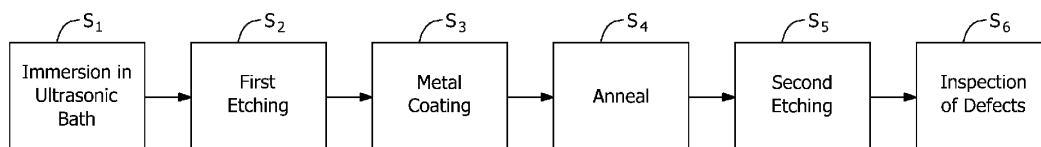


FIG. 2

(57) Abstract: Methods for detecting defects in single crystal silicon structures doped with antimony, boron, arsenic or phosphorous are disclosed. The structure is immersed in an ultrasonic bath. The structure is contacted with a first etchant solution comprising nitric acid and hydrofluoric acid to form an etched surface. The etched surface is coated with a composition comprising a metal capable of diffusing through silicon to form a coated surface. The structure is annealed to diffuse the metal into a bulk region of the structure. The structure is contacted with a second etchant solution comprising nitric acid and hydrofluoric acid to delineate defects in the structure.