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(54) Title: ETCHING SOLUTION FOR SELECTIVELY REMOVING SILICON-GERMANIUM ALLOY FROM A SILICON-GERMANIUM/ SILICON STACK DURING MANUFACTURE OF A SEMICONDUCTOR DEVICE

(57) Abstract: The disclosed and claimed subject matter pertains to an etching solution including (i) water, (ii) at least one oxidizer, (iii) at least one fluoride ion source, (iv) at least one polyfunctional acid; (v) at least one corrosion inhibiting surfactant, (vi) at least one silane silicon oxide etch inhibitor and (vii) optionally at least one water-miscible organic solvent. The solutions are useful for the selective removal of silicon-germanium over poly silicon from a microelectronic device having such material(s) thereon during its manufacture.



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