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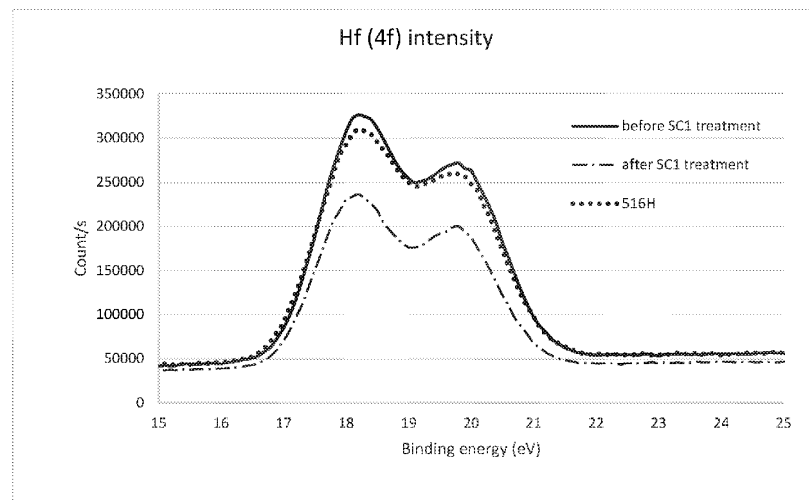


FIG. 1

(57) Abstract: Described herein is an etching solution suitable for the selective removal of TiSiN over hafnium oxide from a micro-electronic device, which consists essentially of: water; at least one alkaline ammonium compound selected from the group consisting of ammonium hydroxide, a quaternary ammonium hydroxide, ammonium fluoride, and a quaternary ammonium fluoride; at least one peroxide compound; a water-miscible organic solvent; at least one nitrogen containing compound selected from the group consisting of a C₄₋₁₂ alkylamine, a polyalkylenimine, and a polyamine; and optionally at least one chelating agent.

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