

ABSTRACT

(1) A cleaning solution for semiconductor substrates comprising an oxidizing agent, an acid and a fluorine compound, having a pH adjusted in the range of 3 to 10 by addition of a basic compound and having a concentration of water of 80% by weight or greater, (2) a cleaning solution for semiconductor substrates comprising an oxidizing agent, an acid, a fluorine compound and a corrosion inhibitor, having a pH adjusted in the range of 3 to 10 by addition of a basic compound and having a concentration of water of 80% by weight or greater, and a process for cleaning semiconductor substrates having metal wiring which comprises cleaning with the cleaning solution, are provided. The cleaning solution can completely remove residues of etching on semiconductor substrates in a short time, does not corrode copper wiring materials and insulation film materials, is safe and exhibits little adverse effects on the environment.