ABSTRACT

IMPROVED COMPOSITIONS AND METHODS FOR POLISHING

Improved compositions for polishing silicon, silica or silicon-containing articles, including a composite of metal and silica, comprising an aqueous medium, abrasive particles, an oxidizing agent an anion which suppresses the rate of removal of silica are provided. The anion is derived from a class of compounds which contain at least two acid groups and where the pKa of the first dissociable acid is not substantially larger than the pH of the polishing composition. Methods using the composition to polish or planarize the surfaces of work pieces, as well as products produced by such methods, are also provided.