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(54) Title: COMPOSITION FOR CLEANING CHEMICAL MECHANICAL PLANARIZATION APPARATUS

(57) Abstract: The present invention relates to chemical compositions and methods of use for cleaning CMP equipment, including the interiors of delivery conduits carrying CMP slurry to the necessary sites. The chemical compositions of the present invention are also useful for post-CMP cleaning of the wafer itself. Three classes of cleaning compositions are described, all of which are aqueous solutions. One class operates in a preferable pH range from about 11 to about 12 and preferably contains one or more non-ionic surfactants, one or more simple amines, a surfactant or sticking agent such as one or more soluble dialcohol organic compounds and one or more quaternary amines. A second class of cleaning composition operates in a preferable pH range of approximately 8.5 and contains citric acid and oxalic acid. A third class of compositions is acidic, having a preferable pH range from about 1.5 to about 3, preferably containing at least one oxidizing acid, at least one chelating agent, at least one sticking agent and at least one anionic surfactant. HF and KOH are substantially absent from the preferred compositions of the present invention. Some compositions of the present invention are shown to be advantageously used for cleaning the slurry distribution system of CMP apparatus.