POLISHING COMPOUND FOR COPPER WIRINGS AND METHOD FOR POLISHING SURFACE OF SEMICONDUCTOR INTEGRATED CIRCUIT

ABSTRACT

To provide a technique for realizing high-precision surface planarization when copper is used as a wiring metal.

A polishing compound is used which comprises water; a peroxide oxidizer; a surface protective agent for copper; at least one first chelating agent selected from the group consisting of tartaric acid, malonic acid, malic acid, citric acid, maleic acid, oxalic acid and fumaric acid; and at least one second chelating agent selected from the group consisting of triethylenetetramine, ethylenediaminediacetic acid, ethylenediaminetetraacetic acid, tetraethylenepentamine, glycol-ether-diaminetetraacetic acid, trans-1,2-cyclohexanediaminetetraacetic acid, o-phenanthroline, and derivatives thereof.

Fig.1