ETCHING SOLUTION FOR COPPER AND COPPER ALLOY

ABSTRACT

It is an object of the present invention to provide an etching solution composition that etches with good precision a pattern in a metal laminate film containing a copper layer and a copper oxide layer and/or a copper alloy layer, forms an excellent cross-sectional shape, has excellent practicability, is stable, and has a long solution lifetime, and an etching method employing such an etching solution composition.

[Solving means]

The present invention relates to an etching solution composition for etching a metal laminate film having a copper layer and a copper oxide layer and/or a copper alloy layer, the composition containing 0.1 to 80 wt% of a persulfate and/or a persulfuric acid solution, 0.1 to 80 wt% of phosphoric acid, and 0.1 to 50 wt% of nitric acid and/or sulfuric acid and, furthermore, to an etching solution composition that enables the etching rate or the cross-sectional shape to be easily controlled by adding chloride ion or ammonium ion, or an etching method.