

ABSTRACT

A wet etching solution according to the present disclosure is an etching solution for selectively removing
5 a second metal layer made of at least one of a cobalt-based material or a copper-based material from a semiconductor substrate while suppressing etching of a first metal layer made of a tungsten-based material, the first metal layer and the second metal layer being co-present on the
10 semiconductor substrate, an oxide layer being formed on a surface layer of at least the at least one of a cobalt-based material or a copper-based material. The wet etching solution includes a solution in which a β -diketone containing a trifluoromethyl group and a carbonyl group
15 bonded together is dissolved in an organic solvent.