ABSTRACT

“LIQUID ETCHANT AND METHOD FOR FORMING TRENCH ISOLATION STRUCTURE USING SAME”

The present invention provides an etching solution less affected by trench structures and also provides an isolation structure-formation process employing the solution. The etching solution contains hydrofluoric acid and an organic solvent. The organic solvent has a δH value defined by Hansen solubility parameters in the range of 4 to 12 inclusive and the saturation solubility thereof in water is 5 wt% or more at 20°C. This solution can be adopted instead of known etching solutions used in conventional production processes of semiconductor elements.

(Figure 1)