ABSTRACT OF THE DISCLOSURE

TITLE OF THE INVENTION

Manufacturing method of semiconductor devices

On top of a substrate having already-completed circuit elements and wiring, etc., insulation under layer 4, Pt layer 3 for bottom electrode, dielectric film 2 and Pt layer 1 for top electrode are shaped.

And then, form top electrode 1a, capacitance insulation film 2a and bottom electrode 3a by etching Pt layer 1 for top electrode or Pt layer 3 for bottom electrode, using an etching gas containing S component while composing Pt and S compound; or first compose Pt and S compound, and then etch the compound.

(Figure 1)

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