METHOD OF COPPER TRANSPORT PREVENTION BY A SPUTTERED GETTERING LAYER ON BACKSIDE OF WAFER

ABSTRACT

A method of preventing copper transport on a semiconductor wafer, comprising the following steps. A semiconductor wafer having a front side and a backside is provided. Metal, selected from the group comprising aluminum, aluminum-copper, aluminum-silicon, and aluminum-copper-silicon is sputtered on the backside of the wafer to form a layer of metal. The back side sputtered aluminum layer may be partially oxidized at low temperature to further decrease the copper penetration possibility and to also provide greater flexibility in subsequent copper interconnect related processing. Once the back side layer is in place, the wafer can be processed as usual. The sputtered back side aluminum layer can be removed during final backside grinding.

(Figure 2)