A NOVEL METHOD FOR FORMING INTERMETAL DIELECTRIC WITH SOG ETCHBACK AND CMP

ABSTRACT OF THE DISCLOSURE

A defect free intermetal dielectric, IMD, and method of forming the defect free IMD are described. The IMD uses spacers formed by means of etchback of a layer of spin-on-glass, SOG. In order to use an oxide layer formed by means of plasma enhanced tetra-ethyl-ortho-silicate, PE-TEOS, as part of the IMD an oxide cap layer formed using plasma enhanced chemical vapor deposition, PE-CVD, is used to isolate the SOG spacers from the PE-TEOS formed oxide layer. By isolating the PE-TEOS formed oxide layer from the SOG spacers a reliable and defect free IMD is achieved.

(FIGURE 2 IS SUGGESTED FOR PUBICATION)