ABSTRACT OF THE DISCLOSURE

TUNGSTEN-COPPER INTERCONNECT AND METHOD FOR FABRICATING THE SAME

An interconnect structure utilizing a silicon carbon-containing film as an interlayer between dielectrics. A semiconductor substrate having a conductor thereon is provided, and an insulating layer overlies the semiconductor substrate. The insulating layer has a via hole therein to expose the conductor. A conductive plug, e.g. a tungsten plug, substantially fills the via hole and electrically connects the underlying conductor. A silicon carbon-containing film and a low k dielectric layer overlie the insulating layer and the conductive plug, and have a trench therein exposing the conductive plug. A copper or copper alloy conductor substantially fills the trench.

(FIG. 2)