ABSTRACT OF THE DISCLOSURE

A fabrication method for a trench isolation structure is described in which a substrate is provided. A pad oxide layer and a hard mask layer are sequentially formed on the substrate. Portions of the hard mask layer, the pad oxide layer and the substrate are removed to form a trench in the substrate. Subjecting the substrate in an ozone gas environment and further irradiating with an ultraviolet light, a liner oxide layer is formed along the surface of the trench. An insulation plug is further formed, filling the trench.

This Sheet Has Been Replaced

