METHOD AND STRUCTURES FOR DUAL DEPTH OXYGEN LAYERS IN SILICON-0N-INSULATOR PROCESSES

ABSTRACT

A semiconductor structure, and associated method of fabrication, comprising a substrate (10) having a continuous buried oxide layer (24) and having a plurality of trench isolation structures (32, 34). The buried oxide layer (24) may be located at more than one depth within the substrate (10). The geometry of the trench isolation structure (32, 34) may vary with depth. The trench isolation structure (32, 34) may touch or not touch the buried oxide layer (24). Two trench isolation structures (32, 34) may penetrate the substrate (10) to the same depth to different depths. The trench isolation structures (32, 34) provide insulative separation between regions within the substrate (10) and the separated regions may contain semiconductor devices. The semiconductor structure facilitates the providing of digital and analog devices on a common wafer. A dual-depth buried oxide layer facilitates an asymmetric semiconductor structure.

Fig.2