BULK AND STRAINED SILICON ON INSULATOR USING LOCAL SELECTIVE OXIDATION

ABSTRACT

A method of forming buried oxide regions below a single crystal semiconductor layer (14) incorporating the steps of forming epitaxial layers (16) having different rates of oxidation with the lower layer (14) having a faster rate of oxidation and oxidizing the layers through an opening in a mask (24). A plurality of oxide isolated FET's maybe be formed. The invention reduces the problem of source/drain parasitic capacitance and short channel effects while isolating FET's and eliminating floating body effects of an FET by selectively oxidizing semiconductor layers.

Fig 3

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