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(54) Title: METHOD FOR FABRICATING A SEMICONDUCTOR ON INSULATOR TYPE SUBSTRATE

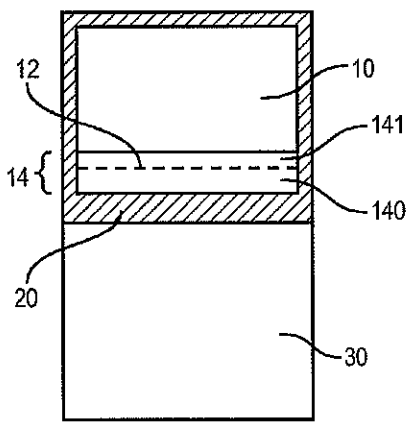



FIG. 3D

(57) Abstract: The present invention relates to a method forfabricating a substrate (1) of semiconductor on insulatortype, comprising the following steps: - formation of an oxide layer (20) on a donor substrate (10) or a receiver substrate (30), - implantation of atomic species in the donor substrate so as to form a weakened zone(12), - bonding of the donor substrate onto the receiver substrate (30), the oxide layer (20) being at the bonding interface, - fracturing the donor substrate in the weakened zone (12) and transferring a layer of the donor substrate to the receiver substrate (30), - recycling of the remainder (2) of the donor substrate to form a receiver substrate (40) used for fabrication of a second semiconductor on insulator type 10 substrate. Before the oxidation step, a layer(14) of semiconducting materialis formed by epitaxy onthedonor substrate (10). In the implantation step, the weakened zone (12) formed in said epitaxied layer (14) so that the transferred layer is an epitaxied semiconducting material layer (140). And the donor substrate (10) is chosen comprising oxygen precipitates with a density of less than $10^{10}$ /cm$^3$ and/or a mean size of less than 500 nm.

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