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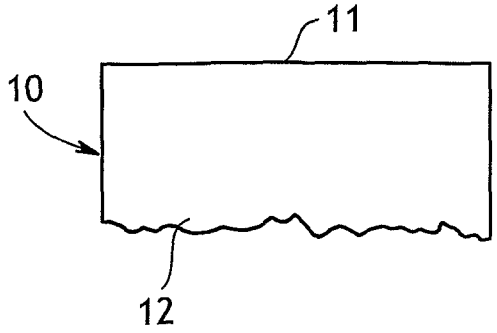
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(54) Title: METHOD FOR PRODUCING THIN LAYERS OF SEMICONDUCTOR MATERIAL FROM A DOUBLE-SIDED DONOR WAFER



(57) Abstract: A method for producing thin layers of a material selected among semiconductor materials from a donor wafer successively comprises the following steps: (a) formation of a first weakened region in the wafer below a first of its faces and at a depth corresponding substantially to a thin-layer thickness, (b) detachment of a first thin layer from the wafer at the level of the first weakened region, the first thin layer being the part of the wafer lying on the side of the first weakened region next to the first face, (c) formation of a second weakened region in the wafer below the second of its faces and at a depth corresponding substantially to a thin-layer thickness (d) detachment of a second thin layer from the wafer at the level of the second weakened region, the second thin layer being the part of the wafer lying on the side of the first weakened region next to the second face. These steps are sequenced without an intermediate recycling step so as to save on the recycling operations. Application in particular to the production of semiconductor-on-insulator structures.

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