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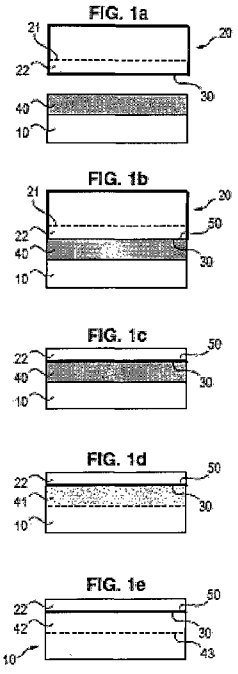
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

— *of inventorship (Rule 4.17(iv))*

[Continued on next page]

(54) Title: PROCESS FOR FABRICATING A HETEROSTRUCTURE LIMITING THE FORMATION OF DEFECTS



(57) Abstract: The invention relates to a process for fabricating a heterostructure comprising at least one thin layer and a carrier substrate made of a semiconductor, the process comprising steps consisting in: - bonding a first substrate made of a single-crystal first material, said first substrate comprising a superficial layer made of a polycrystalline second material, to a second substrate so that a bonding interface is created between the polycrystalline layer and the second substrate;. - removing from the free surface of one of the substrates, called the donor substrate, a thickness thereof so that only a thin layer is preserved; - generating a layer of amorphous semiconductor material between the first substrate and the bonding interface by amorphization of the layer of polycrystalline material; and - crystallizing the layer of amorphous semiconductor material, the newly crystallized layer having the same orientation as the adjacent first substrate.

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