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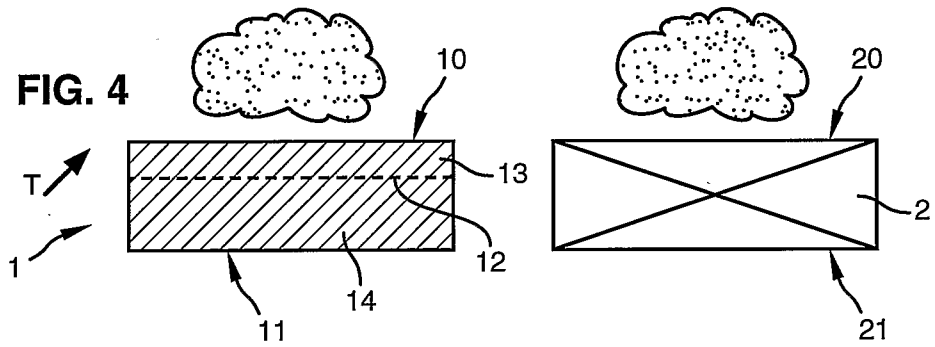
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FIG. 4



(57) Abstract: The invention relates to a method of fabricating a hybrid substrate comprising at least two layers of crystalline material that are bonded directly to each other. This method is noteworthy in that it comprises steps consisting in: implanting at least one category of atomic and/or ionic species into a donor substrate so as to form therein a weakened zone forming the boundary between an active layer and a remainder; subjecting the front faces of the donor substrate and of a receiver substrate, to a heat treatment between 900°C and 1200°C, under hydrogen and/or argon for a time of at least 30 seconds; bonding said front faces to each other; detaching said remainder; the nature, implantation dose and implantation energy of said species being chosen so that the defects induced by these species within the donor substrate allow the remainder of the donor substrate to be subsequently detached but do not develop sufficiently during said heat treatment to prevent the subsequent bonding or to deform the front face of the donor substrate.

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