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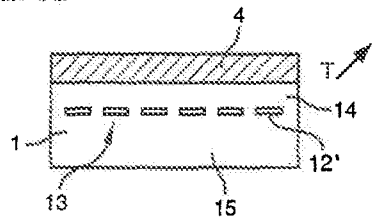
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(54) Title: PROCESS FOR OBTAINING A HYBRID SUBSTRATE COMPRISING AT LEAST ONE LAYER OF A NITRIDED MATERIAL

FIG. 3D




(57) Abstract: The invention relates to a process for obtaining a hybrid substrate comprising at least one active layer of a nitrided material of the III/N type intended for applications in the field of electronics, characterized in that it comprises the steps consisting in: selecting a source substrate (1) made of nitrided material of the III/N type, having a hexagonal single crystal crystallographic structure; carrying out an implantation of $He^+$ helium ions into this source substrate (1), through one of its faces, called the 'implantation face' (10), which lies in a plane parallel or approximately parallel with the 'c' crystallographic axis of said nitrided material, at an implantation dose equal to or greater than $1 \times 10^{16}$ $He^+/cm^2$ and $1 \times 10^{17}$ $He^+/cm^2$, for the purpose of forming therein a number of nanocavities defining a weakened zone (13) which delimits said active layer (14); and transferring said active layer (14), by applying an overall energy budget capable of causing it to be detached from the source substrate (1), which budget comprises at least the application of a thermal budget capable of causing said nanocavities to grow into cavities (12').

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