162162

G00002

METHOD FOR PRODUCING A GALLIUM NITRIDE EPITAXIAL LAYER

ABSTRACT

The invention concerns a method for producing a gallium nitride (GaN) epitaxial layer characterised in that it consists in depositing on a substrate a dielectric layer acting as a mask and depositing on the masked gallium nitride, by epitaxial deposit, so as to induce the deposit of gallium nitride patterns and the anisotropic lateral growth of said patterns, the lateral growth being pursued until the different patterns coalesce. The deposit of the gallium nitride patterns can be carried out ex-situ by dielectric etching or in-situ by treating the substrate for coating it with a dielectric film whereof the thickness is of the order of one angstrom. The invention also concerns the gallium nitride layers obtained by said method.

Figure 3