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The invention relates to the nanostructured materials production technology, in particular to processes for producing nanostructures by electrochemical processing, which can be used in microelectronics, optoelectronics and nanoelectronics.

The process, according to the invention, consists in the production of GaAs or InP nanowires by the method of anodizing the nGaAs or nInP semiconductor substrate in electrolyte, after which the substrate with the produced nanowires is subjected to heat treatment at a temperature of 900°C for 60 min, in an inert atmosphere of an Ar flow with a content of 3% oxygen, until the production on the GaAs or InP substrate of Ga₂O₃ or In₂O₃ nanowires, respectively.

Claims: 1

Fig.: 5