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The invention relates to semiconductor technology, in particular to processes for producing semiconductor materials, in particular to the unseeded vapor growth of ZnO single crystals in a closed volume.
The process, according to the invention, consists in the unseeded vapor growth of ZnO single crystal in a closed volume at a temperature of 900…1100°C with a temperature difference between the charge and the growing crystal of 5…30°C, which is carried out using chemical transport agents such as HCl with an initial pressure at a growth temperature equal to 1…5 atm, carbon in the ratio HCl:C = 2:(1…1.5) moles and hydrogen, maintained in the growth process at a constant pressure equal to 50…200% of the initial pressure of HCl.

Claims: 1
Fig.: 4