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The invention relates to processes for producing semiconductor materials and can be used in semiconductor technology.

The process for gaseous-phase production of ZnO single crystals involves their growth in a closed volume using chemical transport agents. As chemical transport agents is used HCl with an initial pressure at the growth temperature of 1...5 atm and hydrogen, which is maintained in the growth process under constant pressure equal to 50...200% of the initial pressure value of HCl. For the growth of single crystals is used a ZnO seed with the crystallographic direction [0001]Zn or [000 $\bar{1}$]O. The growth is carried out at the temperature of 980...1100°C.

Claims: 1

Fig.: 3