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The features of GaAs nanowire SEM images

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The detailed study of GaAs nanowires synthesized by molecular beam epitaxy performed by scanning electron microscopy allowed to reveal the presence of specific contrast in the images obtained. To understand the causes of the phenomenon the transmission electron microscopy of nanowire crystal structure was carried out. The results showed that it could be caused by the segments having polytypic crystal phase. It was also confirmed by the modelling of the electron beam scattering on such nanowire arrays.

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