

MBE growth and structural properties of InAs and InGaAs nanowires with different mole fraction of In on Si and strongly mismatched SiC/Si(111) substrates

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The possibility of InAs nanowires MBE growth on silicon (111) substrates with a nanometer buffer layer of silicon carbide has been demonstrated for the first time. The NWs diameter turned out to be smaller than on the silicon substrate — the minimum of NWs diameter was less than 10 nm. In addition, dependence of structural properties of InGaAs nanowires on composition was studied.

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