

Ion Synthesis: Si–Ge Quantum Dots

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We present a method of Si-Ge QDs formation by ion beam implantation (IBI) technique and high temperature annealing for self-organization. Implantation doses varied from 10^{14} cm⁻² to 10^{17} cm⁻², ion energies ranged from 50 keV to 150 keV, annealing proceeded at temperature of 950°C to 1050°C in argon environment. Formed QDs show strong infrared (IR) photoluminescence (PL) in the temperature region 15–250 K.

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