Self-Assembled Quantum Wires Grown by Molecular Beam Epitaxy and Application to Vertical Cavity Surface Emitting Lasers

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Self-assembled quantum wires (QWRs) grown by molecular beam epitaxy (MBE) have good optical quality and show large anisotropy in optical gain. When we apply them to vertical cavity surface emitting lasers (VCSELs), the problem of polarization switching will be lifted. In the short course, I would like to share discussions on

1. semiconductor nanostructures,
2. application of semiconductor nanostructures to optical devices,
3. growth of GaAs and InGaAs QWRs by MBE,
4. electronic states in QWRs,
5. optical properties of QWRs,
6. fabrication of distributed Bragg reflectors, and
7. QWR-VCSELs.