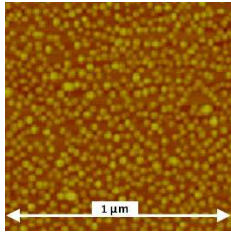
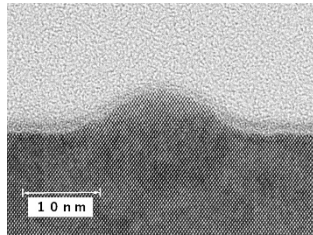


We manufacture and sell compound semiconductor products using our MBE equipment. Custom manufacturing of quantum dot wafers is also available. If you have a preferred structure, please contact us.

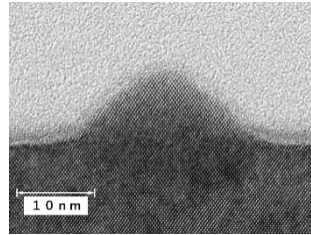
Quantum Dot Structures



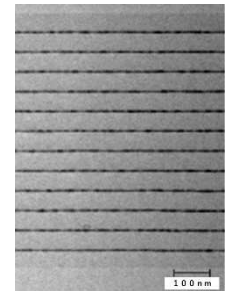
Quantum Dot surface(AFM)



Quantum Dot (TEM)



Quantum Dot (TEM)



Quantum Dot layer(TEM)

Multi-layer stacked structure available

----- Quantum Dot Examples of Fabrication -----

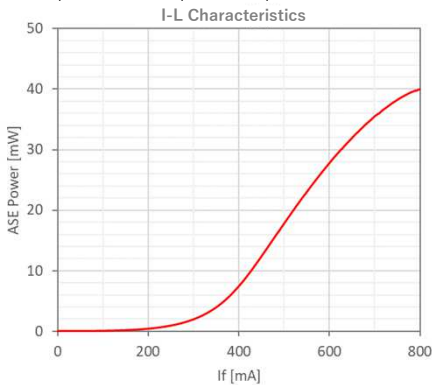
Wafer Fabrication Overview

Wafer Diameter : 2 inch
 Available elements : Ga, In, Al, As, Sb, Si (n-type dopants), Be (p-type dopants)
 Structural Example : Quantum dots in double heterostructure, etc.

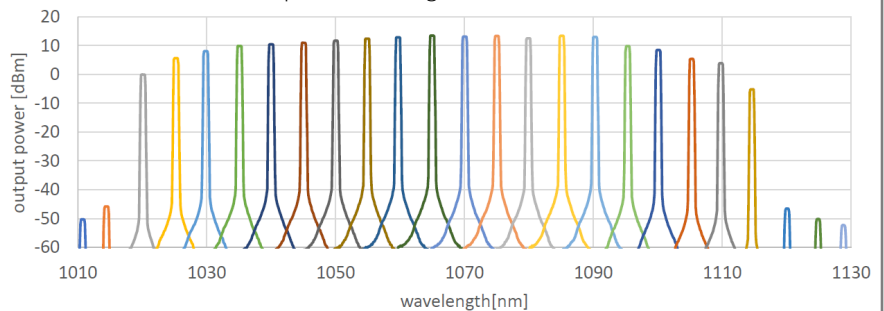
Examples of stacked structure :

p^+ -GaAs($\sim 200\text{nm}$) / p -AlGaAs($\sim 2000\text{nm}$) / (GaAs / InAs-QD) $\times N(300\sim 500\text{nm})$ / n -AlGaAs($\sim 2000\text{nm}$) / n -GaAs($\sim 200\text{nm}$) / n -GaAs-wf

Example of ASE output when processed into SOA chip



Example of wavelength tunable laser with SOA



Wavelength/bandwidth characteristics adjustment is available upon request. (1.0 - 1.3um band)

Examples of Applications

- Quantum dot laser
- Quantum dot SOA
- Quantum well laser
- Others Research and development

Quantum Dot Laser

