

Advanced Compound Semiconductor EPITAXIAL MOCVD Wafers III-V



GaAs • InP • Foundry

Custom Epitaxial Materials for Defense and Commercial Markets

Materials Growth

The growth area is class 10,000 and houses production and small volume reactors. Reactors are outfitted to grow InP and GaAs based materials on 2, 3, 4, & 6 inch diameter wafers with the highest precision available.

Material Characterization

All materials characterization is performed in a class 1000 clean-room, located adjacent to the MOCVD laboratory. A pass-through allows wafer transfer from MOCVD to characterization.



MOCVD

- > InP
- > InGaAs
- > InAlAs
- > InAsP
- > InGaAlAs
- > InGaAsP
- > GaAs
- > AlGaAs
- > InGaAlAs
- > GaAsP
- > AlGaP
- > InGaP
- > InAlP
- > InAlGaP
- > AlGaSb
- > GaSb
- > InAsSb

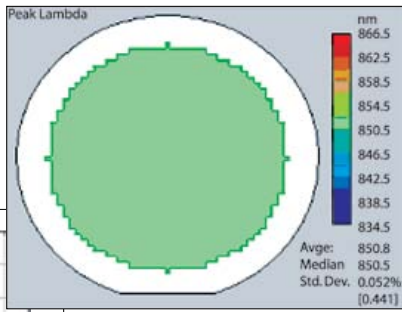
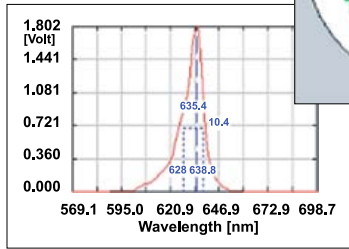
Typical Devices

- > Plasma Filters
- > Laser Power Converters
- > LEDs/RCLEDs
- > DH, QW, DFB Lasers
- > VCSELs
- > Detectors
- > Thermophotovoltaics
- > QWIPs
- > HBTs – Modulators
- > Photocathodes
- > Varactors, Pins, Guns
- > Solar Cells
- > HEMTs, FETs
- > Visible Lasers
- > Visible VCSELs
- > Tandem Solar Cells

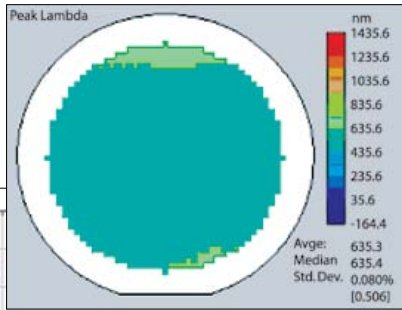
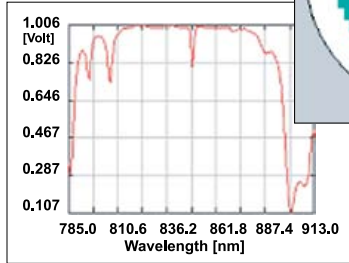
Typical Applications

- > Sensors
- > Infra-Red Cameras
- > Wireless Communications
- > Wireless Power Conversion
- > Thermal Power Conversion
- > Night Vision
- > GPS
- > Automotive
- > Medical Systems
- > Satellite Systems
- > Solid State Lasers
- > CD, MiniDisc
- > Fiber Amplifiers
- > Microwave TxRx Subsystems
- > Displays

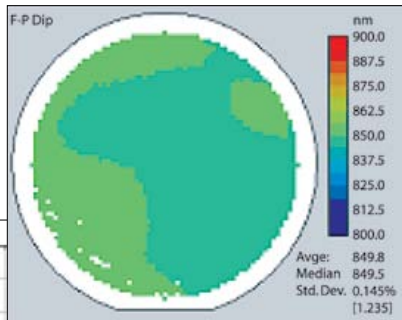
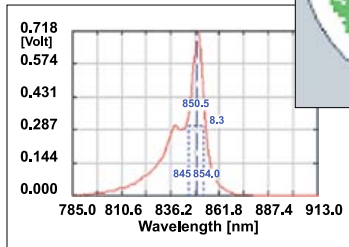
**PL of 25 QW
GaInP VCSEL**



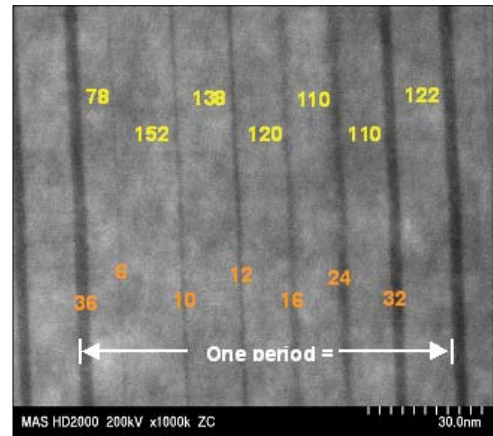
**FP-DIP
850 nm VCSEL**



**PL of 15 QW
850 nm Laser
(InGaAs Wells)**



Our extensive MOCVD experience and capabilities enable us to grow a wide range of GaAs and InP epitaxial structures. We recognize that time-to-market is critical to our customers' success, so we strive to provide the fastest turnaround times possible. Our epitaxy engineers work closely with customers to assure every wafer meets all expectations. Shown on this page are some examples of epitaxial materials.



STEM of 120 Period THz Laser Structure (Units in Angstroms)

COMMITTED TO THE TOTAL SATISFACTION OF OUR CUSTOMERS

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