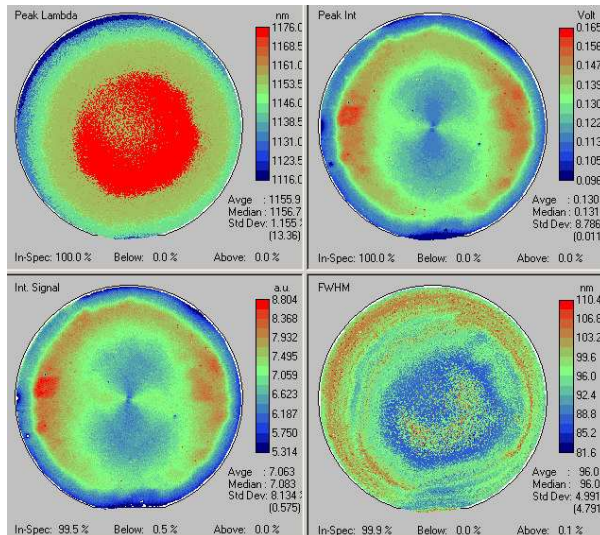


Customised epitaxy InAlGaAsP structures on InP suitable for tests and devices



Photoluminescence map of $In_{0.82}Ga_{0.18}As_{0.40}P_{0.60}/InP$ ($\lambda=1.15\mu m$) lattice-matched layer on 2" InP substrate.

InP layer on InP 2" substrate

- Thickness uniformity within 90% of the wafer radius: $\pm 1.0\%$
- CC for undoped InP layer: $10^{15}/cm^3$
- CC n-type in InP layer: $7 \cdot 10^{18}/cm^3$, CC p-type in InP layer: $3 \cdot 10^{18}/cm^3$
- Carrier mobility at $n=2 \cdot 10^{17}$: $2900 cm^2/Vs$
- Carrier concentration uniformity within 90% of the wafer radius: $\pm 10\%$

InGaAs/InP lattice-matched layer on 2" InP substrate

- For $In_{0.53}Ga_{0.47}As$ layer on 2" InP substrate
- Thickness uniformity within 90% of the wafer radius: $\pm 1.0\%$
- CC for undoped InGaAs layer: $10^{15}/cm^3$, CC for p-type InGaAs layer: $4 \cdot 10^{19}/cm^3$
- Carrier mobility at $n=1 \cdot 10^{15}$: $>9000 cm^2/Vs$
- Carrier concentration uniformity within 90% of the wafer radius: $\pm 10\%$

Other InAlGaAs epitaxy structures on GaAs

- InGaAsP/InP lattice-matched layer on InP substrate
- InAlAs/InP (typically lattice-matched)
- InAlGaAs/InP (typically lattice-matched)
- InGaAsP/InP strained or matched QW edge emitting lasers and SOAs 1300 - 1600nm
- InGaAs/InP QW edge emitting lasers 1550nm
- InGaAsP/InP VCSEL structures
- InAlGaAs/InP edge emitting and VCSEL structures
- InGaAsP/InP passive devices
- InP-based photodetectors
- InAlAs/InGaAs/InP HEMTs