



GaAs-based layers specifications

GaAs layer on 2-inch GaAs substrate

Thickness uniformity ⁽¹⁾	Unintentional carrier concentr. (cm ⁻³)	n- doping limit (cm ⁻³)	p-doping limit (cm ⁻³)	Carrier mobility at n=2*10 ¹⁷ (cm ² /V*s)	Carrier conc. uniformity ⁽¹⁾
±2%	n-type 10 ¹⁴	5*10 ¹⁸	4*10 ¹⁹	3000	±10%

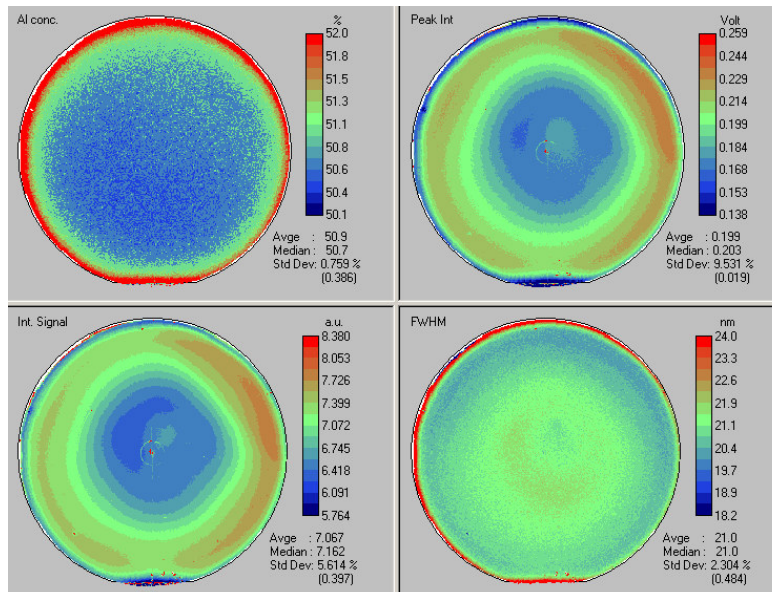
⁽¹⁾ within 90% of the wafer radius

AlGaAs layer on 2-inch GaAs substrate

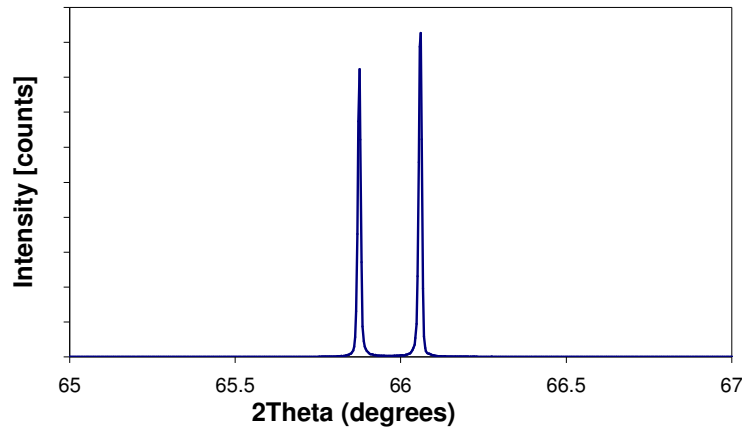
Al_{0.5}Ga_{0.5}As layer on 2-inch GaAs substrate

Thickness uniformity ⁽¹⁾	Composition uniformity ⁽¹⁾
±2%	x=0.496-0.504

⁽¹⁾ within 90% of the wafer radius



Photoluminescence map analysis of Al_{0.5}Ga_{0.5}As layer on 2-inch GaAs substrate.



XRD rocking curve of Al_{0.7}Ga_{0.3}As/GaAs layer.

Other GaAs-based layers:

- InGaAs/GaAs (typically strained)
- InGaAsP/GaAs (typically lattice-matched)
- AlAs/GaAs
- InAs/GaAs quantum dots
- GaAsP (typically strained)
- InGaAIP (typically lattice-matched)
- InGaP/GaAs (typically lattice-matched)

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