

## Specifications

- **Dimensions:** Available in 2, 3, and 4 inch sizes.
- **Materials:** InP, InGaAs, InAlAs, InGaAsP.
- **Products:** Primarily for photodetector devices.
- **Production Method:** Through MOCVD.
- **Applications:** Telecommunications, Industrial, Medical, Laser diodes, among various others.

## Features and Performance

- **Layer Background Concentration:** Features typical i-layer background concentration below 5e14, verified by Hall measurements.
- **Diode Fabrication:** Offers quick-lot diode fabrication with characterization data readily available.
- **Current Characteristics:** Exhibits low dark current and typical leakage currents below 1nA at -5 volts.

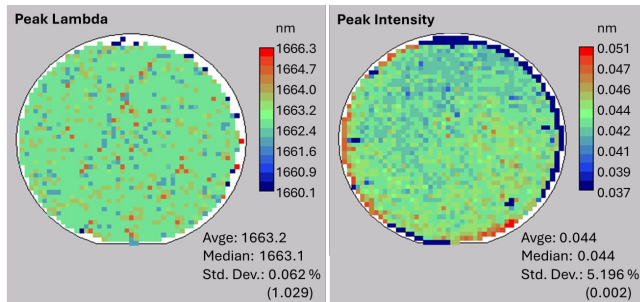
## Performance

- **Importance of Performance:** While performance is crucial for engineers, true success in wafers also demands volume and consistency. EPI Solution™ InGaAs photodetector wafers excel in all three areas by combining high performance with rapid lot data, ensuring superior yield and quality.
- **Manufacturing Excellence:** Our InGaAs wafers, produced using MOCVD, exceed industry standards. This enables the integration of next-generation technology into your applications.

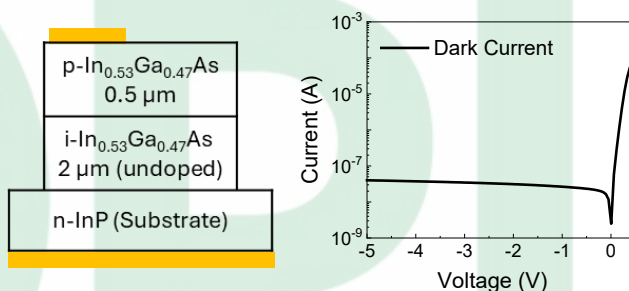
## Empowering Your Technological Advancements

- **Advancing Technology:** Adopting cutting-edge technology doesn't have to be complicated, and you don't need to navigate it alone. EPI solution offers InGaAs capabilities for advanced photodetector designs and boasts state-of-the-art 4 inch capacity to meet your specific requirements.
- **Our Expertise:** With extensive knowledge in both materials and devices, we provide high-quality, high-yield products along with the advanced technology necessary for your needs.

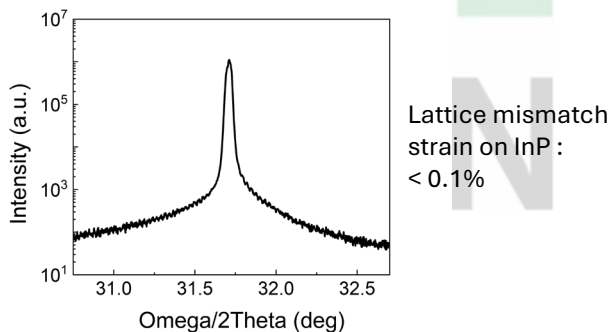
## PL map of 2 inch In<sub>0.53</sub>Ga<sub>0.47</sub>As epi wafer



## I-V characteristics of In<sub>0.53</sub>Ga<sub>0.47</sub>As epi structure



## XRD spectrum of In<sub>0.53</sub>Ga<sub>0.47</sub>As on InP substrate



## Characterization of In<sub>0.53</sub>Ga<sub>0.47</sub>As layer

Evaluation Items	Unit
Background carrier concentration	< 8x10 <sup>14</sup> cm <sup>-3</sup>
Background carrier mobility	> 8,500 cm <sup>2</sup> /Vs
Thickness variation within wafer	< 10 %