

Polycrystalline Materials

For use as source material and bulk crystal growth charges

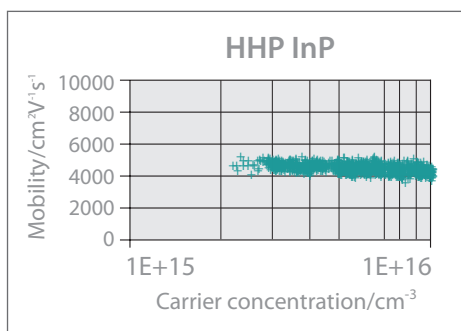
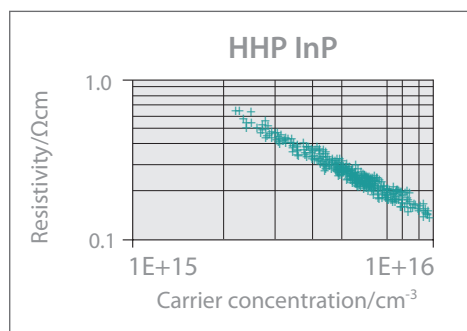


Polycrystalline ingots are produced by reacting at least 99.9999% (6N) pure elements together. The resulting stoichiometric compounds are then shaped, cleaned and individually packaged.

Both ends of each ingot are routinely assessed by Hall/Van der Pauw measurements to provide full electrical characterisation. Each synthesised batch is supplied with a complete Certificate of Conformance. Glow Discharge Mass Spectrographic (GDMS) purity analyses are performed on a sampling basis.

INDIUM PHOSPHIDE

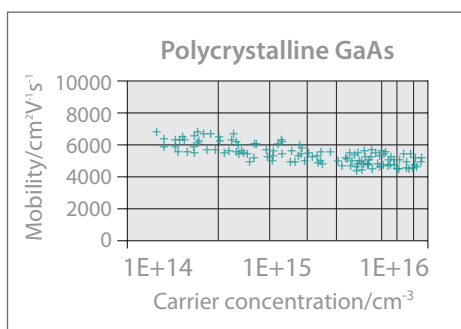
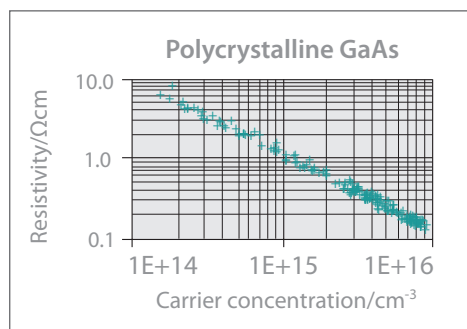
Undoped, high purity InP is multiply refined and synthesised in a horizontal high pressure (HHP) furnace resulting in a polycrystalline ingot which can be supplied in ingot/ingot sections, slices or crushed granules.



InP Ingot Specifications	
Dimensions	74-76mm 65-70mm
Ingot Weight	Up to 7.5 kg
Gain Area (typical)	~ 5-10mm²
Maximum Carrier Concentration	Grade 1: $6 \times 10^{15} \text{ cm}^{-3}$ Grade 2: $1 \times 10^{16} \text{ cm}^{-3}$ Grade 3: $3 \times 10^{16} \text{ cm}^{-3}$

GALLIUM ARSENIDE

Undoped, high purity GaAs is synthesised in a horizontal ingot form which can be supplied in ingot/ingot sections, slices or crushed granules.



GaAs Ingot Specifications	
Dimensions	58-62mm 46-48mm
Ingot Weight	5 kg
Gain Area (typical)	~ 1-5cm²
Main Impurity	Si
Maximum Carrier Concentration	Grade 1: $1 \times 10^{16} \text{ cm}^{-3}$ Grade 2: $3 \times 10^{16} \text{ cm}^{-3}$

