

Germanium für IR-Bereich

Germanium for IR-range

Formula	Ge					
Growth method	Czochralski technique					
Max. sizes, (mm)	Ø200					
Transmission range, (µm) (Thickness 10 mm)	2.0 - 18.0					
Structure	cubic					
Density (g/cm ³)	5.33					
Melting point (°C)	937					
Hardness (Mohs)	6					
Thermal expansion coefficient (10 ⁻⁶ /K)	5.1 -5.8					
Thermal conductivity (W m ⁻¹ K ⁻¹)	59.8					
Specific heat capacity (J kg ⁻¹ K ⁻¹)	310					
Solubility in water (g/100 cm ³)	insoluble					
Solubility in acids	soluble in mixture of HCl and HNO ₃ and in H ₂ O ₂					
Solubility in organic solvents	insoluble					
Wavelength (µm)	2.0	5.0	8.0	10.0	11.0	15.0
Refractive index	4.1079	4.0153	4.0053	4.0040	4.0031	4.0017
Absorption coefficient (cm ⁻¹)	0.02 at 10.6 µm					

Transmission spectrum:

