β-Ga_2O_3 Single Crystal

Rapid progress in β-gallium oxide (β-Ga_2O_3) material and device technologies has been made in this decade, and its superior material properties based on the very large bandgap of over 4.8 eV have been attracting much attention.

β-Ga_2O_3 appears particularly promising for power switching device applications because of its extremely large breakdown electric field and the availability of large-diameter, high-quality wafers manufactured from melt-grown bulk single crystals.

CasCrysTech provides high-quality Ga_2O_3 substrates/wafers that can be customized at the customer's request.

Dimension (mm*mm)	2 inch and below	5*5-20*20	5*5-20*20	5*5-15*10
Crystal Plane	（100）	（001）	（-201）	（010）
Dopant	Si (N type) or Fe (Semi-insulating)			
Miscut angle (°)		＜2		
Thickness (μm)		650±50 or Customizable		
Conduction type		N type or Semi-insulating		
Resistivity (Ω·cm)		<100 or ＞10^9		
XRD FWHM（arcsec）		＜ 150		
Surface Roughness (nm)		<1		