

Optical Lithium Tantalate (LiTaO₃)

Electro-optic Devices
Laser Frequency Multipliers
Acousto-optic Devices

Crystal Properties	Crystal Class	Trigonal
	Point Group	3m
	Space Group	R3c
	Lattice Parameter	a 0.5154, c 1.3781 nm
	Melting Point	1650 °C
	Density	7.46 g/cm ³
	Curie Temp	~630 °C
	Hardness	5.50 Mohs
	Transparency Range	400 ~ 5000 nm
	Electro-optic Coefficient	r ₃₃ 30.4 x 10 ⁻¹² m/V
	Refractive Index	n _o 2.176, n _e 2.180 (632.8 nm)
	Gradient of Refractive Index	5 x 10 ⁻⁵ /cm

Specifications	Boules	Typical Diameter	ø 40 ± 2 / ø 50 ± 2 mm
		Typical Length	100 / 80 mm
		Typical Orientation	36° Y, X, Z
		Crystal	LiTaO ₃
	Wafers	Typical Diameter	ø 42.0 ± 0.5 / ø 50.0 ± 0.5 mm
		Typical Thickness	0.2 ~ 0.5 mm
		Typical Orientation	36° Y, X, Z
		Polish	0.016 µm
		Crystal	LiTaO ₃
	Slices (Rect.)	Typical Size	≤100 mm
		Typical Orientation	36° Y, X, Z
		Polish	0.016 µm
		Crystal	LiTaO ₃

