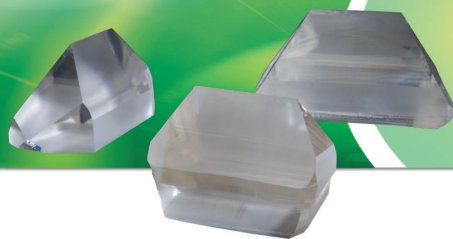




Grown in France,
Manufactured in France, Sold all over the World.



RTP

Rubidium Titanyle Phosphate – RbTiOPO₄

Applications

Operation	Advantages	Field of Application
Electro-Optic	<ul style="list-style-type: none"> + High damage Threshold (>15J/cm² at 10Hz, 10ns at 1064nm performed on coated crystals of 10mm long) + No piezoelectric ringing + Low operating voltage (1300V for Y-cut and 1600V for X-cut at 1064nm applied to a crystal pair of 4x4mm² for the aperture and 2x10mm for the length) + Low bulk absorption (<250ppm/cm at 1064nm) + Non hygroscopic 	<ul style="list-style-type: none"> + Used as pulse-picker in femto-second train + Used as Q-switch at high repetition rate

Optical properties

Average refractive index	1.8							
Coefficients in Sellmeier's equation	A_i	B_i	C_i	D_i	E_i	p_i	q_i	
$n_i^2(\lambda) = A_i + \frac{B_i}{1 - (C_i/\lambda)^{p_i}} + \frac{D_i}{1 - (E_i/\lambda)^{q_i}}$	n _x	2.1982	0.8995	0.2152	1.5433	11.585	1.9727	1.9505
	n _y	2.2804	0.8459	0.2296	1.1009	9.660	1.9696	1.9369
	n _z	2.3412	1.0609	0.2646	0.9714	8.149	2.0585	2.0038
for 0.5 < λ < 3,5 μm	Y. Guillien et al., Optical Materials 22 (2003) 155-162							
Transparency range, μm	0.35 → 4.5							
Residual absorption (PCI) at 1064nm:	<250 ppm/cm							
Electro-optical constants (@ 633 nm, 1 kHz), pm. V ⁻¹							r ₃₃	33.0
							r ₁₃	10.9
							r ₂₃	15.0
Dielectric constant (ε _{eff})							13	

Physical properties

Chemical formula	RbTiOPO ₄		
Crystal structure	Orthorhombic		
Point group	mm2		
Lattice parameters, Å	a	12.96	
	b	10.56	
	c	6.49	
Hygroscopic susceptibility	none		
Density, g.cm ⁻³	3.6		
Resistivity (20°C, 20% Humidity), Ohm.cm	10 ¹²		
Aperture, mm ² :	from 2x2 to 9x9		
Length, mm:	up to 10		