

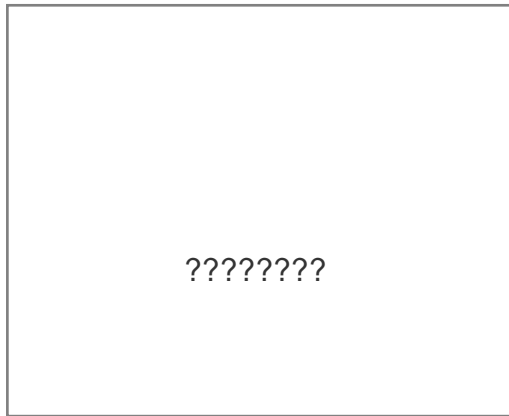
LiNbO3 and MgO:LiNbO3晶体

产品名称	LiNbO3 and MgO:LiNbO3晶体
公司名称	筱晓（上海）光子技术有限公司
价格	3000.00/个
规格参数	品牌:筱晓光子 型号:LNO001 工作波长:370-5000nm
公司地址	上海市金山区枫泾镇曹黎路38弄19号1117室
联系电话	021-64149583 17317304711

产品详情

LiNbO3 and

MgO:LiNbO3晶体



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???LiNbO3????????1000nm????????1064nm????????,????????LiNbO3???Nd:YAG????????
????????????????????????????????MgO?MgO????????5mol%????????????????????????????????,??????
????????????????????,???Nd:YAG,Nd:YLF??Ti????????Q??Perahertzlabs????????????????????,??????????
????????????????????????????500??

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Large Electro-Optic (E-O) coefficients

Large Acousto-Optic (A-O) coefficients

Typical Applications:

Frequency doublers

Optical parametric oscillators (OPO)

Quasi-phase-matched (QPM) device

Q-switches and modulator

LiNbO₃??

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???????	
?????	???
?????	??
?????	a=b=5.148? c=13.863 ?
???????	1250
?????	1140?
???g/cm ³ ?	4.64
??	5?mohs?

??????	0.4-2.9um			
???	no=2.286 ne=2.203 ?632.8nm?			
?????	d33=34.45?d31=d15=5.95?d22=13.07 ?pmv-1?			
?????	?13=8.6??22=3.4??33=30.8??51=28.0??22=6.00?pmv-1?			
?????? ???	370?5000nm >68% ?632.8nm?			
?????	a11=15.4x10-6/k?a33=7.5x10-6/k			
??	?????????3?	????		10/5
?????	Z?? ±0.3mm X??Y??±0.1mm	? ? ?		v8 ?632.8nm?
? ?	??.5mm?45 o±5 o	? ?		R<0.2%?1064nm?
?????	Z?? 5? X?Y??<10?	????		<N4?633nm?

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<10?	???	>400:1(633nm)?6mm??
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200 MW/cm²

Dimensional Tolerance	±0.1mm
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Angle Tolerance	±0.5deg
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Wavefront Distortion	<λ/4 @ 633nm
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Surface Flatness	<λ/8 @ 633 nm
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Surface Quality	20/10 Scratch and Dig
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Parallelism	< 20 arc seconds
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Perpendicularity	< 5 arc minuntes
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Clear Aperture	> Central 90%
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AR-Coating	dual waveband AR coating @1064/532 nm on both surfaces, with R < 0.2% @ 1064 nm and R < 0.5% @ 0.532 nm per surface
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Standard Products Series

MT- Optics, Inc. can provide LiNbO₃ products used for many applications, such as E-O modulator, waveguide substrate, frequency doubling, SAW wafer application and etc.

1. E-O modulator

Part No.	Dimension	Cut	Coating	Electrode
LNO001	3x3x15mm	Z-cut	AR/AR@1064nm	Au on X face
LNO002	4x4x15mm	Z-cut	AR/AR@1064nm	Au on X face
LNO003	6x6x25mm	Z-cut	AR/AR@1064nm	Au on X face
LNO004	9x9x25mm	Z-cut	AR/AR@1064nm	Au on X face

2. Waveguide substrate

Part No.	Dimension	End faces
LNO101	50x50x1mm	One surface polished, reverse fine ground

3. SAW Wafer

Part No.	Dimension	Thickness	End faces
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LNO201

76.2mm

0.5mm

One surface polished,
reverse fine ground

Note: 127.86deg Y cut, Y-cut, Z-cut and other cut also can be provided upon request.

Magnesium Oxide Doped Lithium Niobate Crystal

Compared with LiNbO3 crystal, MgO:LiNbO3 crystal exhibits its particular advantages for NCPM frequency doubling (SHG) of Nd:Lasers, mixing (SFG) and optical parametric oscillators (OPOs). MgO:LiNbO3 is also a good crystal for optical parametric oscillators (OPOs) and amplifiers (OPAs), quasi-phase-matched doublers and integrated waveguide.

MgO:LiNbO3 has similar effective nonlinear coefficients to pure LiNbO3 . Its Sellmeier equations (for MgO dopant 7 mol%) are:

$$n_o^2 = 4.8762 + \frac{0.11554}{\lambda^2 - 0.04674} - 0.033119\lambda^2$$

$$n_e^2 = 4.5469 + \frac{0.094779}{\lambda^2 - 0.04439} - 0.026721\lambda^2$$

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TL-Fe-LiNbO3-10-10-0 Fe-LiNbO3 crystal, X-cut, 10x10x0.2 mm

TL-Fe-LiNbO3-10-10-0 Fe-LiNbO3 crystal, X-cut, 10x10x0.3 mm

TL-Fe-LiNbO3-10-10-0 Fe-LiNbO3 crystal, X-cut, 10x10x0.5 mm

TL-Fe-LiNbO3-10-10-2 Fe-LiNbO3 crystal, X-cut, 10x10x2 mm

TL-Fe-LiNbO3-20-20-0 Fe-LiNbO3 crystal, X-cut, 20x20x0.5 mm

TL-Fe-LiNbO3-10-10-2 Fe-LiNbO3 crystal, Z-cut, 10x10x2 mm

TL-Fe-LiNbO3-25-25-1	Fe-LiNbO3 crystal, Z-cut, 25x25x1 mm
TL-Fe:LiNbO3-2-3-6	Fe:LiNbO3 crystal, 90 deg.-cut, 2x3x6 mm
TL-Fe:LiNbO3-1-8-10	Fe:LiNbO3 crystal, X,Y,Z, 1x8x10 mm
BL-LiNbO3-40-10-1.5	LiNbO3 block, Y-cut, 40x10x1.5 mm, 2 sides polished
BL-LiNbO3-48-15-1.5	LiNbO3 block, Y-cut, 48x15x1.5 mm, 2 sides polished
TL-LiNbO3-10-5-50	LiNbO3 crystal, 47° cut, 10x5x50 mm
TL-LiNbO3-6-6-30	LiNbO3 crystal, X,Y,Z, 6x6x30 mm
TL-LiNbO3-7-7-25	LiNbO3 crystal, X,Y,Z, 7x7x25 mm
TL-LiNbO3-9-9-25	LiNbO3 crystal, X,Y,Z, 9x9x25 mm
TL-LiNbO3-6-6-30	LiNbO3 crystal, X-cut, 6x6x30 mm
TL-LiNbO3-6-6-30	LiNbO3 crystal, Y-cut, 6x6x30 mm

TL-LiNbO3-6-6-30	LiNbO3 crystal, Z-cut, 6x6x30 mm	
SL-LiNbO3-42-23-23	LiNbO3 slab, Z-cut, 42x23x23 mm, all sides polished	
SL-LiNbO3-50-30-25	LiNbO3 slab, Z-cut, 50x30x25 mm, all sides polished	
TL-LiNbO3-76.2-0.5	LiNbO3 Stoichiometric wafer, X-cut, ? 76.2 mm, thickn. 0.5 mm	55
TL-LiNbO3-1.175-1.25	LiNbO3 wafer, 1.175x1.25x0.5 inch	63
TL-LiNbO3-100-1	LiNbO3 wafer, X-cut, 100 mm x 1.0 mm, 2 sides polished	37
TL-LiNbO3-3-0.5	LiNbO3 wafer, X-cut, 3"x0.5 mm, 2 sides polished	25
TL-LiNbO3-76.2-1.0	LiNbO3 wafer, X-cut, ? 76.2 mm, thickn. 1.0 mm	Ca
TL-LiNbO3-76.2-3.0	LiNbO3 wafer, X-cut, ? 76.2 mm, thickn. 3.0 mm	69
TL-LiNbO3-100-1	LiNbO3 wafer, Y-cut, 100 mm x 1.0 mm, 2 sides polished	37
TL-LiNbO3-3-0.6	LiNbO3 wafer, Y-cut, 3"x0.6 mm, 2 sides polished	27

TL-LiNbO3-100-1	LiNbO3 wafer, Y/127.85°-cut, 100 mm x 1.0 mm, one side polished	13
TL-LiNbO3-4-0.5	LiNbO3 wafer, Y/127.85°-cut, 4"x0.5 mm, one side polished	18
TL-LiNbO3-3-0.5	LiNbO3 wafer, Y/36-cut, 3"x0.5 mm, one side (+) polished	16
TL-LiNbO3-3-0.5	LiNbO3 wafer, Y/36-cut, 3"x0.5 mm, one side (-) polished	18
TL-LiNbO3-4-0.5	LiNbO3 wafer, YZ-cut, 4"x0.5 mm, stoichiometric	92
TL-LiNbO3-2-1	LiNbO3 wafer, Z-cut, 2"x1.0 mm, stoichiometric	45
WA-S-LiNbO3-50.8-0.5	LiNbO3 wafer, Z-cut, 50.8x0.5 mm, stoichiometric	28
WA-S-LiNbO3-50-0.53	LiNbO3 wafer, Z-cut, 50x0.53 mm, non stoichiometric	54
TL-LiNbO3-76.2-0.5	LiNbO3 wafer, Z-cut, ? 76.2 mm, thickn. 0.5 mm	Ca
TL-LiNbO3-76.2-1.5	LiNbO3 wafer, Z-cut, ? 76.2 mm, thickn. 1.5 mm	Ca
TL-LiNbO3-100-0.5	LiNbO3 wafer, ? 100 mm, thickn. 0.5 mm	1,3
TL-LiNbO3-Er-15-17-0	LiNbO3:Er, wafer Z-cut, 15x17x0.5 mm	1,3

MgO-LiNbO3-5-9.81-5	MgO(0.6%):LiNbO3 crystal, stoichiometric, 5x9.81x5 mm	1,9
MgO0.6%-LiNbO3-5-9.8	MgO(0.6%):LiNbO3 crystal, stoichiometric, 5x9.81x5 mm	1,9
MgO1%-LiNbO3-10-19.6	MgO(1%):LiNbO3 crystal, stoichiometric, 10x19.626x10 mm	2,1
MgO1%-LiNbO3-5-9.81-	MgO(1%):LiNbO3 crystal, stoichiometric, 5x9.81x5 mm	1,4
WA-MgO-LiNbO3-3-1	MgO-LiNbO3 wafer, Y-cut, 3"x1.0 mm, two sides polished	35
WA-MgO-LiNbO3-2-1	MgO-LiNbO3 wafer, Z-cut, 2"x1.0 mm, two sides polished, stoichiometric	70
WA-MgO-LiNbO3-3-1	MgO-LiNbO3 wafer, Z-cut, 3"x1.0 mm, two sides polished	45
CR-MgO-LiNbO3-10-10-	MgO:LiNbO3 crystal, 90°-cut, 10x10x2 mm	38
MgO-LiNbO3-6.5-8-12	MgO:LiNbO3 crystal, near stoichiometric, 6.5x8x12 mm	23
MgO-LiNbO3-8-10-15	MgO:LiNbO3 crystal, near stoichiometric, 8x10x15 mm	2,7

MgO-LiNbO3-10-11-0.0	MgO:LiNbO3 crystal, stoichiometric, 10x11x0.03 mm	64
MgO-LiNbO3-10-11-0.0	MgO:LiNbO3 crystal, stoichiometric, 10x11x0.05 mm	58
MgO-LiNbO3-10-11-1	MgO:LiNbO3 crystal, stoichiometric, 10x11x1 mm	Ca