

Unrivaled NLO Crystal Grown by Our Cutting-Edge Technology



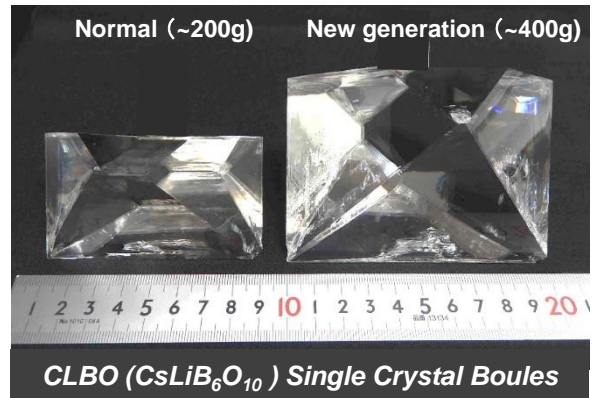
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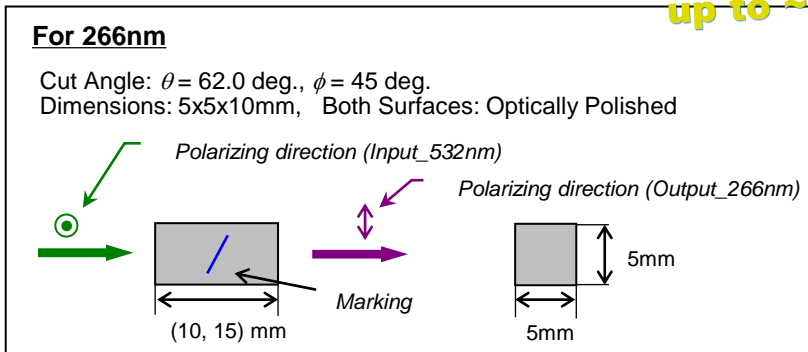
## Advantages

- ✓ Short cut off Wavelength (180nm)
- ✓ Large Angle Tolerance
- ✓ Small Walk-off Angle
- ✓ No Saturation  
for High-Power Generation



## Typical Specifications

Large clear aperture  
up to ~20mm available now!

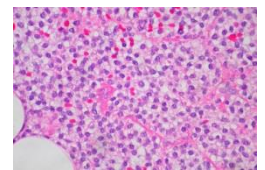
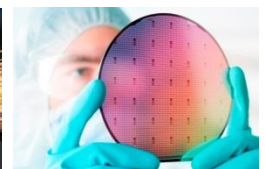


\*Cut angle and dimensions are selectable.



## Application

- ✓ Machining
- ✓ Micro Processing
- ✓ Semiconductor Inspection
- ✓ Bio-Medical
- ✓ UV-LIDAR



The sole official licensee

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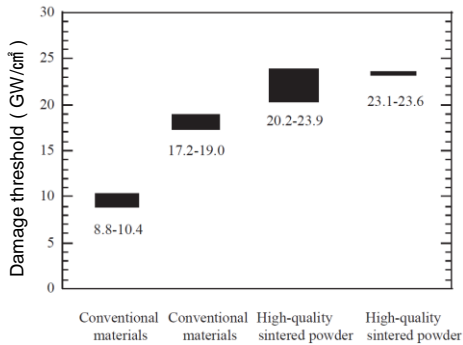
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# Properties & Sellmeier's Equations

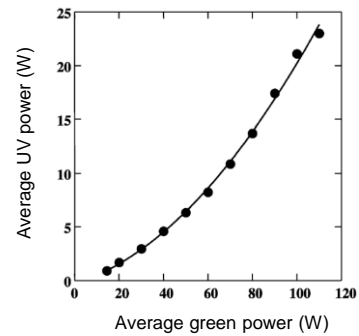
Wavelength (nm)	NLO Crystal	Phase Matching Angle (deg)	deff (pm/V)	Angle Tolerance (mrad cm)	Walk-off Angle (deg)
<b>1064+532</b> <b>= 355</b>	<b>CLBO</b>	<b>48.9</b>	<b>0.71</b>	<b>0.92</b>	<b>2.11</b>
	BBO	34.6	2.01	0.24	4.47
<b>532+532</b> <b>= 266</b>	<b>CLBO</b>	<b>62.0</b>	<b>0.79</b>	<b>0.55</b>	<b>1.84</b>
	BBO	47.7	1.75	0.19	4.89
<b>1064+266</b> <b>= 213</b>	<b>CLBO</b>	<b>68.3</b>	<b>0.95</b>	<b>0.48</b>	<b>1.66</b>
	BBO	51.1	1.95	0.13	5.51

Remark: PMT = 150 degree-C @CLBO, 27 degree-C @BBO

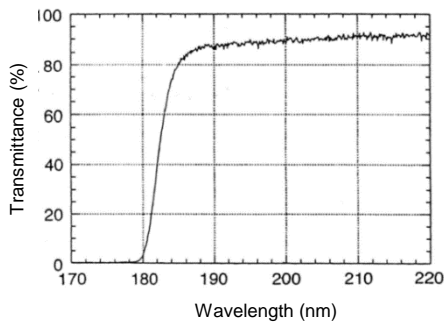
Damage Threshold \*1



High Power Generation \*1



Transmission \*2



Sellmeier equations \*3

$$n_o^2 = 2.2145 + \frac{0.00890}{\lambda^2 - 0.02051} - 0.01413\lambda^2$$

$$n_e^2 = 2.0588 + \frac{0.00866}{\lambda^2 - 0.01202} - 0.00607\lambda^2$$

(20 degree-C,  $\lambda$  in  $\mu\text{m}$ )

## References

- \*1 M.Nishioka, A.Kanoh, M.Yoshimura, Y.Mori, and T.Sasaki, "Growth of CLBO crystals with high laser-damage tolerance", Journal of Crystal Growth 279 (2005) 76-81
- \*2 T.Sasaki, Y.Mori, M.Yoshimura, "Progress in the growth of a CsLiB6O10 crystal and its application to ultraviolet light generation", Optical Materials, 23 (2003) 343-351
- \*3 N.Umemura and K.Kato, "Ultraviolet generation tunable to 0.185  $\mu\text{m}$  in CsLiB6O10", Applied Optics, 36 (1997) 6794-6796

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