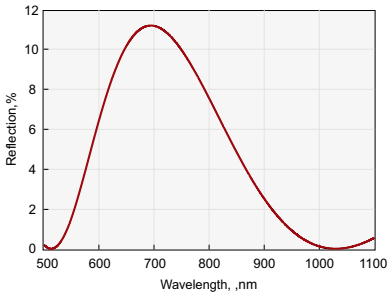
BBO AND LBO CRYSTALS FOR Yb:KGW/KYW FREQUENCY CONVERSION

EKSMA OPTICS recommends the following thickness BBO and LBO crystals for Yb:KGW/KYW frequency conversion depending on fundamental wavelength pulse duration, assuming it is spectrum limited Gausian pulse.



Typical AR@1030+515 nm coating for LBO or BBO SHG@1030 nm application

BBO crystals

Pulse duration	BBO SHG @ 1030 nm	BBO THG @ 1030 nm	BBO 4HG @ 1030 nm
50 fs	0.5 mm	0.15 mm	0.1 mm
100 fs	1 mm	0.25 mm	0.15 mm
150 fs	1.5 mm	0.4 mm	0.2 mm
200 fs	2 mm	0.55 mm	0.3 mm

LBO crystals

Pulse duration	LBO SHG @ 1030 nm
50 fs	0.9 mm
100 fs	1.9 mm
150 fs	2.8 mm
200 fs	3.7 mm

Note:
LBO crystals can be supplied with Clear Aperture up to 50 mm diameter.

LBO FOR SHG @ 1030 nm

SHG LBO crystals. Type 1, Thickness = 0.9 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	90	13.8	AR/AR @ 515+1030 nm	LBO-601H	515
8×8	90	13.8	AR/AR @ 515+1030 nm	LBO-801H	620
10×10	90	13.8	AR/AR @ 515+1030 nm	LBO-1001H	650

SHG LBO crystals. Type 1, Thickness = 1.9 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	90	13.8	AR/AR @ 515+1030 nm	LBO-602H	460
8×8	90	13.8	AR/AR @ 515+1030 nm	LBO-802H	610
10×10	90	13.8	AR/AR @ 515+1030 nm	LBO-1002H	815

SHG LBO crystals. Type 1, Thickness = 2.8 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	90	13.8	AR/AR @ 515+1030 nm	LBO-603H	545
8×8	90	13.8	AR/AR @ 515+1030 nm	LBO-803H	790
10×10	90	13.8	AR/AR @ 515+1030 nm	LBO-1003H	1035

SHG LBO crystals. Type 1, Thickness = 3.7 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	90	13.8	AR/AR @ 515+1030 nm	LBO-604H	465
8×8	90	13.8	AR/AR @ 515+1030 nm	LBO-804H	660
10×10	90	13.8	AR/AR @ 515+1030 nm	LBO-1004H	895

BBO FOR SHG @ 1030 nm

SHG BBO crystals. Type 1, Thickness = 0.5 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	23.4	90	AR/AR @ 515+1030 nm	BBO-651H	495
8×8	23.4	90	AR/AR @ 515+1030 nm	BBO-851H	640
10×10	23.4	90	AR/AR @ 515+1030 nm	BBO-1051H	760

SHG BBO crystals. Type 1, Thickness = 1.0 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	23.4	90	AR/AR @ 515+1030 nm	BBO-652H	430
8×8	23.4	90	AR/AR @ 515+1030 nm	BBO-852H	560
10×10	23.4	90	AR/AR @ 515+1030 nm	BBO-1052H	785

SHG BBO crystals. Type 1, Thickness = 1.5 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	23.4	90	AR/AR @ 515+1030 nm	BBO-653H	475
8×8	23.4	90	AR/AR @ 515+1030 nm	BBO-853H	600
10×10	23.4	90	AR/AR @ 515+1030 nm	BBO-1053H	795

SHG BBO crystals. Type 1, Thickness = 2.0 mm

Aperture, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	23.4	90	AR/AR @ 515+1030 nm	BBO-654H	480
8×8	23.4	90	AR/AR @ 515+1030 nm	BBO-854H	630
10×10	23.4	90	AR/AR @ 515+1030 nm	BBO-1054H	835

BBO FOR THG @ 1030 nm

Aperture, mm	Thickness, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	0.15	32.5	90	AR/AR @ 1030+515/343 nm	BBO-631H	725
6×6	0.25	32.5	90	AR/AR @ 1030+515/343 nm	BBO-632H	665
6×6	0.4	32.5	90	AR/AR @ 1030+515/343 nm	BBO-633H	605
6×6	0.55	32.5	90	AR/AR @ 1030+515/343 nm	BBO-634H	540

BBO FOR 4HG @ 1030 nm

Aperture, mm	Thickness, mm	θ, deg	φ, deg	Coating	Catalogue number	Price, EUR
6×6	0.1	50	90	P/P @ 515/257 nm	BBO-641H	600
6×6	0.15	50	90	P/P @ 515/257 nm	BBO-642H	570
6×6	0.2	50	90	P/P @ 515/257 nm	BBO-643H	550
6×6	0.3	50	90	P/P @ 515/257 nm	BBO-644H	535