

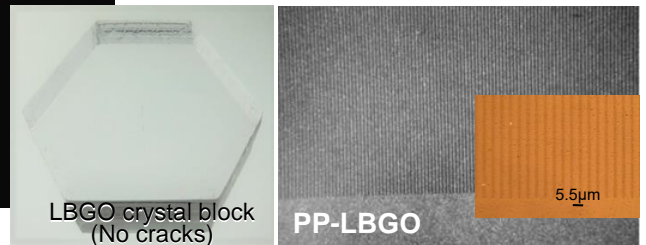
PP-LBGO

(Periodically-poled LaBGeO5)
Novel QPM device for UV Applications

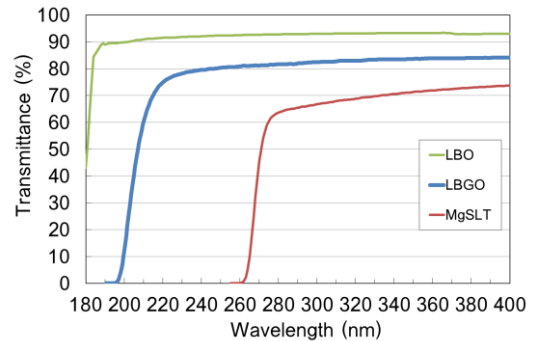
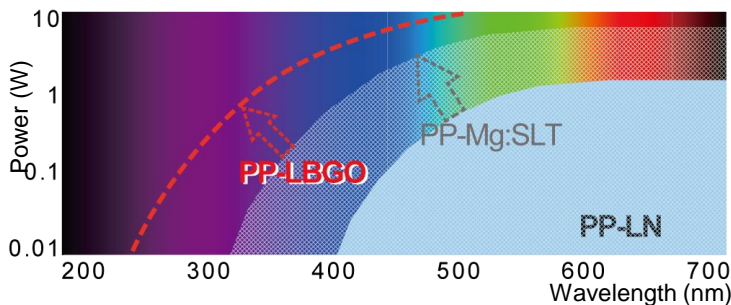
Preliminary

Remarkable Features

- ✓ Non-walk-off (QPM)
- ✓ Non Hygroscoy
- ✓ Shorter Cut-Off Wavelength (<200nm)



Available Range



Material Parameters (for 355nm generation)

		LBO Type I	LBO Type II	BBO	CLBO	PP-LBGO*	PP-Mg:SLT (3rd order)
Walk-off ρ	(mrad)	18.15	9.37	72.30	37.13	Non	Non
Nonlinear coefficient d_{eff}	(pm/V)	0.72	0.53	2.02	0.52	0.61 ($d_{33}=0.96$)	3.00
QPM periodicity Λ	(μm)					6.4	6.6
Cut-off wavelength	(nm)	160	160	180	180	195	265
Hygroscoy		Weak	Weak	Strong	Very strong	Non	Non

Above parameters are examples for 355 nm generation.

*I. Shoji et al., Advanced Photonics 2018 (Optical Society of America, 2018), paper NoM3J.5

OXIDE

OXIDE Corporation

1747-1 Maginohara, Mukawa, Hokuto, Yamanashi 408-0302 JAPAN
Tel: +81-551-26-0022, Fax: +81-551-26-0033



✉ Sales@opt-oxide.com

🌐 <https://www.opt-oxide.com>

🐦 Oxide Yamanashi

please fill in the questionnaire sheet below,
and email to "sales@opt-oxide.com" with the sheet.

QPM Device Questionnaire

SUBJECTS			REQUESTS				
Your setup condition	Conversion Type	SHG/SFG/DFG/OPO/OPA/OPG/others					
	Expected or requested output		Converted wavelength		nm		
			Power		mW		
			Conversion efficiency		%		
			Transform-limited pulse (Yes/No)				
	Input laser 1		CW / Pulsed				
			Common parameter		Wavelength		nm
					Linewidth		nm
					M2		
					Average Power		W
					Polarization (linear or random)		
					Focusing condition (if any)		
			Pulsed only		Peak Power		W
					Pulse energy		mJ
					Rep.rate		MHz
	Pulse width				ns		
	Input laser 2 (in the case of SFG, DFG, OPA)		CW / Pulsed				
			Common parameter		Wavelength		nm
					Linewidth		nm
					M2		
					Average Power		W
					Polarization (linear or random)		
					Focusing condition (if any)		
Pulsed only			Peak Power		W		
			Pulse energy		mJ		
			Rep.rate		MHz		
		Pulse width		ns			
Your device requests.		Material (MgSLT / MgLN / MgLN waveguide/LBGO)					
		Type of QPM grating period (single, multiple, chirped, fan-out, hybrid)					
		Dimension	(L1) x (W1) x (T1)			mm	
		Phase-matching Temperature				degree C	
		Periodicity (um)				um	
		Polishing		Input facet (S1) (flat/angle)			
				Output facet (S2) (flat/angle)			
		AR coating		Input facet (S1)			
				Output facet (S2)			
		Quantity				pc	
Requested delivery time				weeks			
Accessories		QPM Mount with TEC			pc		
		5-Axis Stage			pc		
		Temp. Controller			pc		
Other Requests							
Your budget for this request		(Ex. Approximately 1M JPY)					
Quantities of future demand		(Ex. 10 pieces/year, 50 pieces/year)					
Requested delivery		(Ex. September in 2014, 4weeks APO)			APO		
<input checked="" type="checkbox"/>		The above-mentioned Item(s) will not be used for the development, production and/or use of the weapons of mass destruction (WMD) namely nuclear weapon, chemical weapon, biological weapon and WMD delivery systems such as missiles, nor be used in any nuclear explosive activity, nuclear fuel-cycle activity and/or heavy water production which is not covered by IAEA safeguards. The items will be used for civil purpose only.					