



PP-LBGO

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

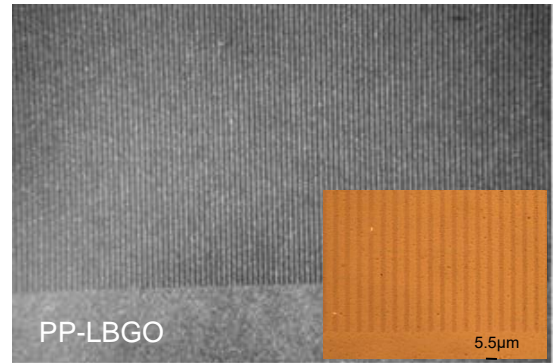
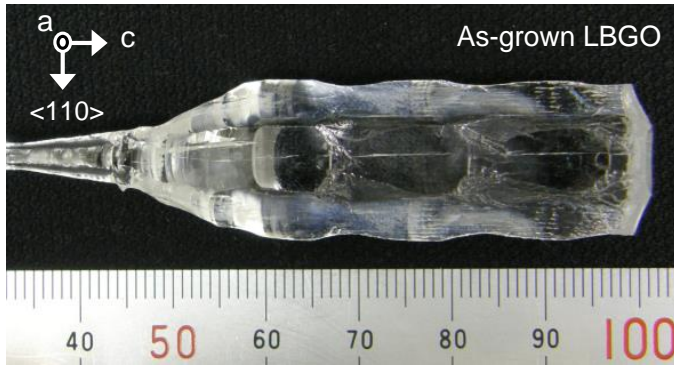
Preliminary

Remarkable Features

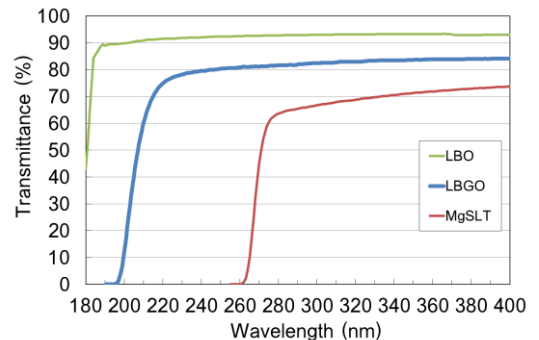
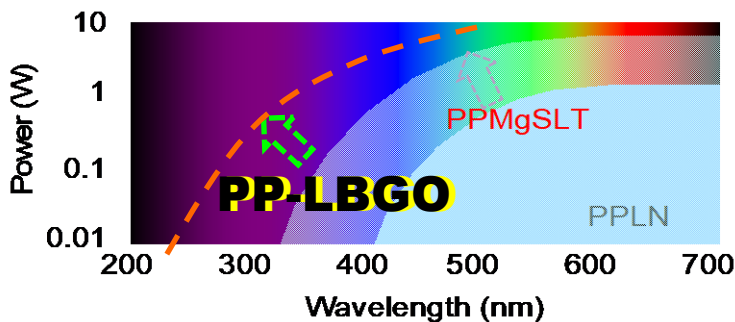
Non-Walk-Off (QPM)

Non Hygroscopy

Shorter Cut-Off Wavelength (<200nm)



Available Range



Material Parameters

		LBO Type I	LBO Type II	BBO	CLBO	PP-LBGO* d ₃₃ based	PP-LBGO* d ₃₁ based	PPMgSLT (3rd order)
Walk-off ρ	(mrad)	18.15	9.37	72.30	37.13	Non	Non	Non
Nonlinear coefficient d_{eff}	(pm/V)	0.72	0.53	2.02	0.52	0.36 (d ₃₃ =0.57)	0.43 (d ₃₁ =0.68)	3.00
QPM periodicity Λ	(µm)					6.4	3.7	6.6
Cut-off wavelength	(nm)	160	160	185	180	195	195	265
Hygroscopy		Weak	Weak	Strong	Very strong	Non	Non	Non

Above parameters are examples for 355 nm generation.
* A. A. Kaminskii et al., phys. stat. sol (a) **125**, 671 (1991).

OXIDE

Oxide Corporation



1747-1 Makihara, 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>

Contents are things of 10-June-2014.

please fill in the questionnaire sheet below

QPM Device Questionnaire

Customer code	
Customer name	
Corresponding person	
Date	

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	Common parameter	CW / Pulsed			
			Wavelength			nm
			Linewidth			nm
			M2			
			Average Power			W
			Polarization (linear or random)			
		Pulsed only	Focusing condition (if any)			
			Peak Power			W
			Pulse energy			mJ
			Rep.rate			MHz
	Pulse width			ns		
	Pulse shape					
	Input laser 2 (in the case of SFG, DFG, OPA)	Common parameter	CW / Pulsed			
			Wavelength			nm
			Linewidth			nm
M2						
Average Power				W		
Polarization (linear or random)						
Pulsed only		Focusing condition (if any)				
		Peak Power			W	
		Pulse energy			mJ	
		Rep.rate			MHz	
Pulse width			ns			
Pulse shape						
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)				