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PARTIAL RELEASE OF SIMTRUM OPTICAL CATALOGUE

Date Stamp: 1/4/2021

Please Follow Us on Linkedin or Our Company Website for more updates.

This document will be periodically updated and does not reflect our full catalogue.

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Availability of Graphs and Data

This Optical Catalogue is a supporting document for our main webstore at www.simtrum.com. Technical specifications key to each product can be found on its corresponding webpage.

The SIMTRUM Photonics webstore is currently in soft launch and is not fully launched at this stage. We are constantly uploading new content for existing products (graphs, coatings, and data). All data with related products, if not available online, is available on request. Drop us a email at info@simtrum.com with the desired part number and we will get back to you.

Policy on Minimum Order Quantity (MOQ)

SIMTRUM currently provides MOQ pricing for our optical components. Website prices currently only reflect per-unit pieces. Contact us for more information on MOQ pricing and key requirements.

Committed to supporting the research industry, prototype builders and fellow start – ups, SIMTRUM accepts small quantity orders, both for custom and standard part numbers. This service is a trial to assess the range of customer applications we can support. Please drop us and email at info@simtrum.com with the necessary specifications.

How to Order

By Part Number
Access our website using the links attached the products below. Use the 'Add to cart' or email us the necessary part number and quantities required. A quotation will be provided.

By Needs Description
Need a custom optic or can't find what you're looking for? Drop us an email with your requirements.
Please specify specific dimensions (diameter, thickness), wavelength related information (cut on or off, range or FWHM) and item name. Do Include your contact information so that we can follow up with you (Tel. No. , E-mail).

Consultation Service

Dedicated to providing the best service possible, we are providing consultation services to ensure your needs are met. Find out more about our services here or contact us for a web or in-person meeting.

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CRYSTALS							
Laser Crystals	Nonlinear Optical Crystals		Birefringent Crystals	Optical Crystals	Electro-optical Crystals	Terahertz Crystals	Optical Windows
Nd:YAG	KTP	CdSe	Calcite	CaF2	EO BBO	GaSe	BaF2
Nd:YVO4	LBO	ZnGeP2	BBO	LiF	EO LiNbO3	ZnTe	
Nd: KGW	DKDP	AgGaS2		MgF2			
Ti: Sapphire	KDP	KGW		BaF2			
Yb: KGW	LiIO3	Ba(NO3)2					
Yb: KYW	LiNbO3	Cr: YAG					
	BBO	MgLiNbO3					
	KTA						

SELECTION GUIDE	
Laser Crystals (Link)	• Used as gain media for-solid state lasers. • Doped with either trivalent rare earth ions or transition metal ions. • The ions enable the crystal to amplify light at the laser wavelength via stimulated emission.
Nonlinear Optical Crystals (Link)	• Used for nonlinear frequency conversion. • Employed in electro-optic modulators. • Used for frequency doubling to blue wavelengths and in piezoelectric applications.
Birefringent Crystals (Link)	• Used in many optical devices such as in Liquid-crystal displays, the most common being flat-panel displays. • Play an important role in second-harmonic generation and other nonlinear optical components. • By adjusting the angle of incidence, the effective refractive index of the ray can be tuned to achieve phase matching.
Optical Crystals (Link)	• Applications include polarizers, fiber isolators, and walk-off beam splitters.
Electro-Optical Crystals (Link)	• Generally used in electro-optic modulators, deflectors and sensors.
Terahertz Crystals (Link)	• High damage threshold • Generate short and high-quality THz pulses. • Semiconductor ZnSe and GaSe crystals are employed for frequencies generation in terahertz range. • THz radiation generation in semiconductor crystals is formulated upon optical rectification of broadband femtosecond pulses.
Optical Windows (Link)	• Optically flat, transparent optical material that allows light into an optical instrument. • Usually parallel and is likely to be anti-reflection coated.

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FILTERS				
Neutral Density Filters	Band Pass Filters	Edge Pass Filters	Birefringent Filters	Fluorescence Filters

Neutral Density Filters (Link)						
SUB APPLICATION	MATERIAL	BAND PASS RANGE	DIAMETER (mm)		OPTICAL DENSITY (O.D.)	
			Smallest	Smallest	MIN	MAX
Absorptive ND Filters	Schott Glass	400-700nm	25.4	50	0.1	2
Reflective ND Filters	BK7	400-1200nm	25.4	50	0.045	3
Reflective ND Filters	B270	400-700nm	25.4	25.4	0.1	3
Variable ND Filters	Varied material, shape, and density range per filter.					

Bandpass Filters (Link)		
Subcategory	Spectrum	Bandwidth
Narrow Bandpass Filters	BK7 UV	10-12nm
Narrow Bandpass Filters	BK7 VIS	3,10,11nm
Narrow Bandpass Filters	BK7 NIR	10-20nm
Broadband Bandpass Filters		
Broadband Bandpass Filters	BK7 VIS	80nm
Broadband Bandpass Filters	BK7 NIR	45-80nm

Edge Pass Filters (Link)			
SUB APPLICATION	MATERIAL	CUT ON/OFF Wavelength Value (nm)	DIMENSION (mm)
Shortpass Filters	UVFS	CUT OFF: 650, 850, 950 More Options Coming Soon	25.4
Longpass Filters	B270	CUT ON: Starting from 380nm	
Customized or Specially requested wavelengths / dimensions available. Use the Contact Us button below.			

Birefringent Filters (Link)
Fluorescence Filters (Link)

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POLARIZERS				
Polarization Beamsplitter	Crystal Polarizer Film Polarizer	Depolarizer	Polarization Beamsplitter	Misc. Optics

	Polarization Beamsplitters (Link)		
	Item	**Wavelength**	**Key Notes**
	High Performance Two Channel PBS	VIS-NIR	½"/ 1" cube side length
	High Power Polarization Beamsplitter	UV VIS NIR	½" cube side length
Brewster Window	Calcite Brewster Window	350-2300	5mm/10mm Clear aperture
	YV04 Brewster Window	500-4000	5mm/10mm Clear aperture
Broadband Polarization Beamsplitter Cubes	bk7 Broadband Polarization Beamsplitter Cubes	VIS-NIR	½"/ 1" cube side length
	NSF-1 Broadband Polarization Beamsplitter Cubes	VIS-NIR	10mm / 12.7mm /20mm /25.4mm cube side length
	Laser Line Beam Splitter Cube	VIS-NIR	10mm / 12.7mm /20mm /25.4mm cube side length

Crystal Polarizer (Link)					
Material	a-BBO	Calcite	YVO4 Glan Taylor Polarizer	Quartz	Mgf2
Polarizer Type \ Wavelength	189-3500nm	190-1700nm	500-4000nm	200-2300nm	190-6500nm
Glan Taylor Polarizer	•	•	•		
Glan Laser Polarizer	•	•	•		
Glan Thompson Polarizer	•	•			
Wollaston Polarizer	•	•			
Rochon Polarizer	•		•	•	•

Depolarizers (Link)			
Item	Wavelength		Diameter
Quartz Lyot Depolarizer	400 - 2500	Extended UV range available	1"
Quartz Wedge Depolarizer			1"

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Film Polarizers (Link)			
Item	Wavelength	Brewster Angle	Material
Thin Film Polarizer	VIS-NIR	45°	BK 7
		56°	UVFS
		72°	Coming Soon!
		Diameter	
Nanoparticle Linear Polarizers	VIS-NIR	½", 2"	
Dichroic Sheet Polarizers	400-700nm	½", 1", 2"	

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WAVEPLATES			
Multi-Order Waveplates	Achromatic Waveplates	High Power Waveplates	Zero Order Waveplates

Multi-Order Waveplates (Link)		
Item	Wavelength	Material
Half Waveplate	VIS - NIR	Quartz
Quarter Waveplate	VIS - NIR	Quartz
Dual Wavelength Waveplates	532+1064nm	Quartz

Achromatic Waveplates (Link)			
Item	Type	Wavelength	Material
Super Achromatic Quarter Waveplates		380-1100nm 600-2000nm	Crystal Quartz+MgF2+Sapphire
Achromatic Half Waveplates	Air Spaced	VIS – NIR (4 wavelength bands of choices covering from 450-2100nm)	Quartz+MgF2
	Cemented	VIS – NIR (4 wavelength bands of choices covering from 450-2100nm)	Quartz+MgF2
Achromatic Quarter Waveplates	Air Spaced	VIS – NIR ((4 wavelength bands of choices covering from 450-2100nm)	Quartz+MgF2
	Cemented	VIS – NIR (4 Range of choices)	Quartz+MgF2

High Power Waveplates (Link)		
Item	Wavelength	Material
Single Plate High Power Half Waveplates	355,532,1030,1064	Quartz
Single Plate High Power Quarter Waveplates	355,532,1030,1064	Quartz

Zero Order Waveplates (Link)			
Item	Type	Wavelength	Material
Zero Order Half Waveplates	Air Spaced	UV-VIS-NIR	Quartz
	Optically Contacted	UV-VIS-NIR	Quartz
Zero Order Quarter Waveplates	Air Spaced	UV-VIS-NIR	Quartz
	Optically Contacted	UV-VIS-NIR	Quartz
True Zero Order Half Waveplates		VIS (RED) – NIR	Quartz/BK7
True Zero Order Quarter Waveplates		VIS (RED) – NIR	Quartz/BK7

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