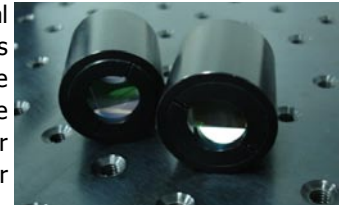
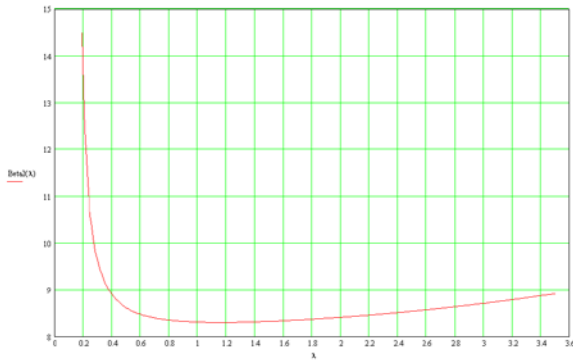


Rochon polarizer is one of the earliest designs, which is made of two birefringent material prisms cemented or optical contacted together. Both ordinary and extraordinary beams propagate collinearly down the optic axis in the first prism under the ordinary refractive index. Upon entering the second prism the ordinary beam experiences the same refractive index and continues undeviated. The extra-ordinary beam, however, now has a lower refractive index and is refracted at the interface. Any separation angle can be designed for specific wavelength upon requirement.



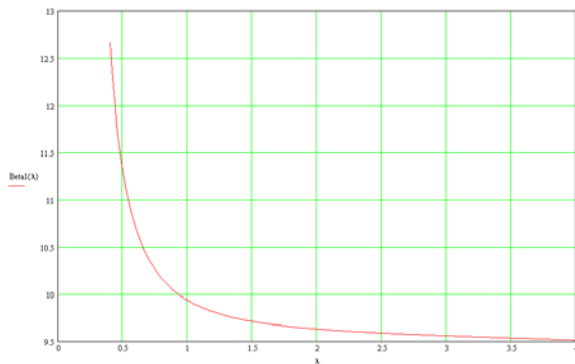
Angular Field vs Wavelength



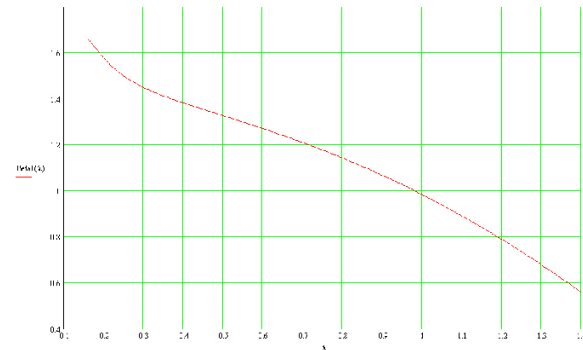
a-BBO, 220-900nm



Quartz, 200-3300nm



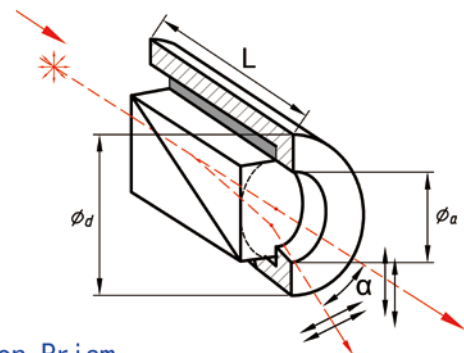
YVO₄, 400-4000nm



MgF₂ 160-1500nm

Specifications

Material	α-BBO, Calcite, YVO ₄ , Quartz, MgF ₂
Wavelength Range	α-BBO:190-3500nm, YVO ₄ :400-4000nm, Quartz:200-2300nm, MgF ₂ :130-7000nm
Extinction Ratio	Quartz: <math> < 5 \times 10^{-5} </math>; α-BBO, YVO ₄ : <math> < 5 \times 10^{-6} </math>, MgF ₂ : <math> < 10^{-4} </math>
Parallelism	<math> < 1 </math> arc Min
Surface Quality	20/10 Scratch/Dig
Beam Deviation	<math> < 3 </math> arc minutes
Wavefront Distortion	<math> < \lambda/4 @ 633\text{nm} </math>
Damage Threshold	>500 MW/cm ²
Coating	Single MgF ₂
Mount	Black Anodized Aluminium



Rochon Prism

Rochon Polarizers

Standard Products

1. MgF₂ Rochon Polarizer

Part No.	Extinction Ratio	Separation Angle(°)	C.A. φa (mm)	O.D. φd (mm)	L±0.1(mm)	Unit price
PRH5006	<1x10 ⁻⁴	1.0-2 1@980nm	6	15	14	\$288
PRH5008			8	25.4	18	\$368
PRH5010			10	25.4	28	\$448
PRH5015			15	30	38	\$568
PRH5020			20	38	48	\$898

2. α-BBO Rochon Polarizer

Part No.	Extinction Ratio	Separation Angle(°)	C.A. φa (mm)	O.D. φd (mm)	L±0.1(mm)	Unit price
PRH6006	<5x10 ⁻⁶	8.0-14 8@800nm	6	15	14	\$398
PRH6008			8	25.4	16	\$438
PRH6010			10	25.4	18	\$558
PRH6015			15	30	23	\$758
PRH6020			20	38	28	\$1,198

3. Quartz Rochon Polarizer

Part No.	Extinction Ratio	Separation Angle(°)	C.A. φa (mm)	O.D. φd (mm)	L±0.1(mm)	Unit price
PRH9006	<5x10 ⁻⁶	1.0-1.5 1@1064nm	6	15	20	\$258
PRH9008			8	25.4	24	\$318
PRH9010			10	25.4	28	\$388
PRH9015			15	30	38	\$488
PRH9020			20	38	48	\$698

4. YVO₄ Rochon Polarizer

Part No.	Extinction Ratio	Separation Angle(°)	C.A. φa (mm)	O.D. φd (mm)	L±0.1(mm)	Unit price
PRH8006	<5x10 ⁻⁶	9.8-13.0 10@1550nm	6	15	14	\$288
PRH8008			8	25.4	16	\$368
PRH8010			10	25.4	16	\$448
PRH8015			15	30	20	\$568
PRH8020			20	38	25	\$898