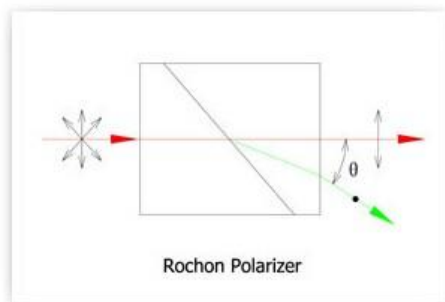


## Rochon Polarizers of alpha BBO, YVO4, Quartz and MgF2

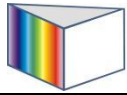
### Crystal

**Rochon polarizer** is one of the earliest designs, which is made of two birefringent material prisms cemented 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. The angle of refraction is further increased at the birefringent material/air exit surface. Any separation angle can be designed for specific wavelength upon the requirement.

The stocked mouldles are available in Shalom EO in fast delivery and low cost.



Specifications	
Material	a-BBO、Calcite、YVO 4、Quartz
Wavelength Range	a-BBO : 190~3500 nm Calcite: 350~2300 nm YVO 4 : 500~4000 nm Quartz: 200~2300 nm
Extinction Ratio	a-BBO : <math><5 \times 10^{-6}</math> YVO 4 : <math><5 \times 10^{-6}</math> Quartz: <math><5 \times 10^{-5}</math> MgF2 : <math><5 \times 10^{-5}</math>
Surface Quality	20 / 10
Parallelism	<math><1</math> arc Min
Beam Deviation	<math><3</math> arc minutes
Damage Threshold	<math&gt;\lambda 4@633\text{nm}&lt;="" math&gt;<="" td=""> </math&gt;\lambda>
Damage Threshold	>500 MW/cm <sup>2</sup>
Coating	Single MgF2
Mount	Black Anodized Aluminium



### 1. $\alpha$ -BBO Rochon Polarizer

Part No.	Wavelength Range(nm)	Extinction Ratio	Separation Angle(nm)	C.A.φa (mm)	O.D.φd (mm)	L (mm)
PRH1006	190~3500	$<5 \times 10^{-6}$	8° @1064	6.0	15.0	15.0
PRH1008				8.0	25.4	17.0
PRH1010				10.0	25.4	19.0
PRH1015				15.0	30.0	23.0
PRH1020				20.0	38.0	29.0

### 2.YVO4 Rochon Polarizer

Part No.	Wavelength Range(nm)	Extinction Ratio	Separation Angle(nm)	C.A.φa (mm)	O.D.φd (mm)	L (mm)
PRH3006	400~4000	$<5 \times 10^{-6}$	10° @1550	6.0	15.0	15.0
PRH3008				8.0	25.4	17.0
PRH3010				10.0	25.4	19.0
PRH3015				15.0	30.0	23.0
PRH3020				20.0	38.0	25.0

### 3. Quartz Rochon Polarizer

Part No.	Wavelength Range(nm)	Extinction Ratio	Separation Angle(nm)	C.A.φa (mm)	O.D.φd (mm)	L (mm)
PRH4006	200~2300	$<5 \times 10^{-5}$	1° @1064	6.0	15.0	20.0
PRH4008				8.0	25.4	24.0
PRH4010				10.0	25.4	28.0
PRH4015				15.0	30.0	38.0
PRH4020				20.0	38.0	48.0

### 4. MgF2 Rochon Polarizer

Part No.	Wavelength Range(nm)	Extinction Ratio	Separation Angle(nm)	C.A.φa (mm)	O.D.φd (mm)	L (mm)
PRH5006	110~8000	$<5 \times 10^{-5}$	1° @980	6.0	15.0	14.0
PRH5008				8.0	25.4	18.0
PRH5010				10.0	25.4	18.0
PRH5015				15.0	30.0	38.0
PRH5020				20.0	38.0	48.0