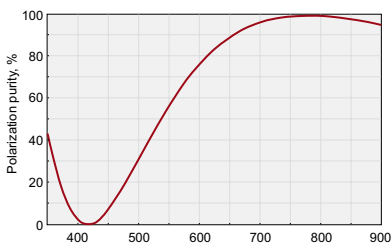
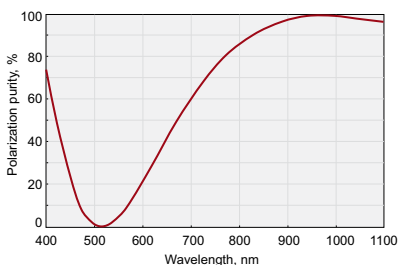


ZERO ORDER DUAL WAVELENGTH WAVEPLATES

When optical axis is turned by 45 degrees to input polarization, the waveplate rotates polarization of Ti:Sapphire laser fundamental (800 nm) by 90 degrees and the polarization of Ti:Sapphire second harmonic (400 nm) remains the same.



Polarization purity of zero order dual waveplate. $\lambda/2@800\text{ nm} + \lambda/400\text{ nm}$



Polarization purity of zero order dual waveplate. $\lambda/2@1030\text{ nm} + \lambda/515\text{ nm}$

SPECIFICATIONS

Material	Single crystal quartz
Optical axis	normal to facet on circumference of retarder
Clear aperture	Ø17 mm
Ring mount outer diameter	25.4 +0.0/-0.12 mm
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Wavefront distortion	$\lambda/10 @ 633\text{ nm}$
Parallelism	<10 arcsec
AR coating	R<0.5%

Code	Description	AR coated	Laser Damage Threshold	Application	Price, EUR
465-4211	optically contacted $\lambda/2@800\text{ nm} + \lambda@400\text{ nm}$	800+400 nm	>10 mJ/cm ² , 50 fsec pulse, 800 nm typical	Ti: Sapphire	345
466-4211	air-spaced $\lambda/2@800\text{ nm} + \lambda@400\text{ nm}$	800+400 nm	100 mJ/cm ² , 50 fsec pulse, 800 nm typical	Ti: Sapphire	410
465-4212	optically contacted $\lambda/2@1030\text{ nm} + \lambda@515\text{ nm}$	1030+515 nm	>10 mJ/cm ² , 50 fsec pulse, 1030 nm typical	Yb: KGW/KYW	345
466-4212	air-spaced $\lambda/2@1030\text{ nm} + \lambda@515\text{ nm}$	1030+515 nm	100 mJ/cm ² , 50 fsec pulse, 1030 nm typical	Yb: KGW/KYW	410

HOUSING ACCESSORIES

Polarizer Holder
840-0180

See page 8.86



LOW ORDER WAVEPLATES

- Thickness 0.15–0.35 mm
- Thinner than multiple order

Low order plates are less temperature sensitive and temperature dependent than multiple order plates. These plates are suitable for high and low power applications.

SPECIFICATIONS

Material	Single crystal quartz
Optical axis	normal to facet on circumference of retarder
Clear aperture	Ø17 mm
Ring mount outer diameter	25.4 +0.0/-0.12 mm
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Wavefront distortion	$\lambda/10 @ 633\text{ nm}$
Parallelism	< 10 arcsec
AR coating	R < 0.5%
Laser damage threshold	100 mJ/cm ² , 50 fsec pulse, 800 nm typical

RELATED PRODUCTS

Low Order Plates of other wavelengths

See page 1.54

High Precision Rotation Polarizer, Waveplate Mount 840-0186

See page 8.88



Center wavelength, nm	AR coating range, nm	Retardation $\lambda/2$		Retardation $\lambda/4$	
		Catalogue no.	Price, EUR	Catalogue no.	Price, EUR
1030	1000-1060	461-4208	160	461-4408	160
800	760-840	461-4215	160	461-4415	160
780	740-820	461-4220	160	461-4420	160
515	500-530	461-4232	160	461-4432	160
400	380-420	461-4235	160	461-4435	160
343	333-353	461-4241	192	461-4441	192
266	257-275	461-4245	196	461-4445	196
257	250-265	461-4246	196	461-4446	196