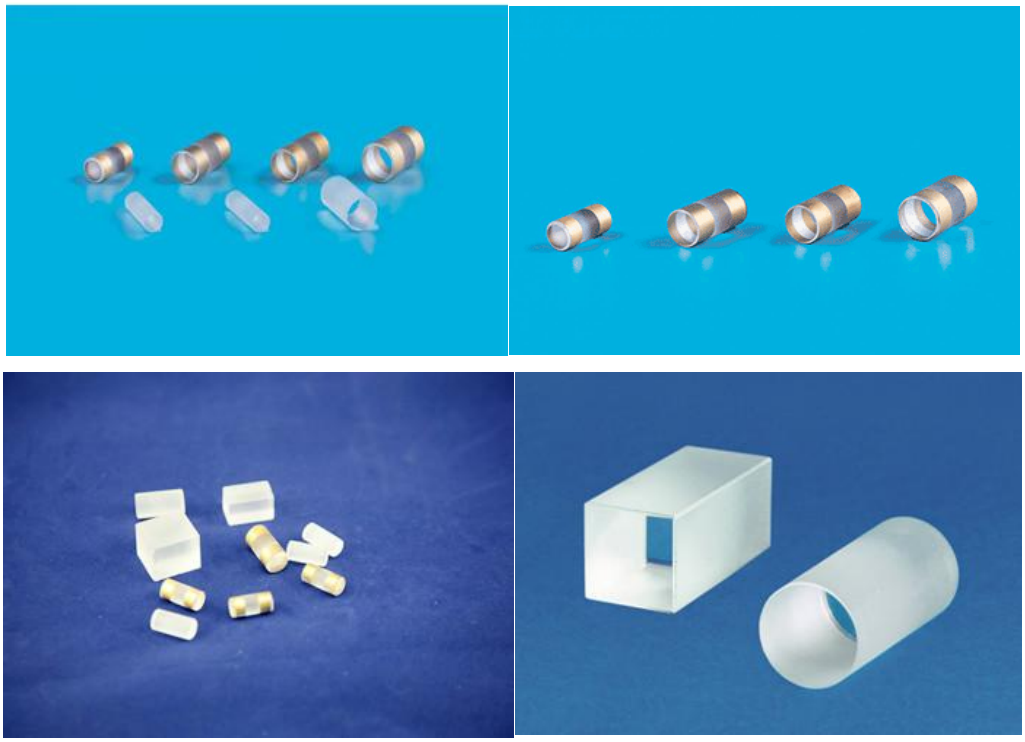
DKDP Crystals for EO applications

- **Wavelength range from 0.25μm to 1.3 μm**
- **High deuteration >98%**
- **Large aperture**

KD*P or **DKDP crystals** are widely used in Q-switching applications at wavelength range from 0.25μm to approximately 1.1 μm,If the deuterium content is higher the absorption edge of the material is shifted further into the infrared. KD*P crystal with a deuterium content >98% can be used up to 1.3μm. KD*P can be grown with high optical uniformity and is therefore recommended for large apertures. Hangzhou Shalom EO offers the DKDP crystals of high deuteration (>98%) for **KD*P pockels cells** applications, the customized blanks, polished crystals and the AR coating and Cr-Au electroded crystal components are available upon your request .



Modules or types

A variety types of crystals are available upon your request:

- Crystal boules with inspection polishing
- Crystal blanks with inspection polishing
- Crystals with laser grade polishing
- Crystals with AR coating and Cr-Au electrode

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SPECIFICATIONS

Specification of DKDP crystals for EO applications	
Crystal materials	DKDP crystals (deuteration level >98%)
Typical diameter	6mm; 8mm; 10mm; 12mm; 15mm;
Diamter tolerance	+/-0.1mm
Length tolerance	+/-0.2mm
Surface quality	20/10 S/D
Parallelism	<20 arc seconds
Flatness	< Lambda/10 @633nm
Chamfer	0.1-0.3mmx45°
Chips	<0.15mm
Side surface	Fine ground
Orientation tolerance	< 10 arc minutes
Wavefront distortion	<Lambda/8@633nm
Extinction ratio	>2000:1
Coating	AR/AR@1064nm or customized
Damaging threshold	>800mW/cm^2@1064nm 10nS 10Hz pulse
Electrode on side surface	Chrome gold electrode (Cr+Au)
Quarter wave voltage	~3.4KV

Note: crystals with other special specificaton is available upon request

Basic Properties

Physical and optical properties	
Chemical Formula	KD2P
Curie temperature	222K
Symmetry	42m
Density	2.355g/cm3
Absorption	0.005/cm
Extinction ratio	1:10000
Deuterium ratio	98.05%--99.05%
Transmission band	200-1600nm
Non-linear coefficient	d36=0.40pm/v
Longitudinal half-wave voltage	2.98KV(I=546nm)
Electric resistance	>2x109Ω/cm
Electric-optical coefficient	r41=8.8pm/v,r63=25pm/v

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