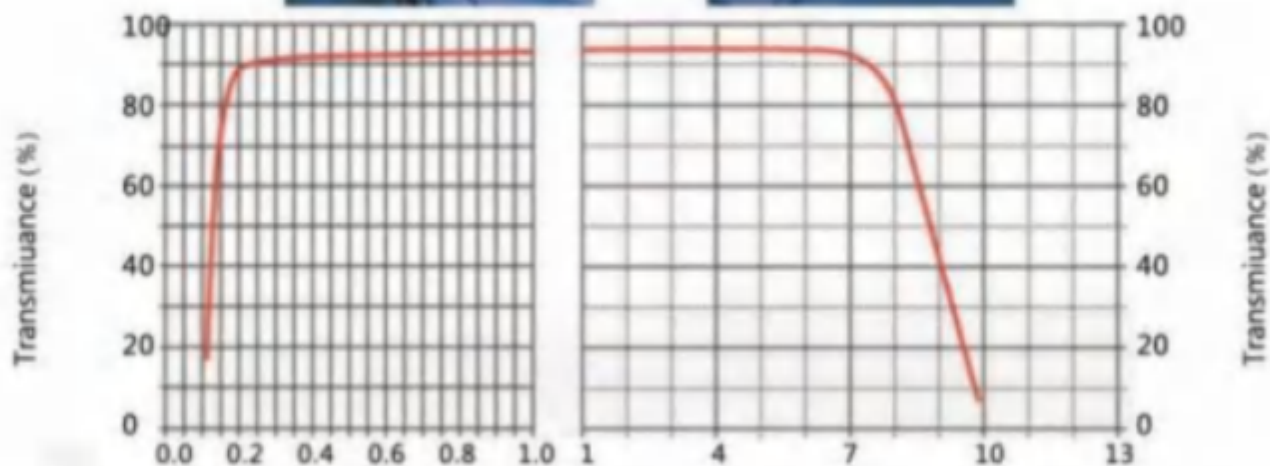


Infrared crystals - calcium fluoride glass

CaF₂ crystals have excellent optical and thermomechanical properties. In the spectral range of 0.13μm~9.0μm, it can be used as window, lens and prism material. Due to its optical isotropy, low absorption and low refractive index, CaF₂ crystals show unique advantages in the field of high-power laser and ultraviolet laser optics.

Key performance indicators	
Transmittance range (μm)	0.13~9.0
Transmittance	>90% (0.3~9μm,3mm)
Refractive index (5 μm)	1.39908
Coefficient of expansion (°C-1)	18.85x10-6
K-hardness(kg/mm ²)	158.3(100)
Elastic coefficient	C11=164;C12=53;C44=33.7
Young's Modulus (Gpa)	75.79
Poisson's ratio	0.28
Solubility (9/100gH ₂ O·20°C)	0.0017
Cleavage planes	(111)
Density (g/cm ³)	3.18
Melting point (°C)	1360



Calcium fluoride (CaF₂) crystal transmittance curve Wavelength (μm)