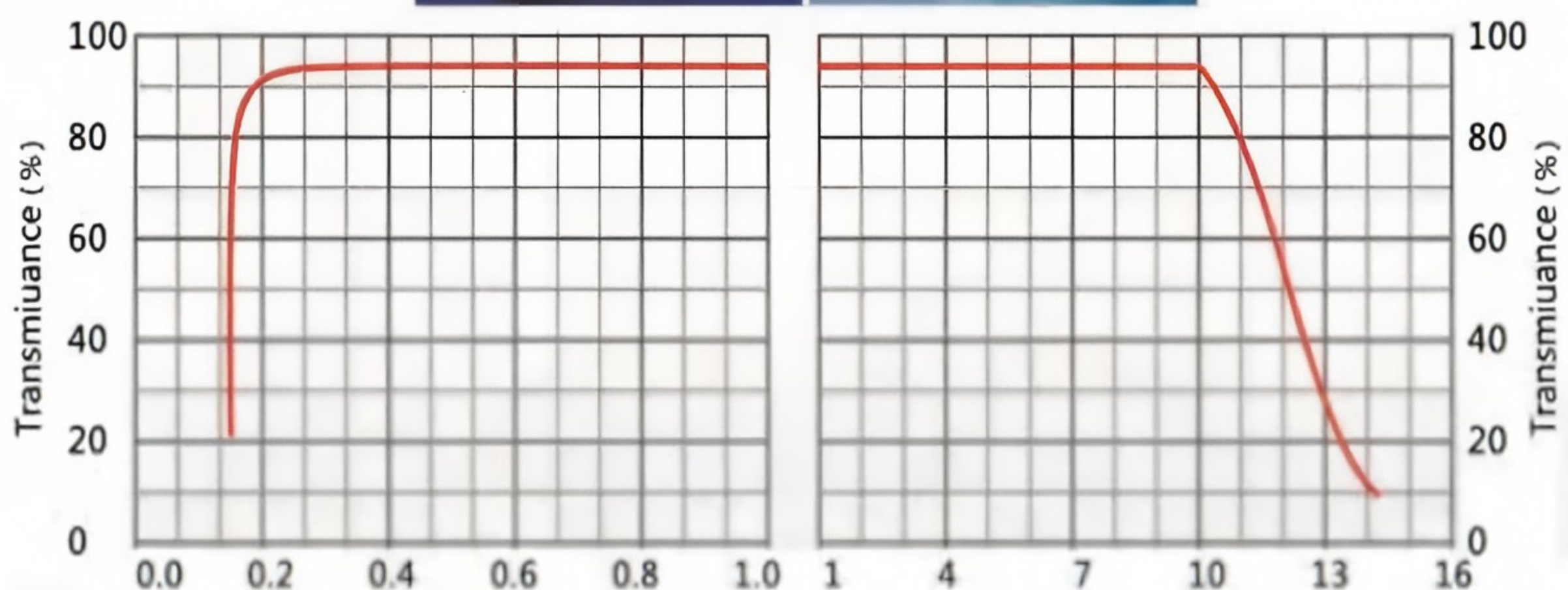


Infrared crystals - barium fluoride glass

BaF₂ crystal has good optical transmittance and can be used as an ultraviolet and infrared optical window in the spectral range of 0.15μm-12.5μm. At the same time, it has excellent scintillation performance and has become an important crystal material in the fields of high-energy physics, nuclear physics, and nuclear medicine.

Key performance indicators	
Transmittance range (μm)	0.15~12.5
Transmittance	>90% (0.35~9μm,3mm)
Refractive index (2.58 μm)	1.4626
Reflection loss (2.58 μm)	6.8% (both faces)
Radiation length (cm)	2.06
Emission Peak (nm)	310(slow); 220(fast)
Attenuation Constant (ns)	620(slow); 0.6(fast)
Light output relative to NaI [NaI(Tl)=100%]	20%(slow); 4%(fast)
K-hardness(kg/mm ²)	82 with 500g indenter
Solubility at 23°C (g/100gH ₂ O)	0.17
Cleavage planes	(111)
Density (g/cm ³)	4.89
Melting point (°C)	1280



Barium fluoride (BaF₂) crystal transmittance curve Wavelength (μm)