

# Cr:YSO



## DESCRIPTION

CRYLINK's Cr:Y<sub>2</sub>SiO<sub>5</sub> crystal products, also known as Cr:YSO. It is a kind of slow relaxation saturated absorber with excellent comprehensive performance. It is widely used in laser Q-switching and solid-state lasers. The product has the characteristics of high damage threshold, high ground state absorption, high pumping rate, 750nm wide absorption band, long pulse duration. Can be used in Cr:LiCAF laser, Cr:LiSAF laser, Q-switched ruby laser, harmonized alexandrite solid laser products.

## FEATURES

- High pumping rate
- Longer pulse duration
- High damage threshold
- Higher base state absorption
- 750nm wide absorption band

## APPLICATIONS

- Cr:LiCAF laser
- Cr:LiSAF laser
- Q-switched ruby laser
- Tunable emerald alexandrite solid laser

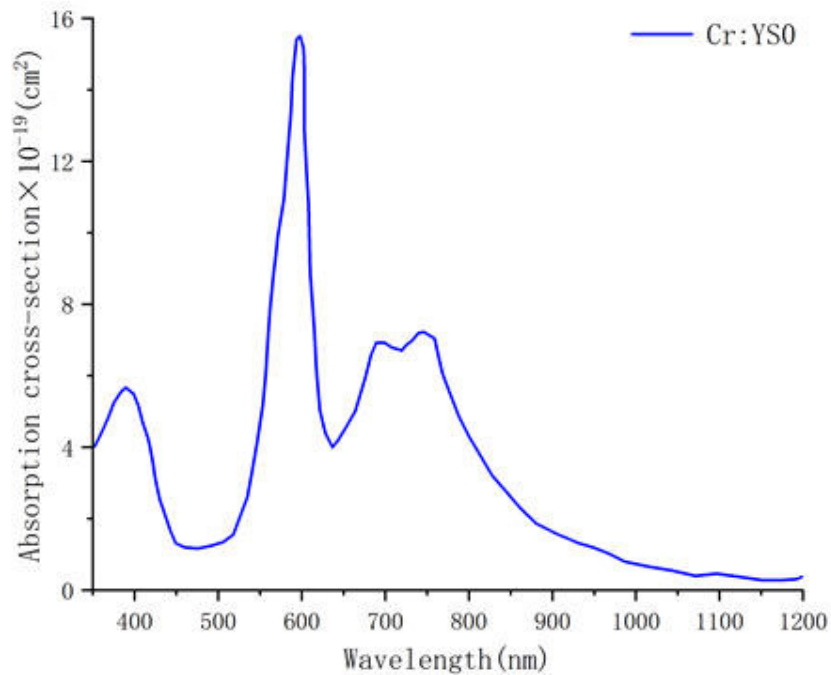


# Cr:YSO

## PRODUCT PARAMETERS

Attribute	Value
Chemical Formula	Cr:Y <sub>2</sub> SiO <sub>5</sub>
Color	Blue
Crystal System	Monoclinial, Biaxial
Lattice Constant	a=10.41Å, b=6.72Å, c=12.49Å, β=102°39'
Cr atom/mol %	~9.7×10 <sup>19</sup> /cm <sup>3</sup>
Main Absorption Peak	390 nm, 595 nm, 695 nm and 750 nm
Emission Spectrum	1000 -1500 nm (Peak@ 1250 nm)
Fluorescence Lifetime at 25°C	0.7μs
Density	4.6 g/cm <sup>3</sup>
Refractive Index	1.8
Melting Point	2070°C

## SPECTROGRAM



Cr:YSO absorption spectrum

