Laser Crystal

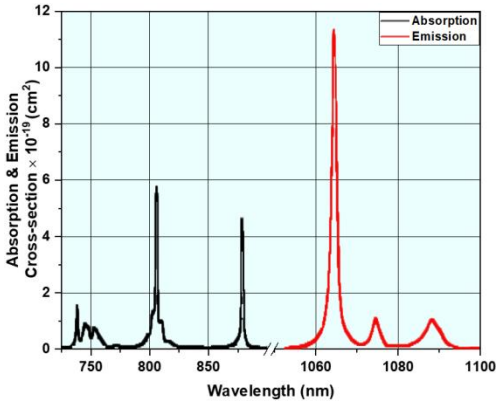
Nd:YVO_4

Nd:YVO4 crystal is one of the most efficient laser host crystal currently existing for diode laser pumped solid state lasers. Its large stimulated emission cross-section at lasing wavelength, high absorption coefficient and wide absorption bandwidth at pump wavelength, high laser induced damage threshold as well as good physical, optical and mechanical properties make Nd:YVO4 an excellent crystal for high power, stable and cost effective diode pumped solid-state lasers.

Main features:

- Low lasing threshold and high slope efficiency
- Low dependency on pump wavelength
- The stimulated emission cross section at 1064 nm is 3 times that of Nd:YAG
- High absorption over a wide pumping wavelength bandwidth around 808 nm, about 5 times that of Nd:YAG

Absorption and emission curves of YVO4



Customized service:

- Different sizes, concentrations and frequency doubling crystals can be customized
- Provide one-stop professional services
- High quality assurance

Technical Parameters

Names of Parameters	Values & Ranges
Size tolerance	(W ± 0.1 mm)x(H ± 0.1 mm)x(L + 0.2/-0.1 mm)(L< 2.5 mm) (W ± 0.1 mm)x(H ± 0.1 mm)x(L + 0.5/-0.1 mm)(L≥ 2.5 mm)
Dimension tolerance	< ± 0.5°
Clear aperture	> 90%
Surface quality	10/5
Flatness	λ/8@633nm, λ/4@633nm (thickness< 2 mm）
Wavefront distortion	< λ/4 @ 633 nm
Parallelism	< 20 arc sec
Perpendicularity	< 5 arc min
Coating	AR @ 1064 nm， R < 0.2%, HR @ 1064 nm R > 99.8%, 808 nm T > 95%
Quality warranty period	1 year (under normal use)

See appendix P33 for more information