

Nd:GdVO₄

Nd:GdVO₄ is an excellent laser crystal with similar properties to Nd:YVO₄ in physical, optical and mechanical properties. It is an ideal laser host crystal for diode-pumped all-solid-state laser.

Main features:

- Large stimulated emission cross section at laser wavelength
- High absorption coefficient and wide bandwidth at pump wavelength and low dependency on pump wavelength
- Good thermal conductivity
- Low lasing threshold and high slope efficiency;
- High laser induced damage threshold;
- Strongly-polarized laser output.

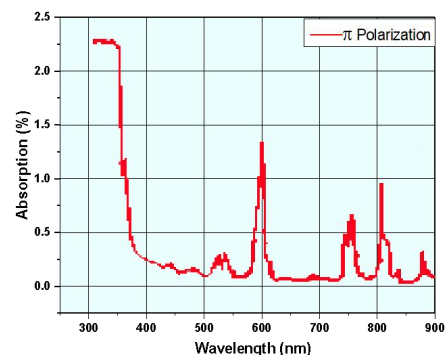
Typical applications:

- 1520 nm laser for telemetry
- 1520 nm laser for ranging
- 1520 nm lasers for remote sensing applications

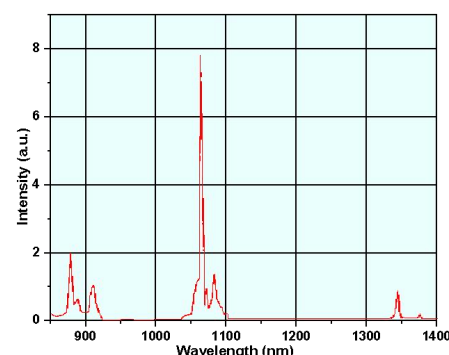
Customized service:

- Different sizes and frequency doubling crystals can be customized
- Provide coating service

Absorption curve of Nd:GdVO₄



Nd:GdVO₄ emission curve



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)
Dimension tolerance	< 30'
Clear aperture	> 90%
Surface quality	10/5
Flatness	$\lambda/8@633\text{nm}$, $\lambda/4@633\text{nm}$ (thickness < 2 mm)
Wavefront distortion	< $\lambda/4 @ 633 \text{ nm}$
Parallelism	< 20 arc sec
Perpendicularity	< 5 arc min
Doping concentration	0.1%~3%
Quality warranty period	1 year (under normal use)

See appendix P33 for more information