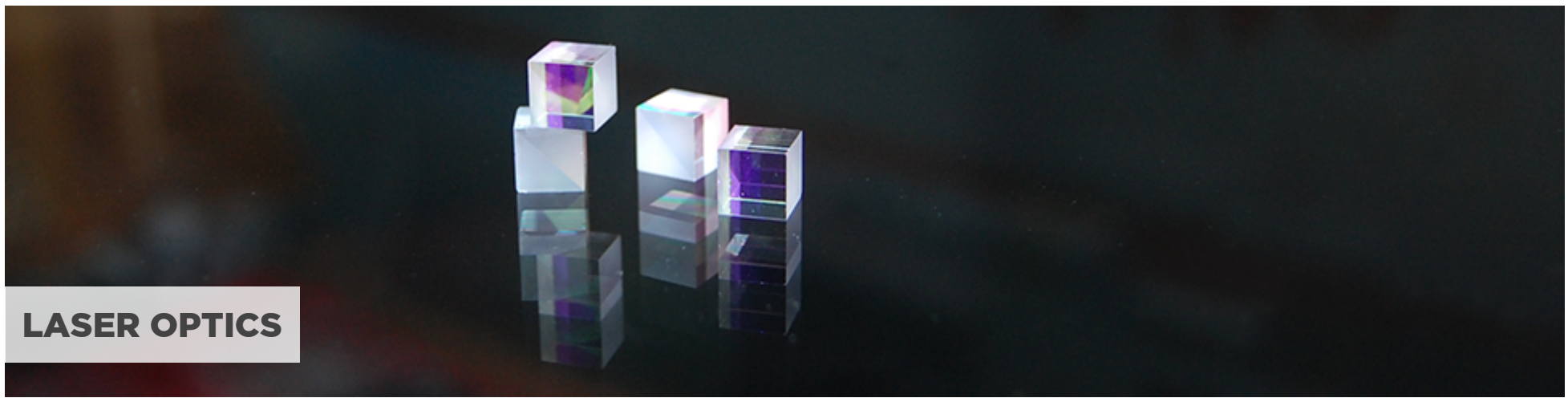

ND:YAG

Neodymium Doped Yttrium Aluminum Aluminum Garnet(Nd:YAG)Crystal

Neodymium Doped Yttrium Aluminum Garnet-Nd:Y3A15O12(Nd:YAG) with high efficiency, high beam damage threshold and good heat conductivity ,has been applied to activate and sensitize ion so as to enhance the laser output. Therefore, it has been continuous to be the most widely used solid state laser material. At room temperature, it can work in continuous, pulsed and many other modes in which the continuous modes is its most efficient mode whose laser output has reached KW level.

Basic properties of Nd:YAG crystal

Chemical Formula:	Nd:$Y_3Al_5O_{12}$
Crystal Structure:	Cubic
Lattice Constant:	12.01Å
Melting Point:	1970°C
Density:	4.5g/cm^3
Refractive Index	1.82
Thermal Expansion Coefficient:	7.8×10^{-6}/K <111>
Thermal Conductivity（w/m/k）:	14,20°C 10.5,100°C
Mohs Hardness:	8.5
Stimulated Emission Cross-Section:	2.8×10^{-19} cm^{-2}
Relaxation Time of Terminal Lasing Level:	30ns
Radiative Lifetime:	550 ms
Spontaneous Fluorescence:	230 ms
Linewidth:	0.6nm
Pump Wavelength:	807.5nm
Polarized Emission:	Unpolarized

CHOOSE YOUR CATEGORY

- Aluminum Nitride powder
- Yttrium Vanadate (YVO4) crystals
- LiTaO3: SLT/MgSLT
- High Reflection Coating
- Nd:YAG
- Nd:GdVO4
- Nd:YVO4
- Cr4+:YAG
- BBO/LiNbO3 Crystal
- LiNbO3 Crystals
- KTP Crystals
- BBO

"INNOVATION IS A CONSTANT STATE OF MIND AT HOBBITE."

Thermal Birefringence	High
Pump Wavelength Absorption Band:	1nm
Loss Coefficient:	0.003cm^{-1}@1064nm

Advantages:

- ♦High gain, low threshold, high efficiency
- ♦Low loss at 1.06 um, high optical quality
- ♦Good mechanical and thermal properties
- ♦ Easy to operate in TEM00 mode
- ♦A variety of operate modes (continuous, pulsed, Q-switched, mode-locking)