成都迪恩光电科技有限公司
CHENGDU DIEN PHOTOELECTRIC TECHNOLOGY CO.,LTD

Ho:YAG

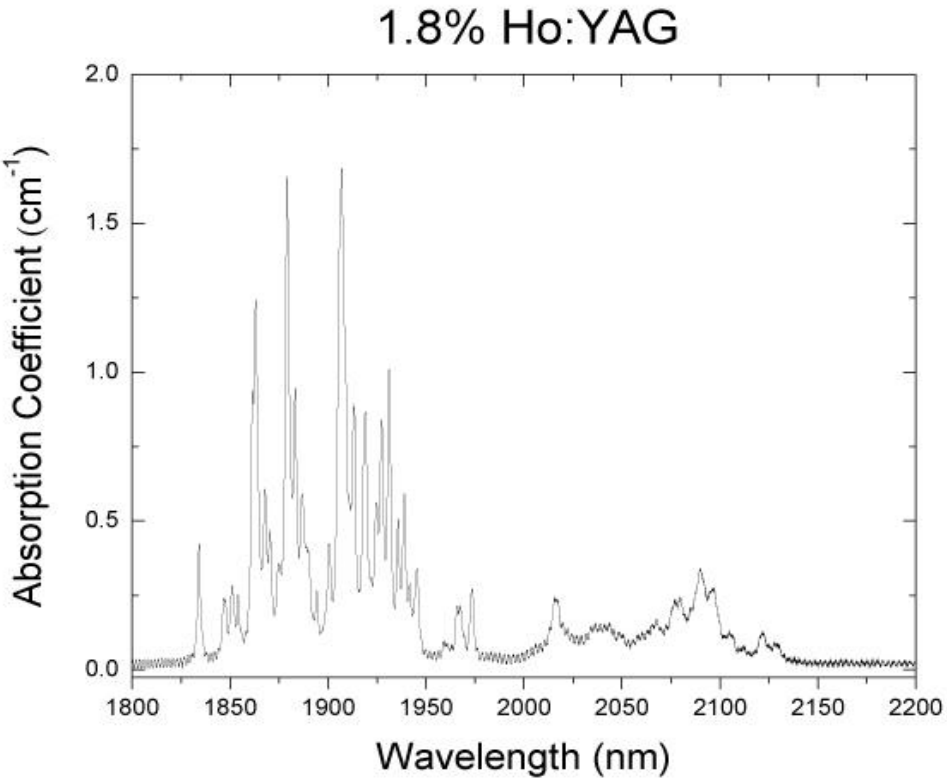
Ho:YAG Ho^{3+} ions doped into insulating laser crystals have exhibited 14 inter-manifold laser channels, operating in temporal modes from CW to mode-locked . Ho:YAG is commonly used as an efficient means to generate 2.1-µm laser emission from the $^5I_7$- $^5I_8$ transition, for applications such as laser remote sensing, medical surgery, and pumping Mid-IR OPO's to achieve 3-5micron emission. Direct diode pumped systems,and Tm: Fiber Laser pumped system have demonstrated hi slope efficiencies, some approaching the theoretical limit.

Basic Properties	
Ho3+ concentration range	0.005 - 100 atomic %
Emission Wavelength	2.01 um
Laser Transition	$^5I_7 \rightarrow {}^5I_8$
Flouresence Lifetime	8.5 ms
Pump Wavelength	1.9 um
Coefficient of Thermal Expansion	$6.14 \times 10^{-6}\ K^{-1}$
Thermal Diffusivity	$0.041\ cm^2\ s^{-2}$
Thermal Conductivity	$11.2\ W\ m^{-1}\ K^{-1}$
Specific Heat (Cp)	$0.59\ J\ g^{-1}\ K^{-1}$
Thermal Shock Resistant	$800\ W\ m^{-1}$
Refractive Index @ 632.8 nm	1.83
Melting Point	1965°C
Density	$4.56\ g\ cm^{-3}$
MOHS Hardness	8.25
Young's Modulus	335 Gpa
Crystal Structure	Cubic
Standard Orientation	<111>
Y3+ Site Symmetry	D_2
Lattice Constant	a=12.013 Å

Technical Parameters

Wavefront distortion	L/8per inch @633nm
Extinction ratio	>28dB
Tolerance：Rods with diameter	(+0、-0.05)mm,(±0.5) mm
Surface quality	10/5 Scratch/dig per MIL-O-1380A
Parallelism	<10arc seconds
Perpendicularity	<5arc minutes
Aperture	>90%
Flatness	λ/10@ 633 nm

Absorption coefficient



DIEN TECH
Address:No.888,Middle Taodu Ave.Longquanyi District,Chengdu,P.R.C
E-mail: wenxugk@163.com ; wenxugksales@163.com
www.dientech.com