

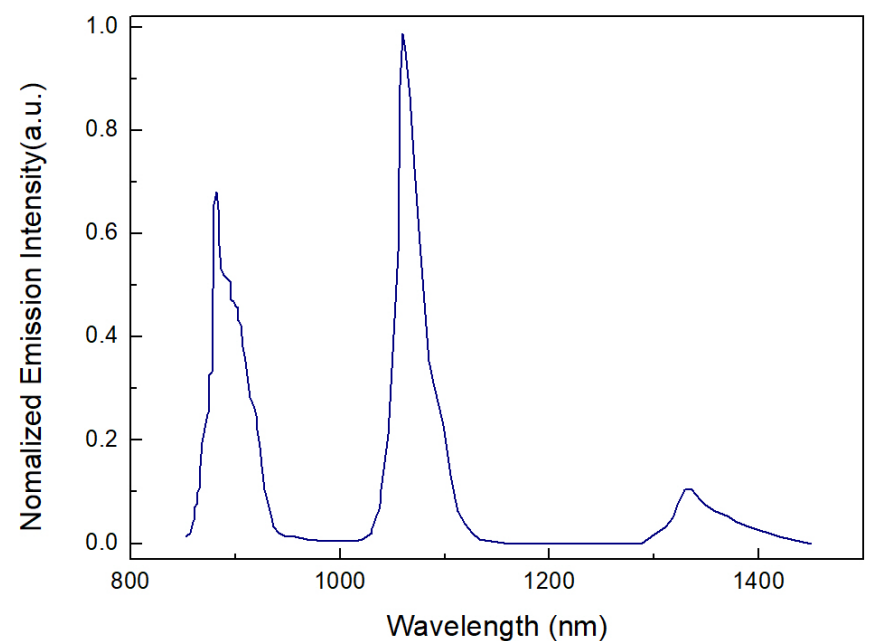
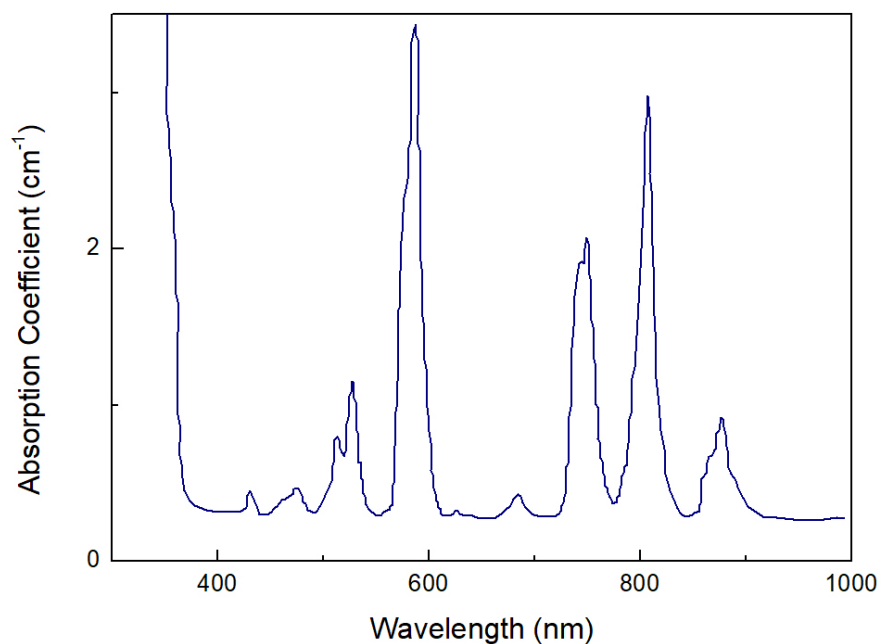
NSG₂ Nd:Glass



DESCRIPTION

Nd-doped silicate glass is a kind of laser glass with neodymium as active ion and silicate glass as the base body. It has larger stimulated emission cross section and wider effective fluorescence line width. Also, it has good laser performance and gain performance. It can be widely used in the manufacture of lasers. This wider line of glass and the availability of narrower ultrashort pulses make it the first choice for lasers with high energy and high peak power.

SPECTRA



PARAMETER

Laser Specifications

Cross section for stimulated emission (1020cm ²)	2.7±0.1
	≥380(Nd ₂ O ₃ :0.5wt%)
	≥360(Nd ₂ O ₃ :1.0wt%)
Lifetime at 1053nm(μsec)	≥330(Nd ₂ O ₃ :2.0wt%)
	≥270(Nd ₂ O ₃ :3.0wt%)
Effective bandwidth(nm)	34
Fluorescence peak wavelength(nm)	1060
Absorption coefficient(cm ⁻¹)	≤0.0015(1053nm)

Thermal Specifications

Transformation temp.(°C)	485
Softening temp.(°C)	530
Coeff.of linear thermal expansion(10 ⁻² /K)(30~100°C)	95
Coeff.of linear thermal expansion(10 ⁻² /K)(30~300°C)	102
Thermal coeff.of optical path length(10 ⁻⁶ /K)(50~100°C)	7
Thermal conductivity(25°C) (W/Mk)	1.2

Optical Specifications

Non-linear refraction index coeff.n ₂ (10 ⁻¹³ e.s.u)	≤ 1 . 6
Refractive Index(1053nm)	1.560±0.003
Abbe value	59
dn/dT(10 ⁻⁶ /°C)(20-100°C)	2

FEATURES

- High ultraviolet transmission
- Low concentration emission lifetime
- High emission cross-section
- Low thermal expansion coefficient
- Good thermal mechanical properties

APPLICATIONS

- Diode lasers
- Laser glasses
- Compact Single-Mode Nd-Doped Silicate Glass Multitrench Fiber(MTF)
- Ultrafast Laser Inscribed Nd-Doped Silicate Glass Waveguide Laser

