

Nd:YVO₄ 激光器现已广泛应用于在机械、材料加工、波谱学、晶片检验、显示器、医学检测、激光印刷、数据存储等多个领域。产品浓度范围：0.1-3%。

激光晶体掺钕钒酸钇 (Nd:YVO₄) 晶体是一种性能优良的激光晶体，适于制造激光二极管泵浦特别是中低功率的激光器。与 Nd:YAG 相比 Nd:YVO₄ 对泵浦光有较高的吸收系数和更大的受激发射截面。激光二极管泵浦的 Nd:YVO₄ 晶体与 LBO,BBO,KTP 等高非线性系数的晶体配合使用，能够达到较好的倍频转换效率，可以制成输出近红外、绿色、蓝色到紫外线等类型的全固态激光器。现在 Nd:YVO₄ 激光器已在机械、材料加工、波谱学、晶片检验、显示器、医学检测、激光印刷、数据存储等多个领域得到广泛的应用。而且 Nd:YVO₄ 二极管泵浦固态激光器正在迅速取代传统的水冷离子激光器和灯泵浦激光器的市场，尤其是在小型化和单纵模输出方面。

Nd:YVO₄ lasers are now widely used in machinery, materials processing, pomology, wafer inspection, display, medical inspection, laser printing, data storage and many other fields. Product concentration range: 0.1-3%.

The crystal is a laser crystal with excellent performance and is suitable for laser diode pumping, especially for medium and low power lasers. Compared to Nd:YAG, Nd:YVO₄ has a higher absorption coefficient and a larger stimulated emission cross section for pump light. The laser diode-pumped Nd:YVO₄ crystal is used in combination with high nonlinear coefficient crystals such as LBO, BBO, and KTP to achieve better frequency conversion efficiency, and can be used to output near-infrared, green, blue, and ultraviolet light. All solid-state lasers. Now Nd:YVO₄ laser has been widely used in many fields such as machinery, material processing, pomology, wafer inspection, display, medical inspection, laser printing, data storage and so on. And Nd:YVO₄ diode-pumped solid-state lasers are rapidly replacing the market for traditional water-cooled ion and lamp-pumped lasers, especially in miniaturization and single longitudinal mode output.

主要特点 Features

- 在 808nm 左右的泵浦带宽, 约为 Nd:YAG 的 5 倍

Pump bandwidth around 808nm, about 5 times that of Nd:YAG

- 在 1064nm 处的受激发射截面是 Nd:YAG 的 3 倍

The stimulated emission cross section at 1064 nm is 3 times that of Nd:YAG

- 光损伤阈低, 高斜率效率

Low light damage threshold, high slope efficiency

- 单轴晶体, 输出为线偏振

Single axis crystal, output is linearly polarized



性能参数:

Flatness	$\lambda/8$ at 633nm
Parallelism	≤ 20 arcsec
Wavefront Distortion	$\lambda/4$ at 633nm
Perpendicularity	≤ 5 arcmin
Angle tolerance	$\leq \pm 0.5^\circ$
Dimension tolerance	± 0.1 mm
Clear Aperture	90% of central area
Chamfer	≤ 0.2 mm x 45°
Chip	≤ 0.1 mm

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