

TGG 铽镓石榴石 Terbium Gallium Garnet

简介 Introduction:

TGG 单晶是用于制作法拉第旋光器与隔离器的最佳磁光材料, 适用波长 400-1100nm (不包括 470nm-500nm) 。TGG 单晶具有大的磁光常数、低的光损失、高热导性和高激光损伤阈值, 广泛应用于 YAG 、掺 Ti 蓝宝石等多级放大、环型、种子注入激光器中。

TGG single crystal is the best magneto-optical material for making Faraday rotator and isolator, with a suitable wavelength of 400-1100nm (excluding 470nm-500nm).

TGG single crystal has large magneto-optical constant, low light loss, high thermal conductivity and high laser damage threshold, and is widely used in multi-stage amplification, ring type and seed injection lasers such as YAG and Ti sapphire.



主要优点 Main Advantages:

大的磁光常数(35 Rad T⁻¹ m⁻¹)

低的光损失(<0.1%/cm)

高热导性(7.4W m⁻¹K⁻¹)

高激光损伤阈值(>1GW/cm²)

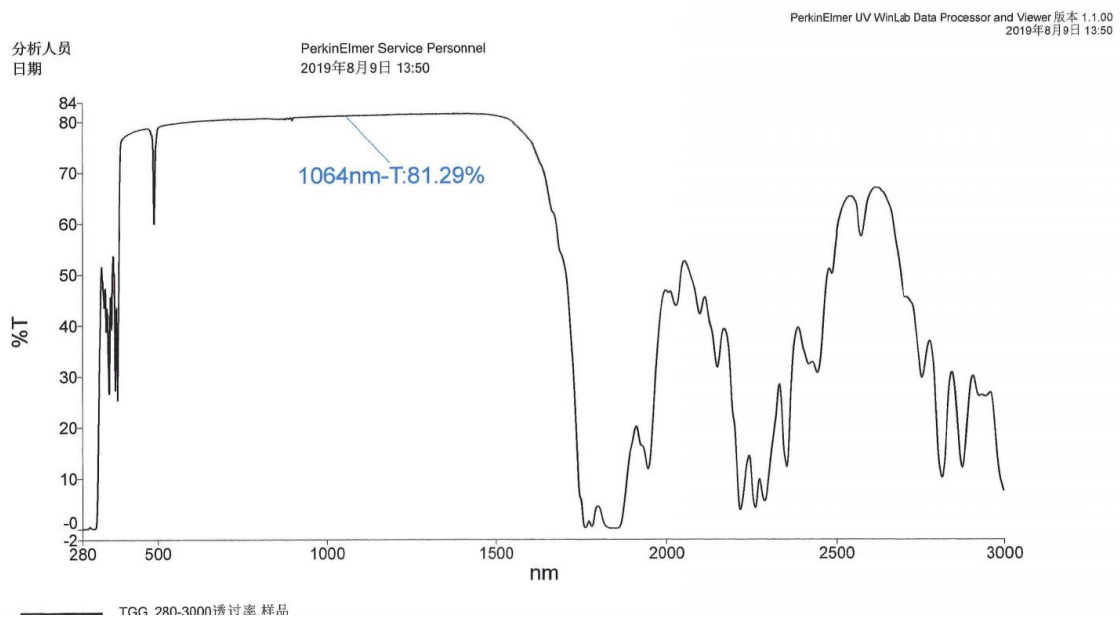
Large Verdet Constant (35 Rad T⁻¹ m⁻¹)

Low optical losses (<0.1%/cm)

High thermal conductivity (7.4W m⁻¹K⁻¹).

High laser damage threshold (>1GW/cm²).

透射曲线 Transmission Curve:



安徽科瑞思创晶体材料有限责任公司 Anhui Crystro Crystal Materials Co., Ltd.

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材料特性 Material Properties:

分子式 Chemical Formular	Tb3Ga5O12
晶格参数 Lattice constant	a=12.355Å
生长方式 Growth Method	Czochralski
密度 Density	7.13g/cm3
硬度 Hardness	8.0
熔点 Melting point	1725 °C
折射率 Refractive Index	1.954 at 1064nm

科瑞思创提供 Crystro offers:

定向 Orientation	[111] ±15'
波前畸变 Wave Front Distortion	<λ/8
消光比 Extinction Ratio	>35dB
直径公差 Diameter Tolerance	+0.00mm/-0.05mm
长度公差 Length Tolerance	+0.2mm/-0.2mm
倒角 Chamfer	0.10mm@45°
平面度 Flatness	<λ/10 @ 633nm
平行度 Parallelism	< 30 "
垂直度 Perpendicularity	< 5 '
光洁度 Surface Quality	10/5
镀膜 AR Coating	<0.2%@1064nm
尺寸范围 Dimensions	MaxΦ101.6 mm(4" inch)

备注：以上参数为参考数据，具体产品技术要求请联系销售人员确认。

Note: Above parameters for reference only, please contact our sales Rep. for your specific requirement.