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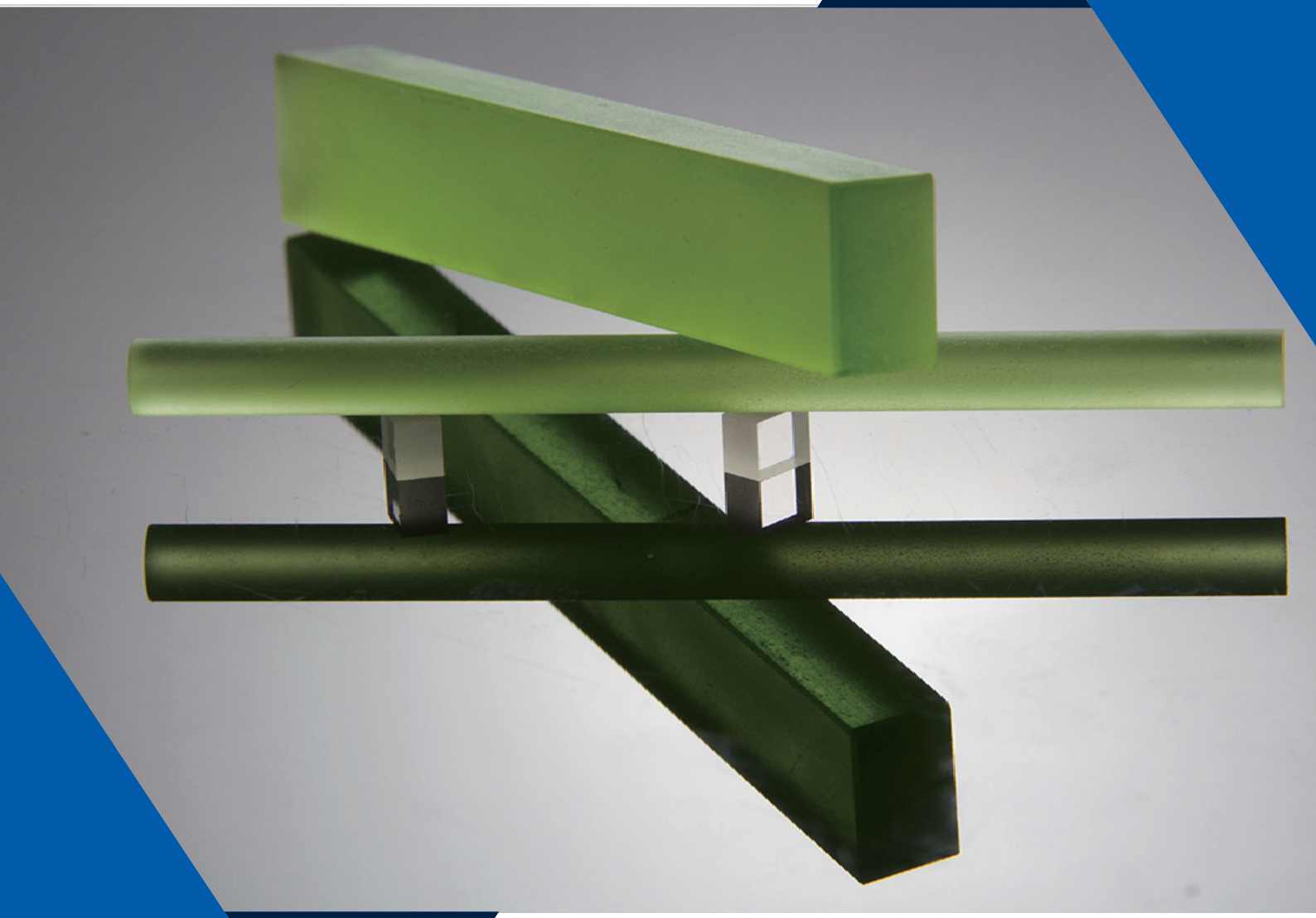

Crylink Er,Cr,Yb:Glass

Laser for medical & cosmetic instruments

Scan for more detail

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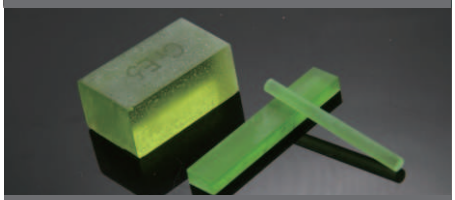
Crylink Er,Cr,Yb:Glass · Superior Quality

Crylink is among the few global suppliers of Er,Cr,Yb:Glass (phosphate glass co-doped with Er^{3+}, Cr^{3+}, and Yb^{3+}).

Crylink employs unique growth, processing, polishing, and coating techniques to ensure the Er,Cr,Yb:Glass exhibits exceptional laser performance.

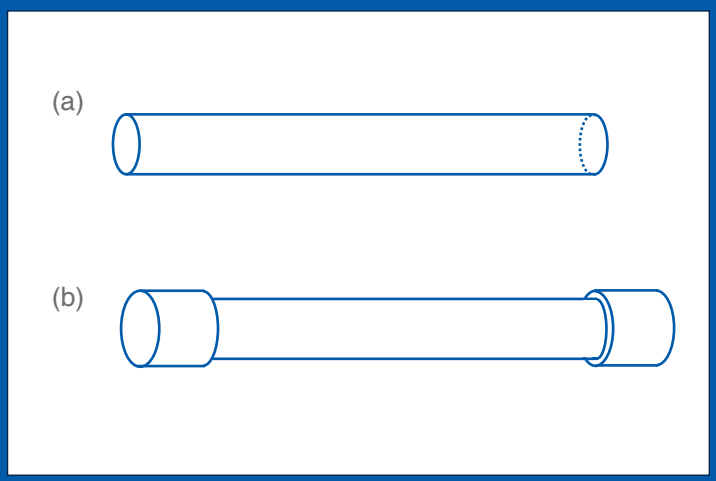
Crylink's Er,Cr,Yb:Glass is produced using the melting method, which involves melting raw materials at high temperatures to create a homogeneous glass body, followed by rapid cooling to solidify the structure. This process is ideal for large-scale laser glass production.

Glass Melting Furnace



Glass Blanks and Rough Products

Crylink Er,Cr,Yb:Glass · Types



We can supply Er,Cr,Yb:Glass rods in stick form or with metal risers at both ends. We also offer Erbium glass blanks and finished products in different concentrations and sizes.

Crylink Er,Cr,Yb:Glass · Applications

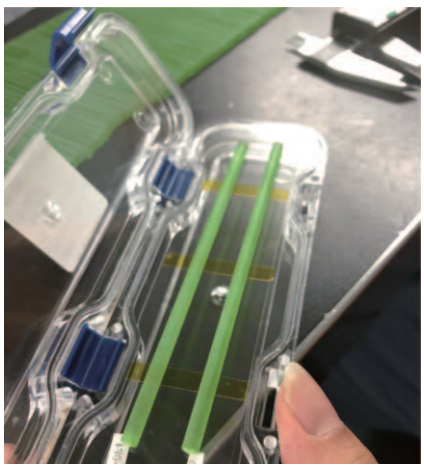
Er,Cr,Yb:Glass exhibits exceptional laser properties, making it highly valuable across various fields:

Military: Widely used in laser designators and rangefinders, it enables precise targeting and distance measurement with high energy efficiency.

Medical Aesthetics: As a key material in non-ablative fractional lasers, it facilitates effective skin rejuvenation and scar treatment with minimal downtime.

Telecommunications: Employed in fiber amplifiers for long-distance networks, it ensures reliable and high-speed data transmission.

These applications underscore the versatility and importance of Er,Cr,Yb:-Glass in advanced technologies.



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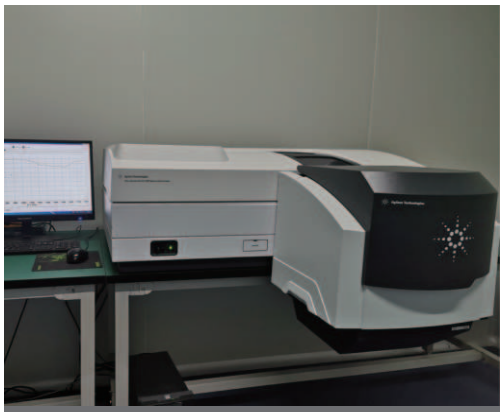
Crylink Er,Cr,Yb:Glass · Internal Quality Testing

Bubbles and streaks in glass can significantly reduce laser efficiency.

Crylink uses instrument-assisted visual inspection to accurately detect the distribution and location of microbubbles and grain boundaries.

Hydroxyl groups in glass can also negatively impact performance.

Crylink uses Agilent spectrophotometers to accurately detect and quantify hydroxyl groups, ensuring high purity and exceptional optical performance of the glass.



Hydroxyl Testing

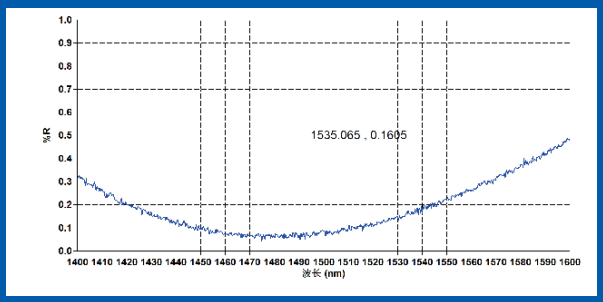
Crylink Er,Cr,Yb:Glass · Coating

Test Product

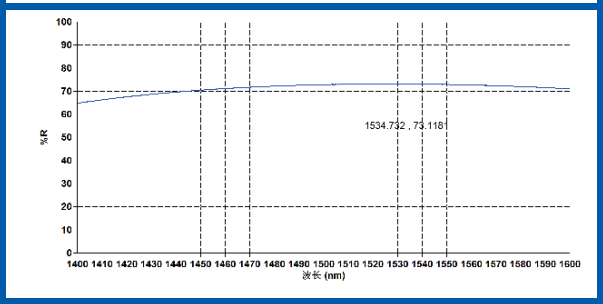
S1,AR@1535±5nm, R<0.2%

S2,PR@1535±5nm, T=27%±1%

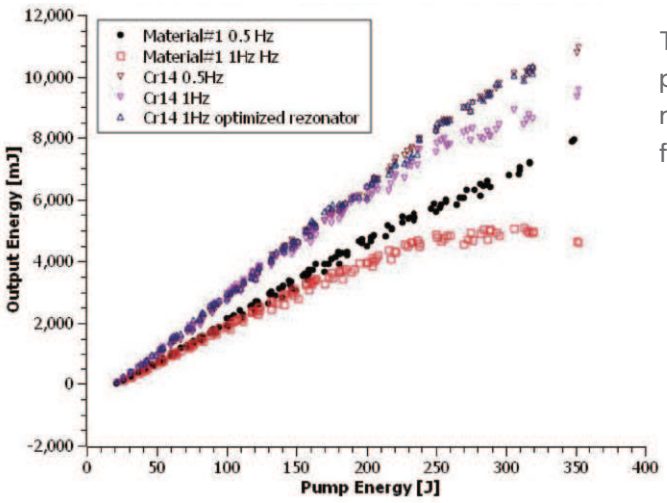
S1



S2



Crylink Er,Cr,Yb:Glass · Energy Testing Data



The left image shows the test comparison results provided by the customer, highlighting the performance differences between our product and those from other manufacturers under identical conditions.

Testing Conditions:

Material: Reinforced Er,Cr,Yb:Glass

Size: 4×103mm

Pump source: Xenon Flashlamp 90mm

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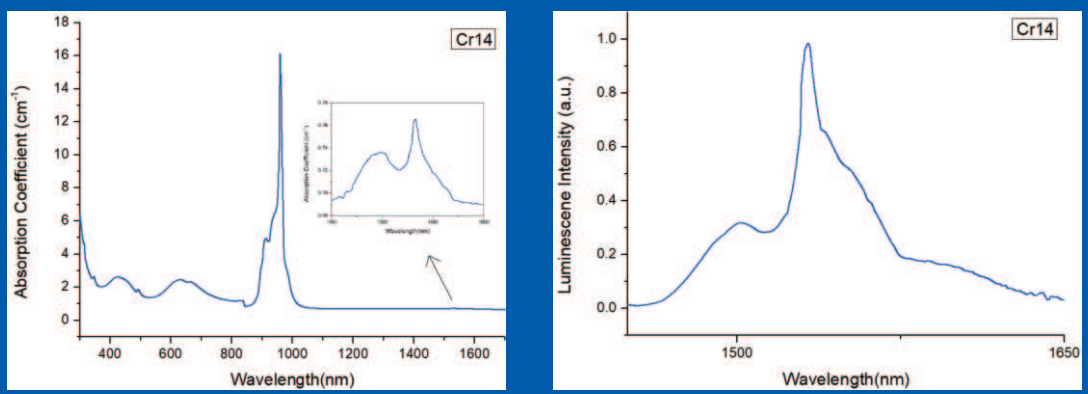
Crylink Er,Cr,Yb:Glass · Specification

Laser Specifications	Cr14	CrE5
Cross section for stimulated emission ($10^{-20}cm^2$)	0.8	0.8
Fluorescent lifetime (ms)*	7.7–8.0	7.7–8.2
Center lasing wavelength (nm)	1535	1535
Optical Specifications	**Cr14**	**CrE5**
Refractive index (1535nm)	1.53	1.533
Refractive index (d 589.3nm)	1.539	1.541
Abbe value	64	63.6
dn/dT (10-6/°C) (20~100°C)	-5.2	-6.8
Other Specifications	**Cr14**	**CrE5**
Density(g/cm^3)	3.1	2.95
Chemical durability(weigh loss rate at 100°C distilled water)	103	

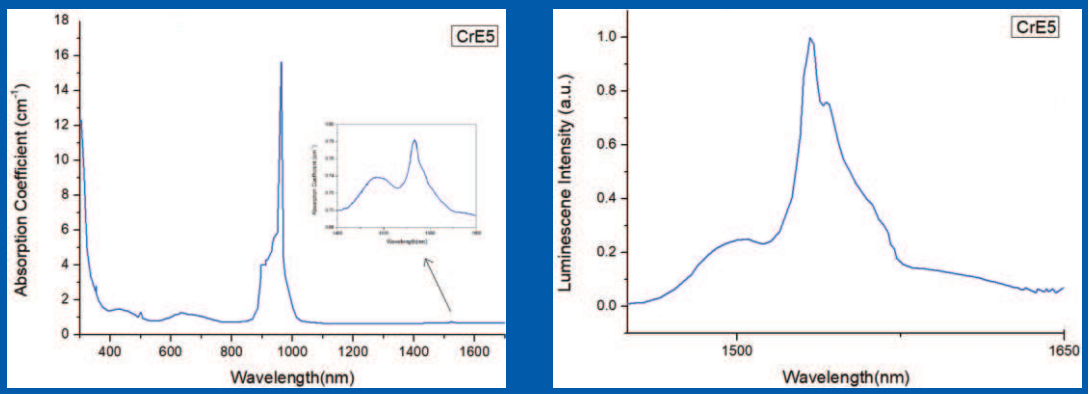
Thermal Specifications	Cr14	CrE5
Transformation temp.(°C)	455	476
Softening temp.(°C)	493	519
Coeff.of linear thermal expansion ($10^{-7}/K$)	103	80.5
Coeff.of linear thermal expansion ($10^{-7}/K$)	127	87
Thermal coeff. of optical path length ($10^{-6}/K$) (20~100°C)	3.6	
Thermal conductivity (25°C) (W/m K)	0.7	0.8

Fluorescence lifetime varies with erbium concentration

Crylink Er,Cr,Yb:Glass · Spectrum



Cr14 Absorption and Emission Spectra



CrE5 Absorption and Emission Spectra

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Note: All information and specifications in this product manual are subject to change at any time without notice. We reserve the right to make improvements and changes to our products and services. All test data is for reference only and actual performance may vary depending on specific applications and conditions of use.

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