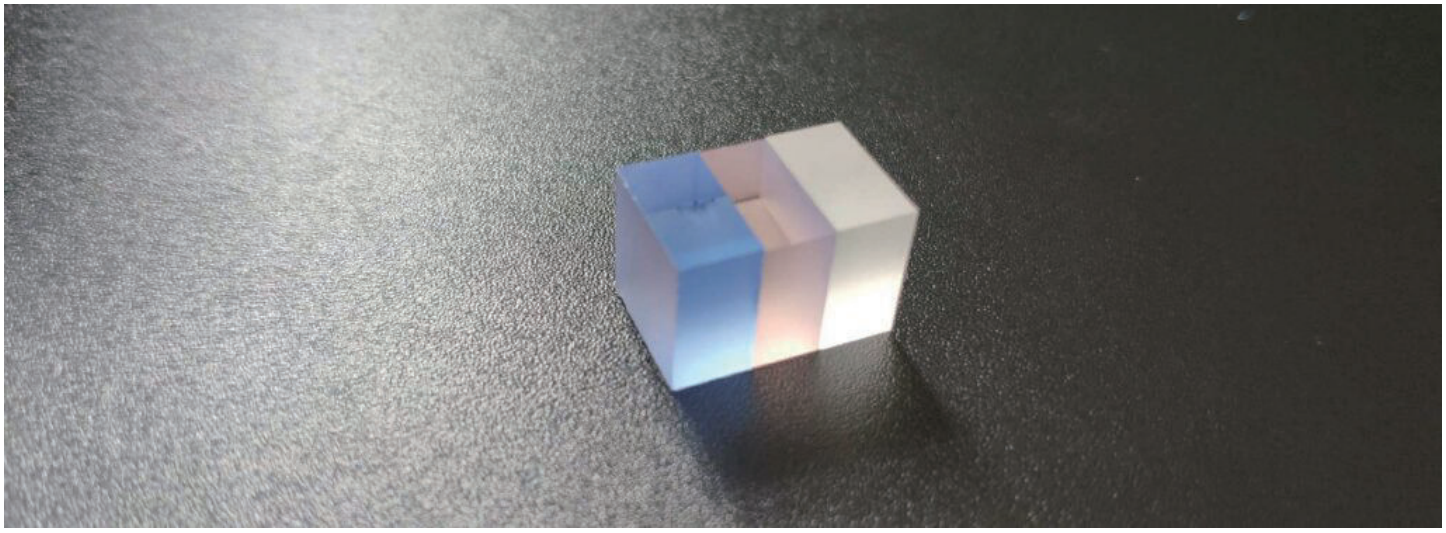
# Glass+Er,Yb:glass+Co:spinel



## DESCRIPTION

Glass+Er,Yb:glass+Co:spinel bonding crystals are formed by bonding glass and Co:spinel at both ends of Er and Yb:glass, which can effectively improve the comprehensive performance of Er,Yb:glass.

Glass+Er,Yb:glass+Co:spinel bonded crystals are formed by bonding glass and co:spinel at both ends, which can effectively improve the thermal effect of Er,yb:glass crystals, reduce the thermal lens effect formed during laser pumping, with absorption bandwidth, long fluorescence life, high optical quality and high slope efficiency. Improve the beam quality of the laser, improve the output efficiency of 1535nm laser, improve the stability of the output capacity of the laser, and improve the service life of the laser.

CRYLINK uses surface activation bonding technology, which is a bonding technology at low or normal temperature. The typical features are surface cleaning and surface activation. Before bonding, the bombardment of fast atoms or ion beams on the bonding surface can effectively increase the bonding strength and achieve high-quality bonding between inorganic materials, metals and semiconductor materials. Compared with the high-temperature thermal bonding method, the surface activation bonding technology has higher bonding force interface, better optical absorption loss and surface shape change control, while the impurities on the thermal diffusion bonding surface cannot be removed and are bonded on the bonding surface. Surface activated bonding technology has the advantages of removing various polishing residual components, removing organic pollutants, removing surface oxide layer, breaking chemical bonds of materials, and improving activation energy.

The produced Glass+Er,Yb:glass+Co:spinel bonded crystals have high bonding strength, small bonding surface absorption loss (generally less than 20ppm) and small change of bonding surface shape (bonding surface shape <lamda/8). The shape of the bonded crystal can be rod, plate, waveguide or sandwich. Various types of coatings can be provided at both ends of the bonded crystal, such as two end antireflection films AR@1535nm, or s1: HR@1535nm+AR@940nm, S2: AR@1535+HR@940nm, etc. Glass+Er,Yb:glass+Co:spinel bonded crystals are widely used in rangefinder, radar, target recognition and other fields.

# Glass+Er,Yb:glass+Co:spinel

## FEATURES

- It can effectively improve the thermal effect of Er, yb:glass crystals
- Reduce the thermal lens effect formed during laser pumping
- Absorption bandwidth, long fluorescence life, high optical quality and high slope efficiency
- Improve the beam quality of laser and improve the output efficiency of 1535nm laser
- It can improve the stability of the output capacity of the laser and the service life of the laser

## APPLICATIONS

- Distance measuring instrument
- Radar
- Target identification

## PRODUCT PARAMETERS

| Glass+Er,Yb:glass+Co:spinel | | | |
|---|---|---|---|
| Materials | Glass | Er,Yb:glass | Co:spinel |
| Concentrations | / | 0.5%\1.0%\1.5% | / |
| Initial Transmission | / | / | 30～99% |
| Structure | Rods/Slabs/Sandwich/Waveguide/ | | |
| End-face Configuration | Flat/Convex/Wedge | | |
| Side Configuration | Polish/Fine Ground | | |
| Coating available | AR@1535nm | / | AR@1535nm |
| | HR@1535nm+AR@940nm | / | PR@1535+HR@940nm |
| | others | / | others |

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