

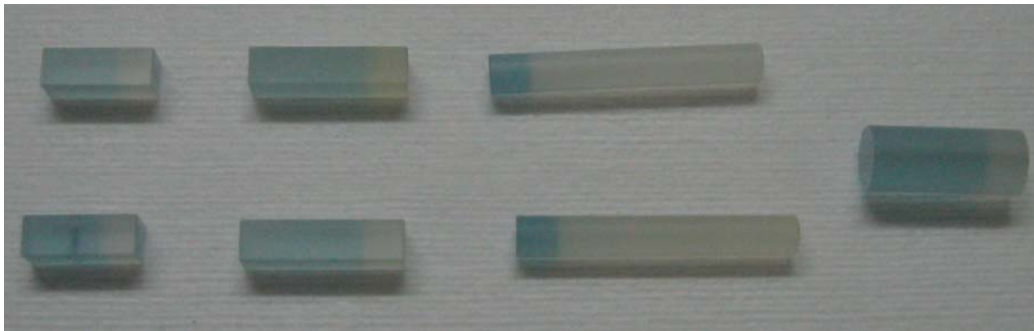
Diffusion Bonding Crystals

CASIX can supply the diffusion bonding crystals now. They are crystals consisting of two, three or more parts with different dopant levels or different dopant. Usually, one laser crystal and one or two undoped crystals combined by optical contact and further bonded under high temperature.

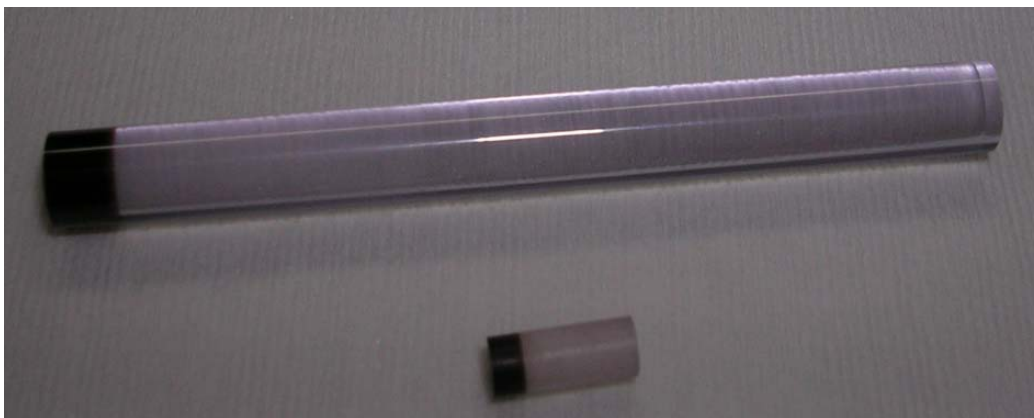
Diffusion Bonding Crystals are used to decrease thermal lensing effect considerably. The bonded crystal used in laser applications can greatly improve the laser performance and beam quality.

Advantage:

- Decrease thermal effect
- Improve efficiency
- Improve beam quality
- Compact size



Nd:YVO₄+YVO₄



Nd:YAG+YAG+Cr:YAG

Main specifications of Diffusion Bonding Crystals:

Type □: Nd:YVO4+YVO4

Flatness	< $\lambda/10$
Wavefront distortion	< $\lambda/4$
Parallelism	$\leq 20''$
Perpendicularity	$\leq 15'$
Surface Quality	10/5(MIL-PRF-13830B)
Coating	Upon request of customer

Type □: Nd:YAG +YAG+Cr:YAG

Flatness	< $\lambda/10$
Wavefront distortion	< $\lambda/8$ per inch of length
Parallelism	$\leq 10''$
Perpendicularity	$\leq 10'$
Surface Quality	10/5(MIL-PRF-13830B)
Coating	Upon request of customer

Please contact us for getting more information on the assembly type.