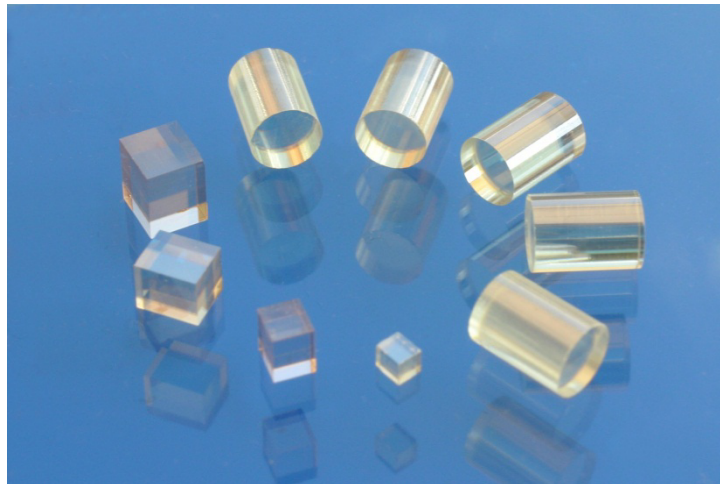


Diffusion Bonded Composites

Crystal uses the method of diffusion bonding to join metal-oxides for laser-, optical, electronic and research applications. The bonding technique is based on the atomic diffusion at the joining interface. Each component can consist of the same or different materials which open up a wide range of new possibilities in terms of utilizing the anisotropic properties of crystals and the variation of shape.



Applications

Laser
Optics
Electronics
Research

Materials

YAG and different dopants
YVO₄ and different dopants
SrTiO₃
LSAT and other on request

Advantage of diffusion bonding

variety of possible designs including sizes beyond size of grown crystals
no contamination or additional layers at grain boundary (e.g. glue)
behavior as non-composite samples

End products

compact laser microchips with integrated passive q-switches
bicrystals with tilt angles in custom design

