



High Gray Track Resistance Crystals

Raicol was the first to develop High Gray Track Resistance flux grown KTP crystals that enables higher average power density in SHG of 1000-1400 nm.

Gray tracks are produced when a crystal is subjected to high power, high repetition rate laser pulses or CW laser irradiation. The gray tracks occur due to induced color centers in the KTP crystal that have broad optical absorption in the visible and near infrared wavelengths, especially at 532 nm. The process of the gray track formation is cumulative and leads to deterioration of harmonic conversion.

Advantages

- Average output power density at 532 nm up to 5 kW/ cm² according to laser regime
- Nonlinear coefficient 4 times higher than LBO
- Low absorption at visible and near infrared wavelengths
- · Broad temperature bandwidth
- Non-hygroscopic material
- · Small walk off and wide angular bandwidth

Common Applications

Medium power green lasers for medical, industrial, scientific and other applications