



# SKTP

## Efficient Gray Track Resistance Crystals

Raicol is the first to develop High Gray Track Resistance flux grown KTP crystals, enabling a higher average power density for the second-harmonic generation (SHG) of 1000-1400 nm laser sources. When a crystal is subjected to high power, high repetition rate laser pulses, or CW laser irradiation, gray tracks are often produced. These 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. Raicol's new SKTP crystal allows for use at a high power density, while also providing effective gray track resistance to eliminate the gray track effect.

### Advantages

- Available for a wide range of apertures up to 25x25 mm<sup>2</sup>
- Average output power density of up to 3 kW/cm<sup>2</sup>, at 532 nm, according to the laser regime
- Increased nonlinear coefficient - 4 times higher efficiency than LBO crystals
- Low absorption at visible and near infrared wavelengths
- Broad temperature capability
- Non-hygroscopic material
- Minimized walk-off and wide angular bandwidth

### Common Applications

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