

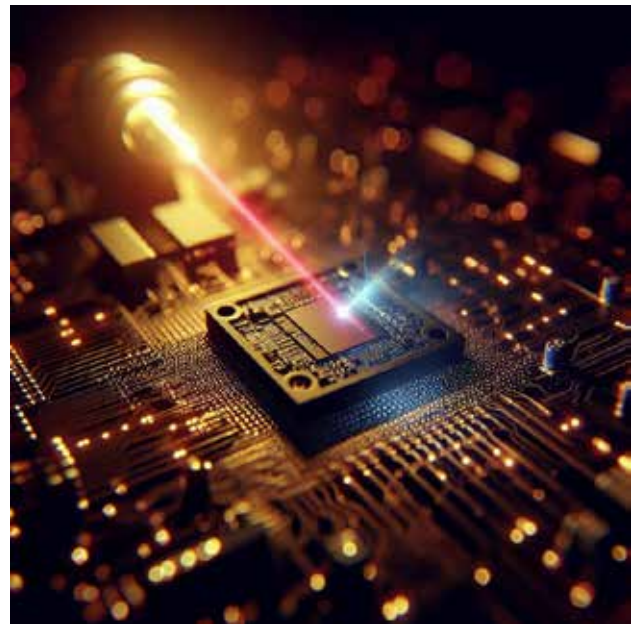
RAICOL
CRYSTALS
An **OXIDE** company

PPKTP WAVEGUIDE

ppKTP waveguides serve as generators of quantum light for integrated technologies. Compared to bulk crystals, they have the advantage of enhanced pair generation efficiency, typically by one order of magnitude.

In our waveguides, the light is self-contained inside a core of 15-30 microns in diameter. These devices are beneficial for highly efficient single-pass frequency conversion and pair generation.

Waveguides offer improved brightness in quantum applications, allowing miniaturization of quantum light sources and compatibility with all-fiber systems and integrated photonics.



Industries

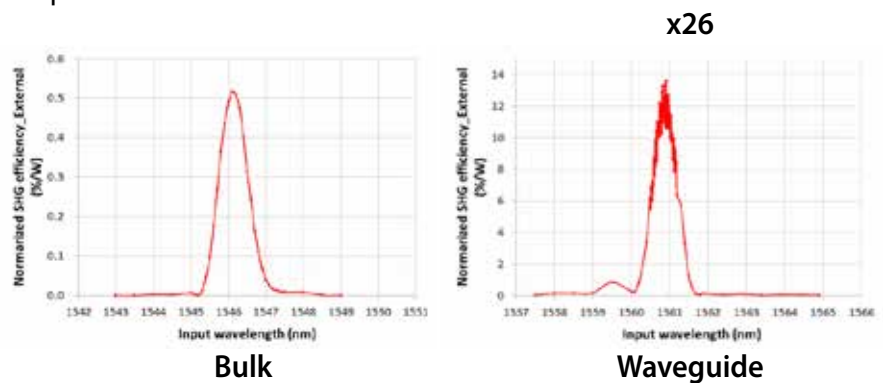
- Quantum Computing and Sensing
- Telecommunications
- Sensing and Imaging
- Healthcare and Biotechnology
- Defence and Aerospace

Advantages

- Enhanced Nonlinear Interaction Compared to Bulk
- Compact
- Low Propagation Loss
- Narrow Band
- Compatibility to Fiber and PIC

Functionality

- SPDC
- SHG
- Squeezed Light



ppKTP can be fabricated to operate at different wavelengths:

405nm - 810nm | 532nm-1064nm | 775nm - 1550nm | Custom wavelength

Applications

- High Resolution Microscopy
- Entangled Photon Source
- Quantum Computing and Communication
- Laser Light Sources

Near field pattern of
second harmonic mode



MFD ~10 μ m

Raicol Crystals, founded in 1995, is a global leader in nonlinear crystals growth, fabrication, and assembly. Raicol offers a unique set of benefits to its customers:

- 50 years of experience in crystal growth
- Global pioneers of RTP, HGTR KTP and PPKTP
- A one-stop-shop, from crystal growth to coating and EO cell assembly
- Mass production and small R&D volume capabilities
- Fast delivery times
- Unmatched crystal quality