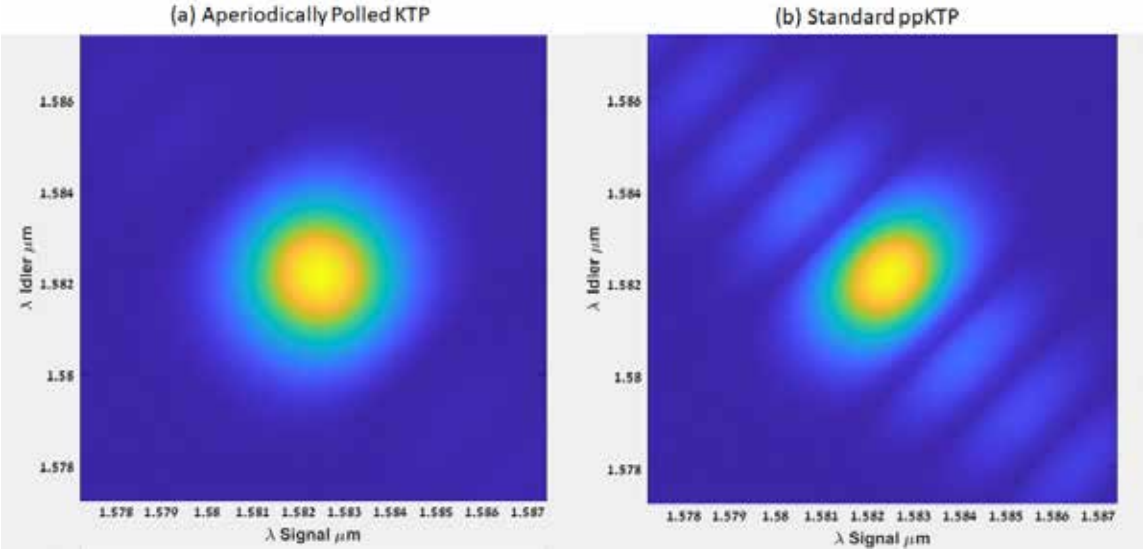
RAICOL CRYSTALS
An OXIDE company

HP-APKTP

High Purity aperiodically polled KTP

Shaping the joint spectrum of down-converted photons

Customizing the poling structure of KTP crystals via aperiodic-polling [1] enables the shaping of the joint spectrum of the SPDC process. Based on this method, Raicol now offers high-purity apKTP crystals that increase the spectral purity and indistinguishability of the emitted photon pairs, yielding improved performance of entangled photon sources and higher Hong-Ou-Mandel visibility compared to standard ppKTP and ppLN crystals.



Raicol's High Purity APKTP is a uniquely designed KTP crystal that maximizes spectral purity at telecom wavelengths. It is a type-2 crystal, suitable for pumping with Ti-Sapphire lasers (775-795nm) with a degenerate SPDC output. Using the HP APKTP enables quantum researchers to achieve higher spectral purity without any external narrowband filters, therefore reducing the losses in the system and increasing the quantum properties of the entangled state.

[1] A. Dosseva et al. "Shaping the joint spectrum of down-converted photons through optimized custom poling", Phys. Rev. A 93, 013801 (2016).

RAICOL CRYSTALS
An OXIDE company

Raicol's PPKTP and APKTP crystals are reliable sources for:

- Squeezed Light
- Entanglement with high spectral purity
- Broadband or narrowband photon pairs
- Polarization entanglement

Serving the world's leading quantum research labs, Raicol QPM crystals are the building block for the future of quantum applications:

- Quantum computing
- Quantum sensing
- Quantum encryption
- Quantum communications

Raicol Crystals, founded in 1995, is a global leader in nonlinear and EO crystal 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 crystal growth and assembly
- A one-stop-shop, from crystal growth through to coating and EO cell assembly
- Mass production and small R&D volume capabilities
- Fast delivery times
- Unmatched crystal quality

22 HaMelacha Street, Rosh HaAyin, Israel | Tel: +972-3-9068969 | info@raicol.com
www.raicol.com