

Synchronously Pumped Tantalum Pentoxide Waveguide-based Optical Parametric Oscillator

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A waveguide-based OPO (WOPO) exploiting four-wave mixing in the emerging tantalum pentoxide platform is investigated. The WOPO, pumped with 500 fs long pulses centered at 1.55 μm wavelength with 2 nJ energy, provided up to 6 pJ pulse energy at 1.46 μm wavelength. It shows potential to be fully integrated on a chip.

Primary authors: TIMMERKAMP, Maximilian (University of Münster, Institute of Applied Physics, Münster, Germany); LÜPKEN, Niklas M. (University of Münster, Institute of Applied Physics, Münster, Germany); ABAZI, Shqiprim Adrian (University of Münster, Institute of Physics, Münster, Germany); BANKWITZ, Julian Rasmus (University of Münster, Institute of Physics, Münster, Germany); SCHUCK, Carsten (University of Münster, Institute of Physics, Münster, Germany); FALLNICH, Carsten (University of Münster, Institute of Applied Physics, Münster, Germany)

Presenter: TIMMERKAMP, Maximilian (University of Münster, Institute of Applied Physics, Münster, Germany)

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