

Top Performance and Ease of Use in Mind: High-Power Continuous-Wave OPO Laser System for Spectroscopy and Quantum Technologies

The revolutionary DLC TOPO by TOPTICA stands alone as the only fully automated, continuous-wave, Optical Parametric Oscillator laser source on the market. High resolution spectroscopy across 1.45 - 4.0 μm (2500 - 6900 cm^{-1}) with up to 4 W output power has never been easier.

TOPTICA's unique optical design enables broadly tunable laser light without exchanging any optic sets or modules. Additionally, the all-digital control electronics enable hands-free coarse wavelength tuning, fine tuning, and frequency locking.

A wide mode-hop-free tuning range up to 300 GHz (10 cm^{-1}) enables visibility of full spectroscopic signatures. Simultaneously, the DLC TOPO maintains a narrow linewidth (2 MHz, $1 \cdot 10^{-5}$ cm^{-1}) giving a resolution that reveals narrow atomic and molecular features. As with all TOPTICA systems, the TOPO is low maintenance. Turn-key operation allows more time to be put into research and less into instrumentation.

The full TOPTICA TOPO laser system integrates four key technologies: a DFB seed laser, fiber amplifier, Optical Parametric Oscillator, and DLC Digital Control. This same DLC pro platform is extensively used throughout TOPTICA laser product lines.

TOPTICA has extended the proven digital DLC pro unit to control all tuning components inside the OPO cavity. This enables simple hands-free operation through touchscreen, PC GUI interface, and even **automation** through remote commands.

The wide wavelength coverage and low noise are ideal for molecular and biomedical spectroscopy, physical chemistry, quantum technologies, and microresonator applications. Explore further with the only widely-tunable MIR laser designed with top performance and ease of use in mind: the [DLC TOPO](#).



Europe wide premiere at the LASER World of PHOTONICS in Munich: DLC TOPO – widely tunable high-power continuous-wave OPO laser system for molecular and biomedical spectroscopy, physical chemistry, quantum technologies, and microresonator applications.

Visit us at LASER World of PHOTONICS in hall B2.103!



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TOPTICA Photonics AG develops, manufactures, services and distributes technology-leading diode and fiber lasers and laser systems for scientific and industrial applications. Sales and service are offered worldwide through TOPTICA Germany and its subsidiaries TOPTICA USA and TOPTICA Japan, as well as through 11 distributors. A key point of the company philosophy is the close cooperation between development and research to meet our customers' demanding requirements for sophisticated customized system solutions and their subsequent commercialization.