



PLAY THE QUANTUM QUIZ AND BEAT THE HIGH SCORE!

More than 500 questions!
Can you master all three levels?



BIOS # 8209
PHOTONICS WEST # 3209

Visit our Presentations at BiOS/Photonics West

Session 6 | Fast-Scanning Terahertz TDS Systems | 10:30 am – 12:10 pm

February 4th, 2020, Terahertz, RF, Millimeter, and Submillimeter-Wave Technology and Applications XIII
“Fast thickness gauging with an ECOPS-based terahertz time-domain system”
Milad Yahyapour, R&D Engineer, TOPTICA Photonics AG

Session 11 | Technology and Raman Microscopy | 1:30 pm – 3:10 pm

February 4th, 2020, Multiphoton Microscopy in the Biomedical Sciences XX
“Frequency-tunable two-color ultrafast fiber laser for nonlinear excitation of NADH and FAD”
Dr. Axel Friedenauer, Project Manager R&D, TOPTICA Photonics AG

Session 2 | Light Sources in Photonic Instrumentation | 3:40 pm – 5:00 pm

February 4th, 2020, Photonic Instrumentation Engineering VII
“Stabilized OEM diode-laser system for metrology applications”
Dr. Christian Noelleke, R&D Director Diode Lasers, TOPTICA Photonics AG

Industry Events – Entrepreneur Program: M&A Trends in Photonics Keynote

February 4th, 2020, Time: 1:30 PM - 2:30 PM, Location: Room 2020/2022 (Level 2)

The Commercialization of Quantum Technology: Tunneling through Barriers to Quantum Commercialization

Dr. Wilhelm Kaenders, Member of Executive Board (CTO), TOPTICA Photonics AG



Laser sources have been noted as one of the greatest difficulties to allowing quantum commercialization. The path to compact, robust laser solutions enabling quantum growth is less a need for scientific development, and more a requirement for industry standardization, collaboration, consolidation and investment.

This presentation will focus on the obstacles related to faster commercialization of quantum and how these challenges can be overcome.



Join us for
**DRINKS, FOOD, MUSIC
and GREAT COMPANY!**

Tuesday February 4th, 2020
Starting at 5 pm @ Photonics West
TOPTICA Booth 3209



All Wavelengths.
190 nm - 0.1 THz

TopWave 266

First Choice for Semicon Inspection

- 300 mW @ 266 nm, cw
- Excellent lifetime (> 10000 h)
- Consistent beam quality ($M^2 < 1.3$) over full lifetime
- Sealed doubling cavity with automatic crystal shifter

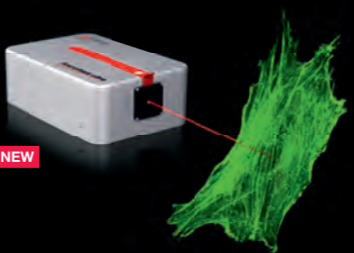


FemtoFiber ultra 920

Flexible, turn-key, and optimized for 2-Photon Microscopy

- Ultrafast fiber laser @ 920 nm
- Unique technology: < 100 fs with > 1.5 W power
- Integrated AOM and adjustable GDD (-40000 fs² ... +1000 fs²)
- Reliable TOPTICA Clean Pulse Technology CPT

NEW



Holo-Litho 405

Ideal Replacement of Krypton Lasers

- 1 W @ 405 nm, cw
- Coherence length > 100 m
- Beam quality: $M^2 < 1.3$
- Low power consumption < 0.2 kW



Sodium Star

The only choice for Adaptive Optics

- Guide star laser for adaptive optics systems
- Excitation of atmospheric sodium @ 589 nm
- > 20 W cw output power, linewidth < 5 MHz
- 2 W version available for laser cooling of sodium



iChrome CLE 50

Optimized for Confocal Microscopy

- 4 colors in one compact box
- 405, 488, 561, 640 nm with > 50 mW each
- COOL^{AC} – hands-free, self-aligning system
- 561 nm: Direct diode technology



DFC – Difference Frequency Comb

Compact, robust, high-end, convenient

- Now with $f_{rep} = 200$ MHz **NEW**
- Ultra-low phase noise
- Highest stability
- Narrow free running linewidth



MDL pro

Ultimate Laser Performance for Advanced Quantum Technology

- High performance without an optical table
- Up to 4 tunable diode lasers
- Wavelength between 369 nm and 1625 nm
- For 19 inch standard racks



FemtoFiber vario 1030

Perfect Solution for Ophthalmology and Micro Machining

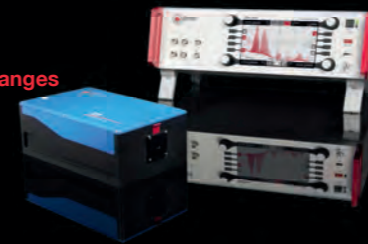
- Ultrafast fiber laser @ 1030 nm
- > 2 W, < 300 fs pulse duration
- Variable pulse duration, repetition rate and pulse energy
- Robust, reliable, compact, cost-effective, push-button



CTL – Continuously Tunable Laser

For Applications that require large mode-hop free Tuning ranges

- Mode-hop-free tuning up to 120 nm
- Available wavelengths 900 .. 1700 nm
- Highest resolution down to kHz level
- Low noise & drift: linewidth < 10 kHz



TOPO

Designed for MIR Spectroscopy

- 1.45 – 4.0 μm (2500 – 6900 cm^{-1})
- 300 GHz (10 cm^{-1}) mode-hop-free tuning range
- Narrow linewidth: 2 MHz (1·10⁻⁵ cm^{-1})
- Hands-free motorized tuning



2019
PRISM
AWARDS
WINNER

TeraFlash smart

World's Fastest THz Platform for Non-Destructive Testing

- Time-domain terahertz system based on ECOPS
- Up to 1600 pulse traces/s
- Thickness gauging at unprecedented speed
- Robust, high-performance system ready for industrial use



WS8-2 – Wavelength Meter

Unsurpassed Accuracy Worldwide

- 2 MHz absolute accuracy
- Up to 500 Hz Measurement speed
- For pulsed and cw lasers
- Sub-MHz resolution: 200 kHz

