# *Press Release*

June 14th, 2019

## TOPTICA presents iChrome FLE:
# Flexible Multi-Color Laser Engine for Biophotonics

**TOPTICA Photonics AG is proud to introduce the new iChrome FLE at LASER World of PHOTONICS. It is the latest member of TOPTICA's successful iChrome multi-laser engine family. The iChrome FLE features up to 7 laser lines in a flexible, yet robust and compact design for simple maintenance-free operation.**

iChrome FLE – a flexible multi-color laser engine for biophotonics with fully automated alignment technology

The iChrome FLE addresses the need for a high-end multi-color laser engine for advanced procedures in the biophotonics field (microscopy, cytometry, high throughput screening, etc.). Advanced applications may require more than four wavelengths, currently available in our iChrome CLE models (405, 488, 561, and 640 nm), as well as an additional fiber output.

**Up to seven laser lines in the range of 405 to 647 nm**

The iChrome FLE's extended platform can be configured with up to seven laser lines in the range of 405 to 647 nm and with one or two fiber outputs (currently available lines 405, 420, 445, 460, 473, 488, 505, 515, 532, 561, 594, 640, 647 nm). Combined with its extensive features, the FLE is a fit for most advanced microscopy techniques like Confocal microscopy, Light sheet microscopy, STORM/PALM, TIRF, Spinning disk microscopy, High throughput screening, Super resolution microscopy, and FRAP/ FRET.

The optional fiber switch not only makes it possible to address two different modalities, or even microscope setups, but can also be used to split power to both fibers at a desired ratio. The computer-controlled splitter can easily be fine-tuned to an exact splitting ratio.

**COOL$^{AC}$: Fully automated alignment technology**

As a unique feature with all iChrome laser engines from TOPTICA, the iChrome FLE is equipped with the proprietary COOL$^{AC}$ (Constant Optical Output Level – Auto Calibration) technology. COOL$^{AC}$ is a fully automated alignment technology, which operates at a simple push of a button in the user software. With COOL$^{AC}$, instrument setup as a customer is as easy as pushing a button – no need to ever manually align any lasers or optics.

The iChrome FLE includes TOPTICA's proprietary FDDL (Frequency Doubled Diode Laser) technology for the 532, 561, 594 nm laser lines, which brings the advantage of fast direct modulation and complete off to these laser lines, which was previously only available as a continuous wave DPSS laser source in combination with a costly AOM (Acousto-optic Modulator).

These high-end features like direct modulation (no external AOM/AOTF required), complete off and speckle management, can all be conveniently controlled via one electronic (RS232, USB, Ethernet) interface. Crosstalk between wavelengths is also a thing of the past. A welcome side-effect of direct modulation is an extended lifetime, as Lasers are only on, when the light is needed, contrary to continuously running and being blocked by the AOM/AOTF.

The **iChrome FLE** offers all the features and necessary flexibility to address even the most challenging imaging and measurement techniques. Options such as fiber switch, fiber splitter and variable attenuator, combined with up to seven laser lines leaves nothing to be desired. At the same time, the iChrome FLE offers easy and convenient operation for beginners and experienced users as well as no screw-driver installation and alignment.

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


**TOPTICA Photonics AG**
Lochhamer Schlag 19
82166 Graefelfing
Germany
www.toptica.com
http://www.toptica.com/company-profile/news/

**International Contact**
Jan Brubacher
Phone + 49 89 85837-123
Fax + 49 89 85837-200
jan.brubacher@toptica.com

*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.*