

## TOPTICA Introduces the FemtoFiber Ultra Dual-Color Laser System for Advanced Microscopy

The laser system enables advanced multi-color nonlinear microscopy through the optical synchronization of two laser sources. This allows simultaneous imaging at different wavelengths, which is critical for applications such as FLIM and wavelength multi-plexing.

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**TOPTICA Photonics, a leading manufacturer of high-end laser systems, announces the release of the FemtoFiber ultra dual-color laser system, designed specifically for multi-color non-linear microscopy applications.**



### About TOPTICA

TOPTICA has been developing, producing, and marketing high-end lasers and laser systems for science, research, and industry for 25 years. The portfolio includes diode lasers, ultrafast fiber lasers, terahertz systems, and optical frequency combs. Worldwide, TOPTICA has 490 employees in six business units with a consolidated group revenue of €130 million.

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This innovative system features two synchronized laser lines, making it ideal for simultaneous multi-color imaging and fluorescence lifetime imaging (FLIM). No laser wavelength tuning is required.

### Key advantages

- Two synchronized laser lines for multi-color non-linear imaging
- Shared oscillator design for all-optical synchronization
- Fixed delay between two colors with minimum jitter
- Single electronic trigger output as reference for TCSPC and gated detection

The **FemtoFiber ultra dual-color** laser system facilitates enhanced imaging of biological samples. Especially, metabolic imaging greatly benefits from simultaneous NADH and FAD measurements. No laser wavelength tuning is required.

### Femtosecond Fiber Lasers for Simplifying Microscopy

TOPTICA's femtosecond fiber lasers provide optimal performance while being easy-to-use. For neuroscience applications, TOPTICA's FemtoFiber ultra lasers are ideally suited to address biological questions by imaging green (GFP) and red fluorescent proteins (RFP) and are already widely adopted in non-linear microscopes.