

Press Release

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Power Record at LASER 2007: Femtosecond Erbium Fiber Laser with 350 mW @ 1550 nm and 140 mW @ 780 nm

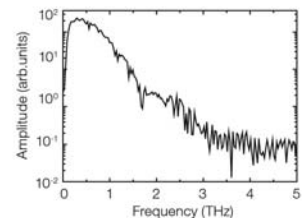
Numerous applications are now accessible by fiber-based laser solutions

With drastic improvements in specifications, TOPTICA's established FFS product line of mode-locked Erbium fiber lasers will appear in new glory at LASER 2007. Taking advantage of a compact and rugged design, this series of ultrafast lasers is targeting applications where the user benefits from the advantages of a fiber laser set-up without compromising performance. The increased power level now allows broad usage in applications which previously had to be considered as the realms of more costly and complex Ti:sapphire oscillators, such as multiphoton microscopy, terahertz spectroscopy, two-photon polymerisation (2PP) and pump-probe measurements.

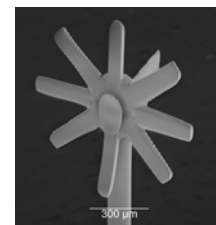
In order to successfully establish mode-locked fiber lasers in these fields, TOPTICA had to overcome significant technological challenges. The well-known favorable features such as the high operational life time and the clean sub-100 fs pulses are now available at enhanced power levels. For most application areas, the power and polarization stability of these lasers is by far superior to other laser solutions and will lead to fast adaptations into existing and novel instrumentation.



FFS laser system with frequency-doubling unit



THz spectrum, produced by the FFS laser source at 780 nm



Micro-mechanical part produced by femtosecond two-photon polymerization (Image courtesy of Laser Zentrum Hannover e.V.)

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 is offered worldwide through TOPTICA Germany and its subsidiary TOPTICA USA, as well as all through 13 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.

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