Use of fiber optic molecular generator

Actively mode-locked (AML) fiber lasers are an attractive source for a regular train of ultra-short pulses. Such lasers normally consist of a fiber-based cavity and an intensity modulator.

This simple approach is based on standard off-the-shelf fibre components and can therefore be readily used in various comb applications that require ultra-stable microwave frequency ...

We have proposed and analyzed the original model of a fiber frequency comb generator, extending the well-known approach to the development of harmonically mode-locked lasers based ...

Here we demonstrate a fibre-delay line-based repetition-rate stabilization method that enables the all-fibre photonic generation of optical pulse trains with 980-as (20-fs) absolute r.m.s. timing jitter ...

In this work, the use of a long-pulse laser (100 ns) is proposed for the detection of molecular emission signals, instead of a normal-pulse laser (6 ns). We show a significant ...

A flat optical comb, with a terahertz span within a 6-dB power envelope and containing 100 comb lines, with a suppressed central comb line, is demonstrated. The comb shows an excellent coherence ...

We report here the first fiber-laser pumped optical parametric generator (OPG), which offers a compact, robust and cost-effective source of broadly tunable femtosecond pulses.

Learn about the construction, types, features, operation principles and modeling of fiber lasers, including e.g. high-power and narrow-linewidth lasers.

Subsequently, a detailed discussion will be devoted to the plasmonic fiber optic biosensing solutions in particular. Gratings and modified-geometry based fiber optic sensors and their advantages and ...

Here, we present a miniature fiber-coupled ablation probe developed using ultrafast laser inscription and chemical etching, employing a hollow-core fiber for pulse delivery.

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