# Translation of All-Fiber Current Sensor

The all fiber optical current transducers employing the Faraday effect in a loop of optical fiber are very attractive for metering, control, and protection in high-voltage substations.

Abstract:Acousto-optic modulator (AOM) and electro-optical modulator (EOM) are applied to realize the all-fiber current sensor with a pulsed light source.

A novel all-fiber optic current sensor (FOCS) is designed specifically for the measurement of large transient currents based on the Faraday effect.

Optical fiber current sensors find uses in a wide range of fields because they can stably measure current by the simple wrapping of a flexible optical fiber around a conductor.

In summary, a dual-channel fiber optic current sensor utilizing carrier-transposed demodulation method is proposed and experimentally demonstrated. The system simply adds ...

We have experimentally developed a hybrid-structure multi-channel all-fiber current sensor with ordinary silica fiber using fiber loop architecture. According to the rationale of time division multiplexing, the ...

An all fiber optic current sensor (AFOCS) utilizing ordinary optical fiber is proposed and demonstrated, which is implemented with a phase-shift fiber loop ringdown (PS-FLRD) structure.

In this paper, we demonstrate a novel all-fiber current sensor using ordinary silica fiber and the fiber loop architecture that can be used to improve current sensitivity.

This paper discusses the research status of all fiber optic current sensors at home and abroad, introduces the basic working principle and the evolution process of optical structure, emphatically ...

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