Fiber Optic Accelerometer Experiment

A balanced Michelson interferometer based on a 3×3 fiber coupler is employed as a displacement transduction system, and an improved elliptic fitting algorithm (EFA) is proposed for phase ...

In this paper a fiber optic accelerometer (FOA) based on camped beam is proposed. The clamped beam is used as the elastic element and a mass installed on the clamped beam is used as the inertial ...

This study proposes an accelerometer to measure shock motion with a fiber Bragg grating (FBG) sensing element attached to a 3D-printed elastomer structure. The structure is designed to be able to ...

Experimental and theoretical research was carried out in order to establish the dependence of the performance of a compliant-cylinder-based fiber-optic accelerometer on the geometry and elastic ...

To meet the demands of this application, a real-time miniaturized fiber optic interferometric accelerometer (FOIA) based on parameter optimization of the compliant cylinder and ...

This study proposes a high-accuracy transient response fiber optic seismic accelerometer based on the resonance suppression mechanism.

A fiber-optic MEMS accelerometer based on a symmetric push-pull spring structure made by micromachining on a silicon substrate is presented, which combines the advantages of low ...

In this article, a fiber optic accelerometer based on a Fabry-Perot interferometer is presented and prepared by micromachining on a silicon substrate.

A compact fiber-optic accelerometer based on a modal interferometer, which is fabricated by misaligned splicing of a short section of a thin-core fiber between two sections of a standard single-mode fiber, is ...

In this work, a high-sensitive fiber-optic FP accelerometer based on spectral-phase demodulation is introduced to achieve vibration detection with the large measurement range and ...

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