

Fiber Optic Grating Anchor Bolt Testing Method

To enable users to fabricate a force-measuring rock bolt by themselves, the microclamped FBG sensor is proposed to replace the encapsulated bare FBG sensor. A theoretical ...

To better study the force variation patterns at different parts of the bolt body, the author proposes a rock bolt sensor detection system based on FBG technology.

In this paper, a mine-used fiber Bragg grating anchor sensor technology is proposed.

The literature reveals diverse applications of fiber optic sensor in bolt tension monitoring, incorporating different fixation methods and demonstrating varied responses.

This article deals with anchor tests instrumented with FBG deformation gauges of the root and the tendon of the pre-stressed strand anchor in a test field in the Central Bohemian Region.

A fiber-optic monitoring test platform of anchor bolt anchoring quality is built. The full-length anchor bolt's strain evolution law and axial force distribution characteristics are...

A fixed cylinder is installed under the main body of the fiber grating bolt test device, and a moving column is slidably connected to the inner side of the fixed cylinder.

This paper proposes a new approach to detecting bolts' anchoring qualities based on the fiber Bragg grating sensing principle. Moreover, it studies the strain transmission mechanism between the ...

To accurately understand the mechanical properties of prestressed anchor and non-prestressed anchor, this paper uses FBG technology to design the loading mode during the test according to the stress ...

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