

Monitoring the Railways by Means of C-OTDR Technology

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Abstract : This paper presents development results of the method of seismoacoustic activity monitoring based on usage vibrosensitive properties of optical fibers. Analysis of Rayleigh backscattering radiation parameters changes, which take place due to microscopic seismoacoustic impacts on the optical fiber, allows to determine seismoacoustic emission sources positions and to identify their types. Results of using this approach are successful for complex monitoring of railways.

Keywords : C-OTDR systems, monitoring of railways, Rayleigh backscattering, eismoacoustic activity

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