

Assessment of Aseismic Performance of Ballasted Track for Large-Scale Shaking Table Test

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The authors performed shaking table tests to evaluate the aseismic performance of ballasted track by using full-scale models. The test results showed that in case of the ballasted track without any countermeasures, the amplitude of lateral displacement and the residual displacement increased because the lateral resistance of ballasted track significantly decreased in case the earthquake acceleration acting on ballasted track exceeded around 800 gals. Furthermore, the authors concluded that the decrease of lateral resistance of ballasted track was prevented by applying some adequate countermeasures against track backling.