

**A Noise Reduction Countermeasure for Interior Noise in a High-speed Railway Vehicle
by Divided Floor Panels Supported Elastically**

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In a railway vehicle, the radiated sound from the floor panels, which is one of the structure borne sounds propagated from the bogie is one of the main elements of the interior noise. The authors have proposed a new countermeasure for reducing the radiated sound by dividing the floor panels supported elastically. In this paper, firstly we describe the reduction effect of the radiated sound from the divided panels by shaking tests using the models, and then show that the radiated sound from the floor panels decreases by the cancellation mechanism of the sound using numerical analysis. Finally, the noise reduction effect by divided floor panels has been confirmed in excitation tests of a high-speed experimental vehicle.