

## **Suspended Floor Structure for Reducing Structure-Borne Sound of Interior Noise**

Tomonori GOTO      Katsuya YAMAMOTO      Mineyuki ASAHINA

As a basis of the study on the reduction of interior noise of a railway vehicle, we compared the vertical vibration of the floor and that of the side structural panel using a bullet train-type test vehicle, and as its result smaller vibration was found at the side structural panel. Thus, for the purpose of reducing the structure-borne sound from the bogie, we investigated a suspended floor structure in which the floor panels were suspended from the side structural panels, which is different from the conventional floor structure in that they were fixed on the floor structural panels. We fabricated a prototype in the test vehicle and conducted stationary excitation tests. As a result, we clarified that the radiated sound power from the floor panel was reduced in a frequency range of hundreds of Hertz.