

**Contribution of Wheel/rail Noise to Railway Noise above 10 kHz Generated  
on a Curved Section of High-speed Railway Line**

Tsugutoshi KAWAGUCHI    Takeshi SUEKI    Toshiki KITAGAWA

As well-known, the wheel/rail noise from 250 Hz to 4 kHz has greater influence on the wayside noise along railway lines. However, when a train runs on a gently curved section, the noise due to wheel and rail vibrations above 10 kHz (high-frequency noise) has sometimes a greater contribution to the total wayside noise. In this paper, the contribution of the high-frequency noise to wayside noise on a high-speed railway line is investigated in field tests and static experiments. It is found that wheel noise above 10 kHz is generated mainly by the outside leading wheel of each bogie, and the noise level depends on the train speed.