

Fundamental Study on the Effect of High Frequency Vibration on Ride Comfort

Chizuru NAKAGAWA Ryohei SHIMAMUNE Naoki MIZUKAMI
Ken WATANABE Hironori HOSHINO Erimitsu SUZUKI

To develop a more suitable method of evaluating ride comfort of high speed trains, a fundamental study was conducted on sensitivity of passengers to various frequencies of vibration with respect to ride comfort. Experiments were performed on 37 subjects using an electrodynamic vibration system that can generate vibrations in the frequency range of 1 to 50 Hz. Results of experiments indicated that the subjects tend to experience greater discomfort when exposed to high frequency vibrations than that presumed by the conventional Japanese ride comfort assessment method, the "Norigokochi Level."