

## **Evaluation of the Level 2 Earthquake Motion by Using Recent Records**

Kimitoshi SAKAI    Yoshitaka MURONO    Tsutomu SATO

The Level-2 earthquake used in designing railway facilities is specified mainly based on the records observed in the 1995 Hyogo-ken Nanbu Earthquake. These records observed at that site were largely amplified because of the influence of the deep seismic bedrock. However, the ground motion is not so much amplified at a site with shallow bedrock. We, therefore, have examined the level of the response spectra for the Level-2 earthquake by considering the effects due to the depth of the seismic bedrock. In addition, we have proposed a method to prepare a time history of the Level-2 earthquake for seismic design. By using the Level-2 earthquake proposed based on the examination, it is possible to design structures having adequate safety even under strong earthquakes.