

Performance Improvement of Fuel Cell Hybrid Powered Test Railway Vehicle

Kenichi OGAWA Takashi YONEYAMA Takayuki SUDO

Takayuki KASHIWAGI Takamitsu YAMAMOTO

There is growing demand for railway vehicles that has high efficiency and does not emit CO₂ and NO_x. To meet such a demand, we have been developing fuel cell (FC) hybrid powered railway vehicles. In the past development stage, we had to install the FC and the power converters on the passenger space because of their large sizes. Also, the vehicle acceleration had been limited to local diesel motive units. We nowadays succeeded in securing the passenger space by equipping the downsized FC and the power converters under vehicle floor. In addition to that, we also improved the tractive performance to standard electric motive units by increasing the power capacities of the FC and the battery.