

**Development of Low Cost Contact Wire for High-speed Train Lines  
Capable of Responding to Small Lot Demand**

Tadanori USUKI    Chikara YAMASHITA    Atsushi SUGAHARA  
Takuya OHARA    Hitoshi NAKAMOTO    Kunio IKEDA

The PHC (Precipitation hardened copper alloy) contact wire had been developed for Shinkansen from the viewpoint of cost and environment. However, it have had a problem which is that the production of PHC contact wire is not possible to flexibly respond to the small lot demand of railway infrastructure managers. Therefore, to meet the small lot demand of the contact wire, the authors have developed a new contact wire; the low-cost CPS contact wire has the same strength and conductivity as PHC contact wire. This paper describes the test results of the performance of the new contact wire.