

**Improvement of Wear Resistance of Solid Lubricant Coated Wheel Material Aimed  
at Application to Railway Wheel Flange**

Motohide MATSUI    Makoto NAKAMURA    Hideshi KAKISHIMA  
Takumi BAN    Shinya FUKAGAI    Shunichi KUBO

We investigated the wear resistance of surface modified wheel specimens with solid lubricant coatings in dry rolling/sliding contact wear tests under a harsh loading and sliding condition, which aimed at an application of its surface modification technique to railway wheel flange. Their wear resistance property was closely relevant to the surface roughness and shape on a specimen prior to the coating process. We fabricated the prototype wheel with a surface modified flange and then performed quasi-static rolling contact tests with the prototype wheel and raw rail.