

**Study on Applicability of Rare Earth High-temperature Superconducting Wires to
Superconducting Magnet for Maglev System**

Masafumi OGATA Yoshiki MIYAZAKI Yuuki ARAI
Hitoshi HASEGAWA Takashi SASAKAWA Ken NAGASHIMA

As for a rare earth high-temperature superconducting wire (RE wire) which is superior in electric properties and mechanical properties to the conventional wires, a performance enhancement is pushed forward strongly now. It was made clear that a superconducting magnet of simpler structure and of higher reliability for maglev system than the conventional one could be achieved by applying RE wire. Then, the characteristic test for RE wire was carried out, and the trial coil of small race truck-shape with RE wire was tested for electric properties. In this way, the electric properties of RE wire from single wire shape to winded coil shape were made clear. These results are useful for application of RE wire to the superconducting magnet for maglev system.