

Abstract Submitted  
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**Thermoelectric properties of  $\text{La}_{1-y}\text{Sr}_y\text{Rh}_{1-x}\text{Co}_x\text{O}_3$**  SOICHIRO SHIBASAKI, KOICHI NOGUCHI, ICHIRO TERASAKI, Waseda Univ. — We have studied thermoelectric properties of the perovskite-type rhodium oxide  $\text{LaRhO}_3$  to clarify the electronic state of  $\text{La}_{1-y}\text{Sr}_y\text{CoO}_3$ . We have focused on Rh oxides as a reference to Co oxide, because Rh ions are stable in the low-spin state. To reveal the difference of the thermoelectric properties between  $\text{La}_{1-y}\text{Sr}_y\text{RhO}_3$  and  $\text{La}_{1-y}\text{Sr}_y\text{CoO}_3$ , we have measured thermoelectric properties of  $\text{La}_{1-y}\text{Sr}_y\text{Rh}_{1-x}\text{Co}_x\text{O}_3$ . XRD analysis revealed that the crystal structure of  $\text{La}_{1-y}\text{Sr}_y\text{Rh}_{1-x}\text{Co}_x\text{O}_3$  changes from orthorhombic to rhombohedral above around  $x \sim 0.75$ . The resistivity at 300 K decreases with the Co concentration, whereas the magnitude of the thermopower takes a maximum around  $x \sim 0.25$ . This phenomenon clearly suggests a certain correlation between Rh and Co ions.

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