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**Physical properties of new iron arsenide oxide with thick perovskite-type oxide layer** NAOTO KAWAGUCHI, Department of Applied Chemistry, University of Tokyo, HIRAKU OGINO, KOJI KISHIO, JUNICHI SHIMOYAMA, DEPARTMENT OF APPLIED CHEMISTRY, UNIVERSITY OF TOKYO TEAM — Since the discovery of high- $T_c$  superconductivity in LaFeAsO, a large number of layered compounds having anti-fluorite type Fe- or Ni-pnictide layer have been discovered. Among them, a series of pnictide oxides having perovskite-type oxide layers<sup>1</sup> are attractive because of their chemical flexibility particularly at the perovskite-type oxide layer, which may results in new compounds. In the present study, various physical properties have been investigated for the new iron pnictide oxides with thick perovskite-type blocking layers, i.e., large interlayer distance between Fe-layers more than 1.7 nm. These samples showed metallic and paramagnetic behaviors in resistivity and magnetization measurements, respectively, down to 2 K without any signs of superconductivity and other anomalies. Relationship among crystal structure, constituent elements and physical properties will be discussed for the newly discovered system.

<sup>1</sup>H. Ogino *et al.*, *Supercond. Sci. Technol.* **22** (2009) 075008

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