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New iron pnictide oxide with thick perovskite-type blocking layers HIRAKU OGINO, The University of Tokyo, SHINYA SATO, YUTAKA MATSUMURA, NAOTO KAWAGUCHI, KENJI MACHIDA, YASUAKI SHIMIZU, KOICHI USHIYAMA, SHIGERU HORII, JUN-ICHI SHIMOYAMA, KOHJI KISHIO — Since the discovery of high-Tc superconductivity in LaFeAs(O,F), development of the materials having iron or nickel pnictide layers are subject of study. As presented in last APS March meeting, we have discovered iron and nickel pnictide oxide superconductors with perovskite-type oxide layers[1]. Until now, several compounds of this system have been found such as (M'2Pn2)(Sr4M2O6) [M' = Fe, Ni; Pn = P, As; M = Sc, Cr, (Mg,Ti)]. These compounds have higher pnictogen heights and lower Pn-Fe-Pn angles compared to REFeAsO system. These features of the system may lead to realization of high-Tc superconductivity. Recently we discovered new material belongs to this kind of system. Structural features and physical properties of the compounds in this system as well as new compound will be presented. [1] H. Ogino et al., Supercond. Sci. Technol. 22 (2009) 075008.

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