

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Antiperovskite Sr₃PbO thin films grown by molecular beam epitaxy DEBAKANTA SAMAL, HIROYUKI NAKAMURA, HIDENORI TAKAGI, Max Planck Institute for Solid State Research — Several antiperovskite compounds have recently been predicted to host bulk three dimensional Dirac dispersion as well as surface states protected by crystal symmetry. Here, we present fabrication of cubic antiperovskite Sr₃PbO films epitaxially grown on LaAlO₃ by molecular beam epitaxy. Fabricated films were capped with polymer without breaking vacuum to facilitate ex-situ transport characterization. All of the films showed metallic temperature dependence. The Hall effect measurement suggests that the carrier type is hole, whose density is around $5 \times 10^{19} \text{ cm}^{-3}$. Details of magnetotransport at low temperature is also described.

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Date submitted: 07 Nov 2015

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