

Abstract Submitted  
for the MAR13 Meeting of  
The American Physical Society

**Physical Properties of new  $A_2TO_3$  ( $A = \text{Na, Li}$ ,  $T = \text{Ru, Rh, Ir}$ ) materials** YOGESH SINGH, Indian Institute of Science Education and Research (IISER) Mohali, Knowledge city, Sector 81, Mohali 140306, India, SOHAM MANNI, PHILIPP GEGENWART, I. Physikalisches Institut, Georg-August-Universität Göttingen, D-37077 Göttingen, Germany — The layered iridates  $A_2\text{IrO}_3$  ( $A = \text{Na, Li}$ ) have recently been suggested to be spin-orbit driven Mott insulators with their magnetism being consistent with an extended Kitaev-Heisenberg model [1-6]. While  $\text{Na}_2\text{IrO}_3$  was found to lie deep in a magnetically ordered region,  $\text{Li}_2\text{IrO}_3$  was suggested to lie close to the spin-liquid state expected in the strong Kitaev limit [6]. To explore the effect of chemical pressure and the effect of varying the spin-orbit coupling we have synthesized the new materials  $\text{Li}_2\text{RhO}_3$ ,  $\text{Na}_2\text{RuO}_3$ , and  $\text{Na}_2\text{Ir}_{1-x}\text{Ru}_x\text{O}_3$ . We will present magnetic, electrical transport, and heat capacity measurements on these materials.

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Date submitted: 21 Nov 2012

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