

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Optical and Raman Study of α -RuCl₃ LUKE SANDILANDS, ANJAN REIJNDERS, YAO TIAN, KEMP PLUMB, JENNIFER SEARS, VIJAY VENKATARAMAN, HAE-YOUNG KEE, YOUNG-JUNE KIM, University of Toronto, KENNETH BURCH, Boston College — We report on the optical and Raman spectroscopy of the layered honeycomb magnet α -RuCl₃. Anomalies in the phonon spectrum reveal a structural phase transition near 150K and we also observe a series of Ru $d - d$ excitations in the range 0.1 to 3.5 eV . We compare our measurements with LDA calculations of the electronic structure and discuss the possibility of J_{eff} physics in this compound.

Luke Sandilands
University of Toronto

Date submitted: 15 Nov 2013

Electronic form version 1.4