

Abstract Submitted  
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**Gap Measurement of  $\text{Na}_2\text{IrO}_3$  with a Scanning Tunneling Microscope**<sup>1</sup> ARMIN ANSARY, University of Kentucky, JOHN NICHOLS, Oak Ridge National Laboratory, GANG CAO, KWOK-WAI NG, University of Kentucky — 5d transition metal oxides such as iridates have recently stimulated substantial interest. Many exciting new phases can be found in this class of materials because of the comparable strength between spin-orbit coupling and the Coulomb interaction. In particular, we have studied high quality single crystal  $\text{Na}_2\text{IrO}_3$  with a scanning tunneling microscope (STM).  $\text{Na}_2\text{IrO}_3$  has a layered structure with a honeycomb lattice. The gap is measured to be about 400 meV according to the  $dI/dV$  curve, which is consistent with optical measurements. We will show topographic images and discuss the evolution of the density of states and the behavior of the gap from room temperature down to 100 K.

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