

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Low-temperature magneto-thermal conductivity of the helimagnet Cu_2OSeO_3 ¹ NARAYAN PRASAI, SUNXIANG HUANG, JOSHUA L. COHN, University of Miami, BENJAMIN TRUMP, GUY G. MARCUS, TYREL M. MCQUEEN, CHIA LING CHEN, Johns Hopkins University — We report measurements of thermal conductivity (κ) in the range $0.6 \text{ K} \leq T \leq 200 \text{ K}$ for single crystals of the helimagnetic insulator Cu_2OSeO_3 . A maximum in κ near $T = 8 \text{ K}$ with $\kappa_{max} \sim 300 \text{ W/mK}$ implies a very high lattice quality for an oxide. The magneto-thermal conductivity at $T \leq 10 \text{ K}$ and influence of spin-reorientation transitions associated with low- T magnetic phases will be discussed for different orientations of the magnetic field relative to the crystallographic and heat flow directions.

¹This material is based upon work supported by the U.S. Department of Energy, Office of Basic Energy Sciences, Division of Material Sciences and Engineering, under grants No. DEFG02-12ER46888 (Univ. Miami) and No. DEFG02-08ER46544 (Johns Hopkins Univ.)

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Date submitted: 06 Nov 2015

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