Abstract Submitted
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Heat transport in the frustrated spin-ladder compound, $BiCu_2PO_6$[1] NARAYAN PRASAI, ALWYN REBELLO, JOSHUA L. COHN, University of Miami, SUELI H. MASUNAGA, JOHN J. NEUMEIER, Montana State University — We report measurements of thermal conductivity (κ) in the range 0.4 K $\leq T \leq$ 300 K for single-crystal $BiCu_2PO_6$, a recently discovered[2] frustrated 2-leg spin-ladder compound. For heat flow both along and transverse to the spin ladders, κ exhibits a broad maximum near 60 K, coinciding with a similar maximum reported in the magnetic susceptibility, and consistent with resonant phonon scattering from spin excitations with an energy scale 40-60 K. Anisotropy in κ, evidence for a spin contribution at low temperatures, and the influence of magnetic field will be discussed.

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[2]B. Koteswararao *et al.*, Phys. Rev. B **76**, 052402 (2007).

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