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**Low-temperature thermal transport properties of $BaNi_2As_2$** NOBUYUKI KURITA, FILIP RONNING, YOSHIFUMI TOKIWA, ERIC D. BAUER, Los Alamos National Laboratory, ALASKA SUBEDI, Oak Ridge National Laboratory and University of Tennessee, DAVID J. SINGH, Oak Ridge National Laboratory, JOE D. THOMPSON, ROMAN MOVSHOVICH, Los Alamos National Laboratory — Low-temperature specific heat $C(T)$ and thermal conductivity $\kappa(T)$ measurements under magnetic field have been performed on a recently discovered Ni-based superconductor $BaNi_2As_2$ ($T_c = 0.7\,K$). In zero field, $\kappa(T)$ shows $T$-linear behavior in the normal state and exhibits a BCS-like exponential decrease below $T_c$. The field dependence of the residual thermal conductivity extrapolated to zero temperature is indicative of a fully gapped superconductor. This conclusion is supported by the analysis of $C(T)$ data, which are well fit based on the BCS theory.

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