

Abstract Submitted
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Giant Bipolar Nernst Effect in the Quasi-One-Dimensional Metal, $\text{Li}_{0.9}\text{Mo}_6\text{O}_{17}$ ¹ JOSHUA L. COHN, University of Miami, BENJAMIN D. WHITE, Montana State University, CARLOS A. M. DOS SANTOS, Escola de Engenharia de Lorena - USP, Brazil, JOHN J. NEUMEIER, Montana State University — The Nernst coefficient for the quasi-one-dimensional metal, $\text{Li}_{0.9}\text{Mo}_6\text{O}_{17}$, is found to be among the largest known for metals ($\nu \simeq 500 \mu\text{V}/\text{KT}$ at $T \sim 20$ K), and is enhanced in a broad range of temperature by orders of magnitude over the value expected from Boltzmann theory for carrier diffusion. A comparatively small Seebeck coefficient implies that $\text{Li}_{0.9}\text{Mo}_6\text{O}_{17}$ is bipolar with large, partial Seebeck coefficients of opposite sign. A very large thermomagnetic figure of merit, $ZT \sim 0.5$, is found at high field in the range $T \approx 35 - 50$ K.

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