

Abstract Submitted
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Magnetothermal transport in monoclinic $\text{Nd}_2\text{Ti}_2\text{O}_7$ ¹ HUI XING, Department of Physics, University at Buffalo-SUNY, HONGWANG ZHANG, University at Buffalo-SUNY, HANJIE GUO, Department of Physics, Zhejiang University, CHUNMU FENG, GUANGHAN CAO, ZHUAN XU, Zhejiang University, HAO ZENG, University at Buffalo-SUNY — The monoclinic $\text{Nd}_2\text{Ti}_2\text{O}_7$ is an interesting material due to the existence of a novel field-induced slow spin relaxation (SSR) in the paramagnetic state. The SSR is attributed to the cooperative relaxation mode formed through the spin-spin interactions between partially polarized spins. Here we report the magnetothermal transport measurement on $\text{Nd}_2\text{Ti}_2\text{O}_7$ single crystals. The zero field thermal conductivity is dominated by the phonon contribution. The magnetothermal conductivity reveals significant field dependence. The field and temperature dependence is discussed in connection with the field-induced slow spin relaxation. .

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