Abstract Submitted
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Phonon drag in thermal conductivity of antiferromagnets[1] SUHAS GANGADHARAIAH, ALEXANDER CHERNYSHEV, University of California, Irvine — We use Boltzmann equation approach to the thermal transport in low-dimensional antiferromagnets with spin-lattice coupling. We consider the limit of fast spin excitations, relevant to many compounds with $J >> \Theta_D$, where Θ_D is the Debye energy. We discuss the "off-diagonal" contribution to the heat current due to the drag of spin excitations on phonons. We calculate this effect for the one-dimensional spin chain materials.

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