Thermal transport and spin-phonon coupling in the one-dimensional antiferromagnetic spin chain compound CuSb$_2$O$_6$\textsuperscript{1} NARAYAN PRASAI, JOSHUA COHN, ALWYN REBELLO, University of Miami, MICHAEL SMITH, JOHN J. NEUMEIER, Montana State University — We report thermal conductivity ($\kappa$) measurements on single crystals of the $S = 1/2$ antiferromagnetic spin-chain compound CuSb$_2$O$_6$ over the temperature range $5K \leq T \leq 300K$. Similar measurements on the non-magnetic analog compound, ZnSb$_2$O$_6$, allow for a comparison of the lattice thermal conductivities. The role of spin-phonon coupling and twinning on the anisotropic thermal transport of CuSb$_2$O$_6$ will be discussed.

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