

Abstract Submitted  
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**Low-temperature specific heat of  $\text{Nd}_{1-x}\text{Ca}_x\text{B}_6$  single crystals<sup>1</sup>**

JOLANTA STANKIEWICZ, MARCO EVANGELISTI, ICMA, CSIC-Universidad de Zaragoza, ZACHARY FISK, Department of Physics, University of California, Irvine — We measured the heat capacity on random alloys of  $\text{Nd}_{1-x}\text{Ca}_x\text{B}_6$  ( $x < 0.4$ ) in the 0.4 to 40 K temperature range. We calculated the lattice contribution to the specific heat, arising from the Debye-type phonons of the boron framework and Einstein-type oscillators of the cation sublattice. To this end, we used data obtained for the heat capacity of a  $\text{LaB}_6$  single crystal which we measured in the same temperature range. Subtracting lattice and Schottky-type contributions from the measured heat capacity, we find that the electronic portion, linear in temperature, decreases sharply upon doping with Ca, most likely owed to changes in the Fermi surface.

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