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**Thermoelectric power of  $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ ,  $0 \leq x \leq 0.025$ : tracking changes in Fermi surface topology**<sup>1</sup> H. HODOVANETS, E.D. MUN, A.N. THALER, S.L. BUD'KO, P.C. CANFIELD, Ames Laboratory/ Iowa State University, Ames, IA 50011, USA — Temperature-dependent, in-plane, thermoelectric power (TEP) data will be presented for single crystals of  $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ , ( $0 \leq x \leq 0.025$ ). Previously reported TEP data for this system showed a big jump in the TEP data from  $x=0.02$  to  $x=0.024$  suggesting a Lifshitz transition, a result which was later confirmed by ARPES measurement. Given that TEP and ARPES delineated a rather large region for the Lifshitz transition to occur, and the underdoped side of the phase diagram is poorly explored, newly careful measurements of TEP on tightly spaced concentrations of Co,  $0 \leq x \leq 0.025$ , were carried out. The data show clear evidence of a Lifshitz transition, but instead of a discontinuous jump in TEP between  $0 \leq x \leq 0.025$ , there is a more gradual evolution in the  $S(T)$  plots as  $x$  is increased.

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