

Abstract Submitted  
for the MAR16 Meeting of  
The American Physical Society

**Enhancement of Superconductivity Near a Structural Instability in  $\text{Ba}(\text{Ni}_{1-x}\text{Co}_x)_2\text{As}_2$**  CHRIS ECKBERG, HYUNSOO KIM, PETER ZAVALIJ, PHILIP PICCOLI, Univ of Maryland-College Park, JOHNPIERRE PAGLIONE, University of Maryland-College Park — We present a comprehensive study of single crystals of  $\text{Ba}(\text{Ni}_{1-x}\text{Co}_x)_2\text{As}_2$  synthesized using a flux method. With cobalt substitution, we track the evolution of the structural triclinic phase of  $\text{BaNi}_2\text{As}_2$  and the superconducting ground state with heat capacity and resistivity measurements. We will present our study of the systematic suppression of the low temperature triclinic state with increasing Co concentration as well as a more than threefold enhancement in the superconducting critical temperature, discussing its relation to iron-based superconductors.

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Date submitted: 14 Jan 2016

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