

Abstract Submitted
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Unconventional superconducting gap in NaFe_{0.95}Co_{0.05}As observed by ARPES PIERRE RICHARD, Institute of Physics, Chinese Academy of Sciences, Z.-H. LIU, Renmin University, K. NAKAYAMA, Tohoku University, G.-F. CHEN, Renmin University, S. DONG, J.-B. HE, D.-M. WANG, T.-L. XIA, Renmin University, K. UMEZAWA, T. KAWAHARA, S. SOUMA, T. SATO, T. TAKAHASHI, Tohoku University, T. QIAN, Y. HUANG, N. XU, Y. SHI, H. DING, Institute of Physics, Chinese Academy of Sciences, S.-C. WANG, Renmin University — The size, the symmetry and the temperature evolution of the superconducting (SC) gap in a given material are directly related to the SC pairing mechanism. The momentum-resolution capability of angle-resolved photoemission spectroscopy (ARPES) allows precise determination of these key parameters, even for complex multi-band systems such as the iron-based superconductors. We performed an ARPES study of NaFe_{0.95}Co_{0.05}As. The fermiology of this electron-doped 111-pnictide is similar to that of other pnictides. Similarly, the measured SC gaps are nearly isotropic and their size indicates that the system is in the strong coupling regime. Surprisingly, the SC gaps show little change upon increasing temperature towards T_c , while coherence vanishes.

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