Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Study of band structure and Fermi Surface of $SrFe_2As_2$ and $BaFe_2As_2$by angle-resolved photoemission spectroscopy MADHAB NEUPANE, Y.-M. XU, Z. WANG, Boston College, P. RICHARD, S. SOUMA, WPI Research Center, Tohoku University, K. NAKAYAMA, Tohoku University, T. SUGAWARA, Tohoku University,, T. ARAKANE, Y. SEKIBA, A. TAKAYAMA, T. SATO, T. TAKAHASHI, Tohoku University, X. DAI, Z. FANG, G.F. CHEN, J.L. LUO, J. BOWEN, N.L. WANG, H. DING, Institute of Physics, Chinese Academy of Sciences — Recently superconductivity has been discovered in many iron pnictides when they are properly doped with charge carriers. Thus it is important to understand the undoped parent compounds that also have a puzzling collinear antiferromagnetic ground state. We have performed a systematic angle-resolved photoemission study on some of the parent compounds, mostly on $SrFe_2As_2$ and $BaFe_2As_2$, to investigate their electronic structure and Fermi surface. We will report our experimental results and the comparisons to first-principle band calculations.

Madhab Neupane
Boston College

Date submitted: 23 Nov 2008 Electronic form version 1.4