ARPES study of the new iron-based superconductor \( \text{Sr}_4\text{V}_2\text{O}_6\text{Fe}_2\text{As}_2 \) TIAN QIAN, Beijing National Laboratory for Condensed Matter Physics, and Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China, KOSUKE NAKAYAMA, TAKUMA KAWAHARA, YOUICHI SEKIBA, TAKAFUMI SATO, TAKASHI TAKAHASHI, Department of Physics, Tohoku University, Sendai 980-8578, Japan, HAIHU WEN, HONG DING, Beijing National Laboratory for Condensed Matter Physics, and Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China — A new FeAs-based compound \( \text{Sr}_4\text{V}_2\text{O}_6\text{Fe}_2\text{As}_2 \) was discovered recently to show superconductivity at a relatively high temperature \( (T_c \sim 37K) \). We will present ARPES results of band structure and Fermi surface of \( \text{Sr}_4\text{V}_2\text{O}_6\text{Fe}_2\text{As}_2 \), and discuss implications to its superconductivity.

Tian Qian
Beijing National Laboratory for Condensed Matter Physics, and Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China

Date submitted: 24 Nov 2009  
Electronic form version 1.4