

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**Systematic ARPES study of  $\text{Ln}_x\text{Bi}_2\text{Sr}_{2-x}\text{CuO}_{6+\delta}$**  ZHIHUI PAN, MADHAB NEUPANE, YIMING XU, ZIQIANG WANG, Boston College, HUIQIAN LUO, LEI FANG, HAIHU WEN, Institute of Physics and National Lab for Condensed Matter Physics China, HONG DING, Boston College —  $\text{Ln}_x\text{Bi}_2\text{Sr}_{2-x}\text{CuO}_{6+\delta}$  is a good candidate to investigate the effects of charge doping and potential disorder to the properties of the high-Tc cuprates. The samples with different Ln elements exhibits very different property, and can used as a probe to study the superconductivity with different Ln substitutions. High-quality single crystals of  $\text{Ln}_x\text{Bi}_2\text{Sr}_{2-x}\text{CuO}_{6+\delta}$  (Bi and La) have been synthesized over a wide substitution range. We will report our high-resolution ARPES results on of  $\text{Ln}_x\text{Bi}_2\text{Sr}_{2-x}\text{CuO}_{6+\delta}$ .

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Date submitted: 26 Nov 2007

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