

Abstract Submitted  
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**Electronic properties of topological materials studied by angle-resolved photoemission spectroscopy**<sup>1</sup> Y. WU, T. KONG, N.H. JO, Ames Laboratory & Iowa State University, L.-L. WANG, Ames Laboratory, D. MOU, L. HUANG, B. SCHRUNK, Ames Laboratory & Iowa State University, K. SUN, Ames Laboratory, E. MUN, Simon Fraser University, Y. LEE, Ames Laboratory, D.D. JOHNSON, S.L. BUD'KO, P.C. CANFIELD, A. KAMINSKI, Ames Laboratory & Iowa State University — We use ultrahigh resolution, tunable, vacuum ultraviolet laser-based angle-resolved photoemission spectroscopy (ARPES) to study the electronic properties of topological materials. In PtSn<sub>4</sub>, we have discovered Dirac node arc states where Dirac dispersions extend along arcs in the momentum space. In topological semimetal LaBi, we have observed Dirac surface states that are buried deeply in the bulk states with asymmetric mass acquisition. In type-II Weyl semimetal candidate WTe<sub>2</sub>, we have observed the Fermi arc surface states which are very sensitive to pressure/strain. These results are experimental confirmations of theoretical predictions and band structure calculations.

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