

Abstract Submitted
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X-ray photoelectron spectroscopy of Single Crystals of intercalated Bismuth Selenide¹ SOMADITYA SEN, JOHN A. DUDEK, University of Wisconsin Milwaukee, WI, YING ZOU, Shanghai Institute of Applied Physics, China, MARY SEVERSON, MARK BISSEN, Synchrotron Radiation Center, Stoughton, WI, PRASENJIT GUPTASARMA², University of Wisconsin Milwaukee, WI — The possibility of superconductivity in topological insulators is likely to yield new physics, especially because the insulating normal state is highly unconventional. However, before moving on to microscopic theory, it is important to characterize and study basic systems available today. Here, we present XPS studies of intercalated single crystals of Bi_2Se_3 and Sb_2Se_3 . Core level spectroscopy, combined with infra-red and Raman spectroscopy, yield details of the nature of bonding of atoms at the cleaved surface.

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