Abstract Submitted for the MAR13 Meeting of The American Physical Society

Superconducting Proximity Effect in Topological Insulators ANDREW BESTWICK, MELIS TEKANT, JAMES WILLIAMS, DAVID GOLDHABER-GORDON, Stanford University, KEHUI WU, YONGQIN LI, Institute of Physics Chinese Academy of Sciences, JAMES ANALYTIS, University of California, Berkeley, ANDREW BLEICH, IAN FISHER, Stanford University — Superconductor-topological insulator interfaces are prime candidates in the search for Majorana fermions in the solid state. We report on recent transport measurements of proximity-induced superconductivity through topological insulators with varying chemical compositions and growth methods. We will discuss the Josephson effect, tunneling spectroscopy, and measurement of normal-state conduction channels as means to detect Majorana states.

> Andrew Bestwick Stanford University

Date submitted: 09 Nov 2012

Electronic form version 1.4