Abstract Submitted for the MAR15 Meeting of The American Physical Society

Superconductivity in PdxBi2Se3 by anneal doping¹ GRACE MC-CLINTOCK, J. T. MLACK, NINA MARKOVIC, Johns Hopkins University — We show that superconductivity can be induced in Bi2Se3 by palladium doping via annealing. Thin films of palladium are deposited on prefabricated Bi2Se3 nanodevices and annealed at temperatures in excess of 100 Celsius. We find that Bi2Se3 absorbs Pd under these conditions and that the absorption of Pd results in superconductivity, as evidenced by resistance and magnetoresistance measurements below 1K.

¹This work was supported by NSF DMR-1106167.

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Date submitted: 14 Nov 2014 Electronic form version 1.4