

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Growth and oxygen doping of thin film FeTe by Molecular Beam Epitaxy¹ MAO ZHENG, CAN ZHANG, HEFEI HU, JIAN-MIN ZUO, JAMES ECKSTEIN, University of Illinois Urbana-Champaign — FeTe is isomorphic to FeSe, a representative of the 11 family of iron based superconductors. While not a superconductor itself, FeTe, particularly in thin film form, undergoes a superconducting transition when doped with oxygen. In this presentation, we will discuss the growth of FeTe by MBE and various schemes we used to dope the samples. Evidence from our investigation suggests that FeTe films are doped via an oxygen diffusion process which is strongly activated by temperature.

¹This material is based upon work supported as part of the Center of Emergent Superconductivity, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences under Award Number DE-AC0298CH10

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Date submitted: 11 Nov 2011

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