Abstract Submitted for the MAR10 Meeting of The American Physical Society

Superconducing $SrFe_{1.75}Co_{.25}As_2$ thin films grown by pulsed laser deposition¹ RICHARD SUCHOSKI, University of Maryland, Materials Science and Engineering Department, RICHARD GREENE, JOHNPIERRE PAGLIONE, NICHOLAS BUTCH, SHANTA SAHA, KEVIN KIRSHENBAUM, PAUL BACH, KUI JIN, XIAO HANG ZHANG, University of Maryland, Physics Department, ICHIRO TAKEUCHI, University of Maryland, Materials Science and Engineering Department — We are growing $SrFe_{1.75}Co_{.25}As_2$ thin films by pulsed laser deposition. The target was prepared by grinding and sintering a superconducting single crystal of $SrFe_{1.75}Co_{.25}As_2$. Typical deposition conditions are 700C and base pressure of $7x10^{-8}$ torr. The films are grown on substrates LSAT (100) and STO (100), and their T_c (onset) range is 21-15K. We will report on structural analysis and transport measurements on the films.

 1 We are funded by AFO SR MURI Grant #FA95500910603 and NSF MRSEC @ UMD (DMR 0520471).

Richard Suchoski University of Maryland, Materials Science and Engineering Department

Date submitted: 21 Nov 2009 Electronic form version 1.4