Superconducing SrFe$_{1.75}$Co$_{0.25}$As$_2$ thin films grown by pulsed laser deposition$^1$ 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$_{0.25}$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$_{0.25}$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.

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