Abstract Submitted
for the SES13 Meeting of
The American Physical Society

**Development and characterization of erbium doped fluorophosphate glasses** JEREMY TRIMBLE, JUSTIN OELGOETZ, ANDRIY KOVALSKYY, Department of Physics and Astronomy, Austin Peay State University, CARRIE BRENNAN, Department of Chemistry, Austin Peay State University — The incorporation of rare earth ions into various glass compositions has led to the development of technologies in recent years such as solid state lasers and optical amplifiers used in high speed telecommunication. Ongoing research in photovoltaic materials science studies compositions of glass films designed to improve silicon solar cell performance by converting unusable parts of the spectrum into photons that match the silicon band gap. Currently, researchers are investigating new compositions of rare earth doped glasses to develop their mechanical and optical properties into new technologies. We investigate tin fluorophosphate glasses doped with erbium compounds for these or other applications. This poster presents our recent work to prepare glass samples for optical analysis and reports the results of fluorescence and Raman spectroscopic measurements.

Jeremy Trimble
Department of Physics and Astronomy, Austin Peay State University

Date submitted: 20 Sep 2013 Electronic form version 1.4