Abstract Submitted
for the SES13 Meeting of
The American Physical Society

A Structural Determination of Spin Coated Chalcogenide Thin Films JUSTIN COOK, Austin Peay State University, STANISLAV SLANG, MIROSLAV VLCEK, University of Pardubice — Technology of spin coated thin films of $As_{28}S_{72}$ and $As_{33}S_{67}$ compositions was developed. As opposed to thermal evaporation, spin coating is a quick, cost effective production method to produce amorphous thin layers. Using Raman spectroscopy, the structural features of virgin and exposed spin coated films were studied and compared to the structure of thermally evaporated films. Key structural differences were observed in the spectral regions associated with As-As and S-S homopolar bonds. In addition, upon exposure to 375 nm LED light, luminescence was observed within our spin coated samples, possibly indicating the presence of photoinduced polymerization or a similar phenomenon.

Justin Cook
Austin Peay State Univ

Date submitted: 18 Sep 2013 Electronic form version 1.4