Electronic Supplementary Information

Thermoelectric Properties of Copper Chalcogenide Alloys Deposited via the Solution-Phase Using a Thiol-Amine Solvent Mixture

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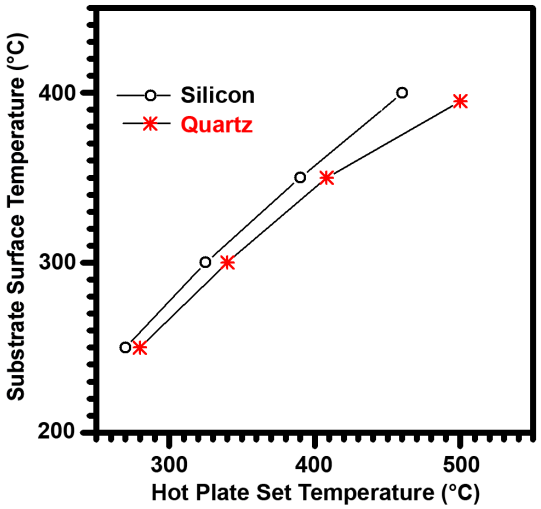

Figure S1. Temperature calibration curves that relate the surface temperatures of silicon and quartz substrates to the hot plate set temperature. These calibration curves were used in the manuscript so that all precursor annealing temperatures could be reported in terms of the true substrate surface temperature.

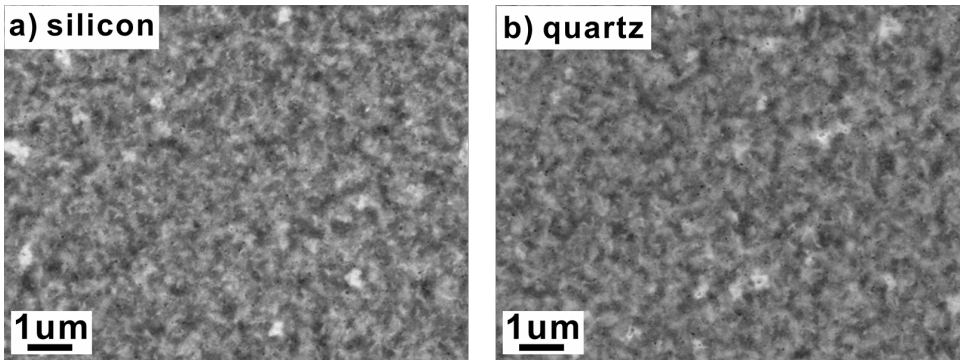

Figure S2. Scanning electron micrographs of $Cu_{2-x}Se_yS_{1-y}$ films prepared by spin-coating on a) silicon substrates and b) amorphous quartz substrates. No sample morphological differences are observed between these two substrates. This lack of morphology difference likely arises because the native oxide of the silicon makes the silicon surface nearly identical to the amorphous quartz substrates.

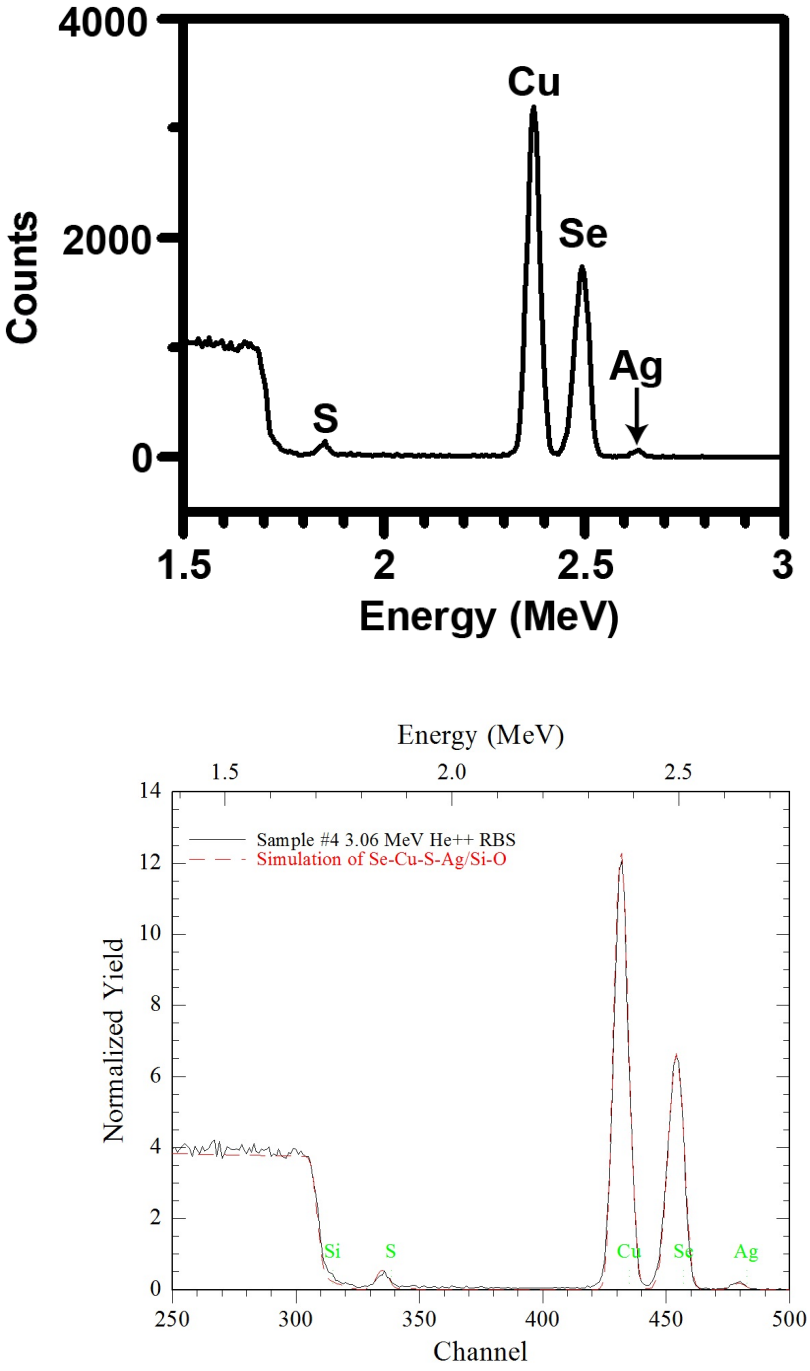

Figure S3. Raw Rutherford backscattering spectroscopy data on the $Cu_{1.83}Ag_{0.009}Se_{0.77}S_{0.23}$ sample (top) and the corresponding RUMP data fit (bottom).