



Thin Film Measurement solution
Software, sensors, custom development
and integration

Antimony Selenide (Sb_2Se_3) Measurement

Sb_2Se_3 is an interesting material for potential use in thin film solar cells as an absorber. A sample of Antimony Selenide layer deposited on Au foil was measured using MProbe VisNIR system(450-1700nm wavelength range).

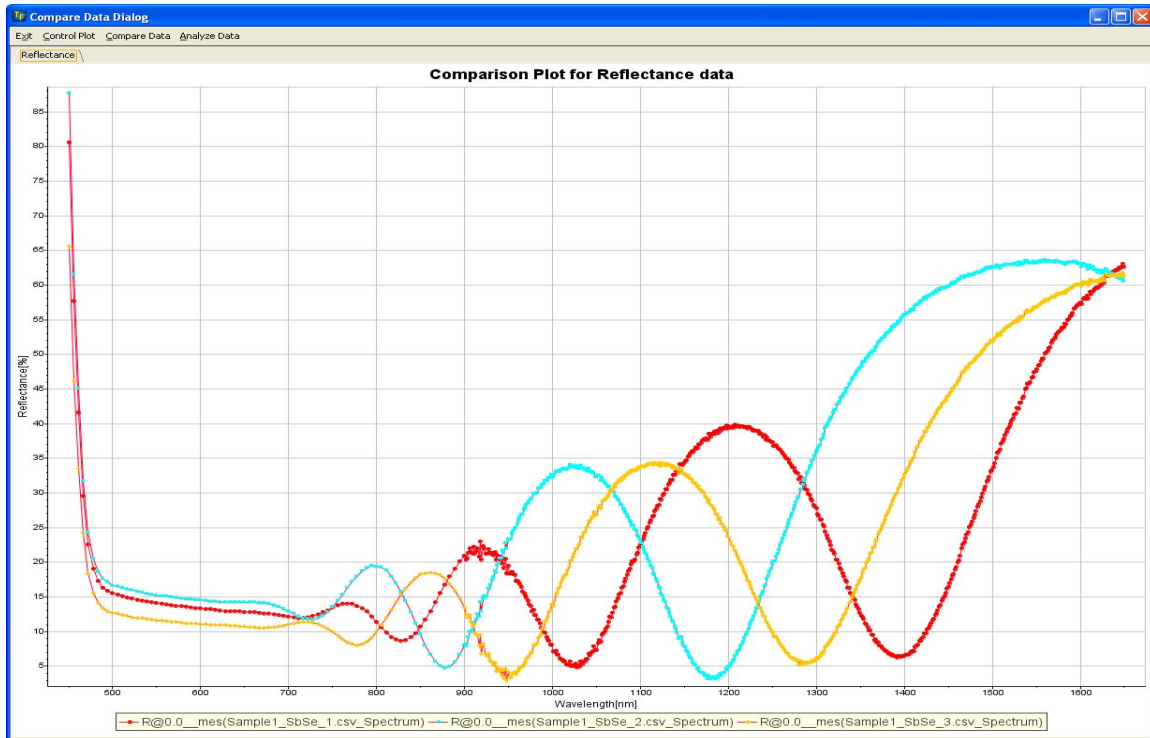


Fig. 1 Reflectance spectra of Sb_2Se_3 taken at the different point of the sample. The spectra show that the sample thickness is non-uniform. Sb_2Se_3 is absorbing in the visible range up to ~ 750 nm.

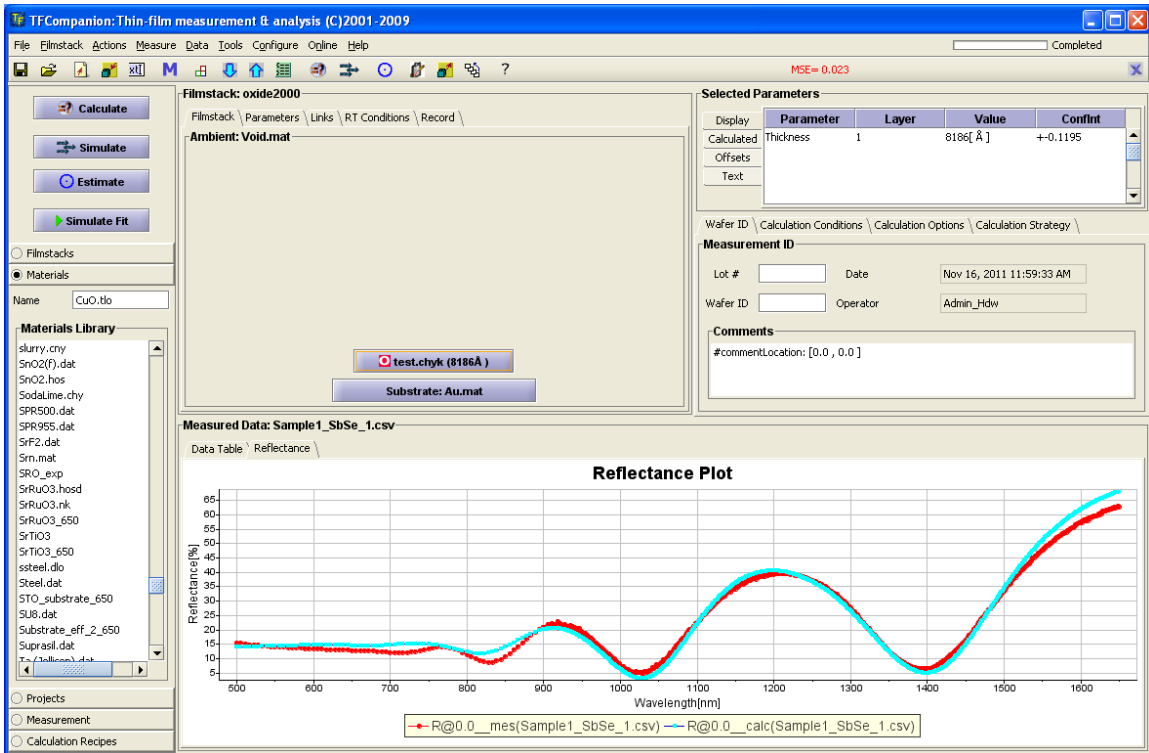


Fig. 2. Model to measurement fit (central point). Thickness and optical dispersion of the Sb_2Se_3 was determined from the measurement, Thickness= 818nm

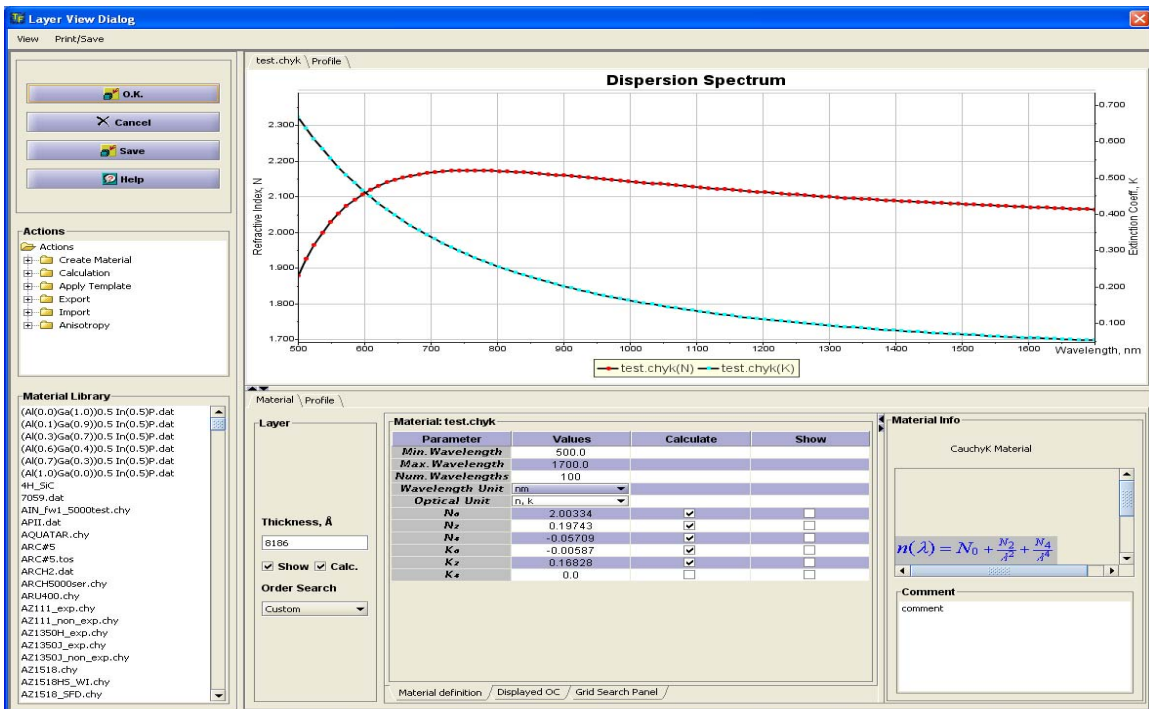


Fig. 3 Optical dispersion of the Sb_2Se_3 is determined from the measurement. Dispersion is represented using CauchyK model.