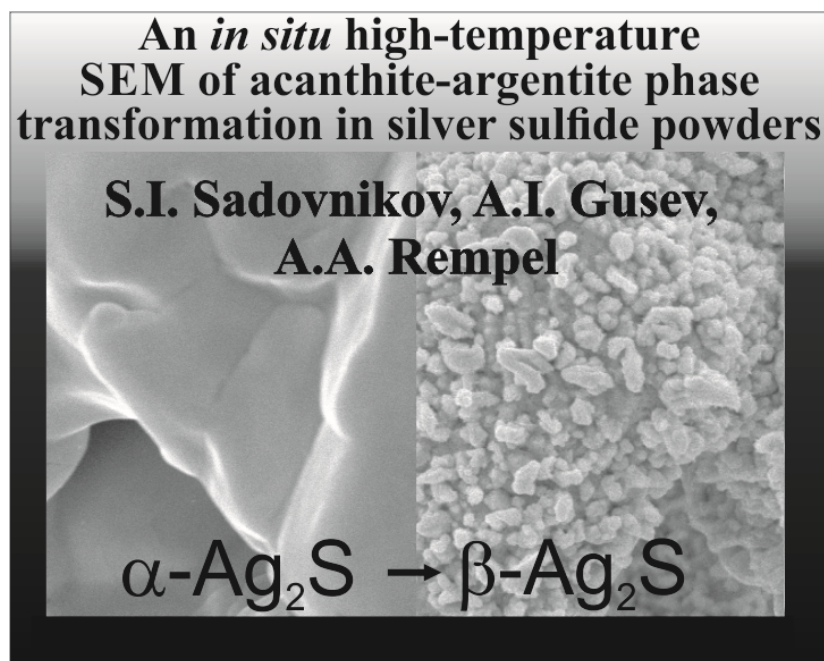


Short title for the movie

Movie S1. 3D SEM Imaging of Phase Transformation from Acanthite to Argentite in Ag_2S nanopowder



Keywords for movie

Silver sulfide, Nanopowder, Phase Transformation from Acanthite $\alpha\text{-Ag}_2\text{S}$ to Argentite $\beta\text{-Ag}_2\text{S}$, *in situ* SEM

Movie legend

As a result of heating, short pyramidal nuclei of argentite $\beta\text{-Ag}_2\text{S}$ appear on the surface of $\alpha\text{-Ag}_2\text{S}$ acanthite particles. The nuclei grow quickly and take the form of whiskers from 500 nm to 1 μm and more in length. The formation of argentite ends when no low-temperature acanthite remains in the surface layer of silver sulfide.