

Thermal Annealing of Molecular Layer-Deposited Tincone : Unveiling Sulfur's Structural Impacts in Graphitic Carbon Formation

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Session: EM1: Molecular Layer Deposition of Organic Materials and Organic-Inorganic Hybrid Materials

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Acknowledgment

This work was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government(MSIT) (No. RS-2023-00260527).

Supplemental Document

The MLD tincone films were deposited at 100 °C without impurities, then vacuum post-annealed in a tube furnace to induce graphitization. Spectroscopic Ellipsometry (SE), X-ray Photoelectron Spectroscopy (XPS) and Raman spectroscopy were employed to investigate the effect of thermal annealing on the tincone thin film.

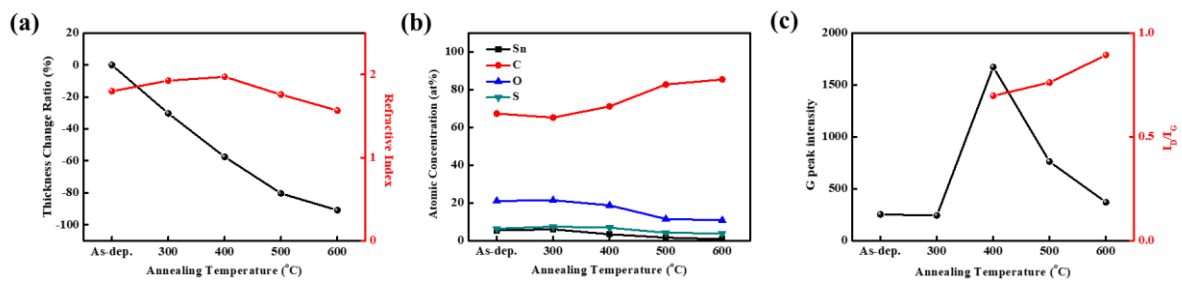


Figure 1. To confirm the effect of annealing for 4MP Tincone (a) Thickness change and refractive index by SE (b) Atomic Concentration by XPS (c) G peak intensities and I_D/I_G ratio by Raman spectroscopy were analyzed