

Cathode coating using $\text{LiInO}_2\text{-LiI}$ composite for stable sulfide-based all-solid-state batteries

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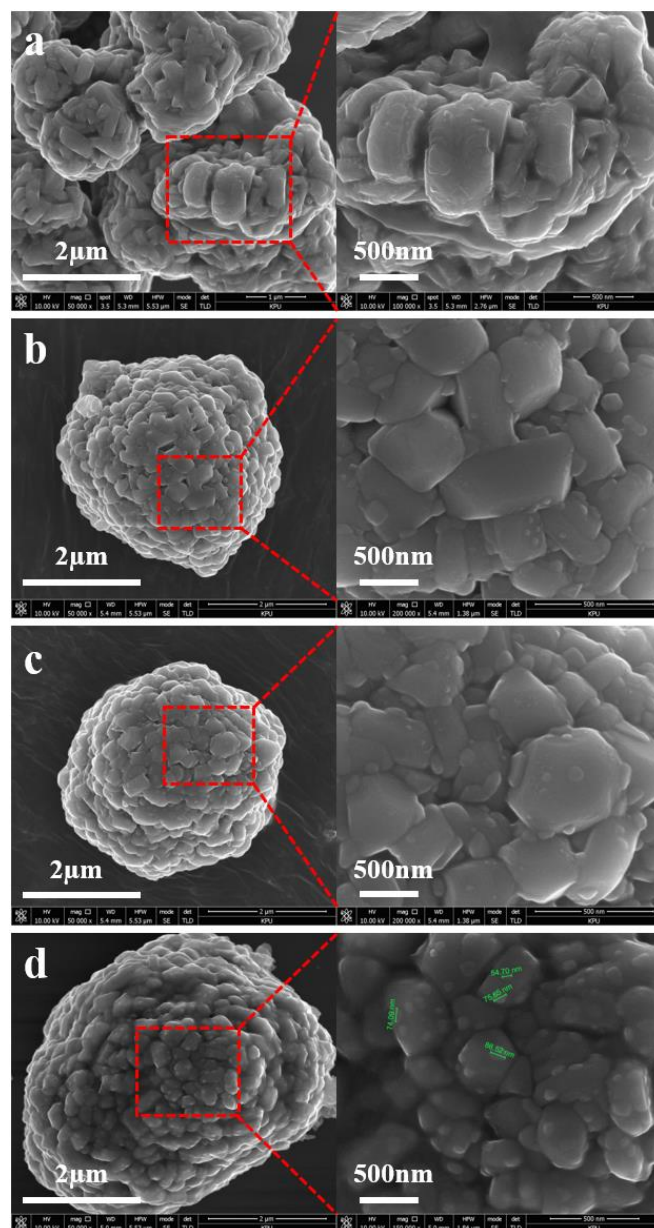


Figure S1 | SEM images of pristine and coated NCA powder. (a) Pristine, (b) 0.5 wt.% LiInO₂-coated, (c) 1.0 wt.% LiInO₂-coated, and (d) 2.0 wt.% LiInO₂-coated powders.

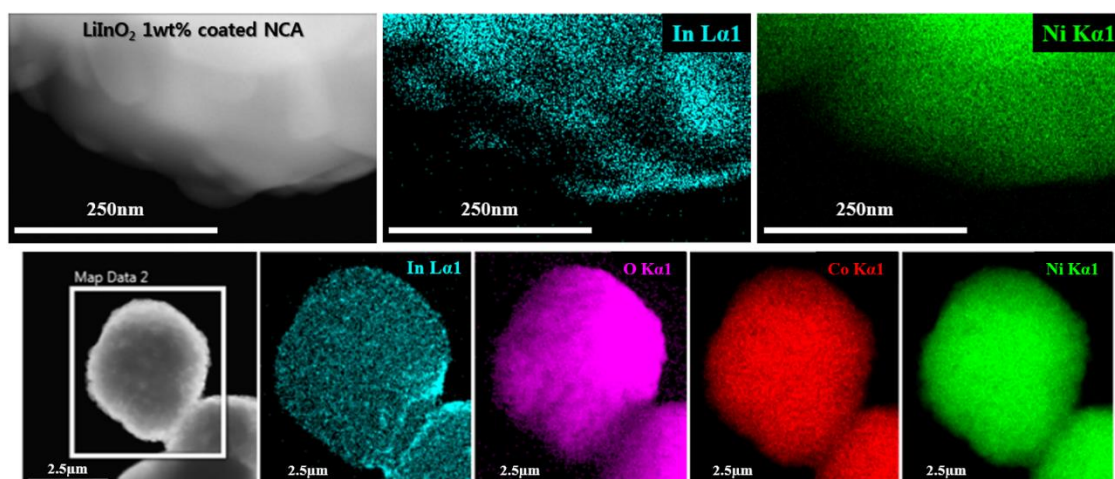


Figure S2 | TEM and elemental mapping images of the 1.0 wt.% LiInO_2 -coated NCA powder.

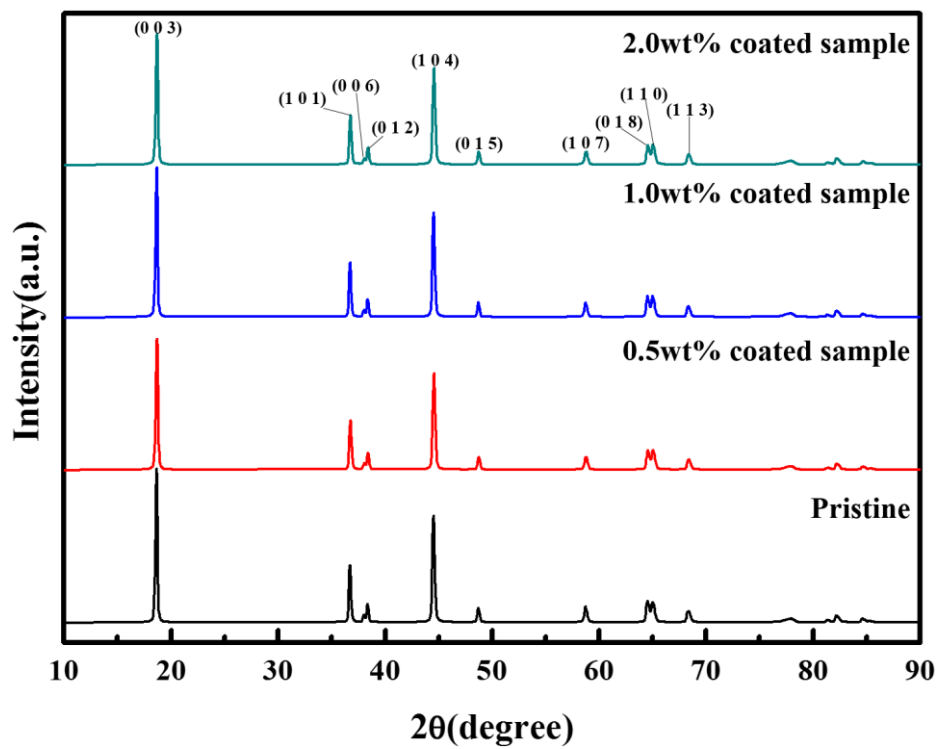


Figure S3 | XRD patterns of pristine and LiInO_2 -coated NCA powders.

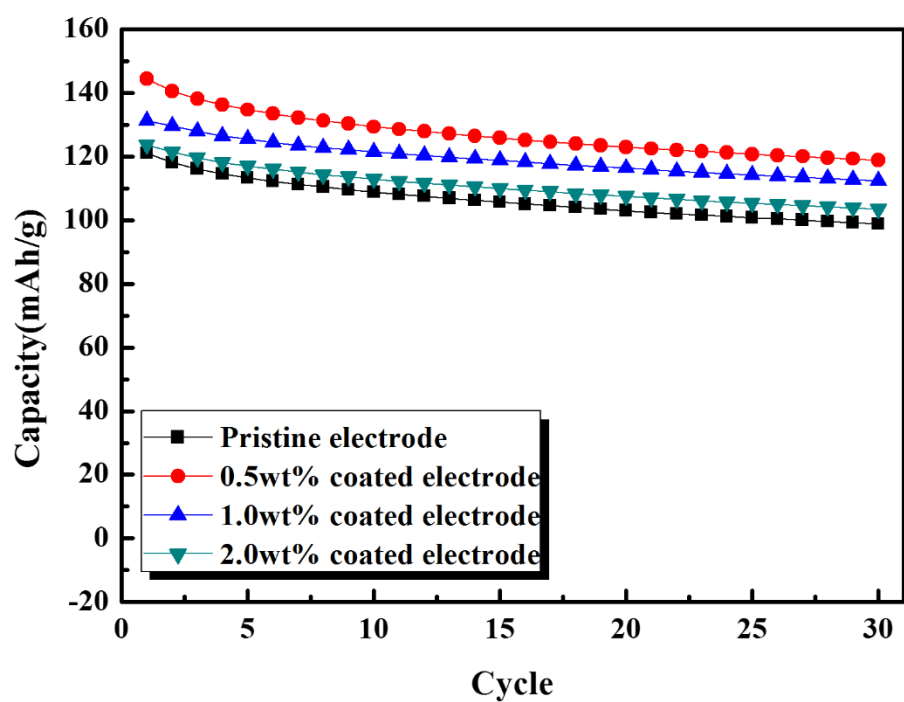


Figure S4 | Cyclic performance of the pristine, 0.5 wt.%, 1.0 wt.%, and 2.0 wt.% LiInO₂-coated NCA electrodes at a current density of 17 mA·g⁻¹.

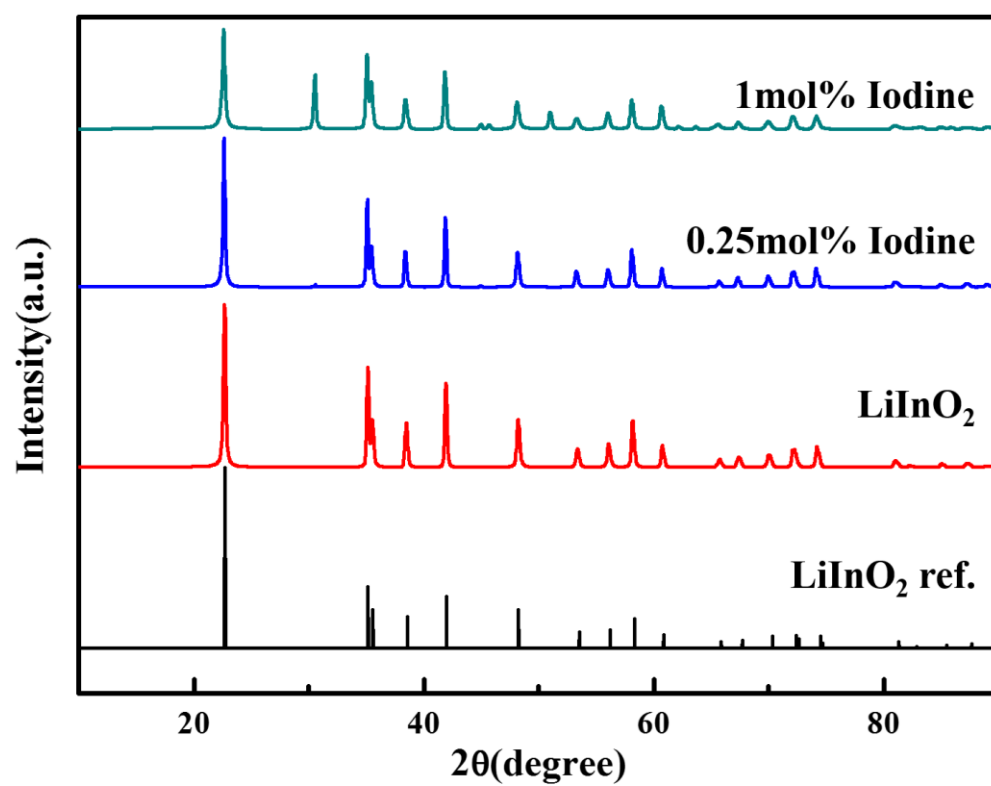


Figure S5 | XRD patterns of LiInO₂ and LiInO₂-LiI composites.

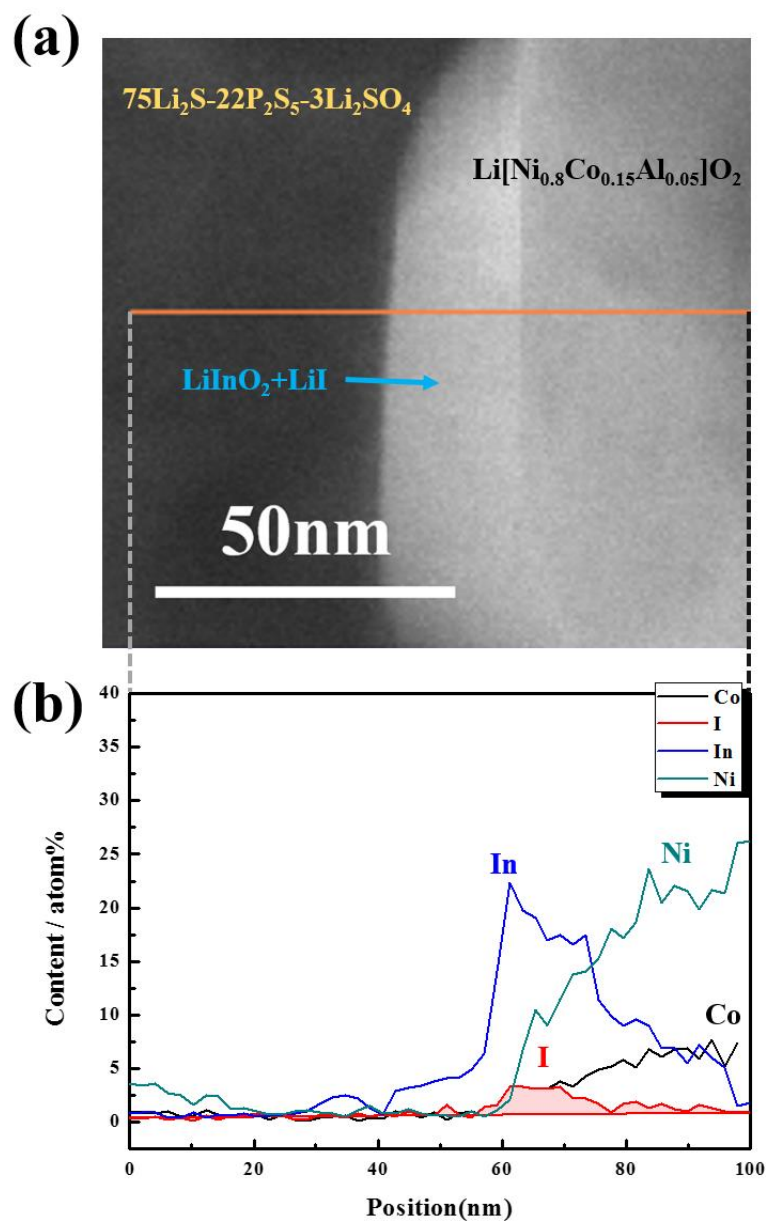


Figure S6 | (a) Cross-sectional STEM image and (b) EDS line profile of the composite electrode composed of sulfide electrolyte (75Li₂S-22P₂S₅-3Li₂SO₄) and LiInO₂-LiI-coated cathode.

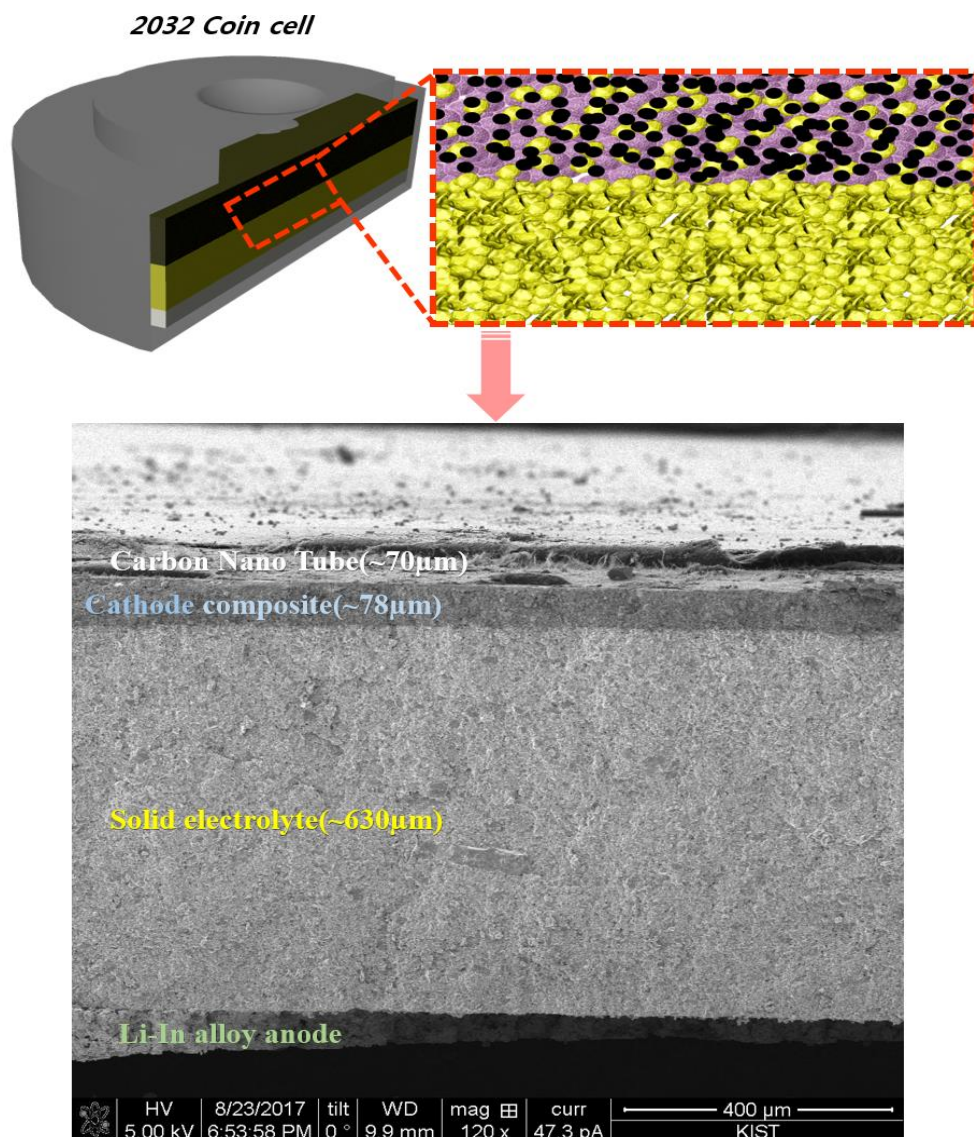


Figure S7 | Schematic illustration demonstrating the structure of all-solid-state cells comprising composite cathode and sulfide electrolyte.