

Supplementary Information

Solution-based sequential modification of LiCoO₂ particle surfaces with iron(II) oxalate nanolayers

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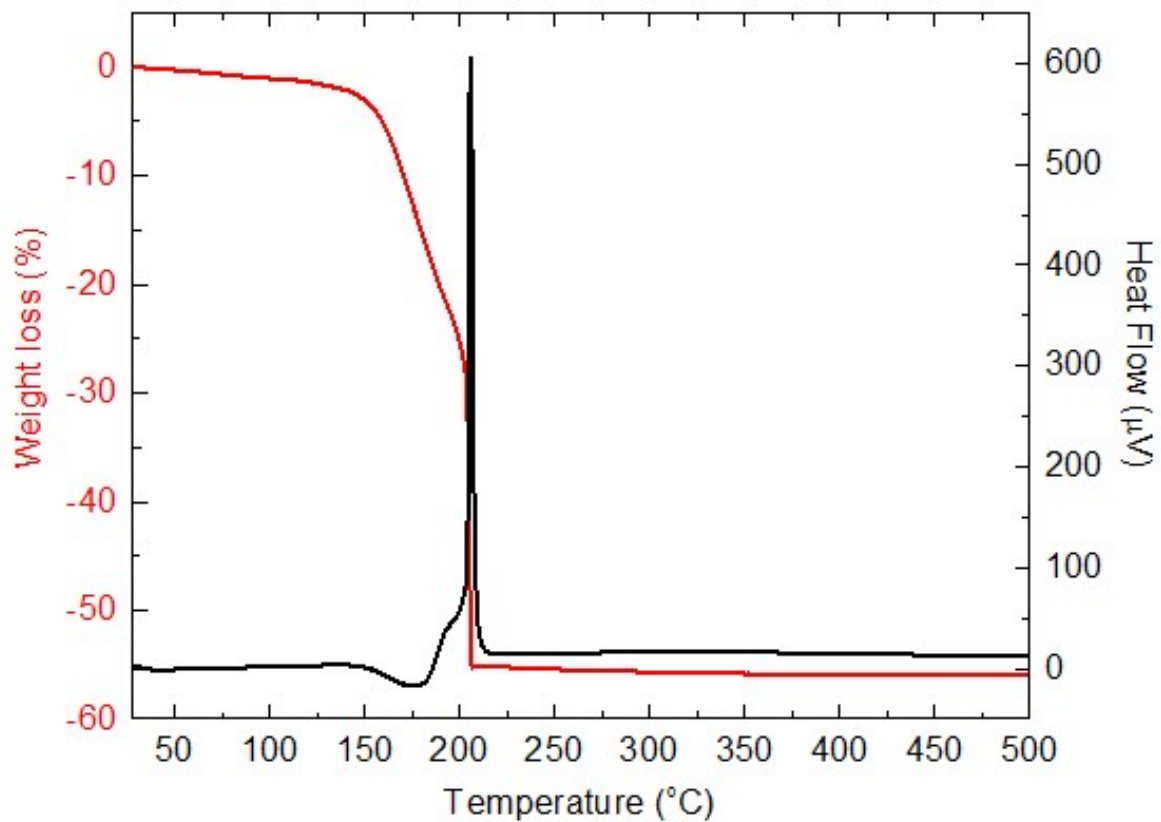


Figure S1. Thermogravimetric (TG, left axis) and differential thermal analysis (DTA, right axis) of iron (II) oxalate dihydrate, $[\text{Fe}(\text{ox})(\text{H}_2\text{O})_2]$ polycrystals measured with a RIGAKU THERMO PLUS EVO2 in air. The results imply that the framework of the $[\text{Fe}(\text{ox})(\text{H}_2\text{O})_2]$ polycrystals is stable up to 150°C

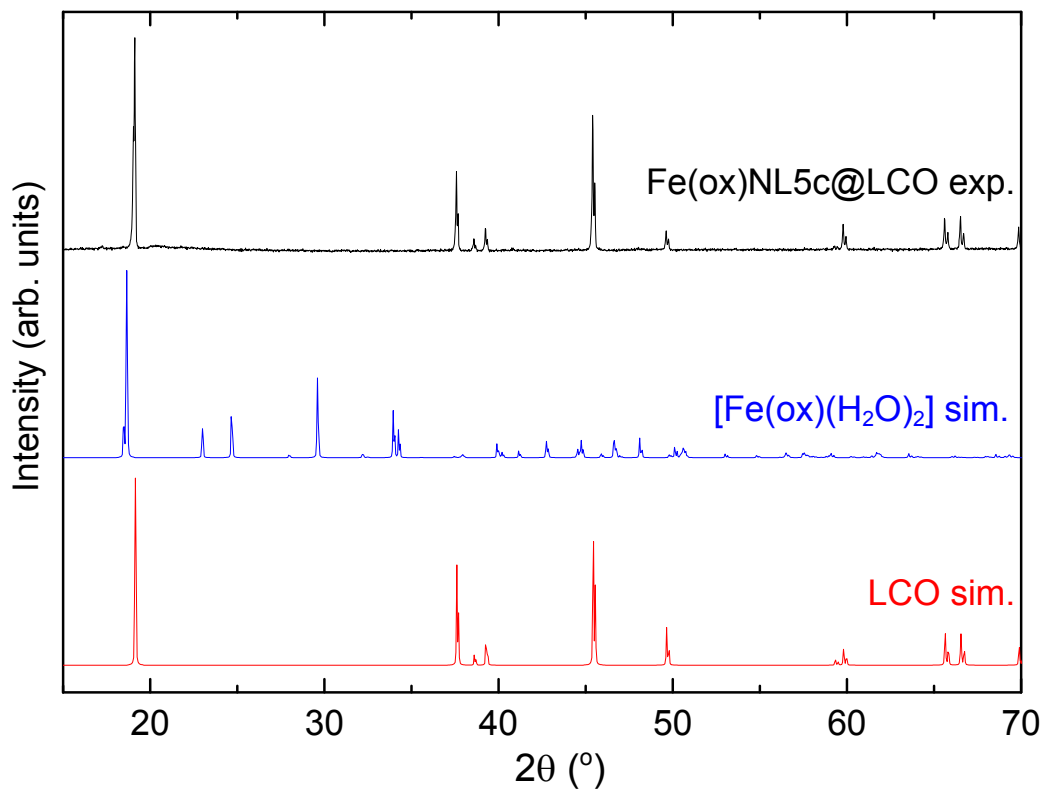
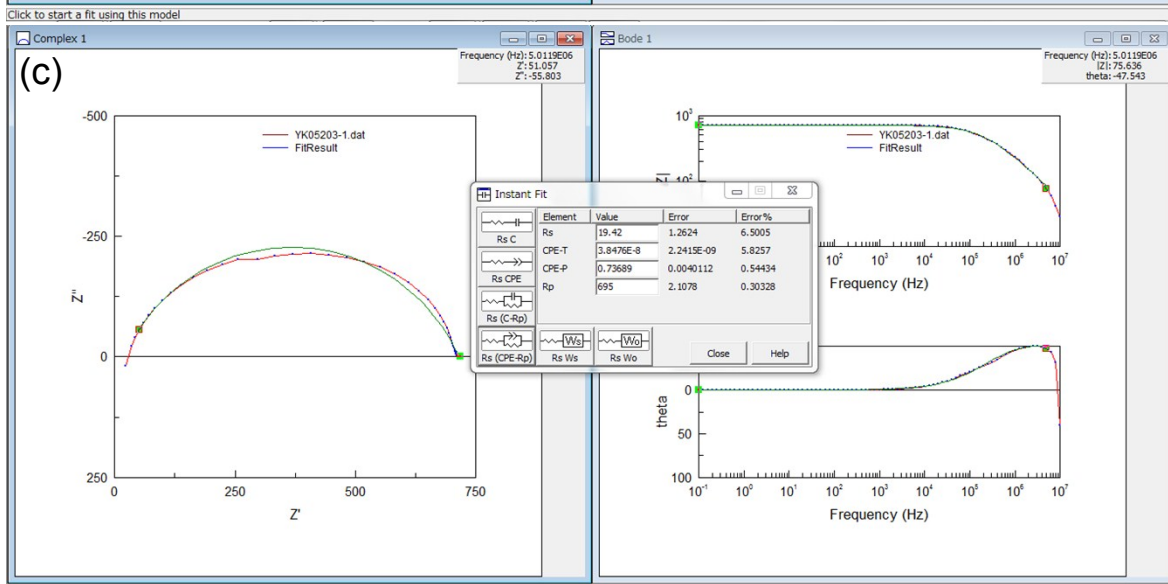
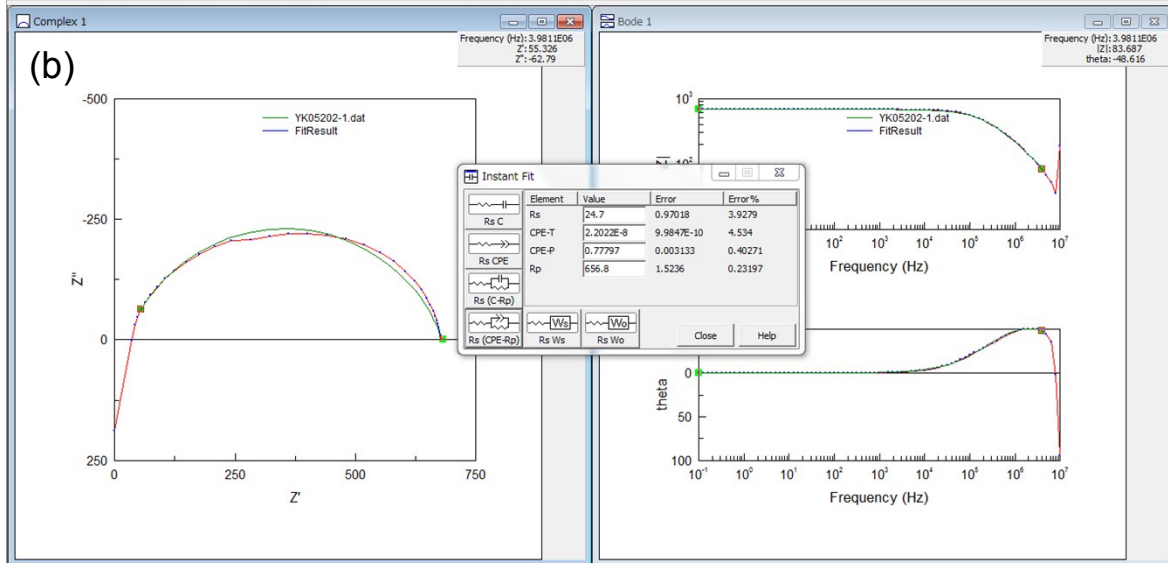
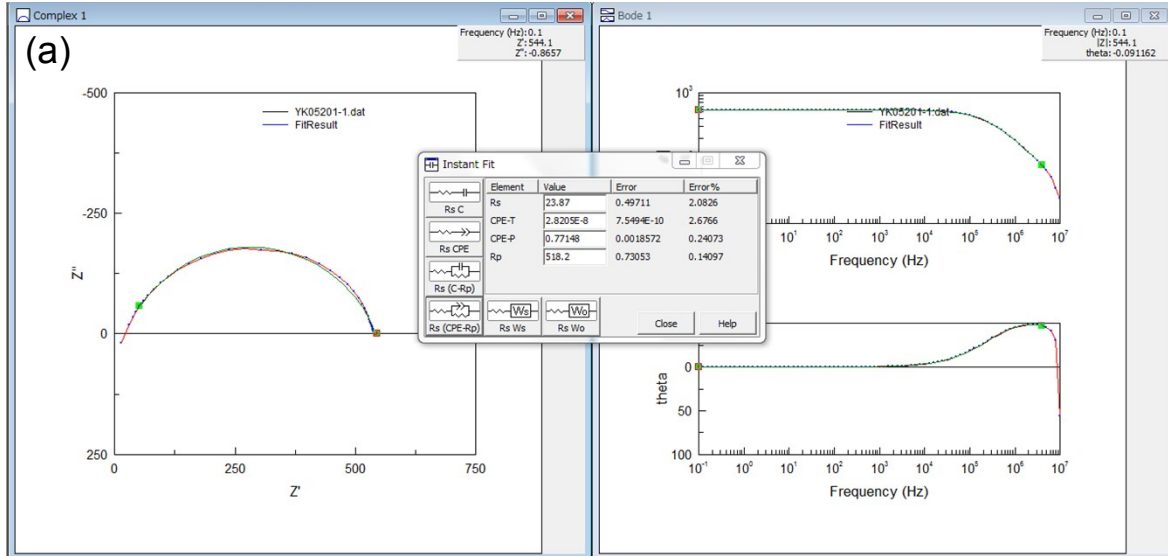


Figure S2. Experimentally obtained X-ray diffraction (XRD) profile ($\text{CuK}\alpha$ radiation) of the Fe(ox)NL5c@LCO sample following five successive coating cycles (black) together with the simulated profiles of bulk $[\text{Fe(ox)}\cdot 2\text{H}_2\text{O}]$ (blue) and uncoated LiCoO_2 (red).



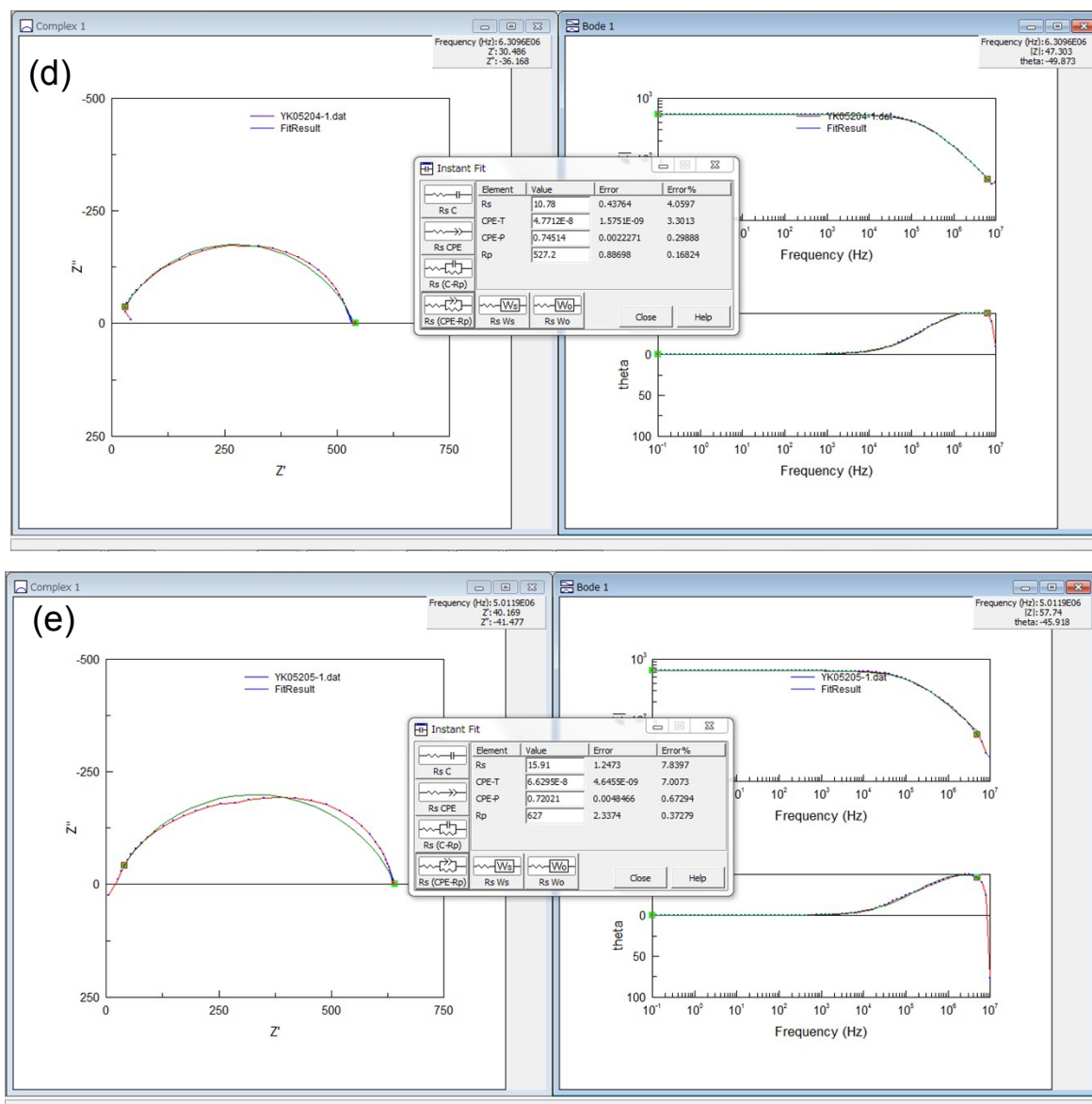


Figure S3. Impedance data analysis of Fe(ox)NL@LCO following one (a), two (b), three (c), four (d), and five (e) coating cycles. Each figure (a)-(e) shows the Cole-Cole plot (left panel), the frequency dependence of $|Z|$ (right top panel) and the frequency dependence of the phase (right bottom panel).