

# Supplementary Materials: Modification of Battery Separators via Electrospinning to enable Lamination in Cell Assembly

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## 1 EIS spectra

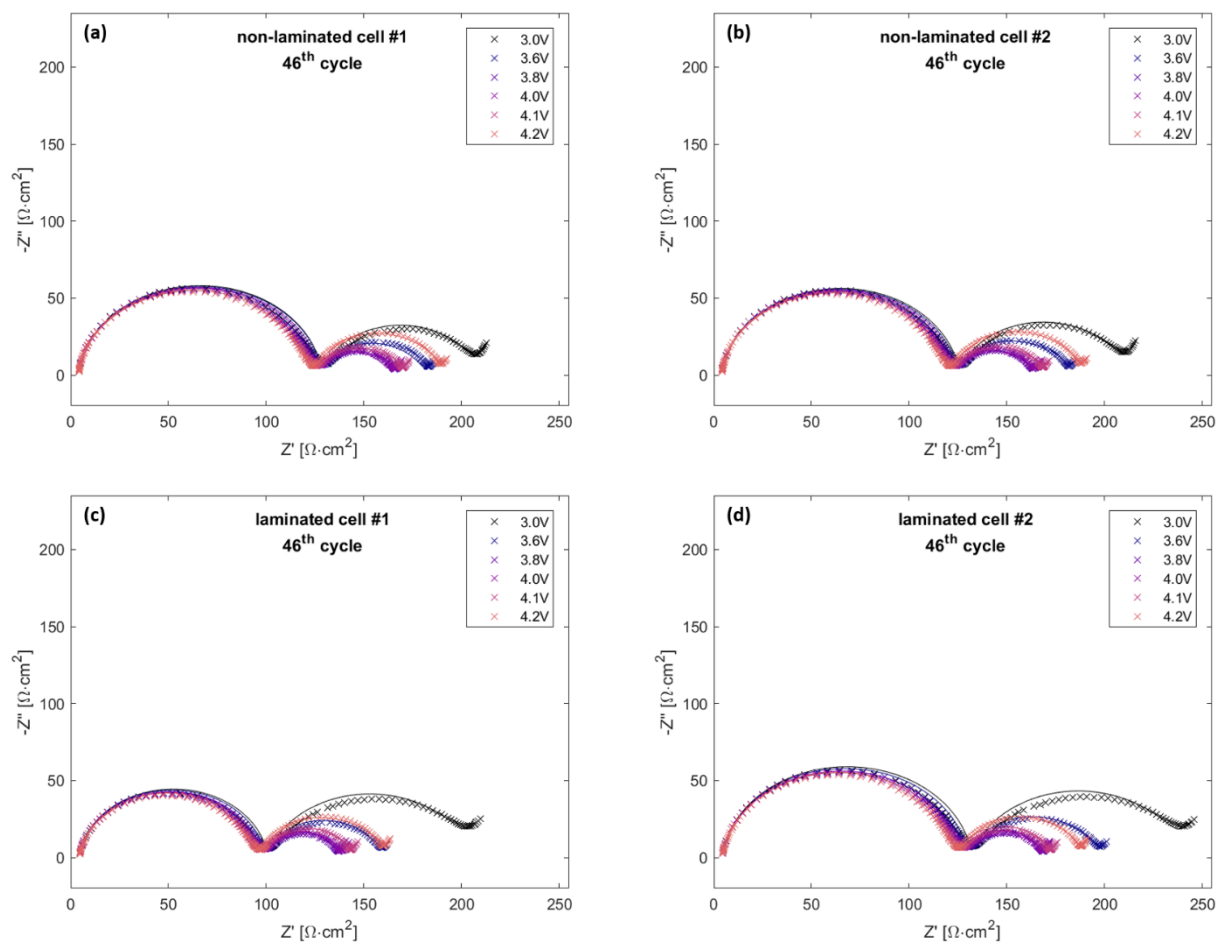


Figure s1: Nyquist plots for potentiostatic electrochemical impedance spectroscopy (EIS) measurements (100 kHz – 10 mHz, amplitude 10 mV<sub>peak</sub>) of NMC 622 – graphite single cells with coated ceramic separator, comparing non-laminated and electrospun/laminated state; fitting curves indicated as solid lines.

## 2 EIS analysis

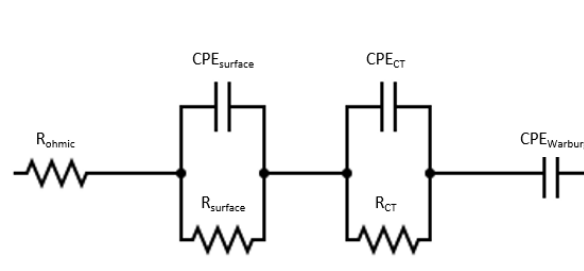


Figure s2: Equivalent circuit model used for equivalent circuit fit analysis of EIS measurements, collected for NMC 622 – graphite single cells with coated ceramic separator, comparing non-laminated and electrospun/laminated state.

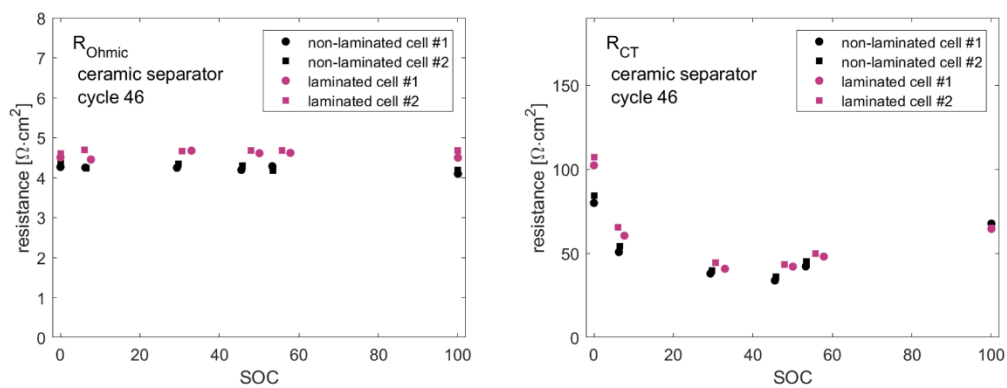


Figure s3: Additional resistance fit parameters of equivalent circuit fit analysis of EIS measurements, collected for NMC 622 – graphite single cells with coated ceramic separator, comparing non-laminated and electrospun/laminated state.

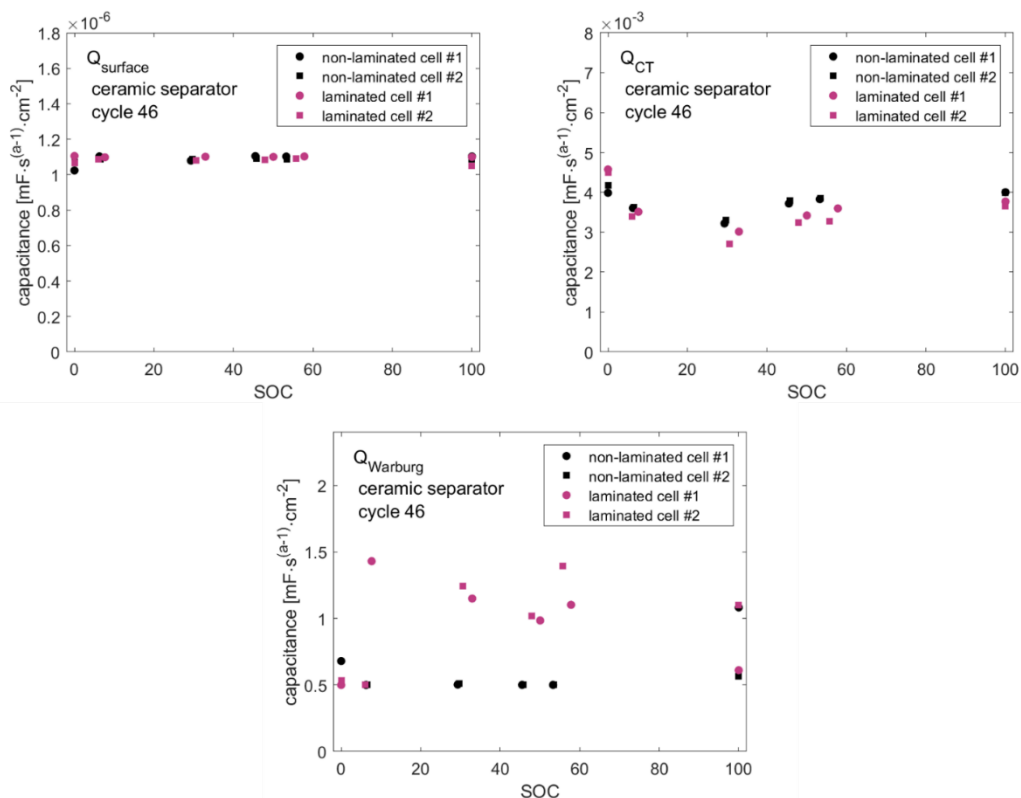


Figure s4: Capacitance fit parameters of equivalent circuit fit analysis of EIS measurements, collected for NMC 622 – graphite single cells with coated ceramic separator, comparing non-laminated and electrospun/laminated state.

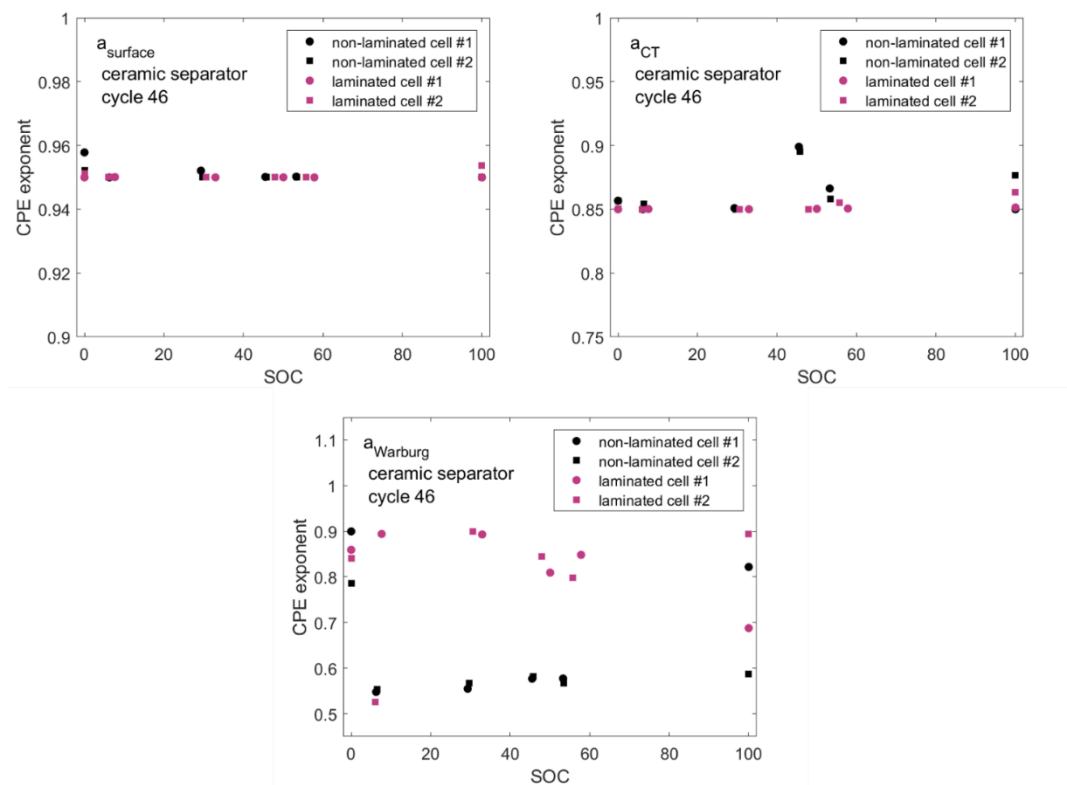


Figure s5: CPE exponent fit parameters of equivalent circuit fit analysis of EIS measurements, collected for NMC 622 – graphite single cells with coated ceramic separator, comparing non-laminated and electrospun/laminated state.