

Figure S1. The partial enlarged voltage–time curves of the Li | Li symmetric cell with GL additives at 1.0 mA cm^{-2} and a capacity of 2.5 mAh cm^{-2} .

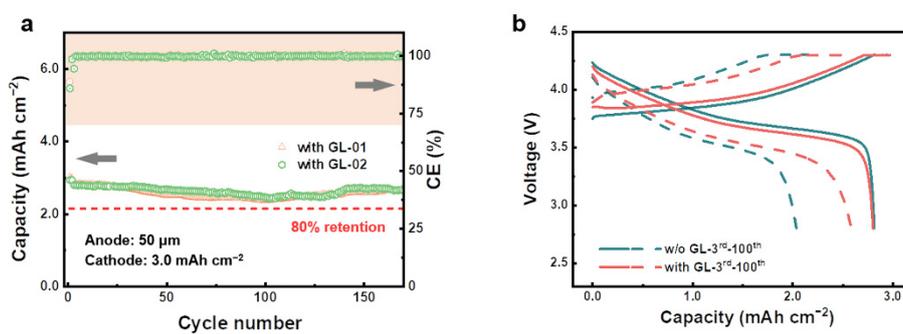


Figure S2. (a) Cycling performance of Li | NCM523 cells with GL at 0.4 C after two pre-cycles at 0.1 C. (b) The voltage–capacity profiles of Li | NCM523 cells with and without GL additives at the 3rd and 100th cycles.

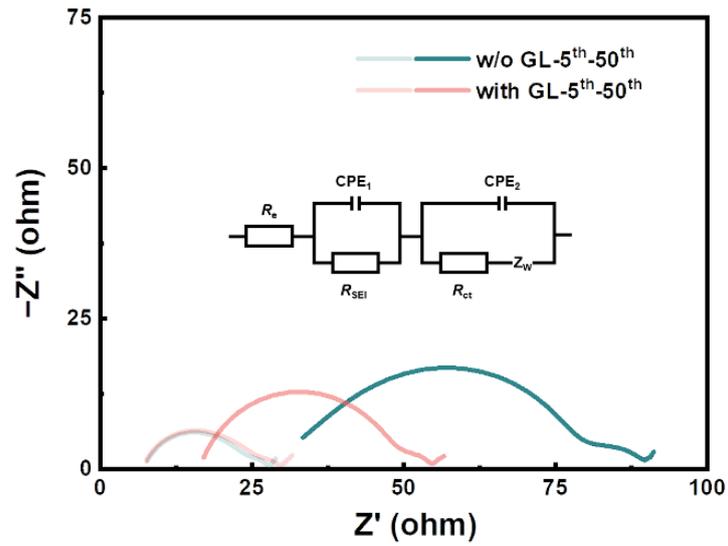


Figure S3. EIS of Li | NCM523 cells at the 5th and 50th cycles. The insert image is the equivalent circuit diagram of the EIS of Li | NCM523 cells.

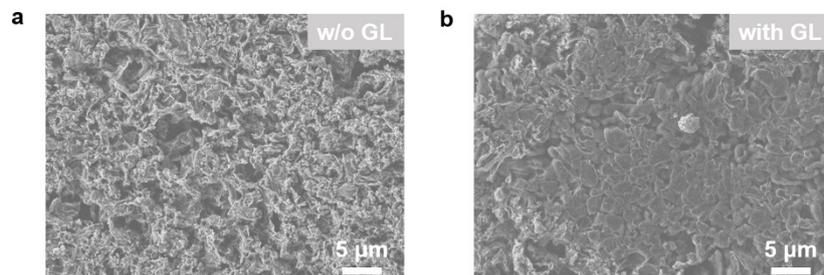


Figure S4. The deposition morphology of cycled Li anode without (a) and with (b) GL at the 100th cycle.

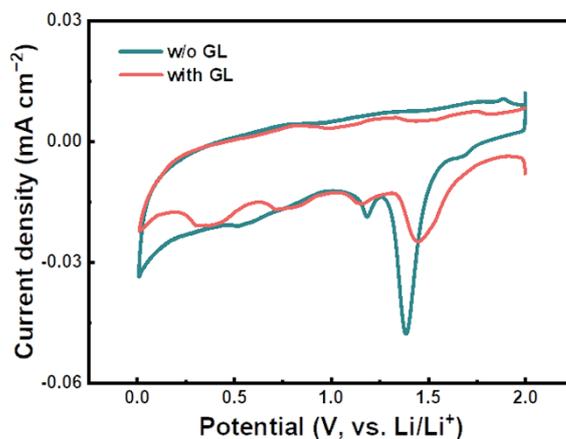


Figure S5. CV curves of reduction behaviors of electrolyte using a copper foil current collector as a working electrode and Li as a counter and reference electrode with a scan rate of 0.5 mV s⁻¹.

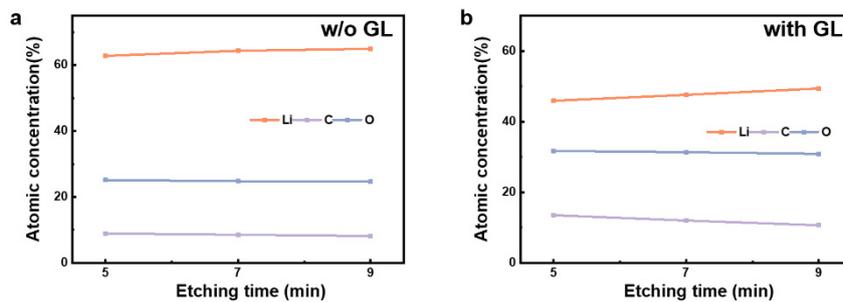


Figure S6. Atomic concentration at different sputtering times of SEI without (a) and with (b) GL additives.

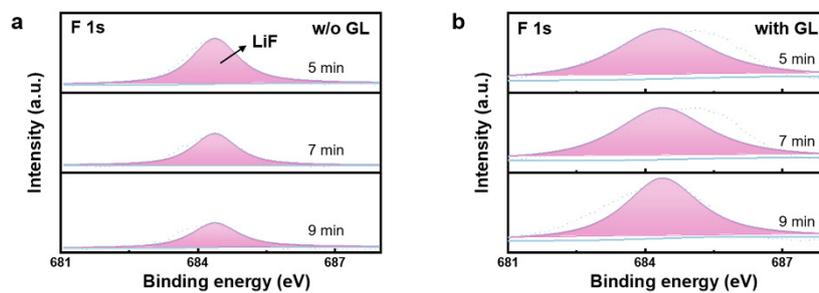


Figure S7. F 1s spectra of the SEI on an ultrathin Li anode in Li | NCM523 cells without (a) and with (b) GL additives after 5 cycles at different sputtering times.