Supplementary Information to

A scalable, ecofriendly, and cost-effective lithium metal protection layer from a Post-it note

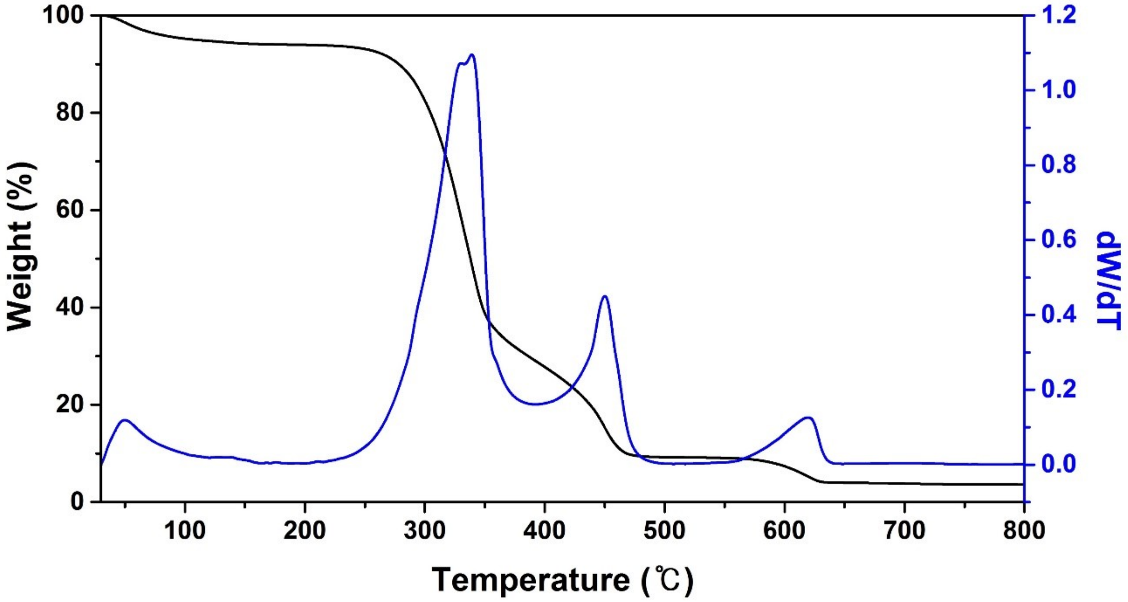

Fig. S1. Thermogravimetric analysis of the Post-it note under air atmosphere and its differential weight-change curve.

Fig. S2. Photograph of free-standing carbonized Post-it note

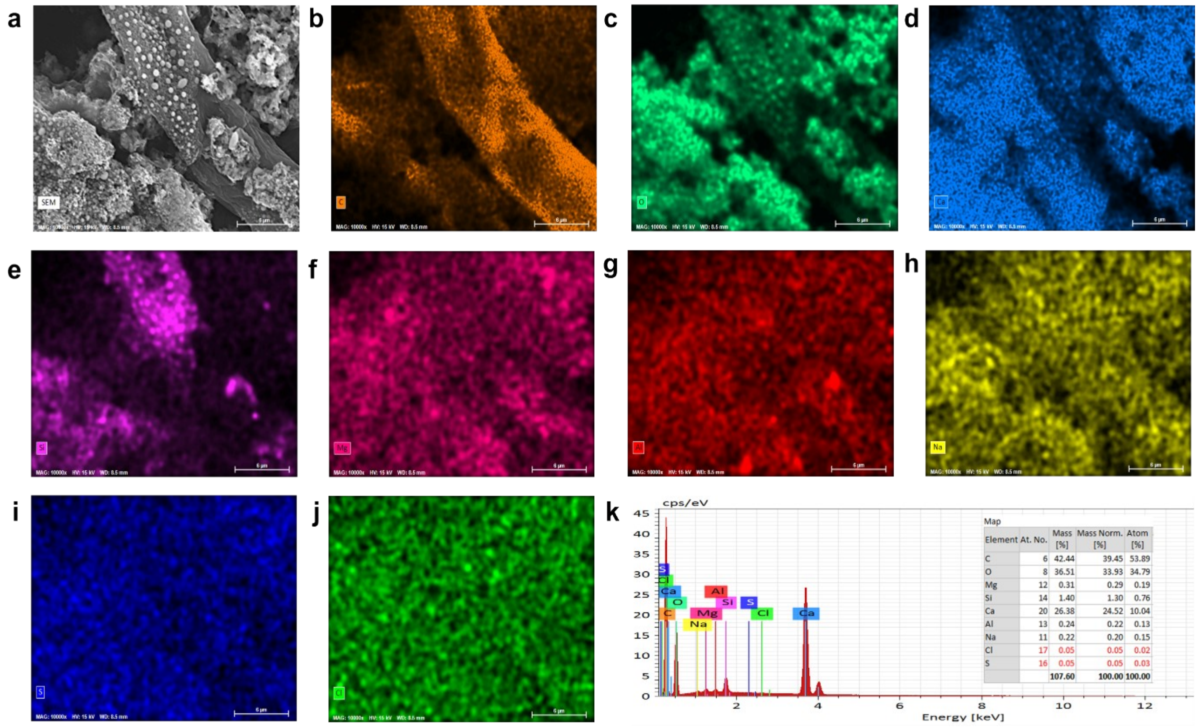

Fig. S3. (a) FE-SEM image of carbonized Post-it note and its energy dispersive X-ray spectrometry (EDS): elemental mapping images of (b) C, (c) O, (d) Ca, (e) Si (f) Mg, (g) Al, (h) Na, (i) S, (j) Cl, and (k) EDS spectrum (weight and atom % inset).

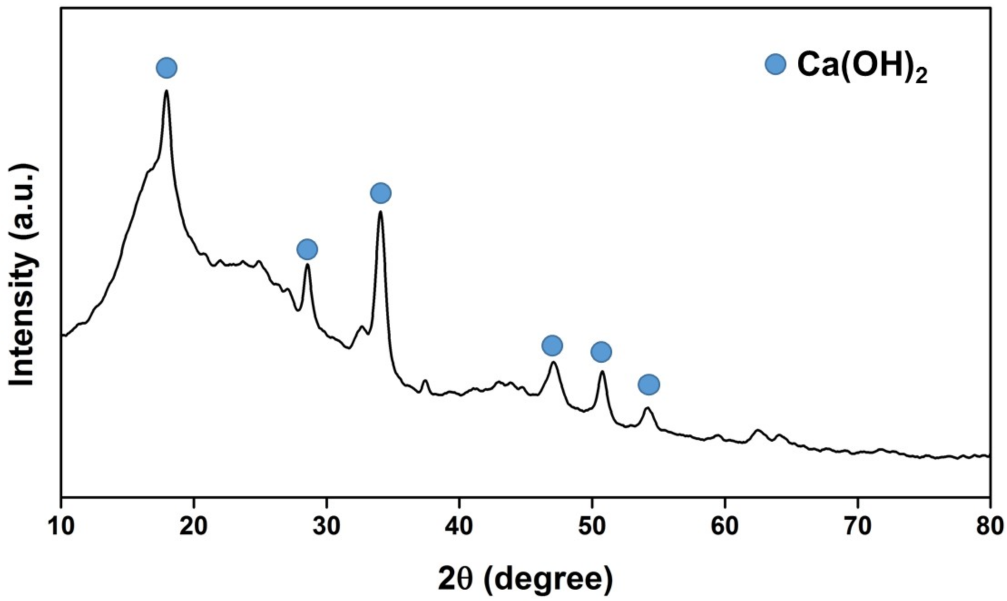

Fig. S3. X-ray diffractogram curve of the as-received Post-it note.

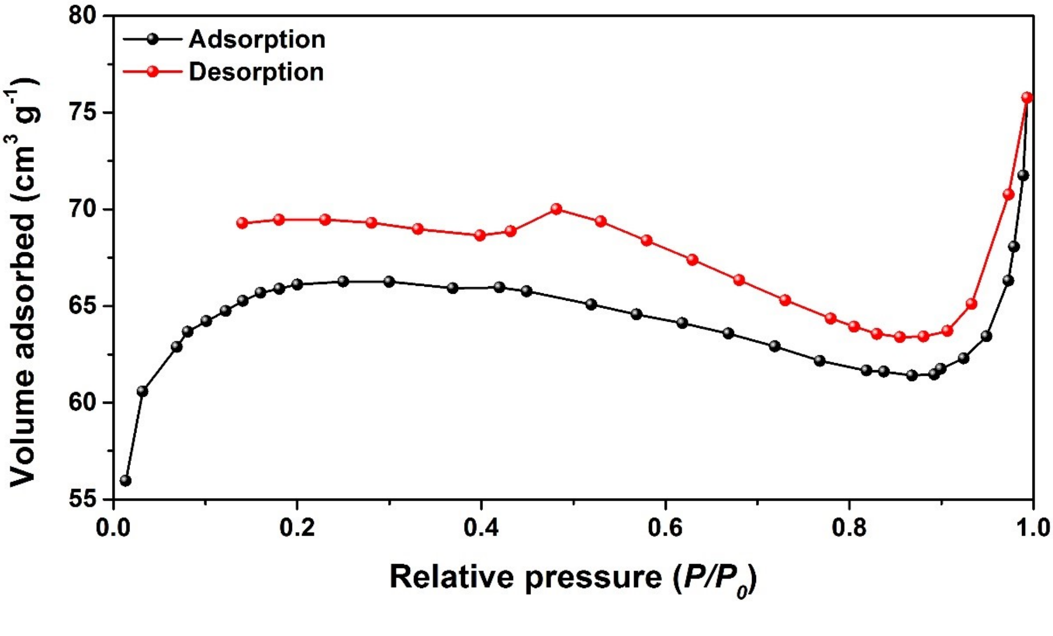

Fig. S4. Nitrogen adsorption/desorption isotherms at 77 K of the carbonized Post-it note.

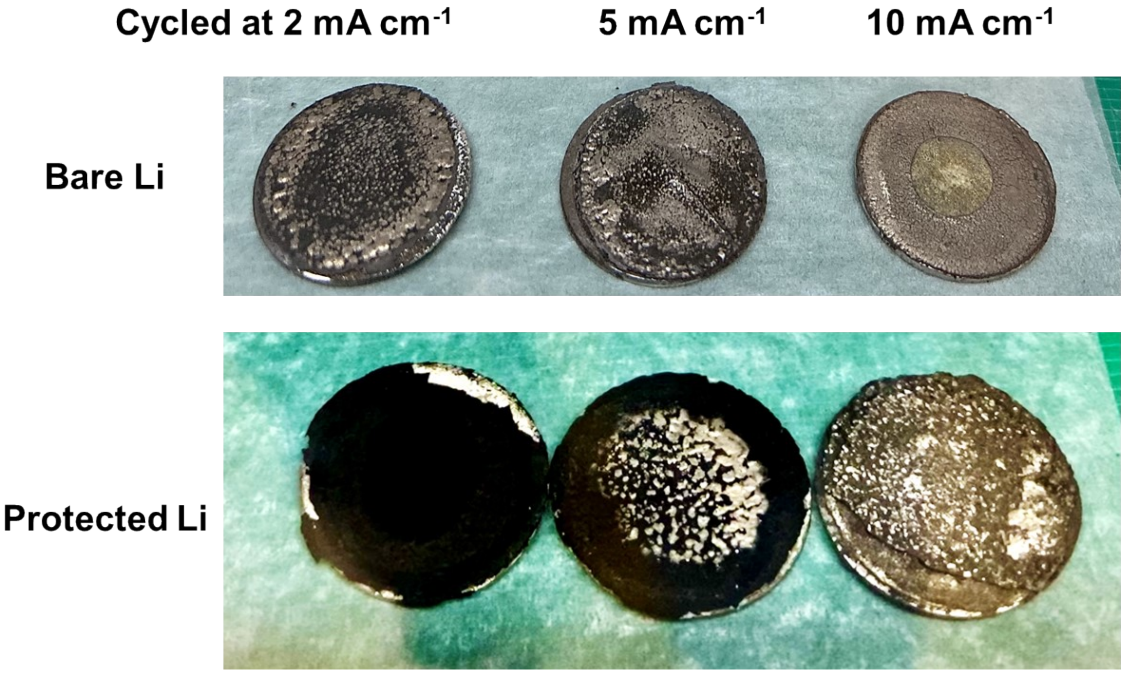

Fig. S5. Photographs of the bare Li and protected Li surfaces after symmetric cell cycling tests at various current densities.

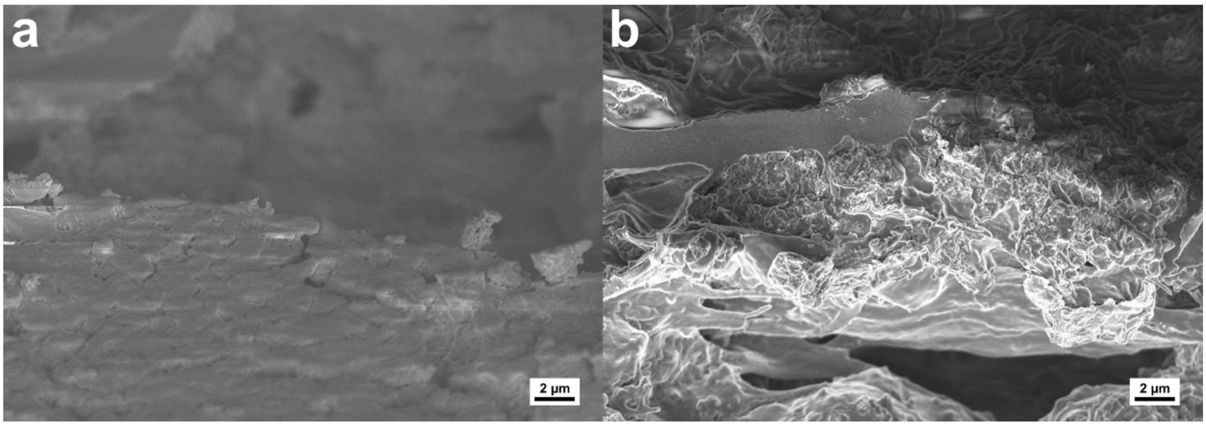

Fig. S6 Scanning electron microscope images of (a) the protected Li surface and (b) cross-section of the protection layer after 5000th cycles. The current density was 10 mA cm^{-1}, the areal capacity was 1 mAh cm^{-1}.

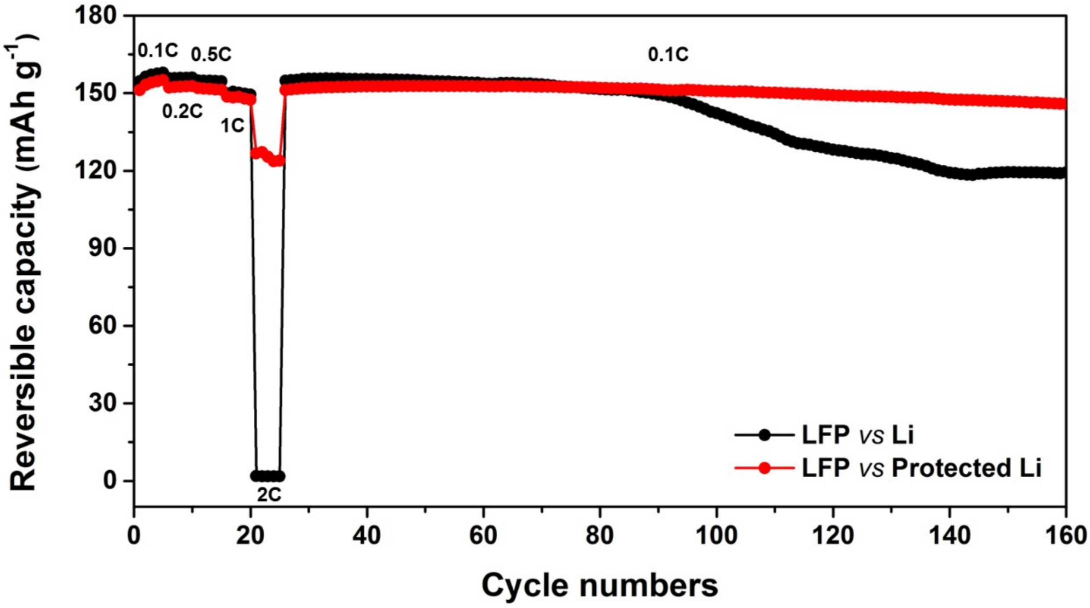

Fig. S7. Rate capabilities at charging current densities of 0.1C, 0.2C, 0.5C, 1C, 2C, and 0.1C.

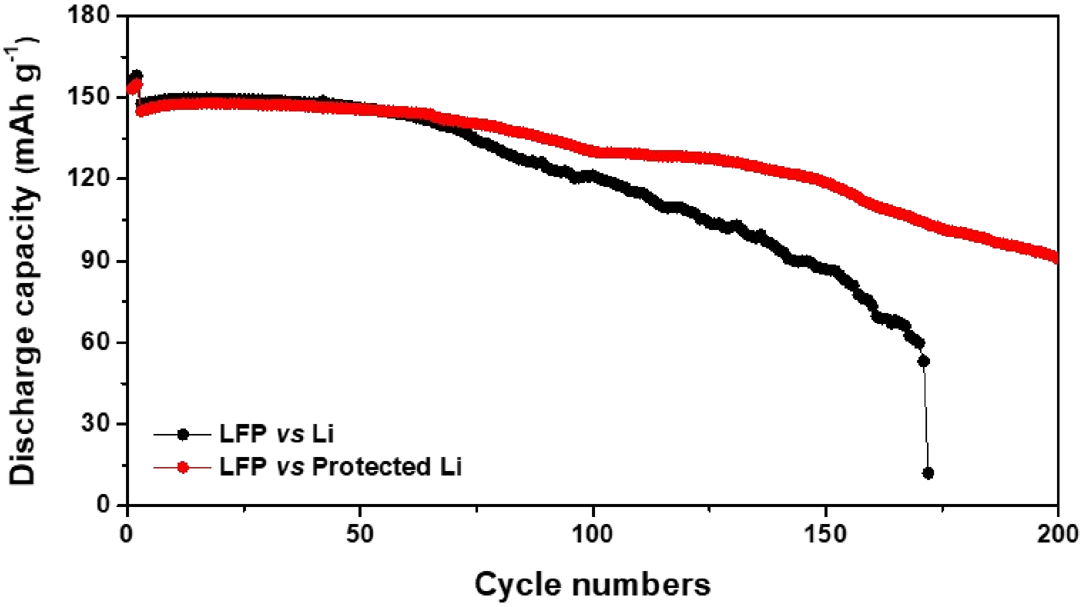

Fig. S8. Discharge capacity curves of the LFP||bare Li and LFP||bare Li full cells at the current density of 0.5C.