

Supporting Information

Intrinsic origin of intra-granular cracking in Ni-rich layered oxide cathode material

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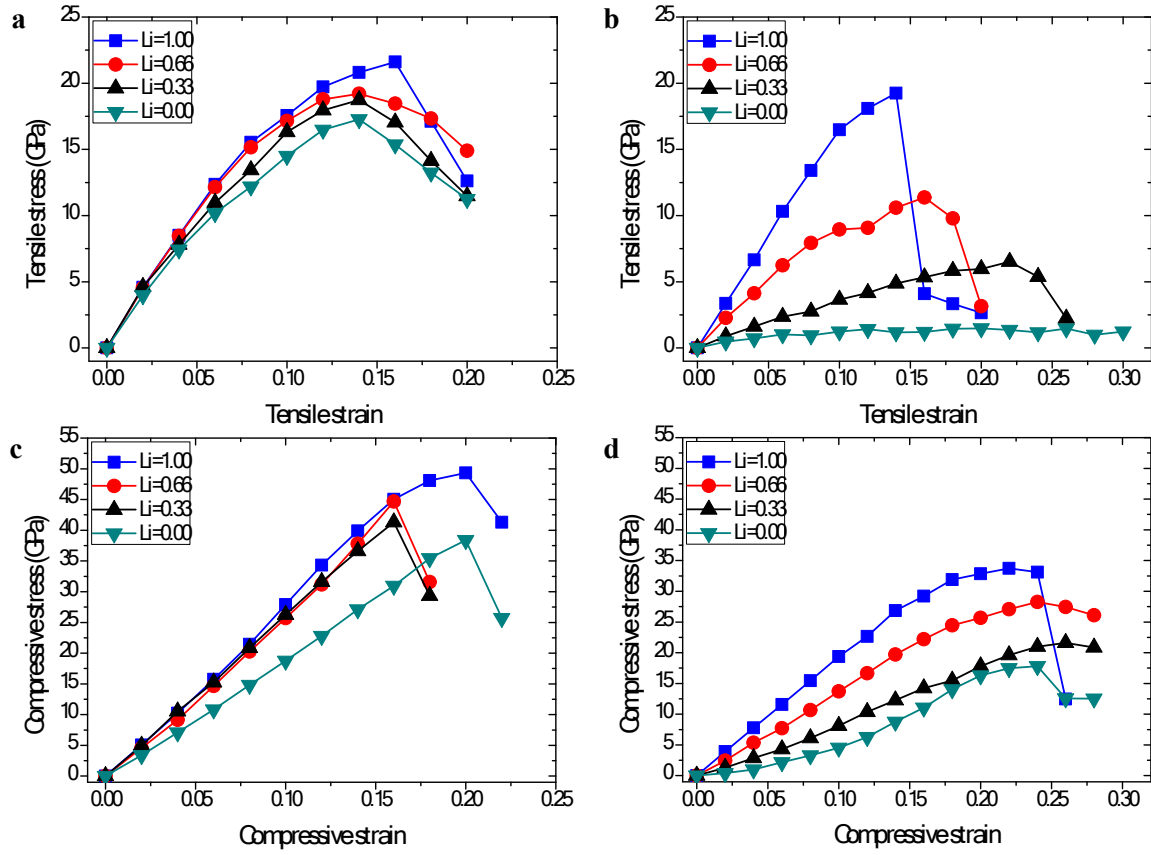


Figure S.1. Stress-strain curves for pristine and delithiated NCM811 structure under tension to (a) in- and (b) out-of-plane direction and compression to (c) in- and (d) out-of-plane direction.

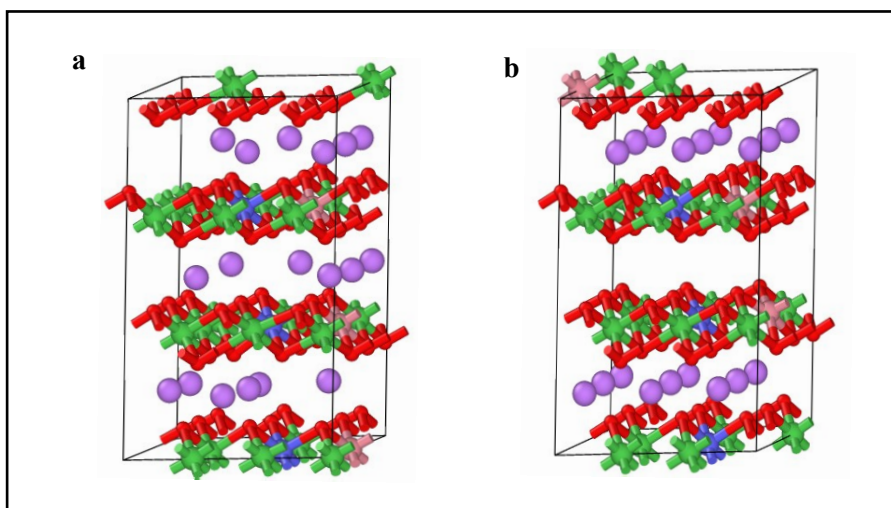


Figure S.2. (a) Homogeneously and (b) heterogeneously delithiated structures of NCM811 at 33% of delithiation.

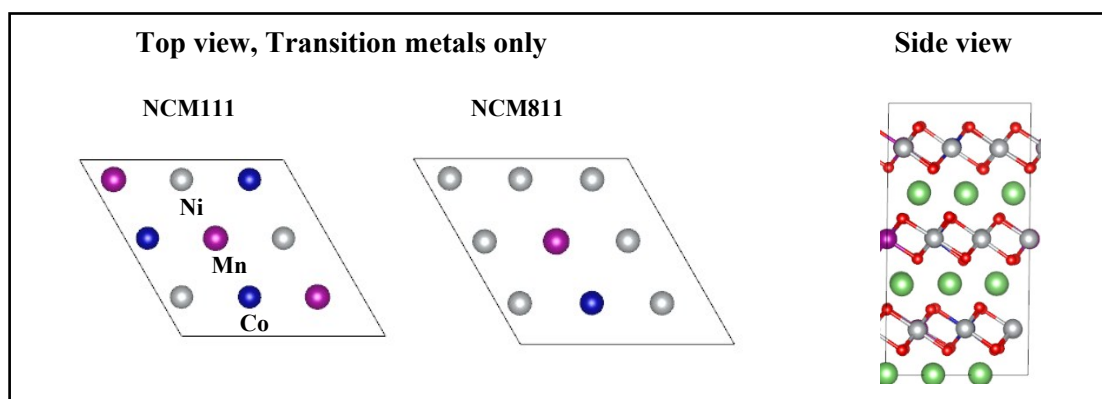


Figure S.3. Top view and side view of NCM111 and NCM811. Each color denotes Ni (gray) Co (blue), Mn (purple), O (red), and Li (green).

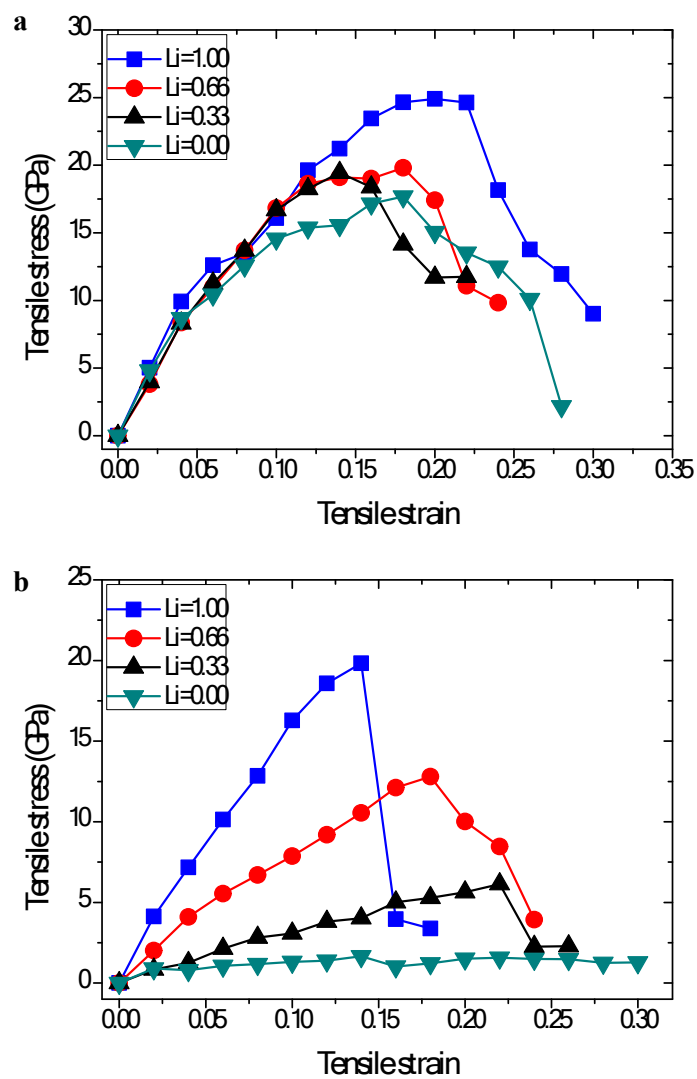


Figure S.4. Stress-strain curves for pristine and delithiated NCM111 structures under tensile deformation to (a) in- and (b) out-of-plane direction.