

Fig. S1. Fragmentation of NMC particles (a, b) and particle detachment from the conductive matrix (c, d) of uncompressed NMC532 electrodes before (a, c) and after (b, d) 100 cycles with the charging rate 0.5C and voltage window 3-4.3V. The blue and red circles highlight the local regimes where the particle disintegration and detachment occur.

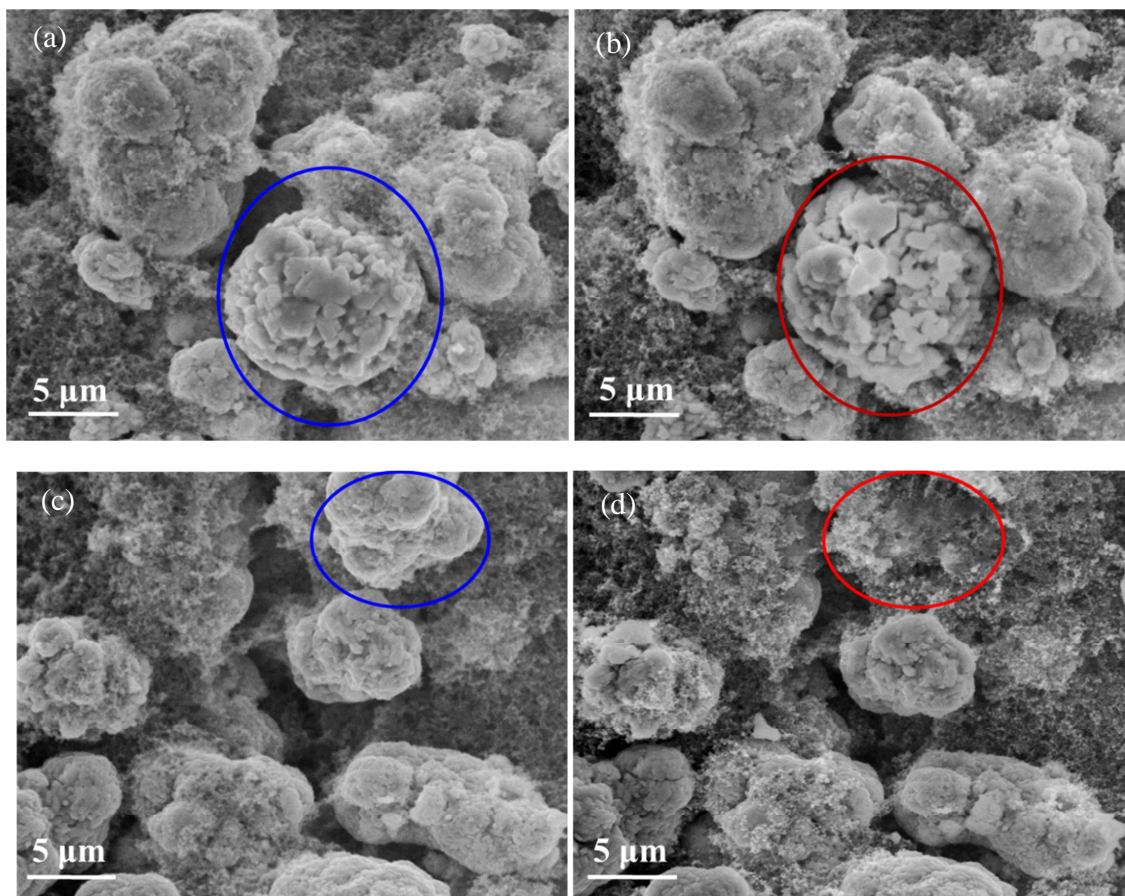


Fig. S2. Fragmentation of NMC particles (a, b) and particle detachment from the conductive matrix (c, d) of uncompressed NMC442 electrodes before (a, c) and after (b, d) 16 cycles. The blue and red circles highlight the local regimes where the particle disintegration and detachment occur.

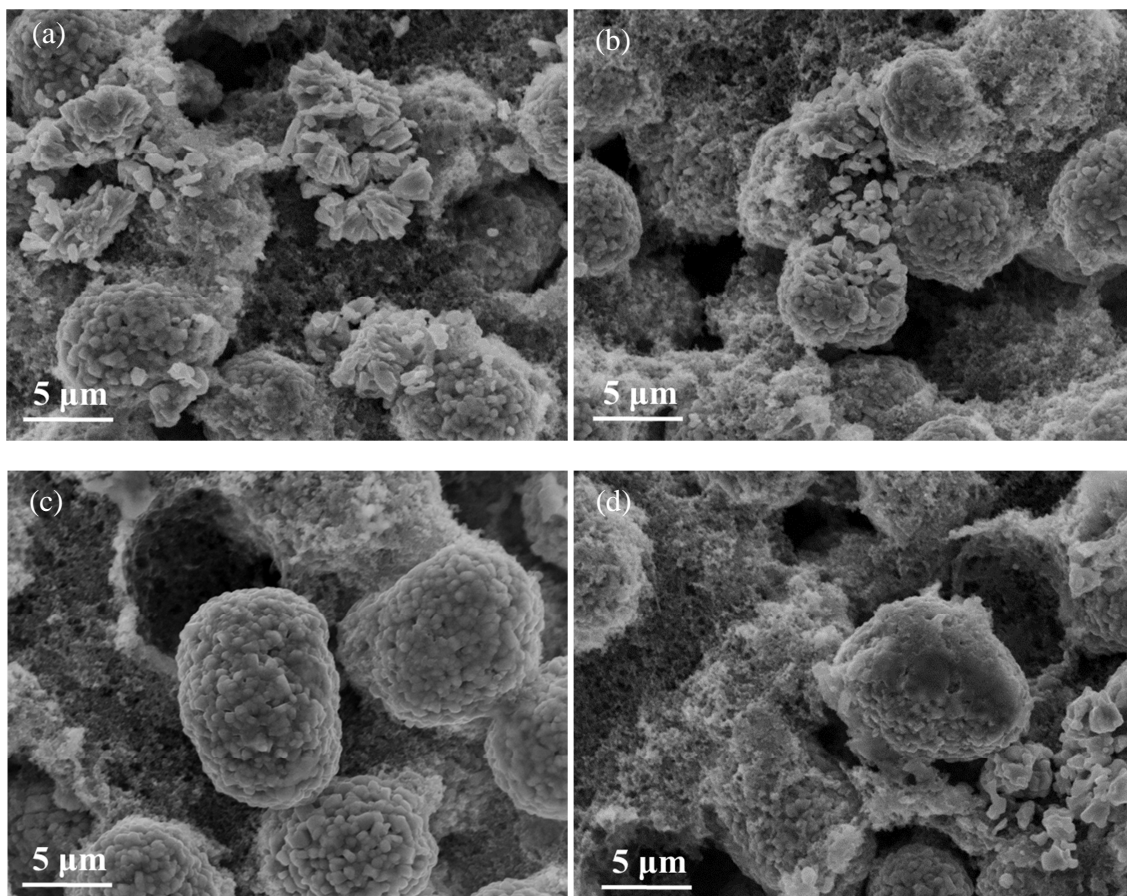


Fig. S3. Microstructural integrity (a, b) and particle detachment (c, d) of uncompressed NMC622 electrodes after electrochemical cycles.