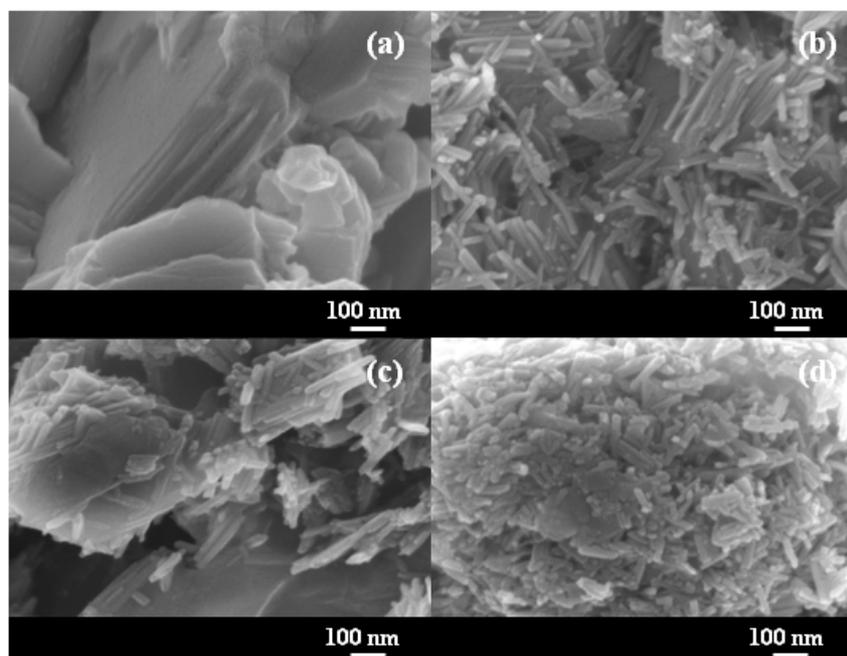


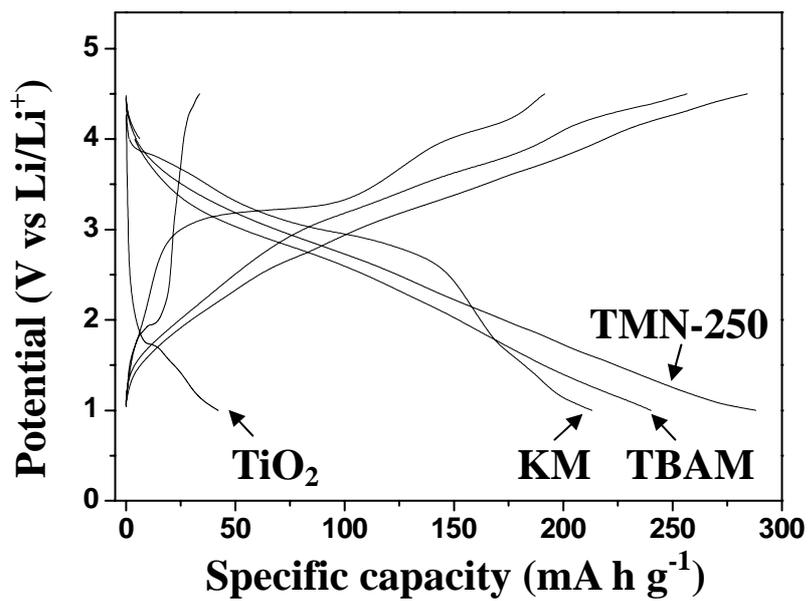
Supporting Information

Pre-swelled nanostructured electrode for lithium ion battery: TiO₂-pillared layered MnO₂

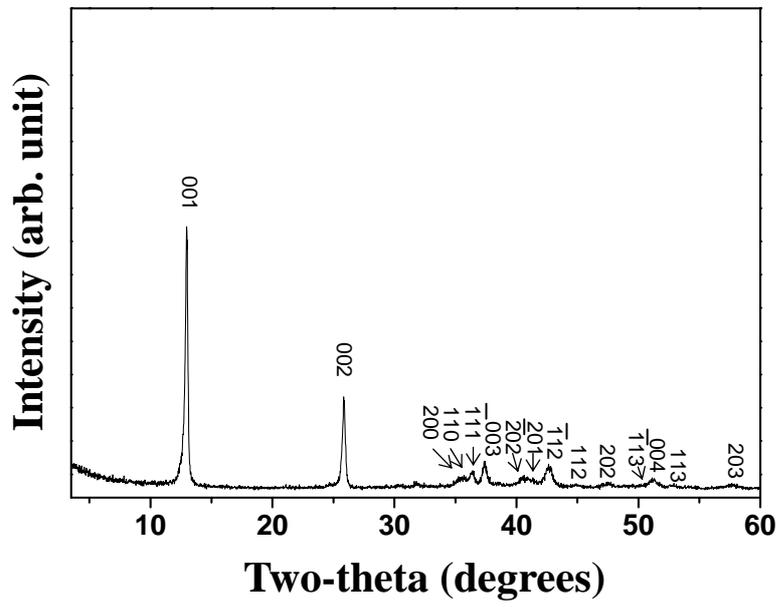
Joo-Hee Kang,^a Seung-Min Paek,^b Seong-Ju Hwang,^a and Jin-Ho Choy*^a



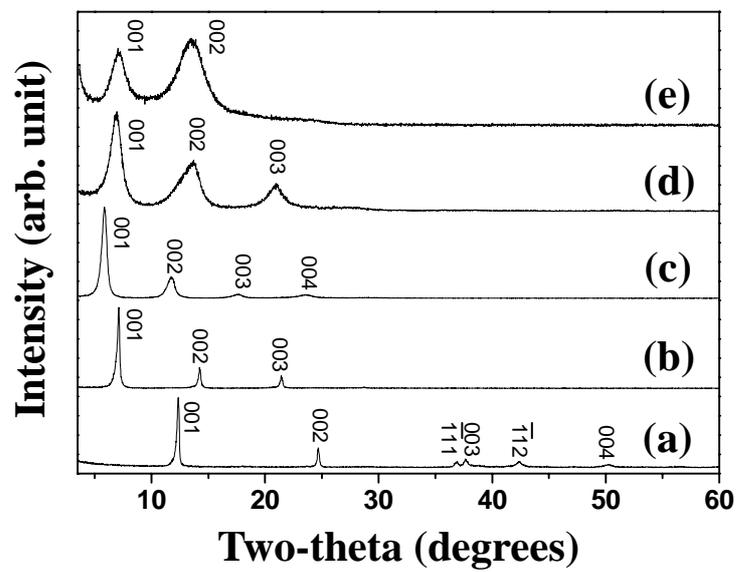
S. Fig. 1 SEM images of (a) KM, (b) HM, (c) TBAM, and (d) TMN-rt.



S. Fig. 2 Charge-discharge curves (second cycle) of KM, TBAM, TMN-250, and TiO₂ nanoparticle as a cathode material by coupling with a lithium metal anode using 1 M LiPF₆ in a mixed electrolyte of ethylene carbonate and dimethyl carbonate (EC/DMC, 1:1 vol.%) at a constant current density of 20 mA g⁻¹ (electrode surface area is ~ 1 cm²).



S. Fig. 3 Powder XRD patterns for KM. All the XRD peaks are indexed.



S. Fig. 4 Powder XRD patterns for (a) HM, (b) TMN-rt, (c) TMN-150, and (d) TMN-250. All the XRD peaks are indexed.