

Supporting figures

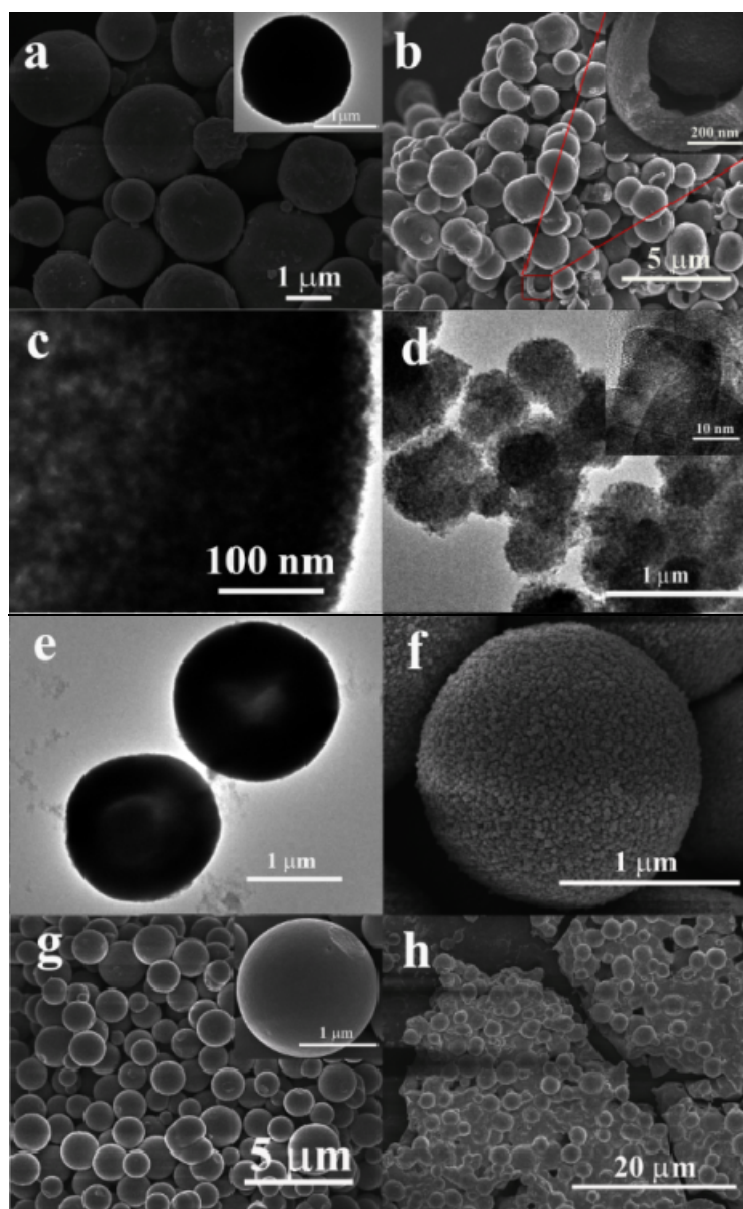


Fig. S1 (a) FESEM image of solid TiO_2 microspheres formed with no water present in the solvothermal synthesis; (b) low and high (inset) magnification FESEM images of HMS; (c) TEM image of the shell of HMS; (d) TEM image of TiO_2 irregular aggregates formed at a $\text{H}_2\text{O}/\text{Ti}$ mole ratio of 2; (e) TEM image of TiO_2 microspheres formed when urea was absent in the solvothermal reaction; (f) FESEM images of TiO_2 microspheres when isopropanol was the solvent in the synthesis; (g) FESEM images of TiO_2 microspheres when glycol was the solvent; (h) FESEM image of the TiO_2 microspheres where no PVA was present in the solvothermal reaction.

Fig. S1b shows that the thickness of the HMS shell was not very uniform. This was probably caused by some micro-heterogeneity in the mixed solvent system. Indeed hollow spheres with relatively thin shells were quite fragile and prone to fracture. Hence an approximate average thickness of the shell was used to describe the trend in morphology evolution with the gradual increase in the amount of water in the reaction.

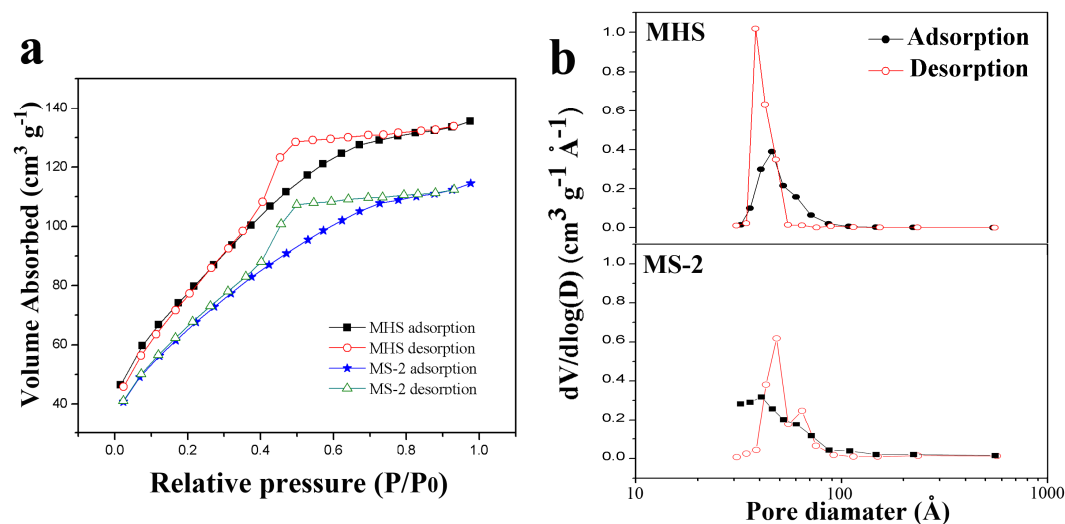


Fig. S2 (a) Nitrogen sorption isotherms of HMS and MS-2; (b) corresponding pore size distributions of HMS and MS-2

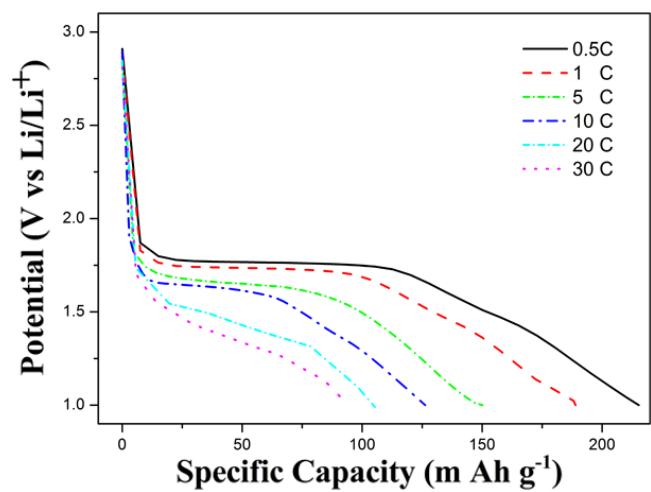


Fig. S3 Discharge curves of the MS-1 electrode at different C-rates. (Data obtained from the 5th cycle)

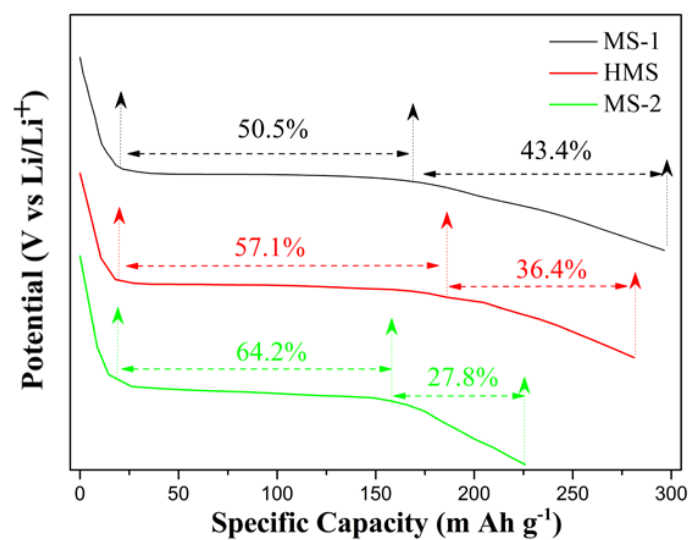


Fig. S4 1st cycle discharge curves of MS-1, HMS and MS-2 at 0.2C.

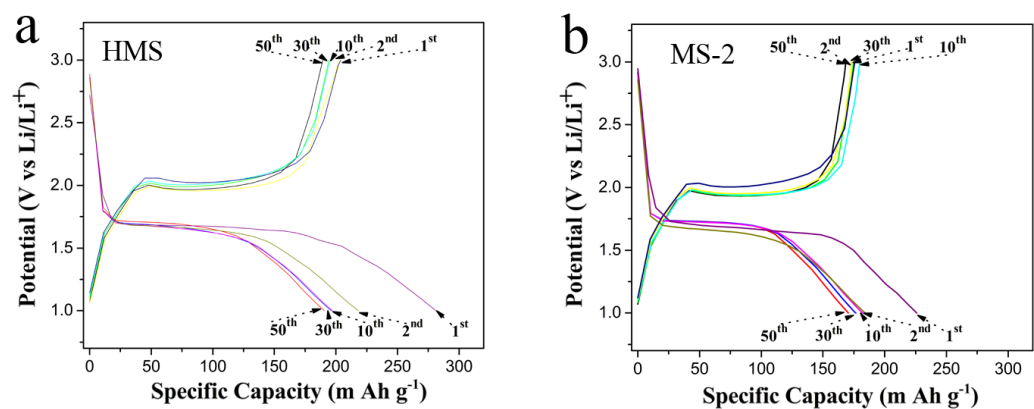


Fig. S5 Discharge-charge curves of (a) HMS and (b) MS-2 electrodes.