Electronic Supplementary Material (ESI) for ChemComm.

Supporting Information

Nanocubic $KTi_2(PO_4)_3$ Electrodes for Potassium-Ion Batteries

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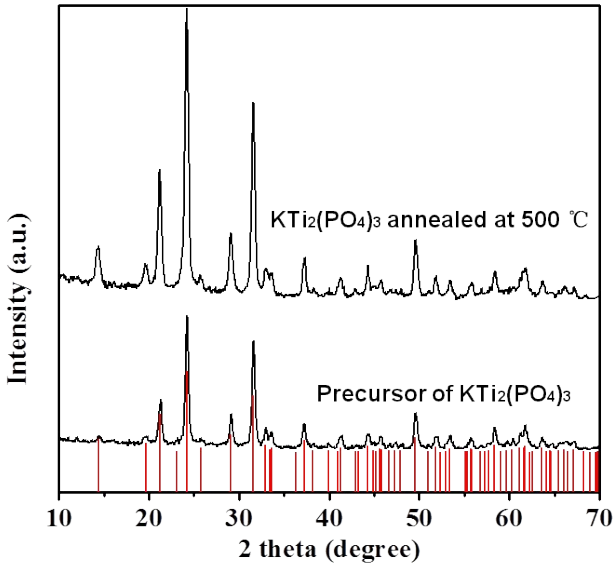

Fig. S1. XRD patterns of the precursor of $KTi_2(PO_4)_3$ and $KTi_2(PO_4)_3$ annealed at 500℃, respectively.

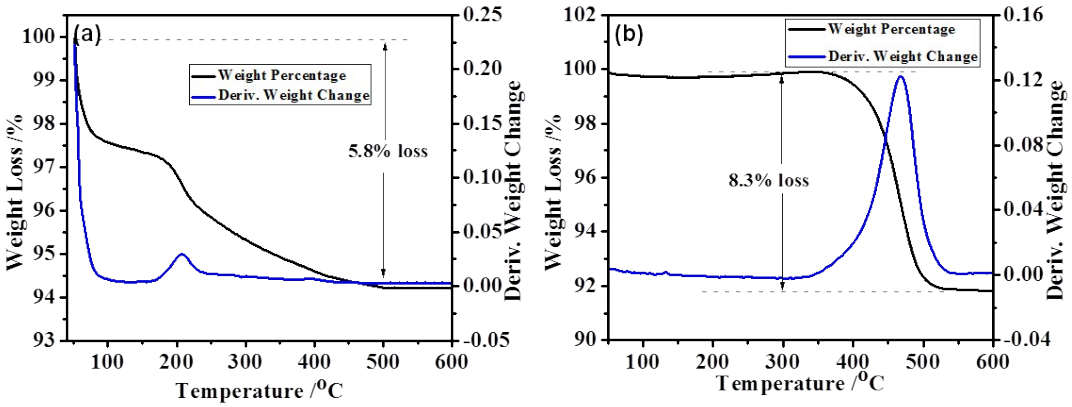

Fig. S2. (a) TGA analysis of the precursor of $KTi_2(PO_4)_3$; (b) TGA analysis of $KTi_2(PO_4)_3$/C.

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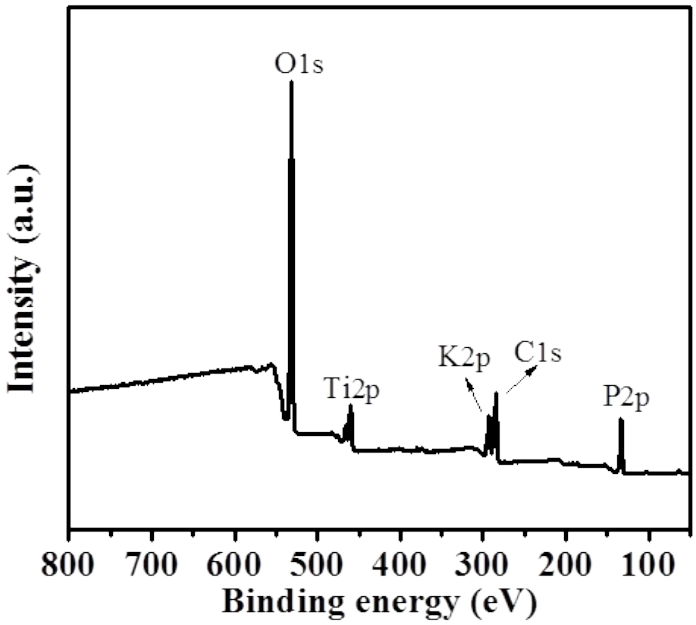

Fig. S3. Full XPS spectra of final $KTi_2(PO_4)_3$ product,

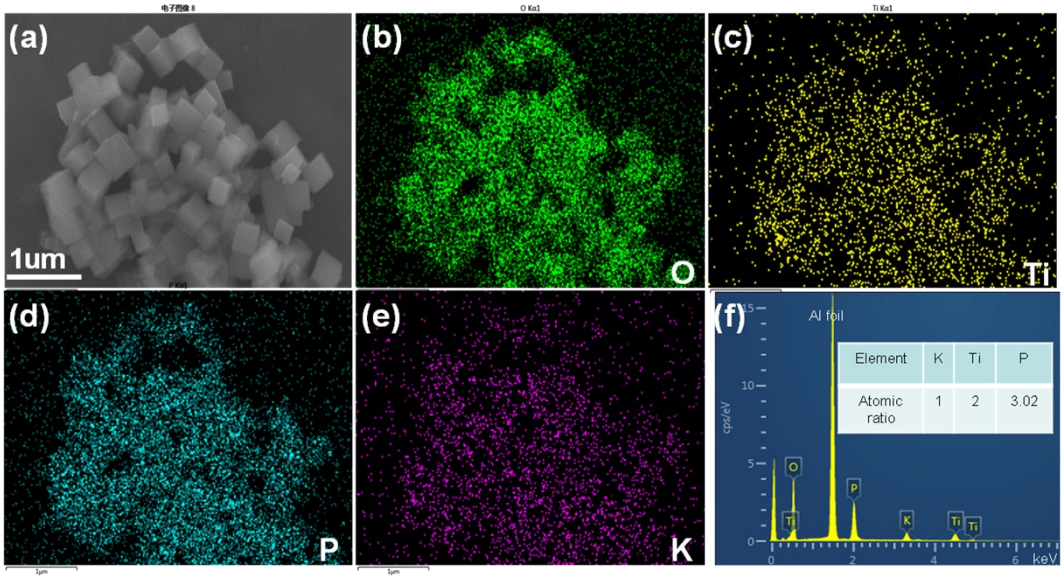

Fig. S4. EDS element distribution mapping images of $KTi_2(PO_4)_3$.

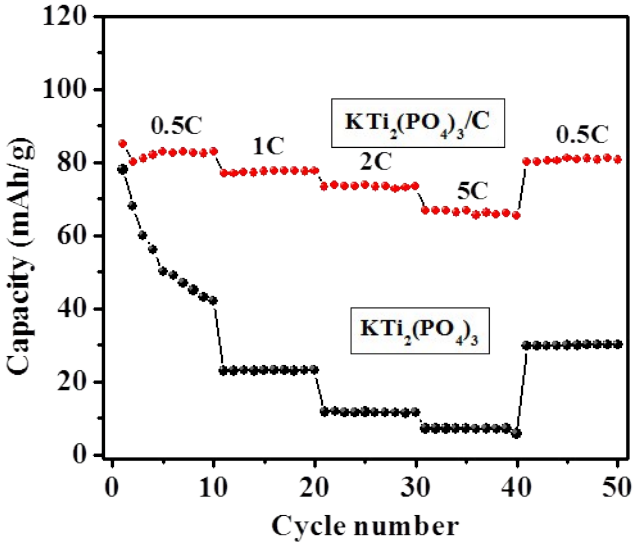

Fig. S5. Rate capability of the $KTi_2(PO_4)_3$ and $KTi_2(PO_4)_3$/C, respectively

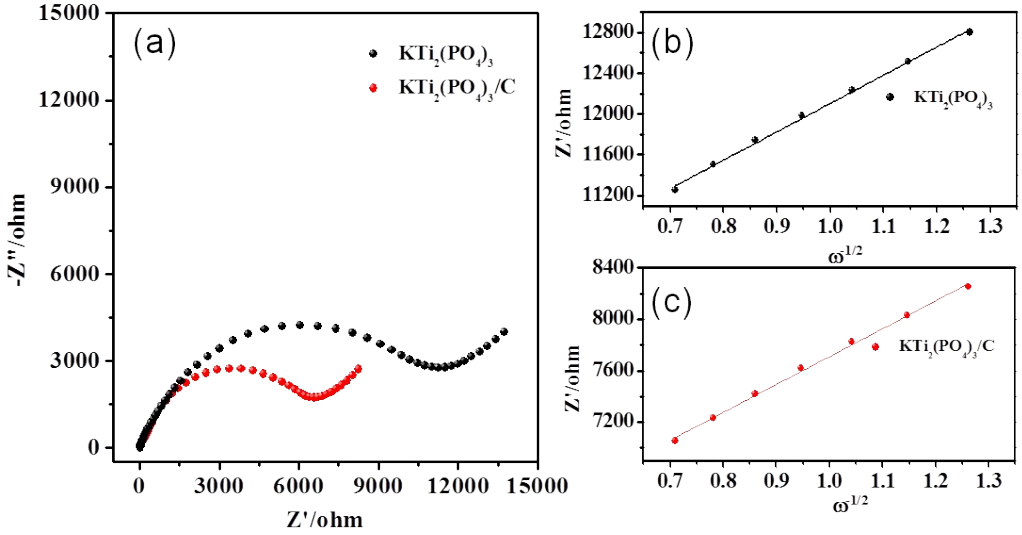

Fig. S6. (a) EIS of $KTi_2(PO_4)_3$ and $KTi_2(PO_4)_3$/C electrodes when discharged to 1.62 V after 10 cycles, respectively; (b) and (c) The corresponding plots of the real part of impedance (Z′) as a function of the inverse square root of the angular frequency ($\omega^{-1/2}$) in the Warburg region.