

Supporting information

Rational fabrication of hybrid structure of SnO_x sandwiched between TiO₂ and carbon based on the complementary merits of SnO_x, TiO₂ and carbon, and its improved lithium storage properties

Qinghua Tian,^a Zhengxi Zhang,^a Li Yang^{a,*} and Shin-ichi Hirano^b

^aSchool of Chemistry and Chemical Engineering, Shanghai Jiao Tong University,

Shanghai 200240, P. R. China

^bHirano Institute for Materials Innovation, Shanghai Jiao Tong University, Shanghai

200240, P. R. China

*Corresponding author e-mail address: liyangce@sjtu.edu.cn,

zhengxizhang@sjtu.edu.cn

Tel: +86 21 54748917, Fax: +86 21 54741297

* Corresponding author. Tel.: +86 21 54748917; fax: +86 21 54741297.
E-mail address: liyangce@sjtu.edu.cn (L. Yang), zhengxizhang@sjtu.edu.cn.

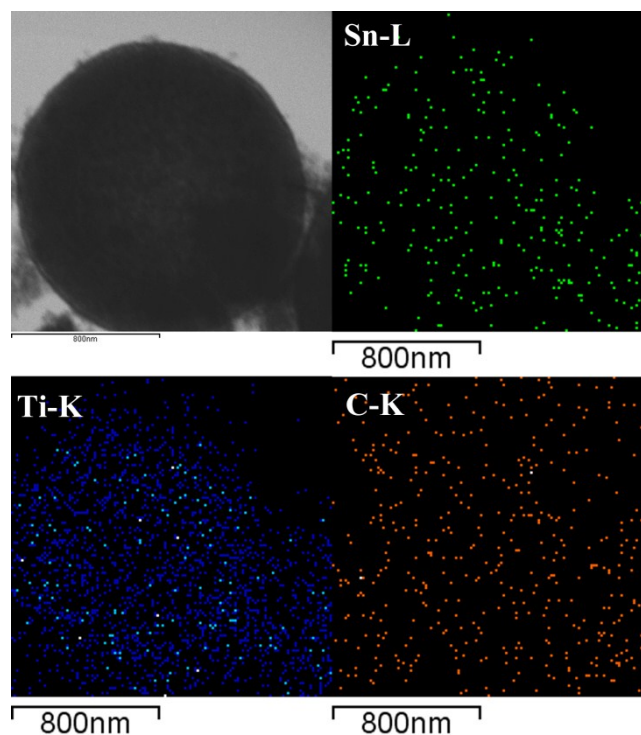


Fig. S1 The TEM mapping images of different elements of $\text{TiO}_2@\text{SnO}_x@\text{C}$. It can be seen that the Ti mainly distributes in the middle part of $\text{TiO}_2@\text{SnO}_x@\text{C}$. And The C can be seen on the outmost edge of $\text{TiO}_2@\text{SnO}_x@\text{C}$. It is suggested that the SnO_x is sandwiched between TiO_2 and C coating layer. No obvious contrast between middle and edge can be observed which can be attributed to the thin carbon coating layer.