

Supporting Information

Electrochemically directed synthesis of TiC nanotube arrays for aqueous zinc-ion batteries

Tongxiang Ma*, Xiangyan Chen, Qingyu Li

Northwest Institute for Non-Ferrous Metal Research, Xian 710016, China

* Corresponding author.

E-mail address: tongxiang.ma@163.com (Tongxiang Ma)

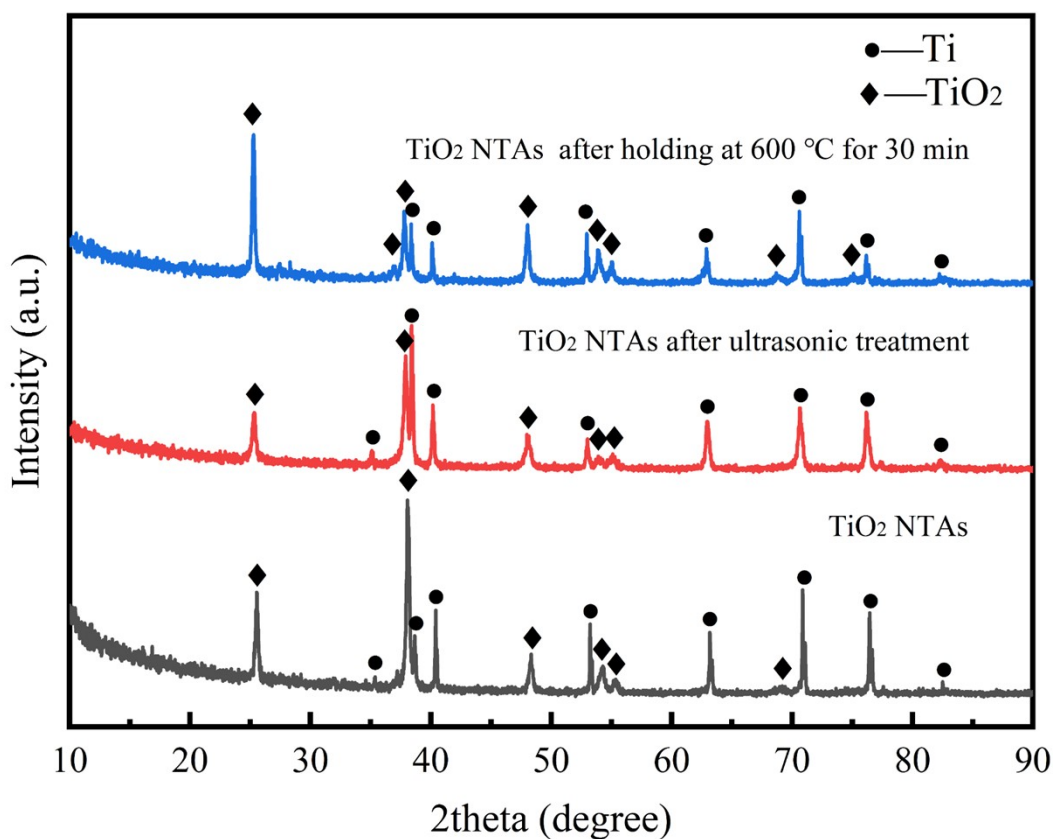


Figure.S1 XRD spectra of TiO₂ NTAs

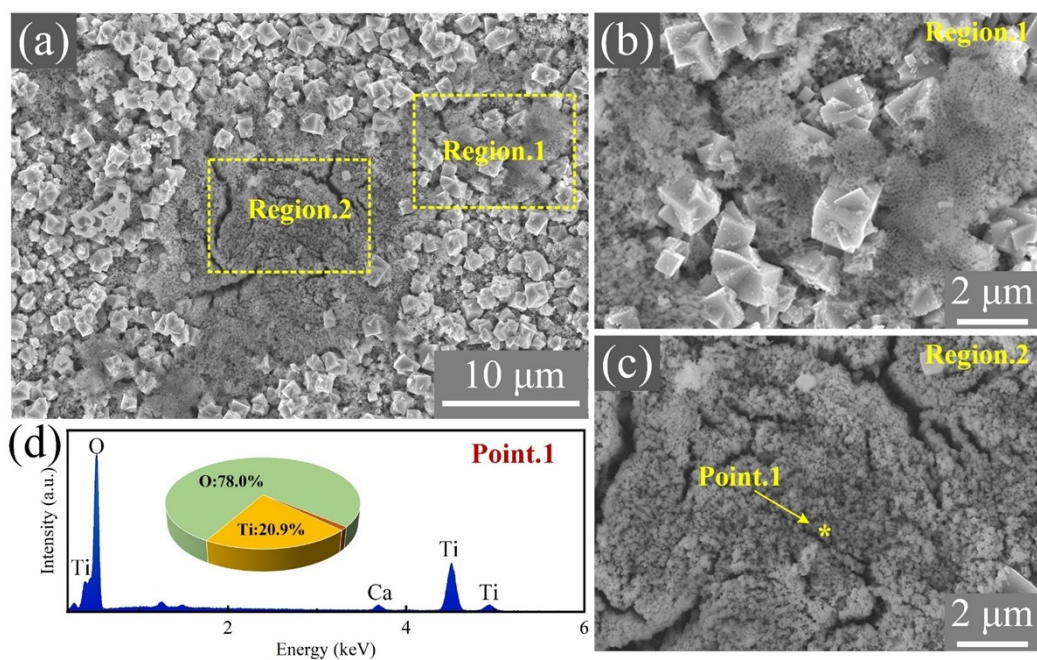


Figure.S2 (a-c) SEM image of the product after soaking in molten salt for 3 min. (d) EDS of the product after soaking in molten salt for 3 min.

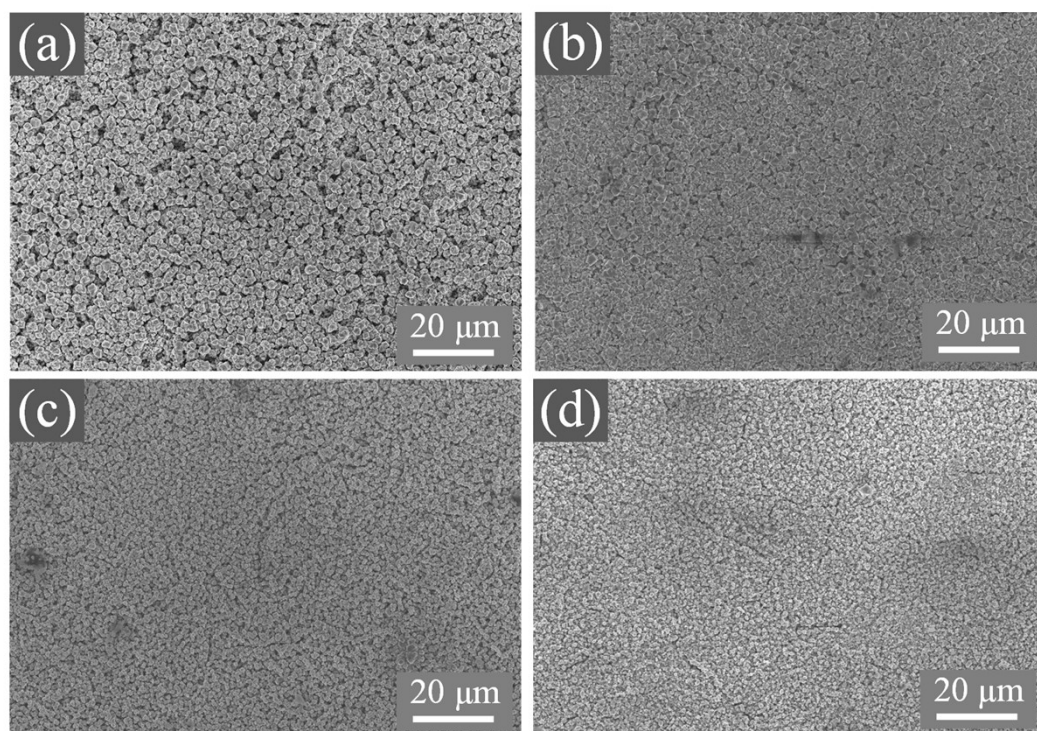


Figure.S3 SEM image of the product after soaking in different molten salts for 30 min: (a) untreated; (b) add 1 mol% CaO after pre-electrolysis for 12 h; (c) pre-electrolysis for 12 h; (d) add 0.1 mol% Li₂CO₃ after pre-electrolysis for 12 h.

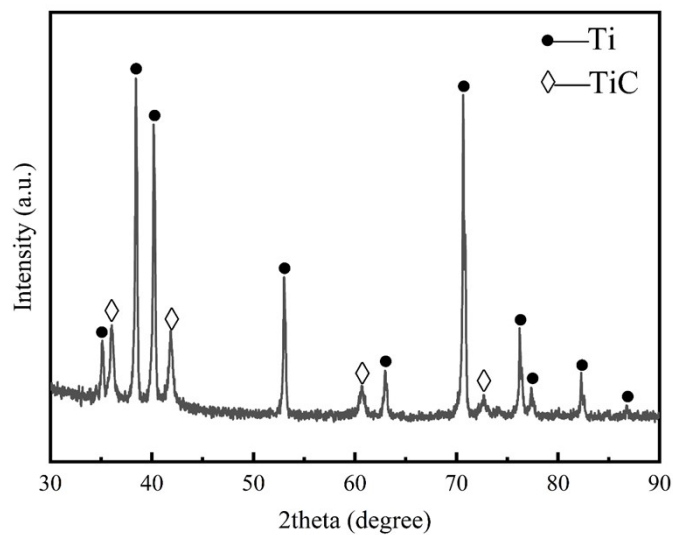


Figure.S4 XRD pattern of the product after electrolysis for 30 min in LiCl–CaCl₂–KCl (molar ratio: 5:2:3) molten salt.

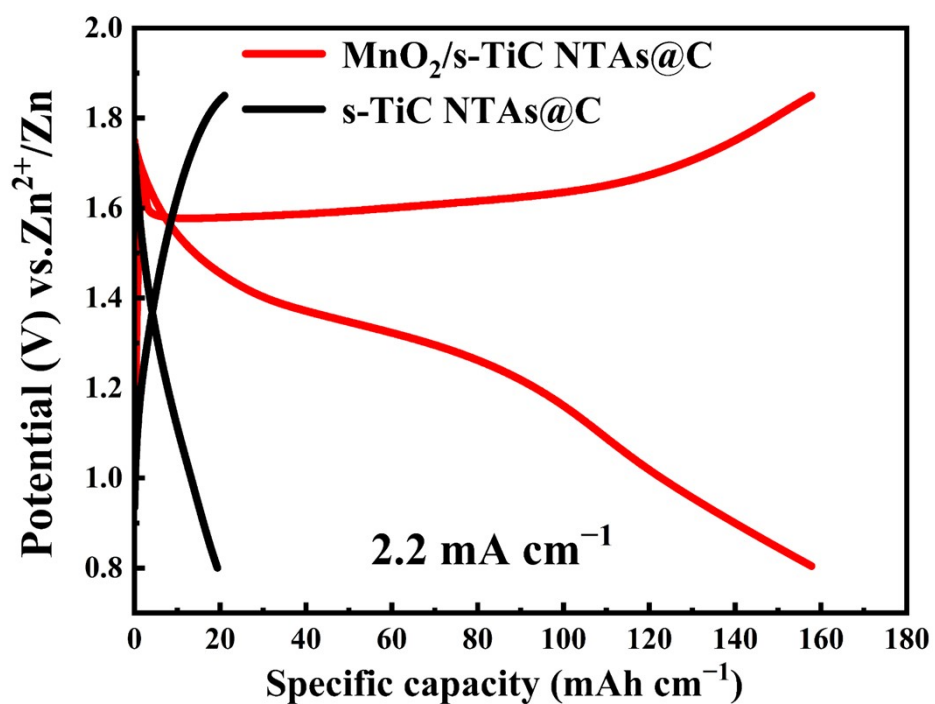


Figure.S5 GCD curves of the bare s-TiC NTAs@C and MnO₂/s-TiC NTAs@C at a current density of 2.2 mA cm⁻².

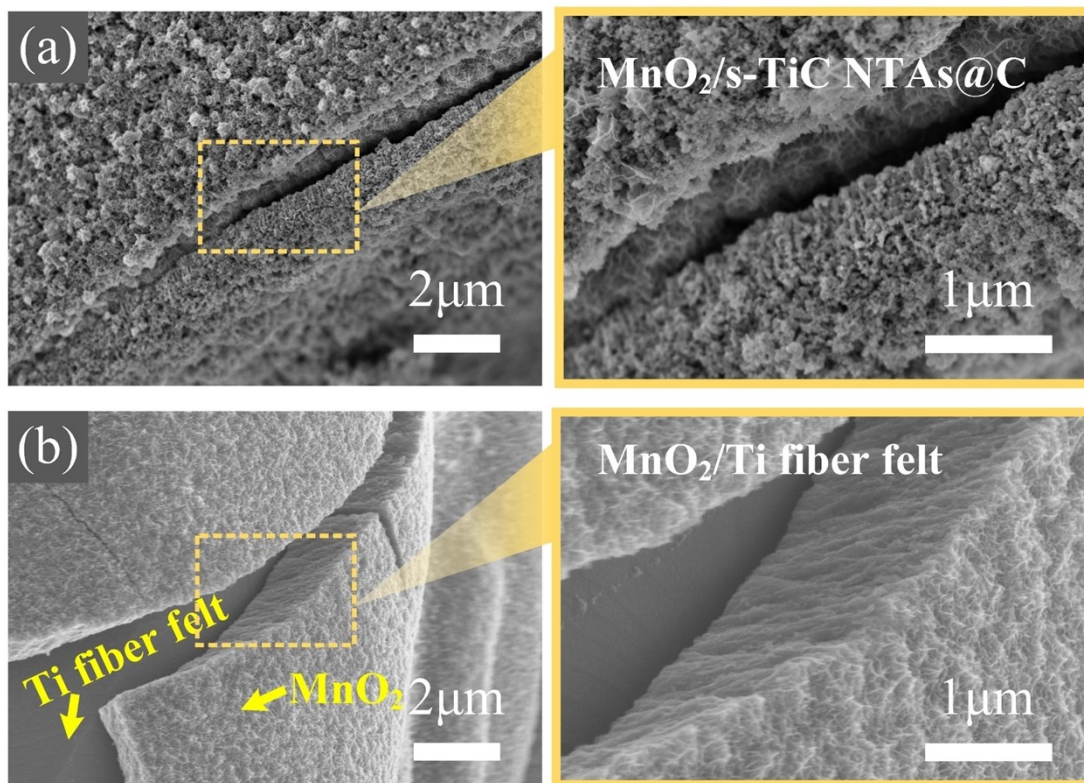


Figure.S6 Cross-sectional SEM image (a) MnO₂/s-TiC NTAs@C and (b) MnO₂/Ti fiber felt