

Supporting Information

Stabilized Titanium Nitride Nanowires Supported Silicon

Core-Shell Nanorods as High Capacity Lithium-Ion Anodes

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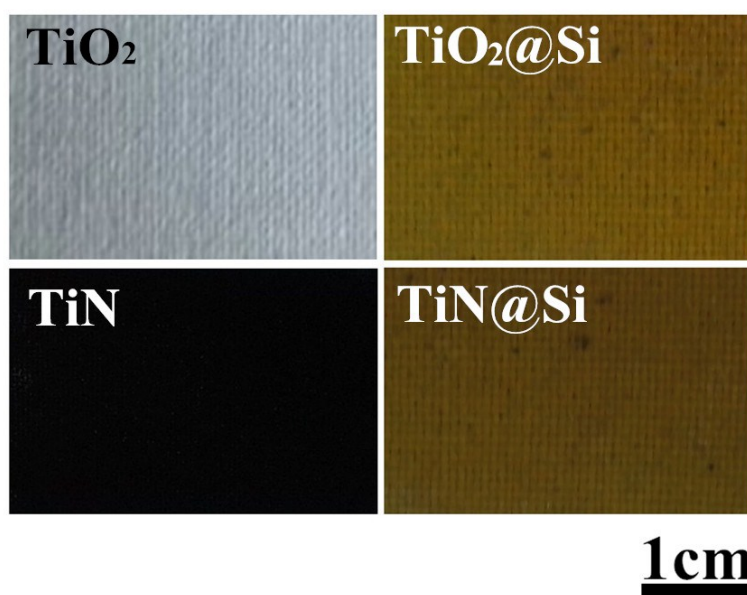


Fig. S1 photographs of TiO_2 NWs, TiN NWs, $\text{TiO}_2@\text{Si}$ NRs, and $\text{TiN}@\text{Si}$ NRs.

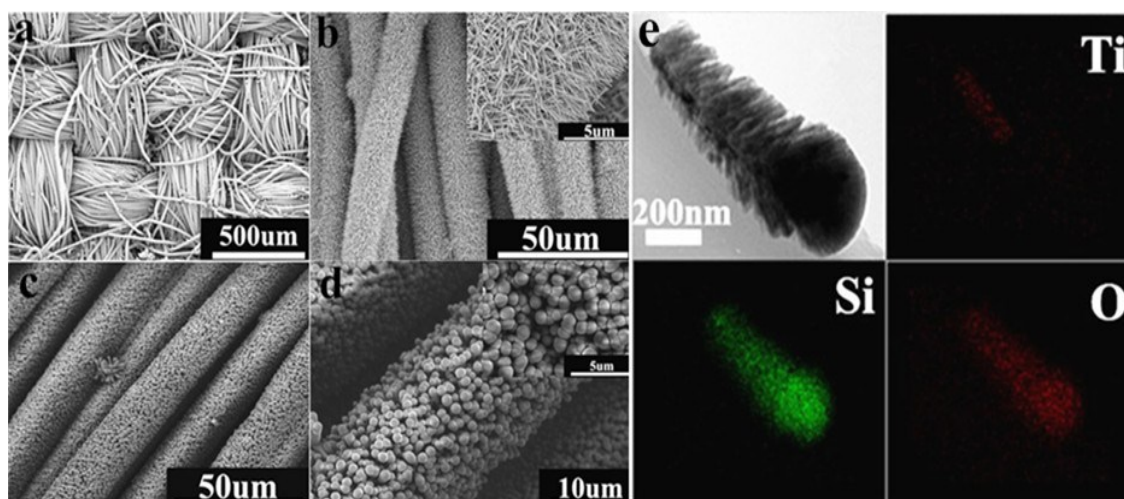


Fig. S2 SEM images of TiO₂ NWs (a, b), TiO₂@Si NRs (c, d), TEM image of TiO₂@Si NR and corresponding EDX elemental mapping (e).

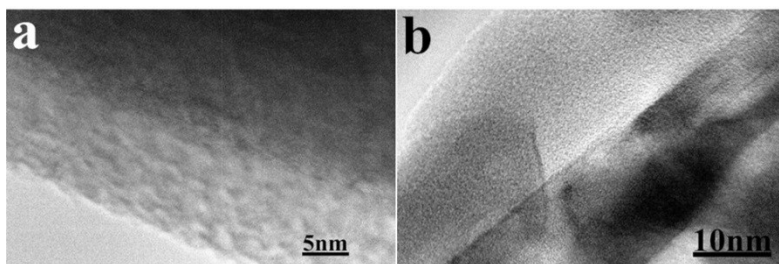


Fig. S3 HRTEM images of the tail $\text{TiO}_2@\text{Si}$ NR (a) and $\text{TiN}@\text{Si}$ NRs (b).

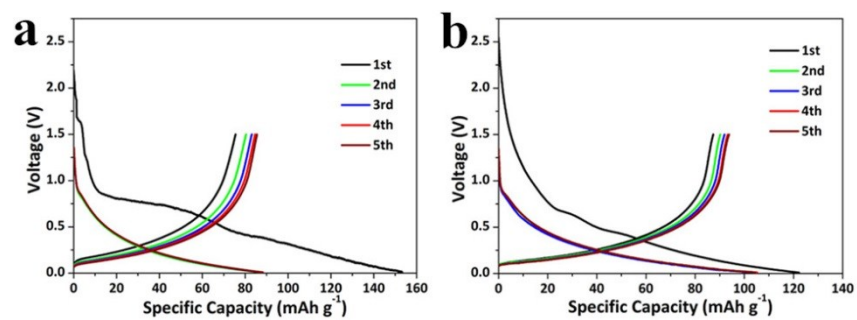


Fig. S4 The voltage-capacity profiles of TiO₂ NWs (a) and TiN NWs (b) for 1st, 2nd, 3rd, 4th, 5th cycles tested at 100 mA g⁻¹ between 0.01 and 1.5 V.

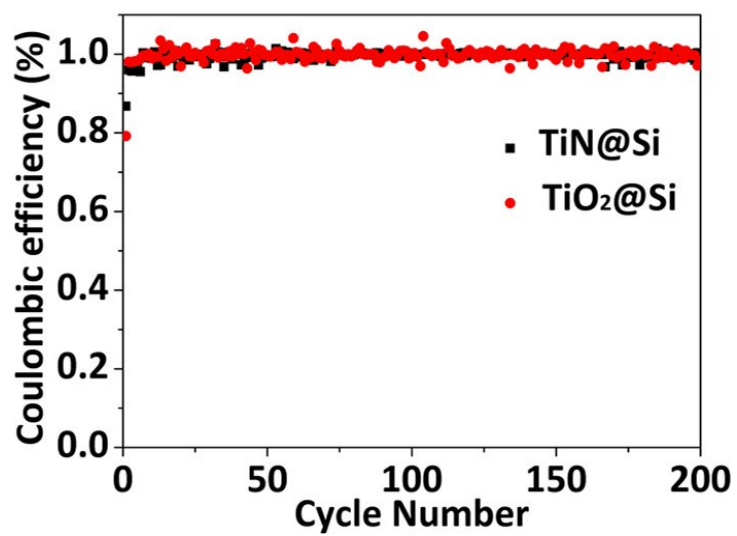


Fig. S5 Coulombic efficiency of TiO₂@Si NRs and TiN@Si NRs at the current density of 1A g⁻¹.

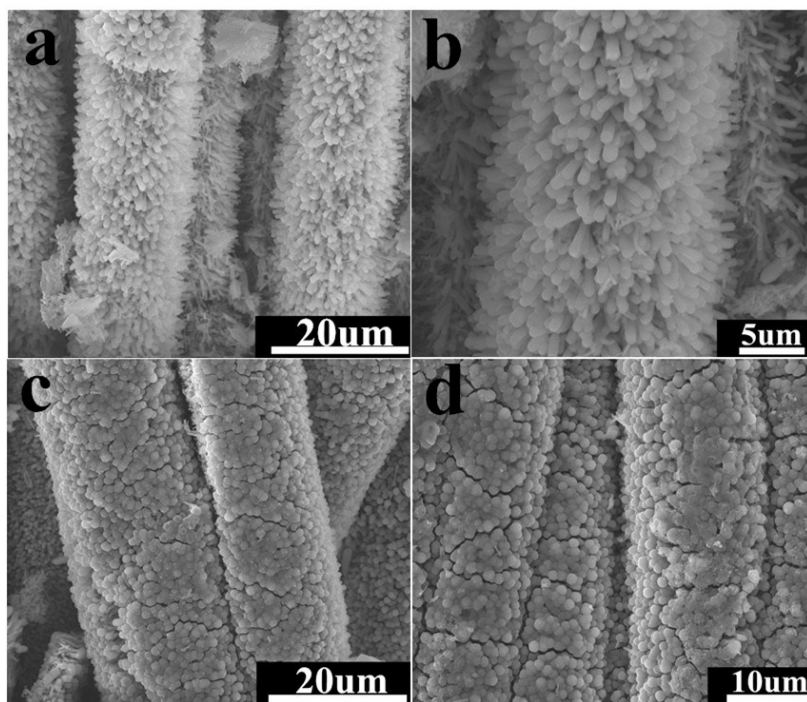


Fig. S6 SEM images of TiN@Si NRs (a, b) and TiO₂@Si NRs (c, d) after 20 cycles at 5 A g⁻¹.

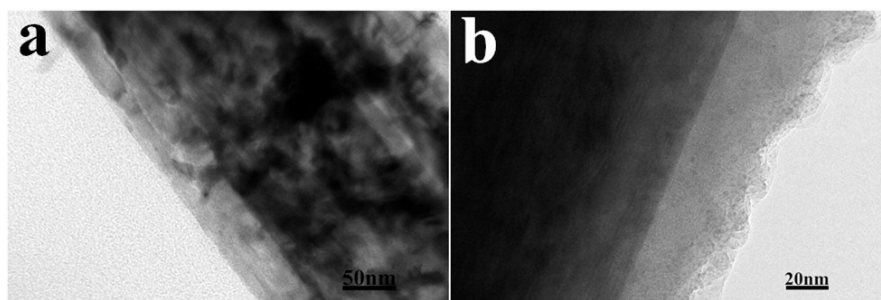


Fig. S7 TEM images of TiN@Si NRs (a) and TiO₂@Si NRs (b) after 20 cycles at 5 A g⁻¹.