Supporting Information

A novel 3D Si/TiO_2-Ti_2O_3 nanorod arrays composite used as anode material for lithium ion batteries

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Supplementary Figures

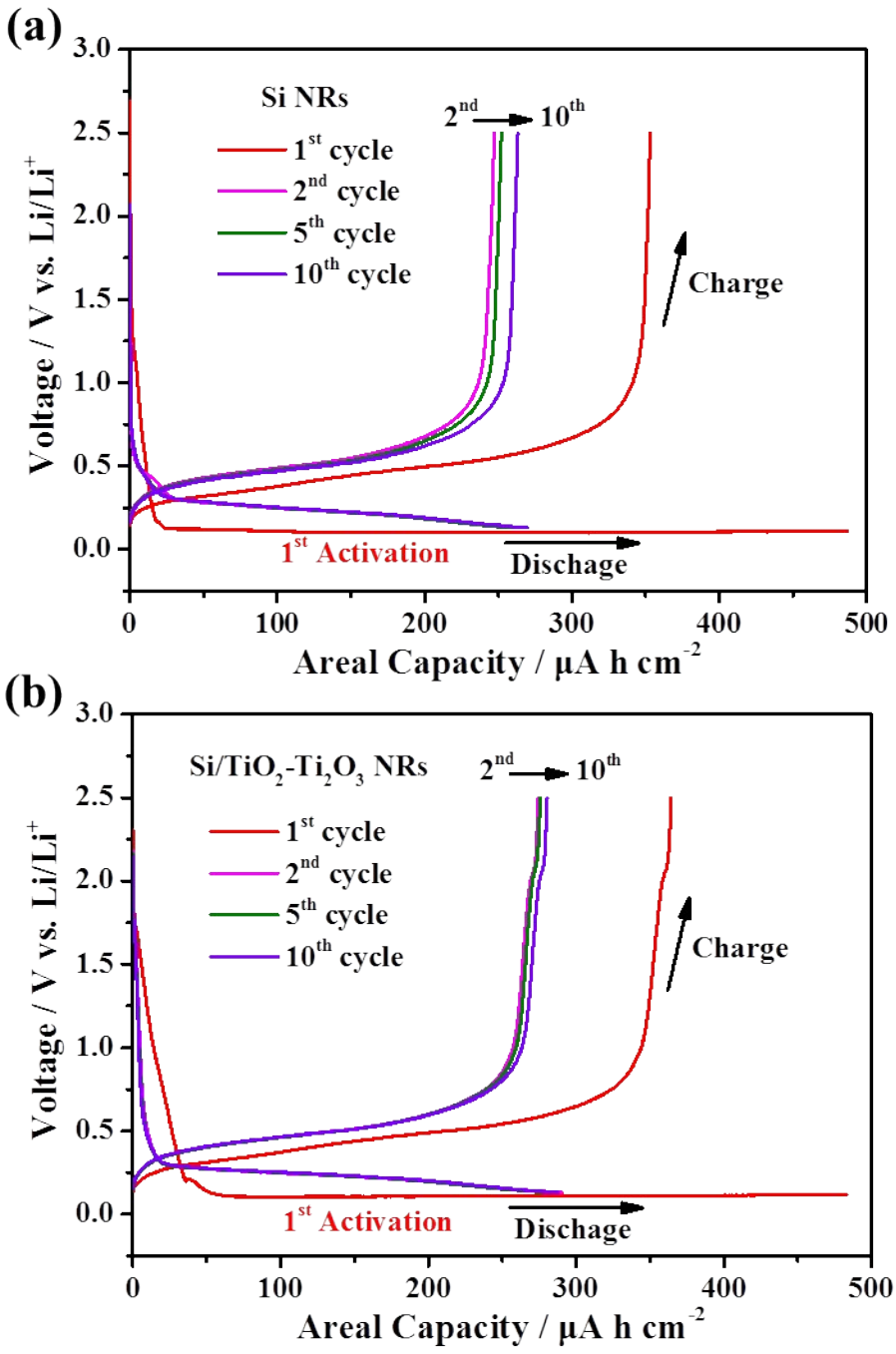

Figure S1. Charge-discharge curves of (a) Si NRs and (b) Si/TiO_2-Ti_2O_3 NRs during the 1^{st}, 2^{nd}, 5^{th} and 10^{th} cycle under a current density of 20 μA cm^{-2} after a galvanostatic discharge activation process for 24 h in the first cycle.

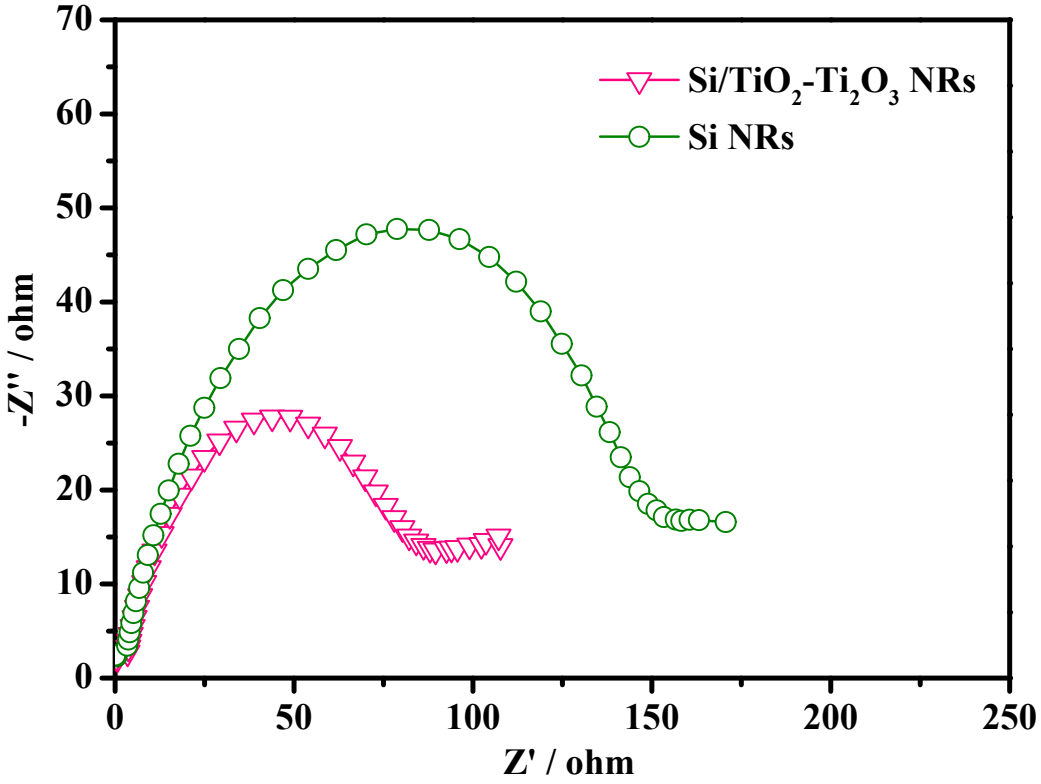

Figure S2. The impedance spectra of Si/TiO_2-Ti_2O_3 NRs compared with that in bare Si NRs under amplitude of 5.0 mV and with a frequency scan from 100 k to 0.1 Hz.

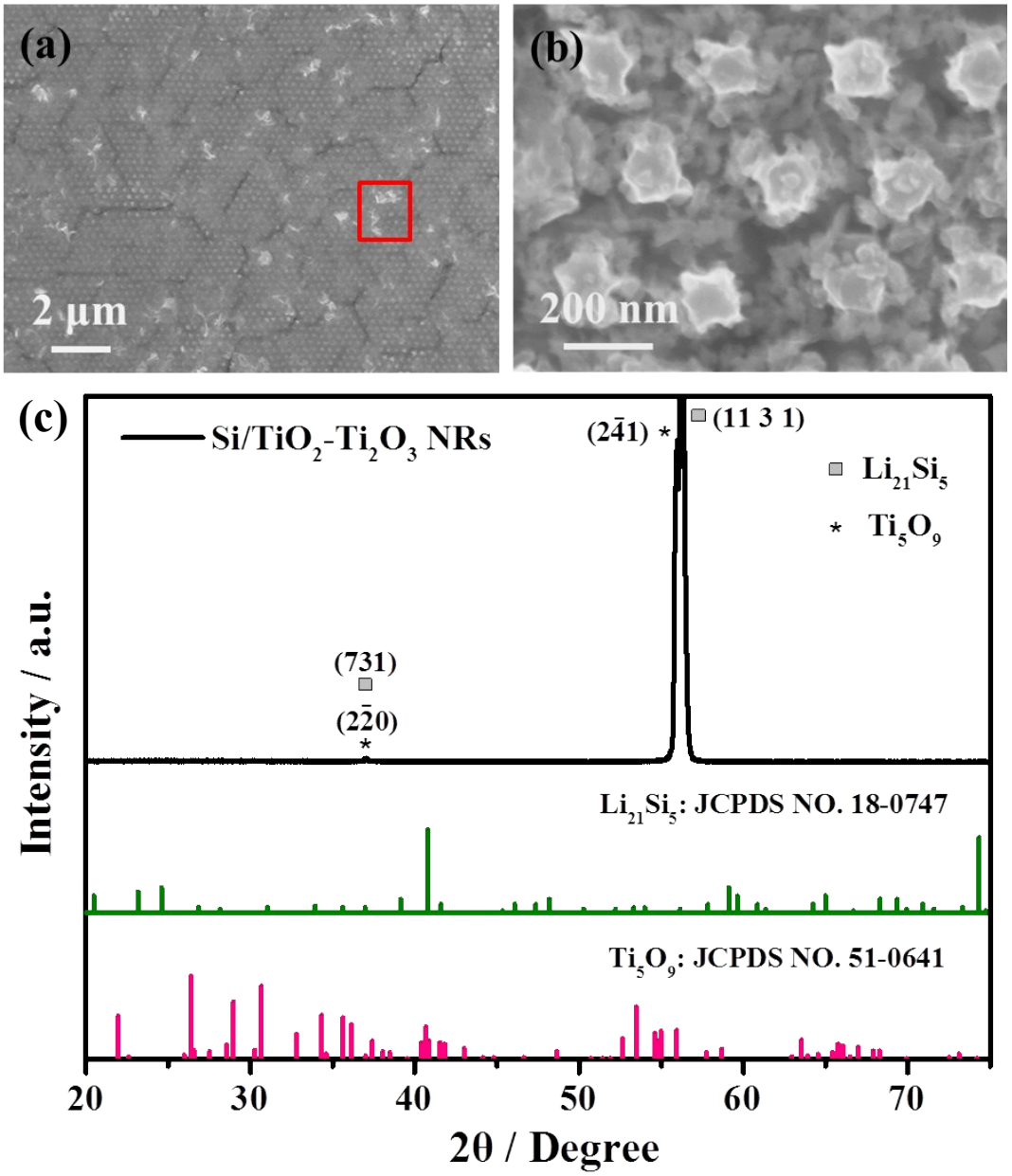

Figure S3. (a) SEM image, (b) High magnification SEM image, and (c) XRD pattern of Si/TiO_2-Ti_2O_3 NRs anode after CV measurement for ten discharge/charge cycles (within the voltage range of 0.01 to 2.5 V at the scan rate of 0.1 mV s^{-1}).