Electronic Supporting Information

Construction of honeycomb porous silicon as a high-capacity and long-life anode toward Li-ion batteries

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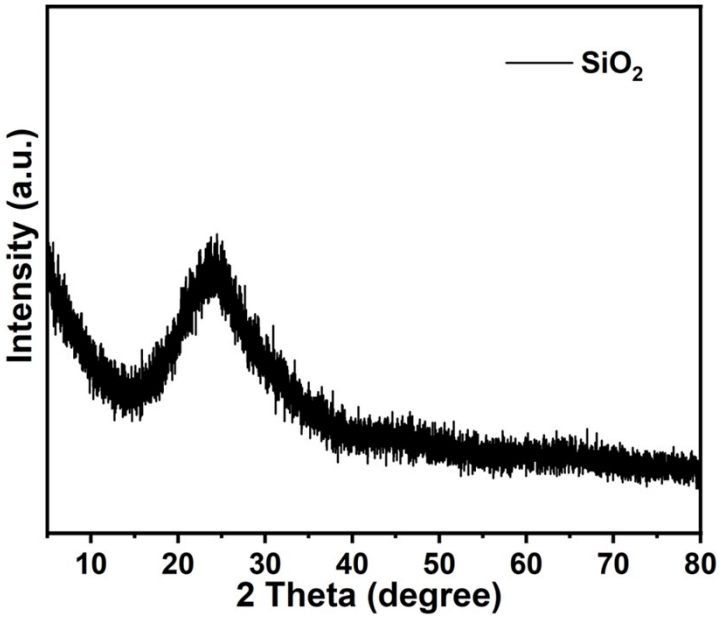

Fig. S1 XRD pattern of SiO_2 NSs.

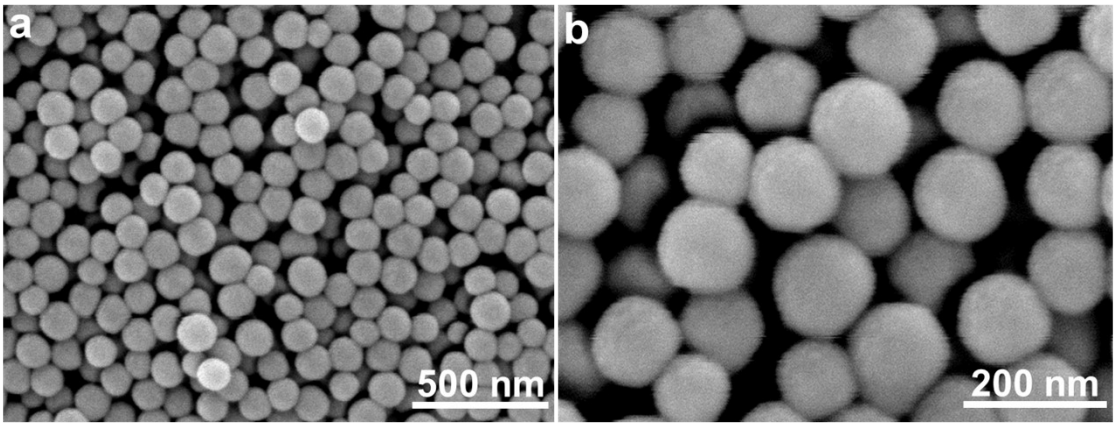

Fig. S2 (a, b) FESEM images of SiO_2 NSs.

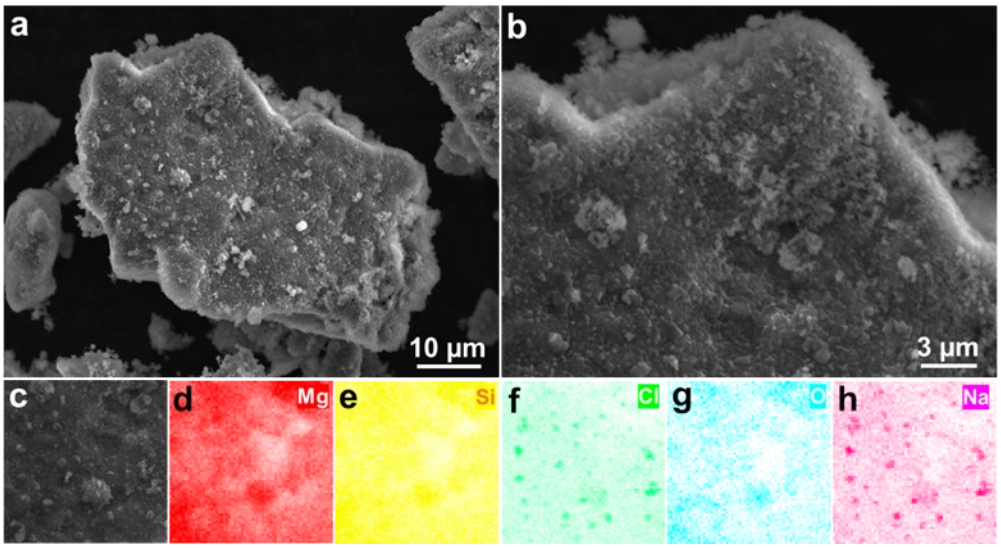

Fig. S3 (a, b) FESEM images of pristine Si and corresponding (c – h) elemental mappings of Mg, Si, Cl, O and Na.

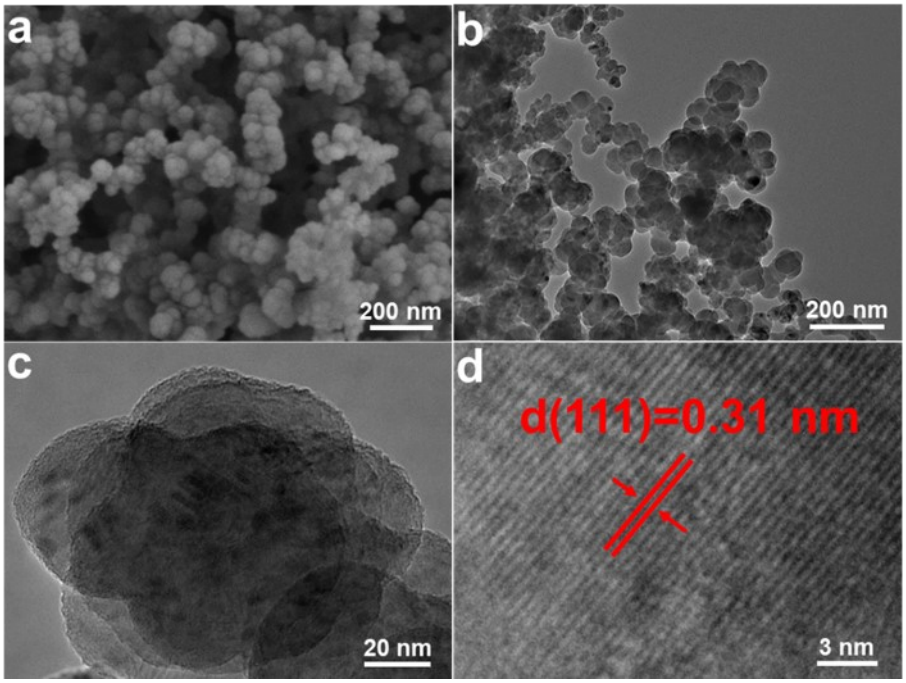

Fig. S4 (a) FESEM, (b, c) TEM and (d) HRTEM images of Nano-Si.

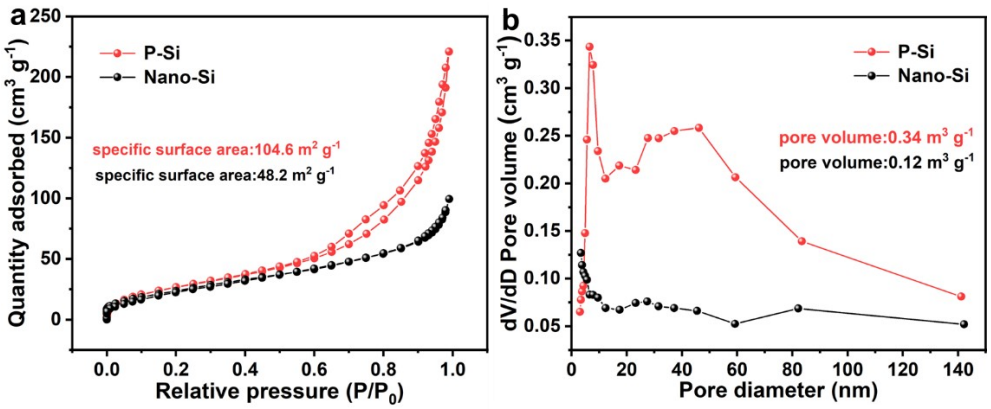

Fig. S5 (a) N_2 adsorption-desorption isotherms and (b) pore size distribution plots of P-Si and Nano-Si as indicated.

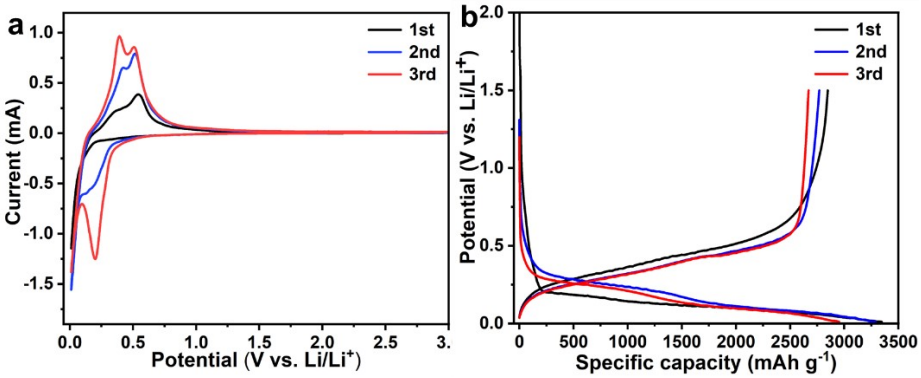

Fig. S6 (a) CV curves (0.1 mV s^{-1}) and (b) charge-discharge plots (0.1 A g^{-1}) of Nano-Si.

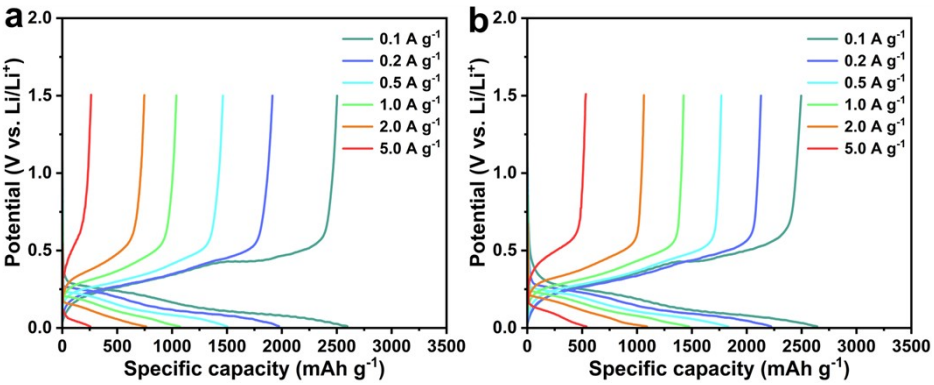

Fig. S7 Charge and discharge plots of (a) Nano-Si and (b) P-Si under different current densities (0.1 – 5.0 A g^{-1}).

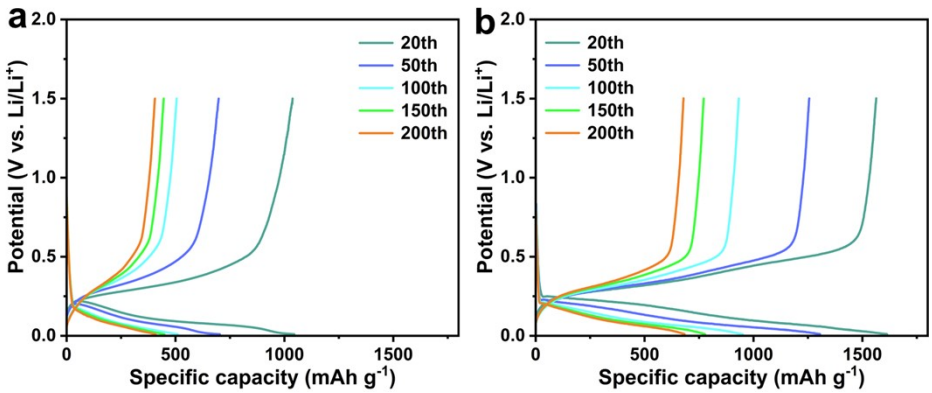

Fig. S8 Selected Charge and discharge plots of (a) Nano-Si and (b) P-Si at 0.1 A g^{-1}.

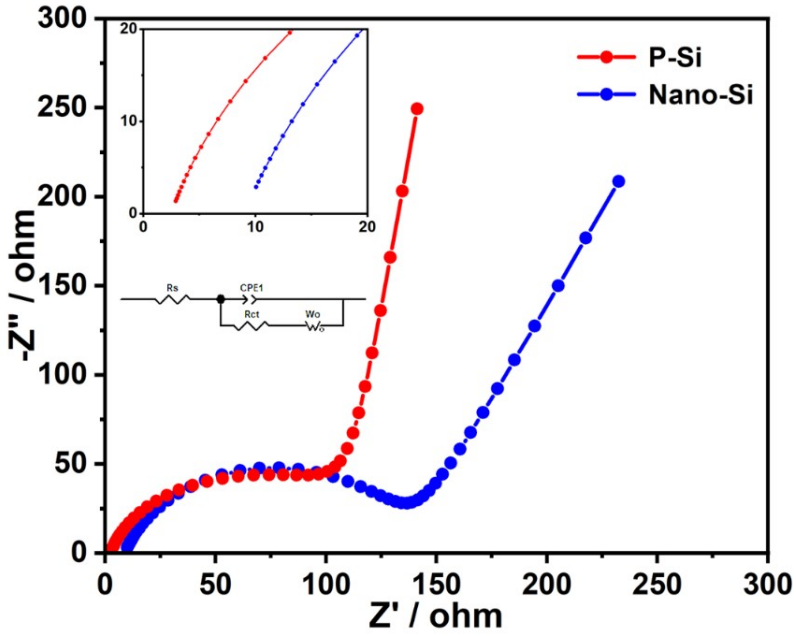

Fig. S9 Nyquist plots of P-Si and Nano-Si. The insets for the enlarged square region and corresponding equivalent circuit model for fitting, respectively.