Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Supplementary material

SStabilizing Si/graphite composite by Cu and *in situ* synthesized carbon nanotubes for high-performance Li-ion battery anodes

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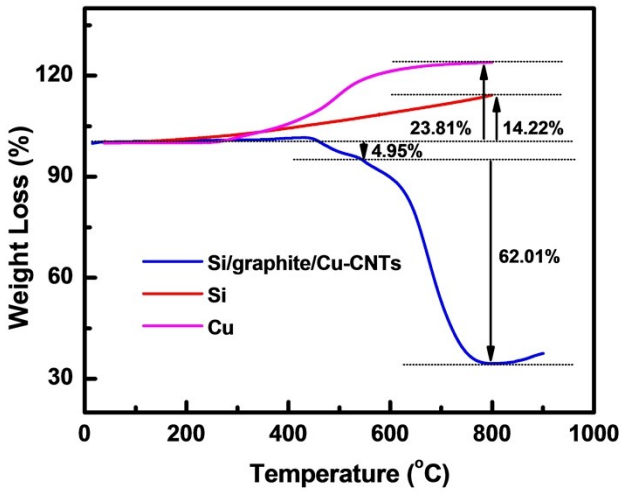

Fig. S1 The TGA curves of pure Si, pure Cu and Si/graphite/Cu-CNTs composite measured under air atmosphere.

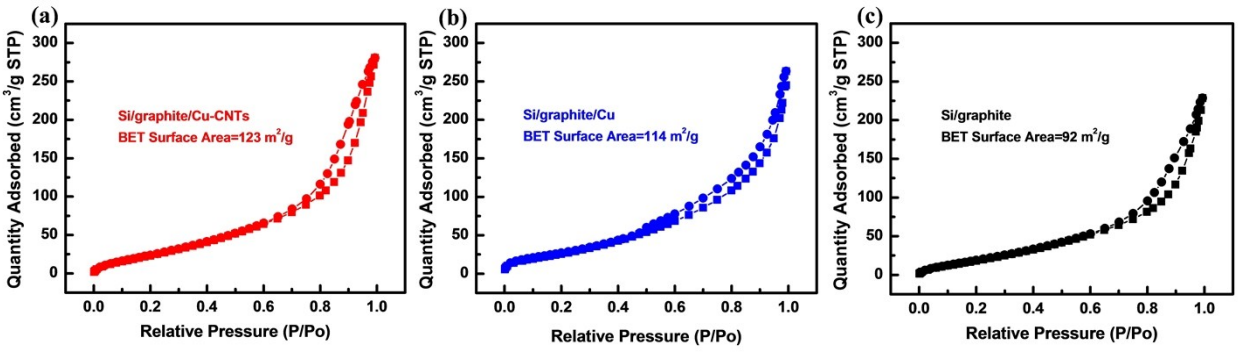

Fig. S2 N_2 adsorption-desorption isotherms of (a) Si/graphite/Cu-CNTs, (b) Si/graphite/Cu, (c) Si/graphite.

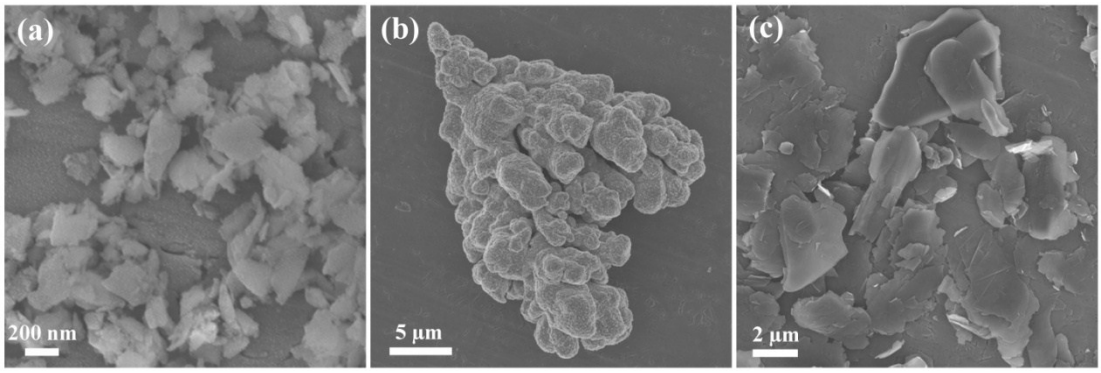

Fig. S3 The SEM images of (a) ball-milled Si nanoparticles, (b) copper power, (c) graphite.

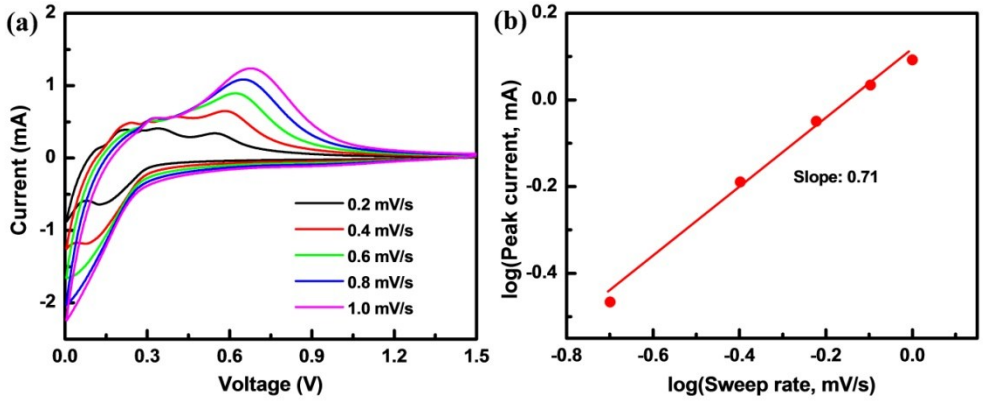

Fig. S4 (a) CV curves of Si/graphite/Cu-CNTs at sweeping rates from 0.2 mV s^{-1} to 1.0 mV s^{-1}. (b) Corresponding log (i) vs. log(v) plots.

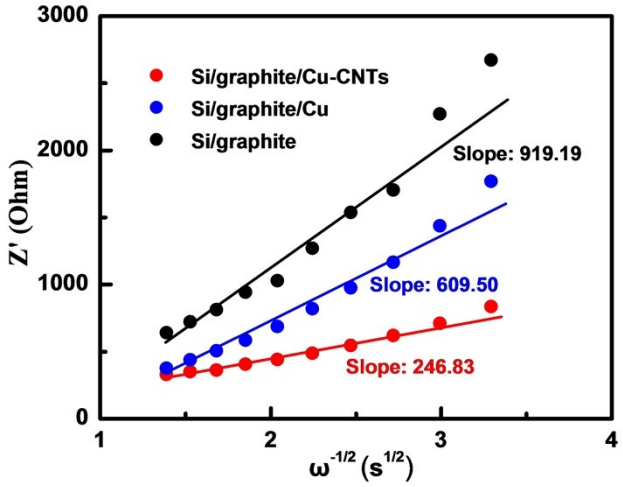

Fig. S5 The Warburg coefficient plots of the the Si/graphite/Cu-CNTs, Si/graphite/Cu and Si/graphite electrodes.

Table. S1. Impedance parameters simulated from the equivalent circuits.

Sample	Rs (Ω)	Rct (Ω)
Si/graphite	40.53	189.9
Si/graphite/Cu	27.78	110
Si/graphite/Cu-CNTs	20.38	75.59