## **Supporting Information**

## New Perspective to Understand the Effect of Electrochemical Prelithiation Behaviors on Silicon Monoxide

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Figure S1. The relationship between reversible capacity and prelithiated time of SiO@C electrode.



Figure S2. Open circuit voltage after specific prelithiated time of SiO@C electrode.



Figure S3. Cyclic voltammetry curves of pristine and 2 min prelithiated electrode.



Figure S4. Charge/discharge profiles of pristine electrode compared with 2 and 20 min prelithiated electrodes.



Figure S5. High-resolution transmission electron microscopy images of 20 min prelithiated electrode (a) and the delithiated electrode (b) when the prelithiated electrode charging to 1.5 V.