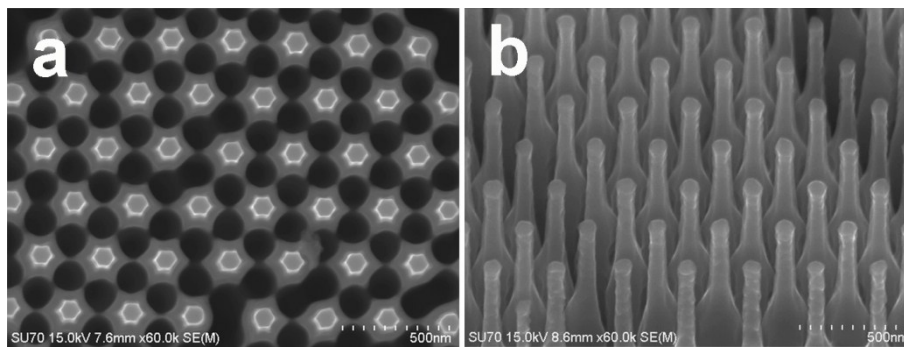


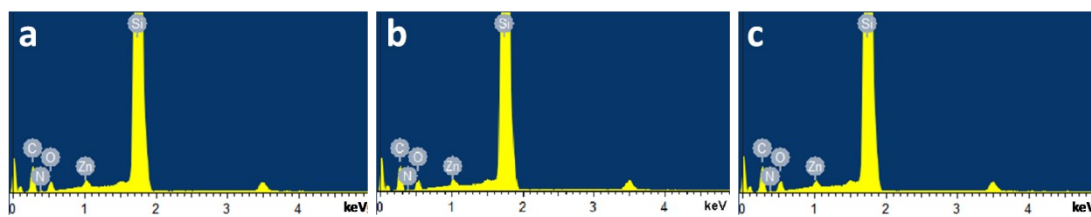
## Supporting Information

### **Si Nanorods Arrays Modified by Metal-Organic Segments as Anodes in Lithium Ion Batteries**

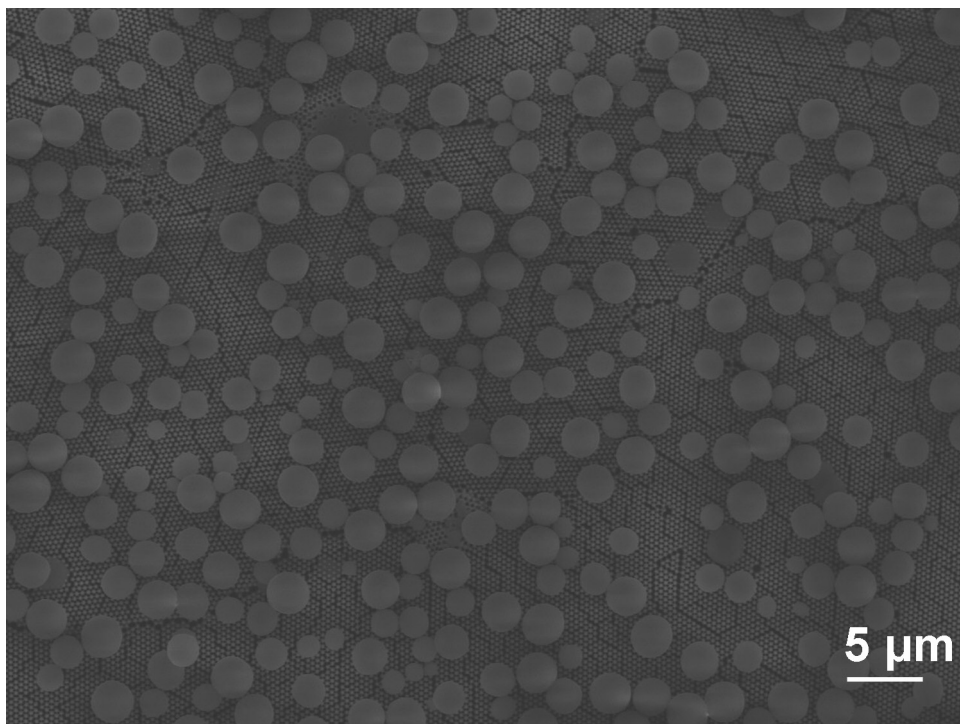
*Yingjian Yu, Chuang Yue, Yingzi Han, Chuanhui Zhang, Mingsen Zheng, Binbin Xu, Shuichao Lin,\* Jing Li\*, and Junyong Kang*



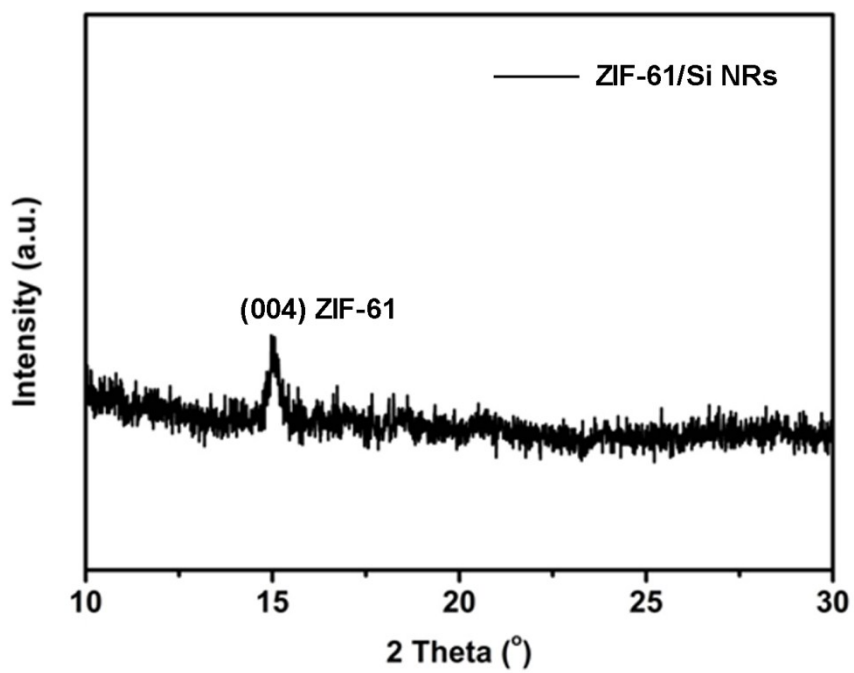
**Figure S1.** (a) Vertical-view and (b) lateral-view SEM images of Si NRs.



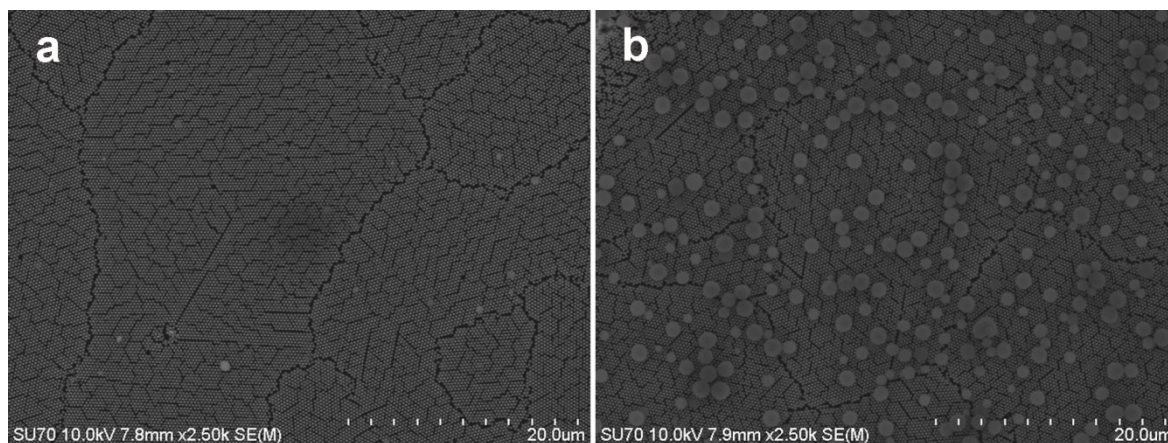
**Figure S2.** The energy dispersive X-ray (EDX) spectra of MOS/Si NRs with reaction time of (a) 4 h and (b) 12 h at the lower solution concentration; (c) The EDX spectrum of MOS/Si NRs with reaction time of 4 h at the higher solution concentration.



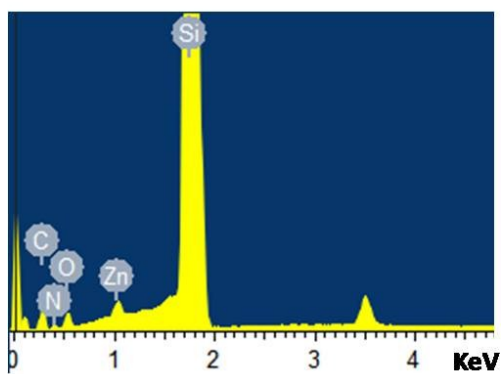
**Figure S3.** Vertical-view SEM image of ZIF-61/Si NRs over a large area.



**Figure S4.** XRD pattern of ZIF-61/Si NRs.

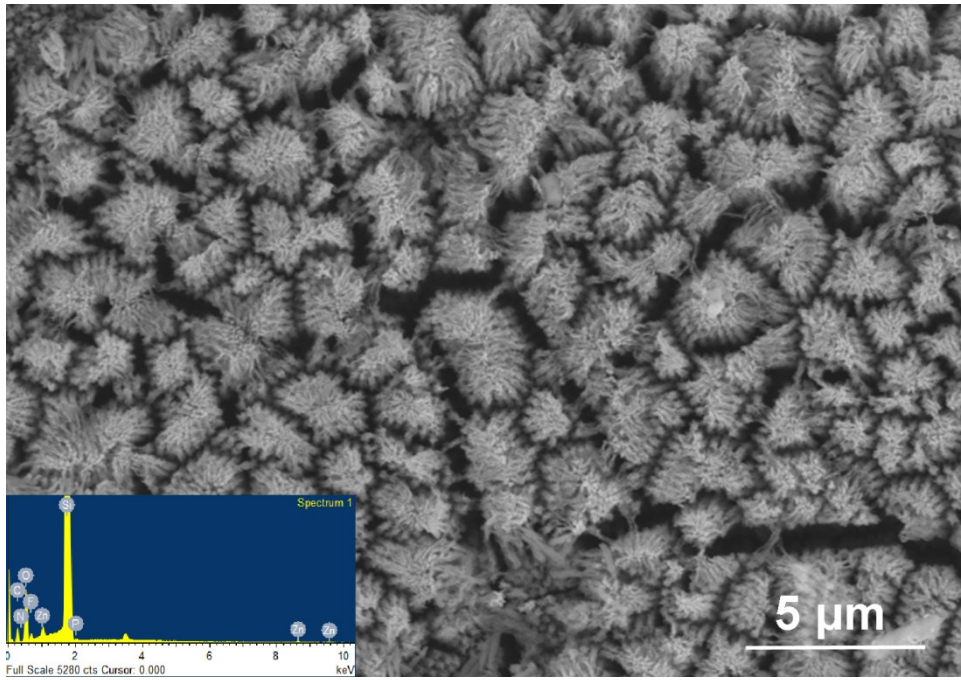


**Figure S5.** Vertical-view SEM images of composite Si NRs over a large area fabricated by (a) 6-hour and (b) 12-hour reactions.



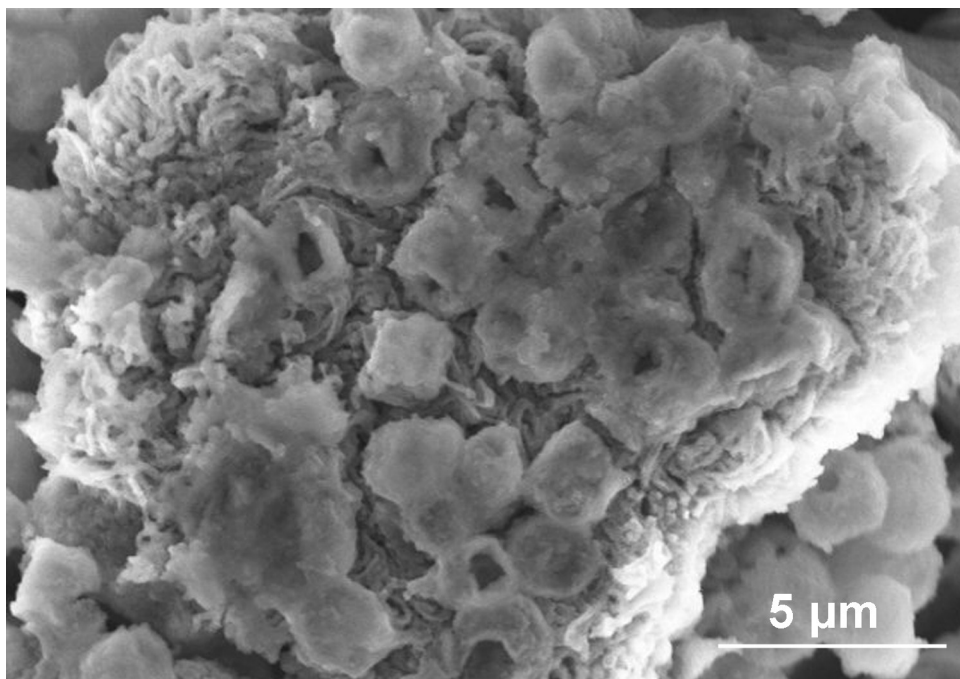
Element	wt%	at%
<b>C</b>	16.82	30.84
<b>N</b>	2.67	4.2
<b>O</b>	3.09	4.26
<b>Si</b>	77.42	60.7
<b>Zn</b>	0.00	0.00

**Figure S6.** The energy dispersive X-ray (EDX) spectrum of Si NRs under ZIF-61 crystals with corresponding elements contents.



**Figure S7.** The SEM image with the inset of EDS spectrum of MOS/Si NRs after lithiation/delithiation processes for 50 cycles.





**Figure S8.** The SEM image of ZIF-61/Si NRs after lithiation/delithiation processes for 50 cycles.