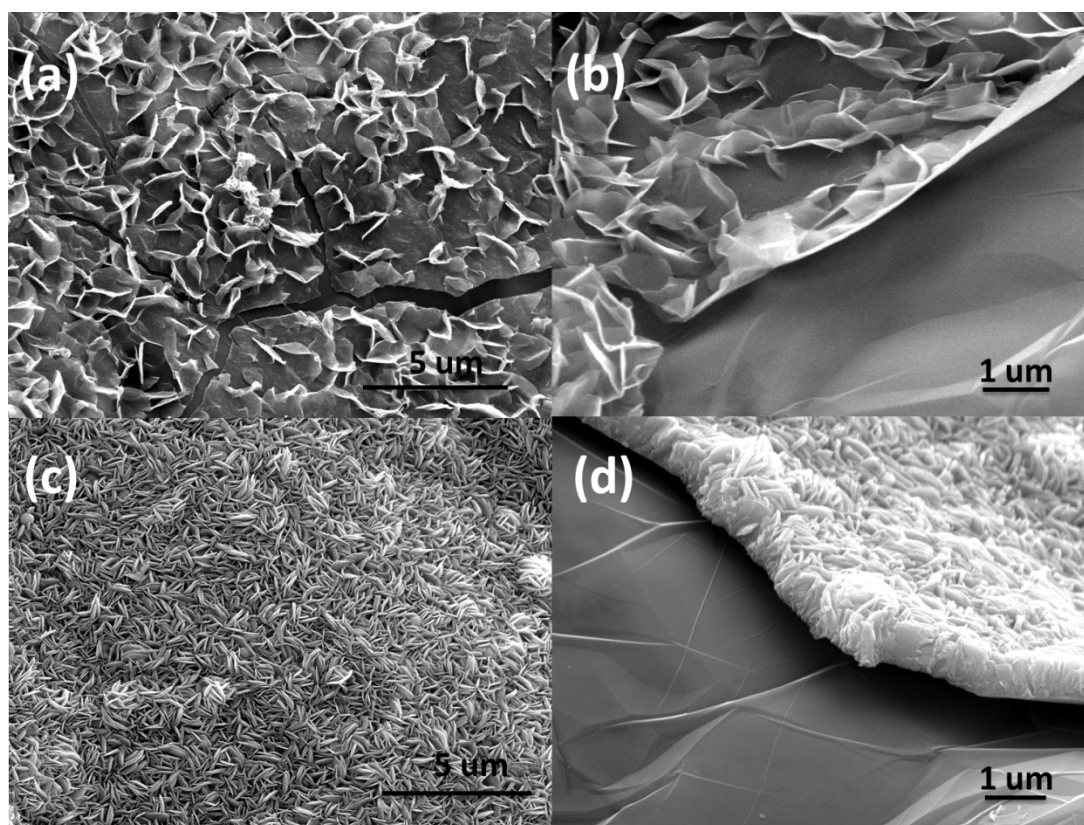


## Supplementary Information

# Three-Dimensional Graphene- $\text{Co}_3\text{O}_4$ Cathodes for Rechargeable Li- $\text{O}_2$ Batteries

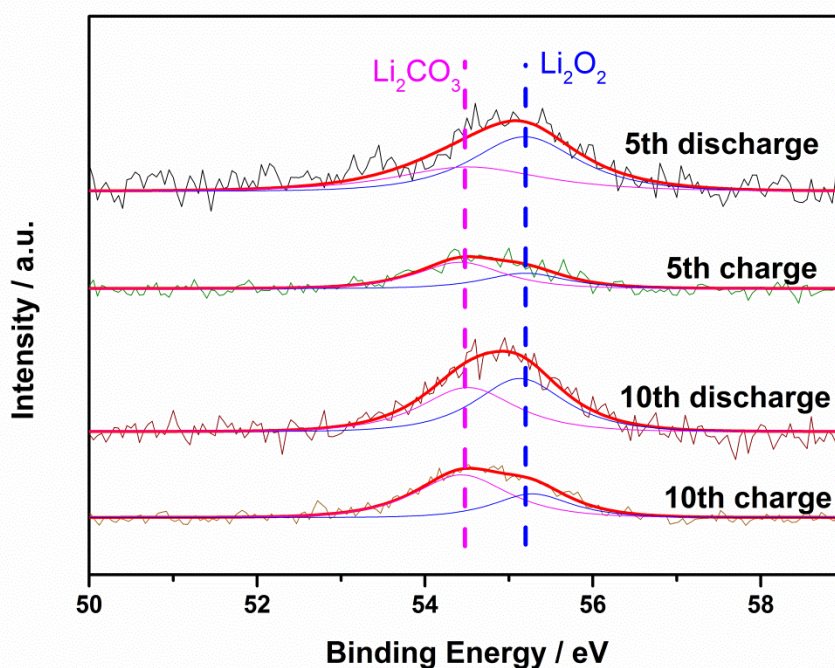
Jiakai Zhang, Pengfa Li, Zhenhua Wang, Jinshuo Qiao, David Rooney, Wang Sun\* and Kening Sun\*



**Fig. S1** SEM images of 3D graphene- $\text{Co}_3\text{O}_4$  with different growing time of  $\text{Co}_3\text{O}_4$  nanosheets (a,b) 3h; (c,d) 9h.

**Table S1** BET and BJH results of graphene-Co<sub>3</sub>O<sub>4</sub> electrodes with different growing time of Co<sub>3</sub>O<sub>4</sub>

Sample	BET surface area (m <sup>2</sup> g <sup>-1</sup> )	Pore volume (cm <sup>3</sup> g <sup>-1</sup> )	BJH average pore size (nm)
0 h	10.49	0.02	3.76
3 h	28.815	0.05	3.38
6 h	72.05	0.12	2.19
9 h	54.29	0.03	3.82



**Fig. S2** Li 1s XPS of the 3D graphene-Co<sub>3</sub>O<sub>4</sub> electrode after discharge-charge processes.