Two-Dimension Porous Conjugated Porphyrin Polymer for Uniform Lithium Deposition

Chunhua Li, Yu Gu, Yingbin Wang, Bing Sun, Hong Shang*

School of Science, China University of Geosciences (Beijing), Beijing 100084, P. R. China

Corresponding Author: shanghong@cugb.edu.cn

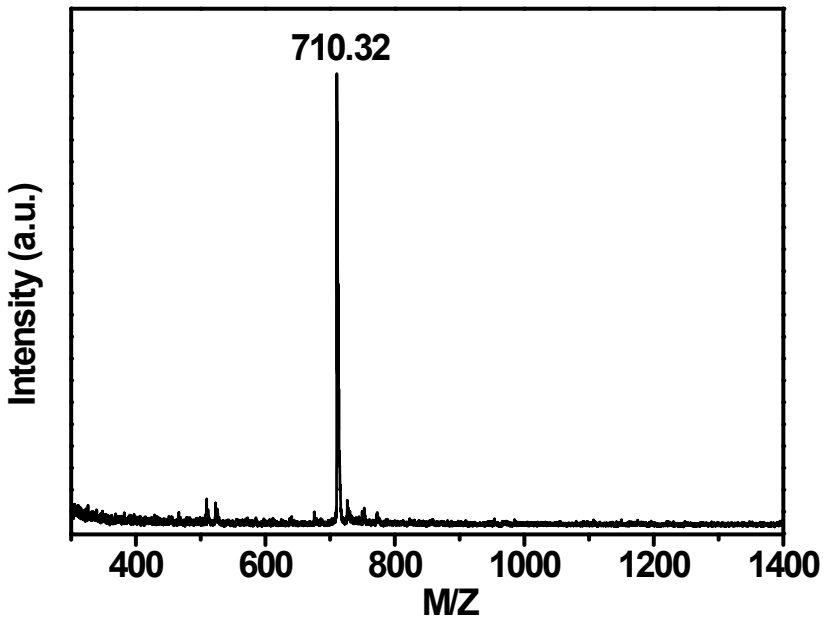

Fig. S1 The mass spectrum of 5,10,15,20-(tetra-4-ethynyphenyl)porphyrin for the coupling reaction.

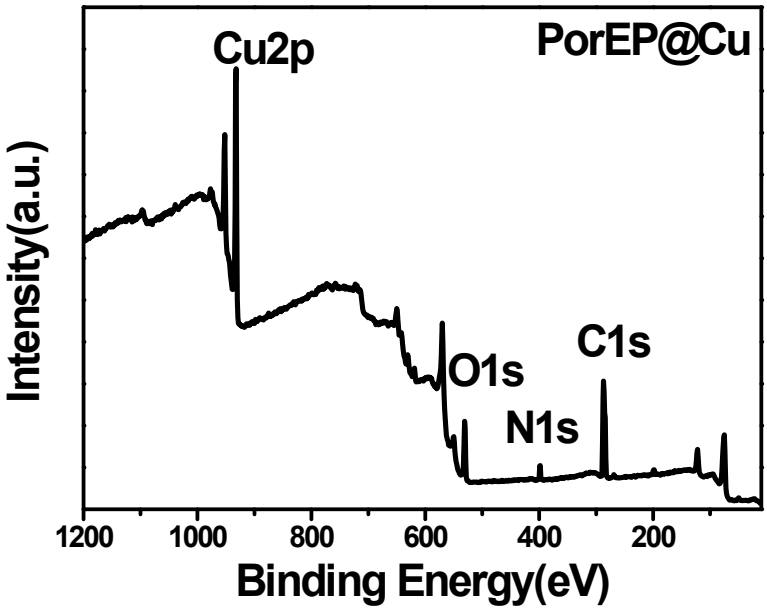

Fig. S2 XPS spectrum of the obtained PorEP@Cu.

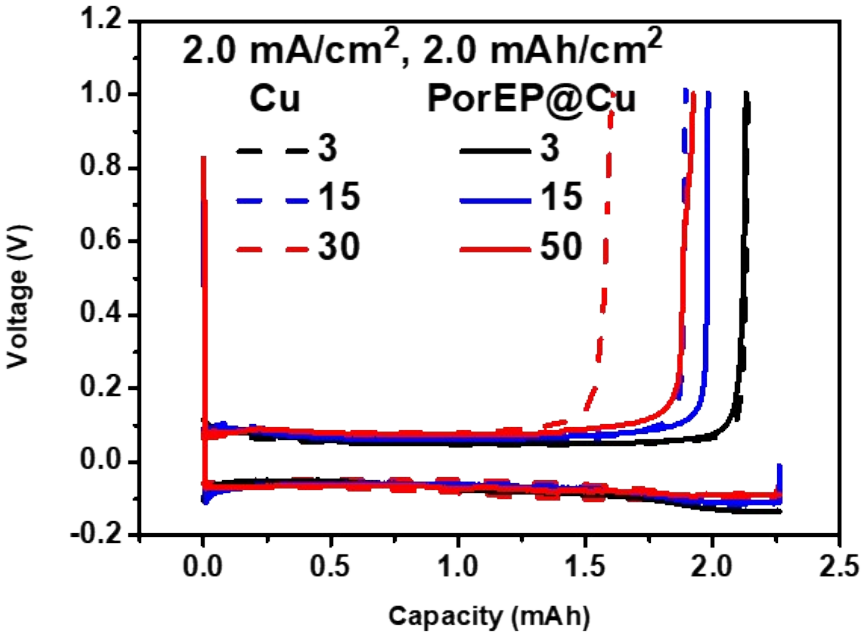

Fig. S3 The charge/discharge voltage profiles at the current density of 2.0 mA/cm^2 with a capacity of 2.0 mAh/cm^2.

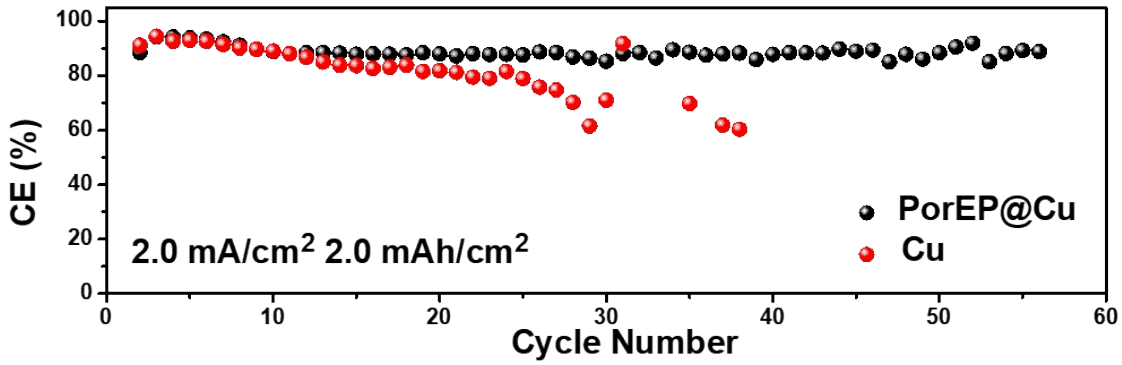

Fig. S4 Cycling performance at the current density of 2.0 mA/cm^2 with a capacity of 2.0 mAh/cm^2.

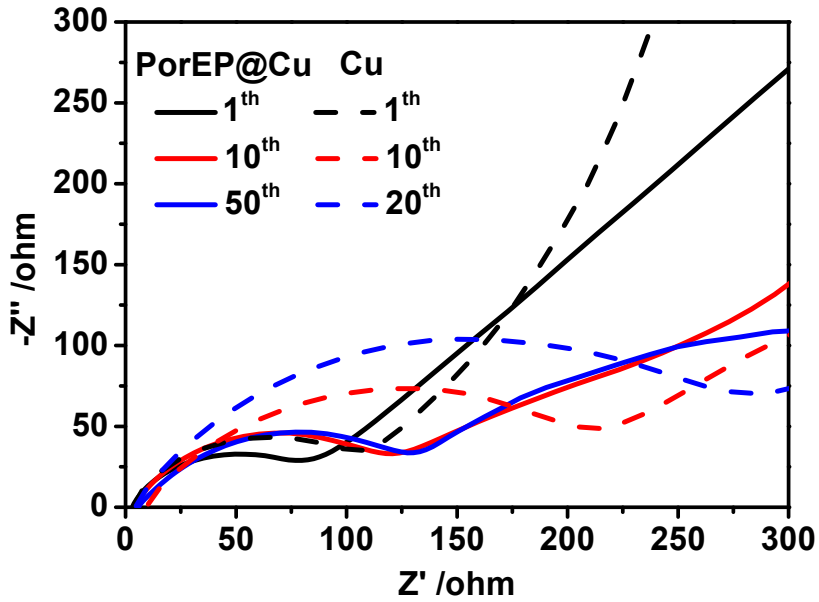

Fig. S5 Impedance variations during cycling at a current density of 1.0 mA/cm^2 with a capacity of 1.0 mAh/cm^2.

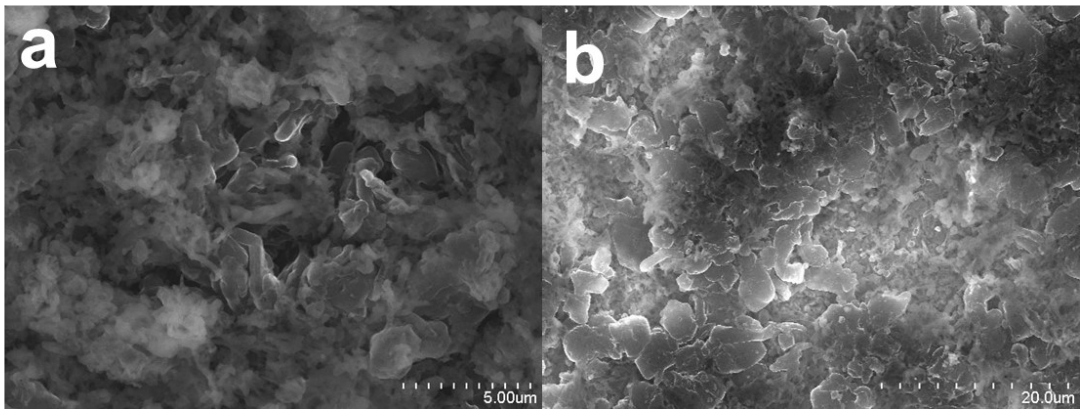

Fig. S6 Characterization of Li morphology on the electrodes ((a) Cu and (b) PorEP@Cu) after continuous plating at a current density of 1.0 mA/cm^2 for 1 hour.