Supporting Information

Zeolitic Imidazolate Framework 67-derived Ce-doped CoP@N-doped Carbon Hollow Polyhedron as High-Performance Anodes for Lithium-Ion Batteries

Yanjun Zhai[1,*], Shuli Zhou[1], Linlin Guo[1], Xiaole Xin[1], Suyuan Zeng[1], Konggang Qu[1], Nana Wang[2], Xianxi Zhang[1,*]

[1] Department of Chemistry and Chemical Engineering, Shandong Key Laboratory of Chemical Energy Storage and Novel Cell Technology, Liaocheng University, Liaocheng, 252059, China;
zhouli1996@126.com (S.Z.); 15506436037@163.com (L.G.); xxl15865517198@163.com (X.X.);drzengsy@163.com (S.Z.); qukonggang@lcu.edu.cn (K.Q.)
[2] Institute for Superconducting and Electronic Materials, University of Wollongong Innovation Campus, Wollongong New South Wales, 2500, Australia;
nanaw@uow.edu.au
* Correspondence: zhaiyanjun@lcu.edu.cn (Y.Z.); xxzhang3@126.com (X.Z.)

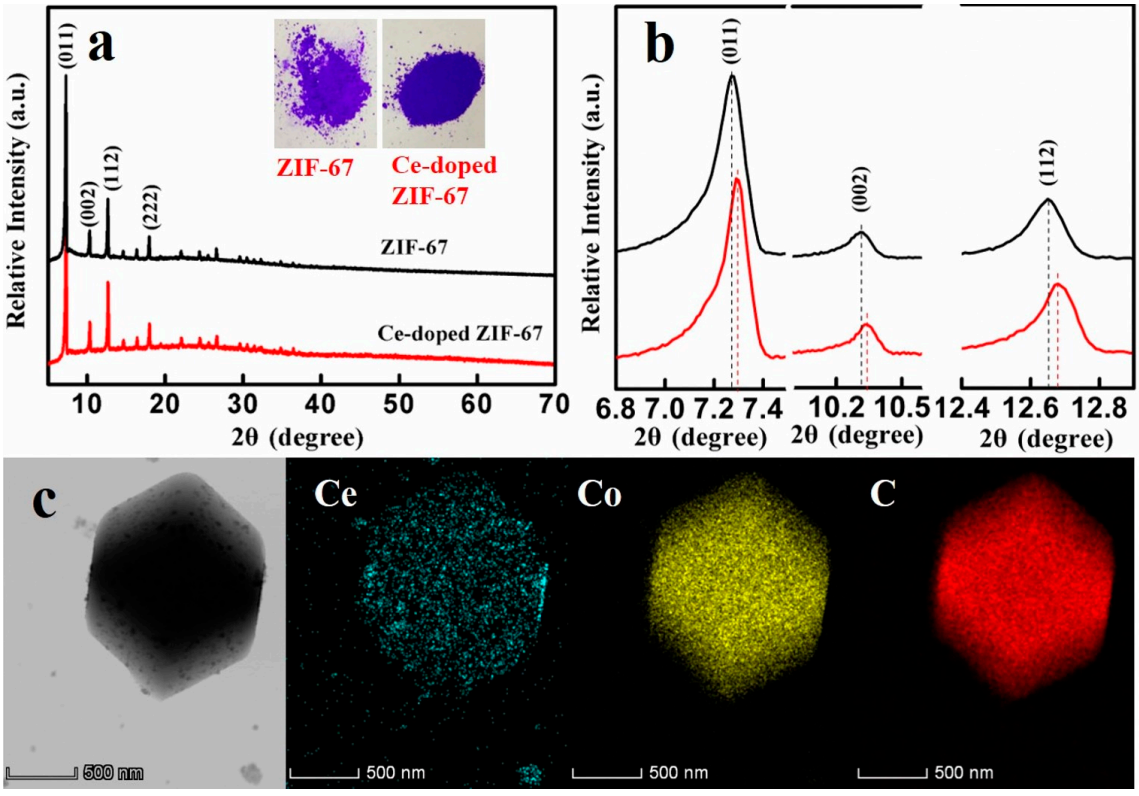

Figure S1. (a) XRD patterns of ZIF-67 and Ce-doped ZIF-67. (b) the magnified region of 2θ = 16.7–18.0° showing a peak shift. (c) EDX elemental mapping images of Ce, Co and C for Ce-doped ZIF-67.

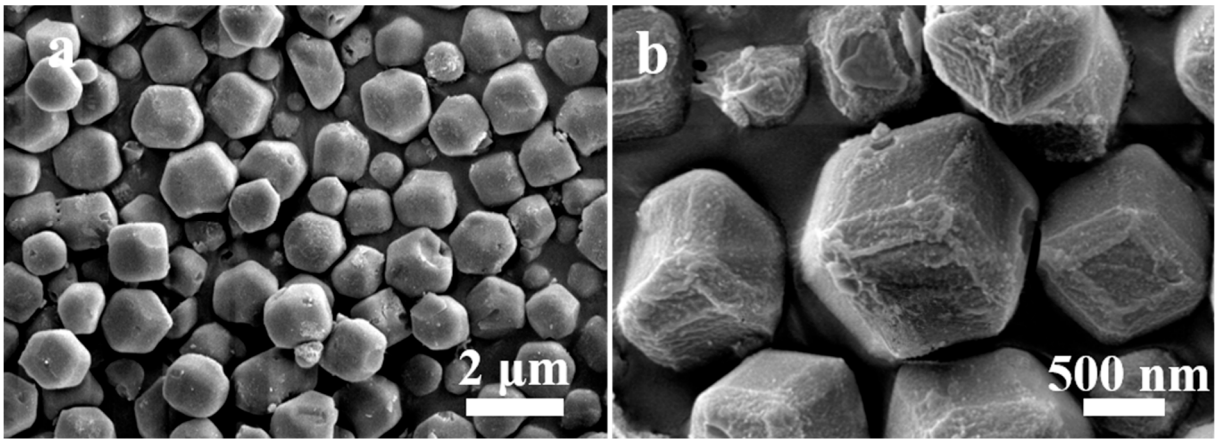

Figure S2. SEM images of Ce-doped ZIF-67.

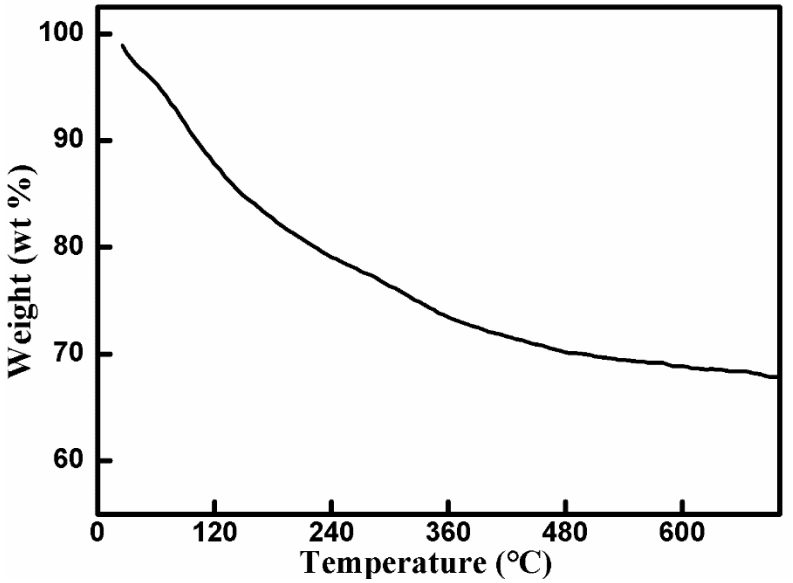

Figure S3. The TGA curves of Ce-doped ZIF-67.

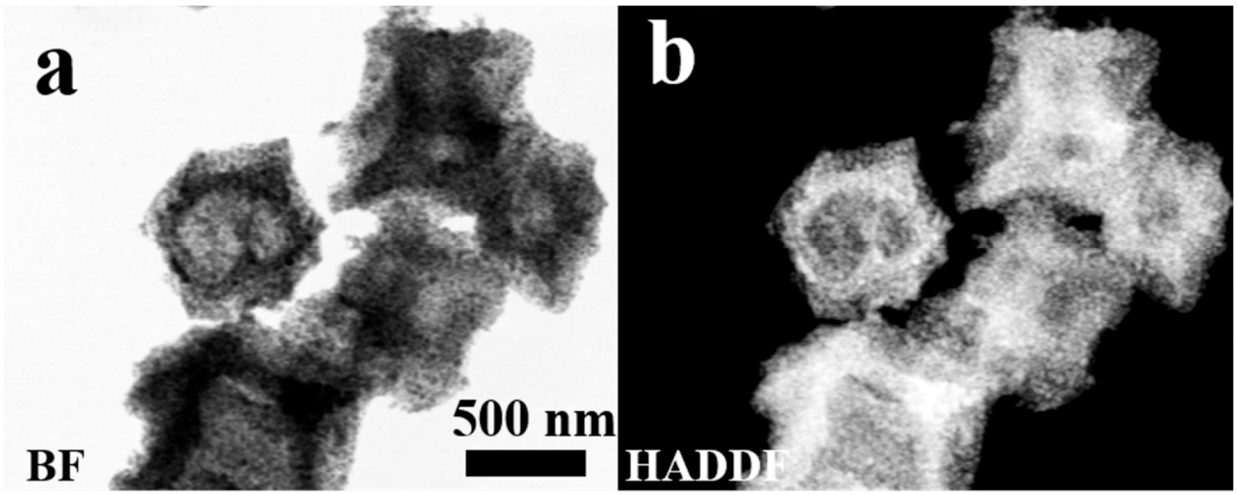

Figure S4. (a) TEM bright field (BF) image, (b) HAADF-STEM image of Ce-doped Co/CN.

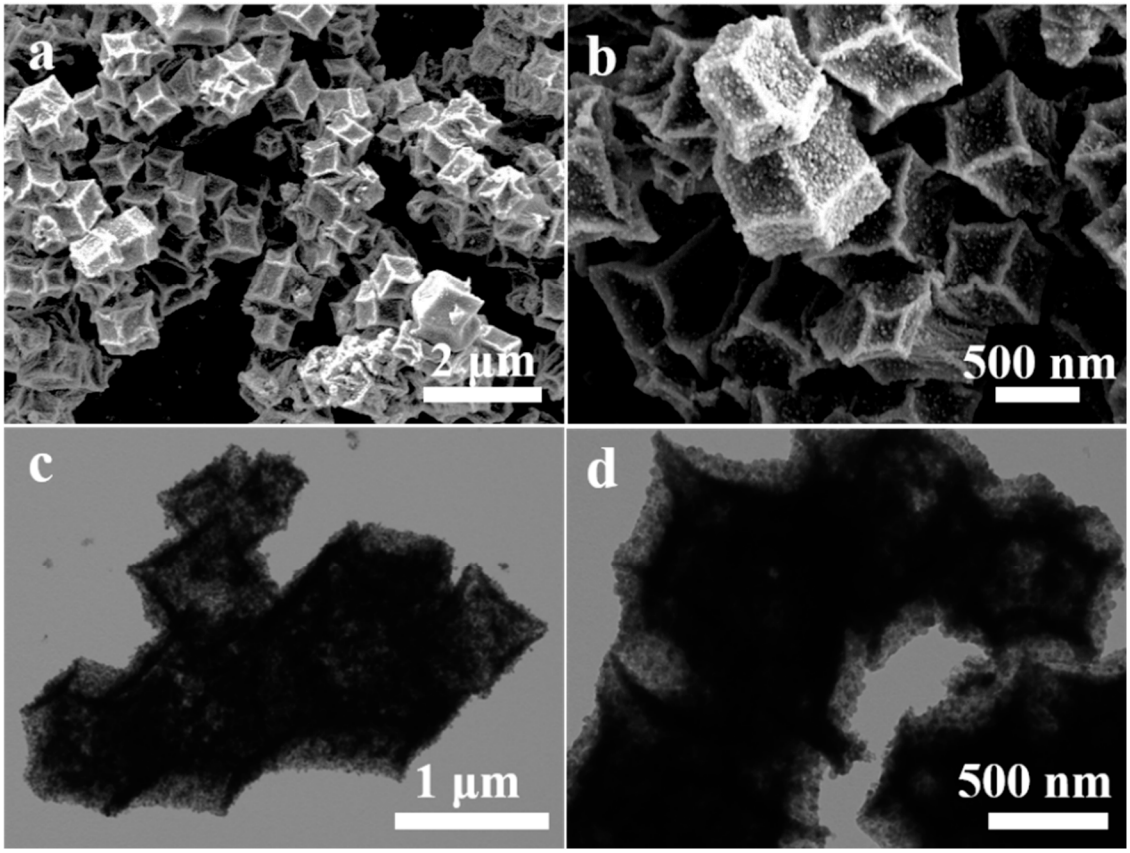

Figure S5. (a, b) SEM images and (c, d) TEM images of CoP.

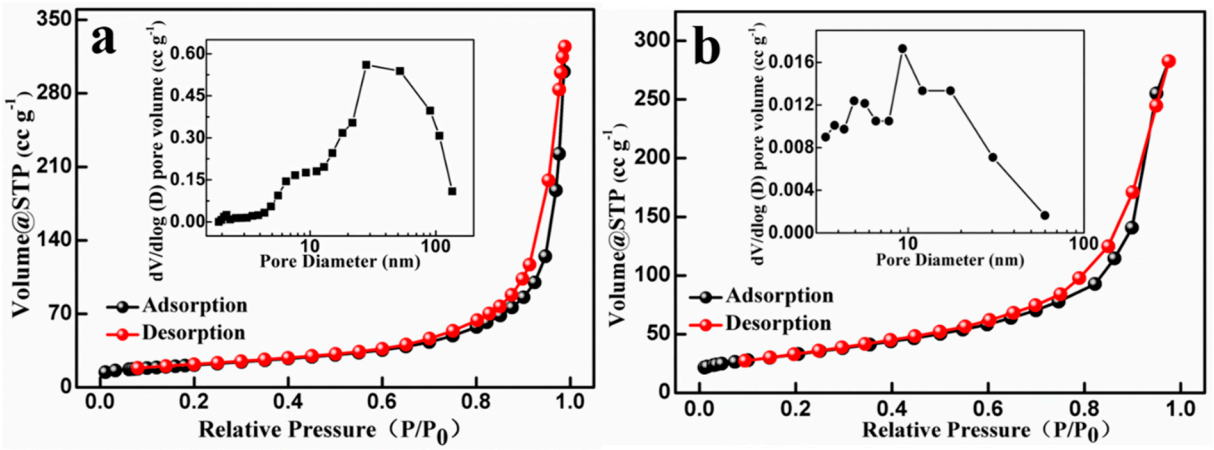

Figure S6. N_2 adsorption/desorption isotherm and the corresponding pore size distributions (inset) of (a) CoP/NC and (b) Ce-doped CoP/NC.

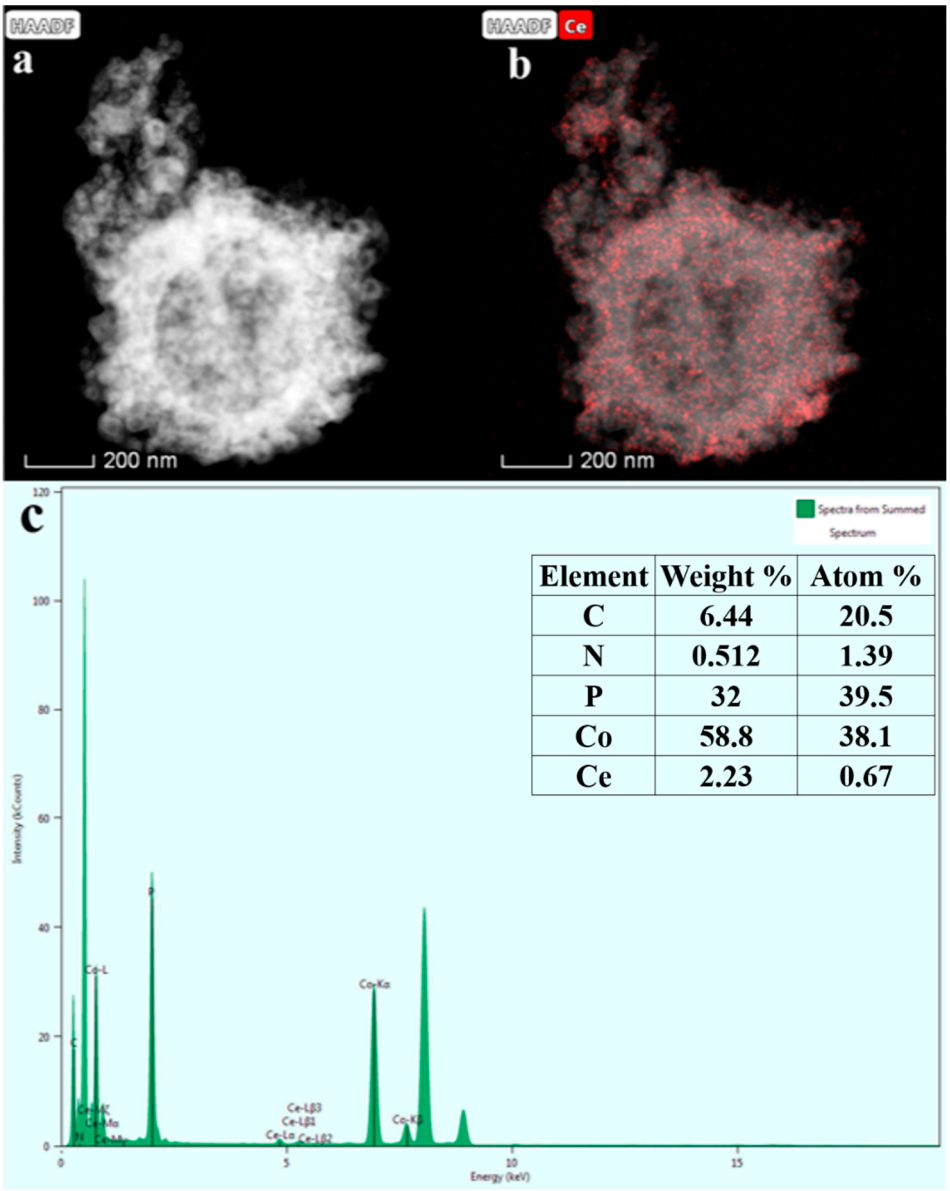

Figure S7. (a, b) HAADF-STEM images and (b) EDX of Ce-doped CoP/NC.

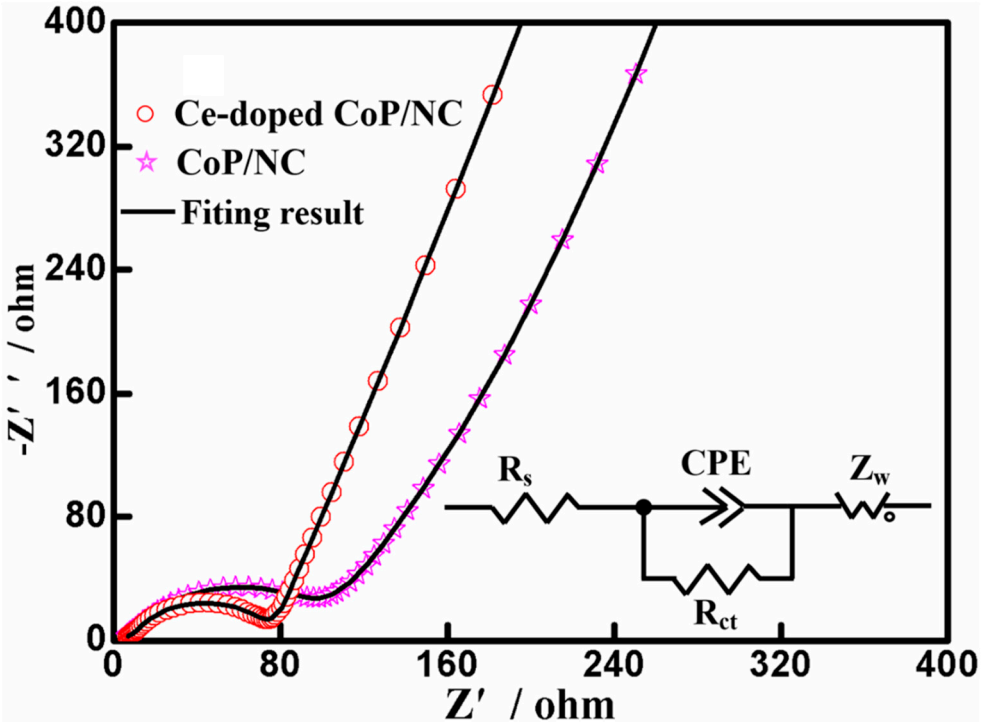

Figure S8. Nyquist plot and equivalent circuit model of Ce-doped CoP@NC and pure CoP@NC electrodes.