"Supplementary Information" for:

Efficient Fe-N_x/C Electrocatalyst for Oxygen Reduction Reaction Derived from Porphyrin-Encapsulated Zeolitic Imidazolate Frameworks

Jungwon Park, ^{a†}, Byung Hoon Kim,^{c†} Miyeon Kim^a, Junyoung Mun,^{ab} Chang Yeon Lee^{*ab}

^a Department of Energy and Chemical Engineering, Incheon National University, Incheon 22012, Republic of Korea. Email: cylee@inu.ac.kr

^b Innovation Center for Chemical Engineering, Incheon National University, Incheon 22012,
Republic of Korea

^c Department of Physics and Research Institute of Basic Science, Incheon National University,

12-1, Songdo-dong, Yeonsu-gu, Incheon, 22012, Republic of Korea

[†]These authors contributed equally to this work.

Corresponding authors: cylee@inu.ac.kr (C. Y. L); Fax: +82-32-835-0797.



Fig. S1. Photograph images of FePor©Z8 and FePor@Z8.



Fig. S2. FT-IR of ZIF-8, Fe-TCPP, and Fe-por@Z8. A dashed line is used to show the peaks derived from Fe-TCPP well.



Fig. S3. Raman spectra of FePor@Z8-py, C+FePor@Z8-py, and C+FePor@Z8-py.



Fig. S4. Pore-size distribution of precursors and electrocatalysts.



Fig. S5. (a) C 1s high-resolution XPS spectra (b) Fe 2p high-resolution XPS spectra. (c) N 1s high-resolution XPS spectra



Fig. S6. CV curves of C+FePor@©Z8-py in N_2 - and O_2 -saturated 0.1M aqueous KOH electrolyte solutions at a scan rate of 50 mV/s.