SUPPORTING INFORMATION

Improvement of assessing direct and facilitated ion transfers by electrochemically induced redox transformations of common molecular probes

Min Zhou, a Shiyu Gan, a,b Lijie Zhong, a Xiandui Dong, a Jens Ulstrup, b Dongxue Han, a,* and Li Niu a,b,*

a Engineering Laboratory for Modern Analytical Techniques, c/o State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry and Graduate University of the Chinese Academy of Sciences, Chinese Academy of Sciences, Changchun 130022, P. R. China

b Department of Chemistry and NanoDTU, Technical University of Denmark, DK-2800 Kgs, Lyngby, Denmark

E-mail: lniu@ciac.jl.cn, dxhan@ciac.jl.cn or lniu@kemi.dtu.dk (L. Niu).
Fig. S1 A special design used for the measurement of ion transfer.

Fig. S2 20 consecutive cycling of CV at a constant sweep rate (0.5 V s⁻¹) using Fc (A) and DMFc (B) as the redox probes and 0.1 M NaCl in Cell (1).
Fig. S3 (A) 20 consecutive cycling of CV at a constant sweep rate (0.5 V s\(^{-1}\)) based on Cell (2) when the aqueous solution contained 0.1 M KCl. (B) CVs measured at a constant sweep rate (0.5 V s\(^{-1}\)) on increasing the concentration of KCl based on Cell (2). Insets are the corresponding plots of the half-wave potentials of two reductions versus the concentrations of KCl.

Fig. S4 Schematic view of direct transfer of K\(^+\) accompanied by reductions of TCNQ.