

## SUPPORTING INFORMATION

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

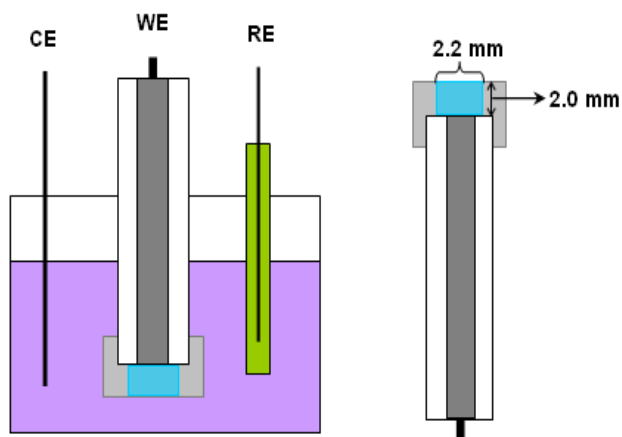
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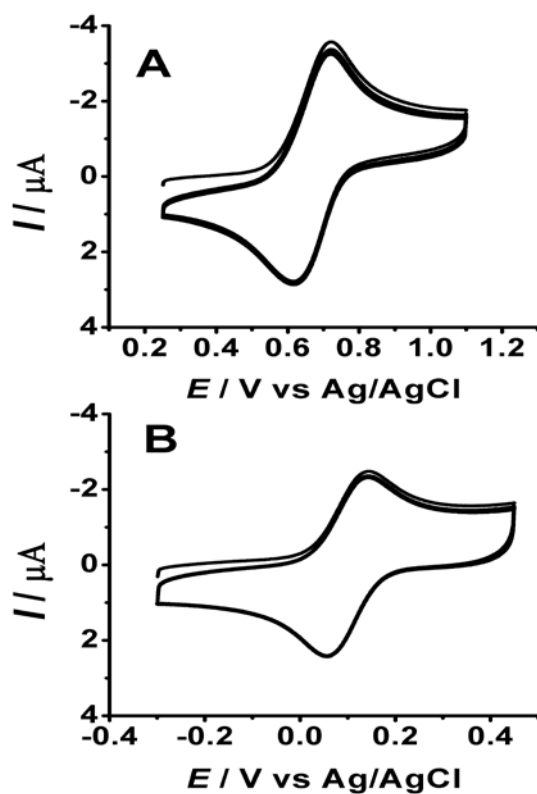
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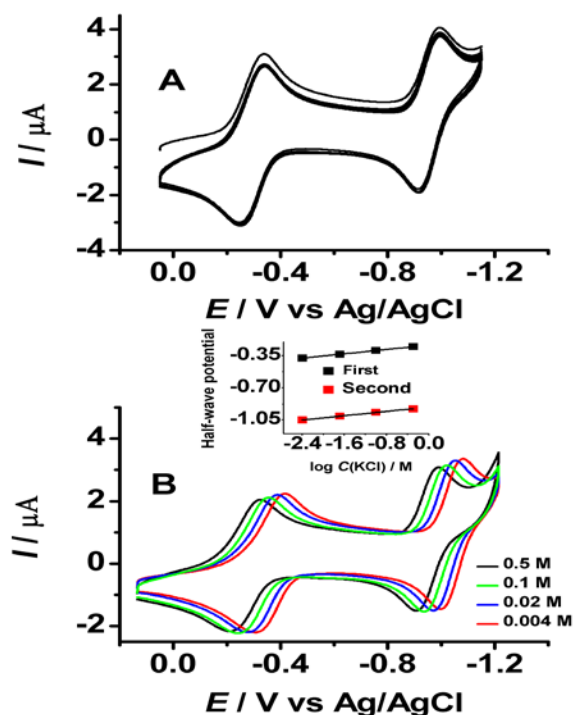
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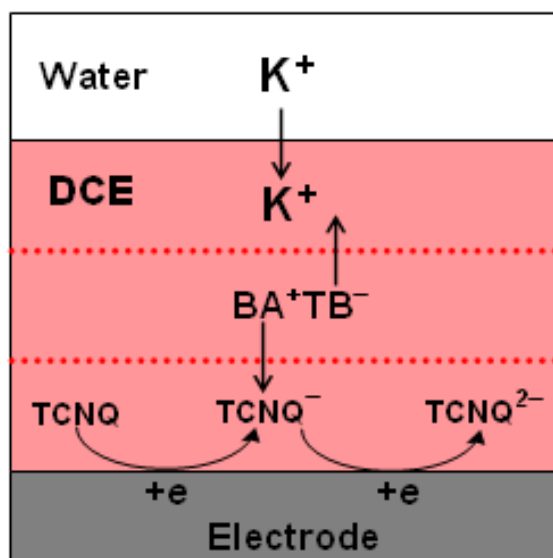
**Fig. S1** A special design used for the measurement of ion transfer.



**Fig. S2** 20 consecutive cycling of CV at a constant sweep rate ( $0.5 \text{ V s}^{-1}$ ) 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 ( $0.5 \text{ V s}^{-1}$ ) based on Cell (2) when the aqueous solution contained  $0.1 \text{ M KCl}$ . (B) CVs measured at a constant sweep rate ( $0.5 \text{ V s}^{-1}$ ) 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  $\text{K}^+$  accompanied by reductions of TCNQ.