Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

A quaternized anthraquinone derivative for pH-neutral aqueous organic redox flow batteries

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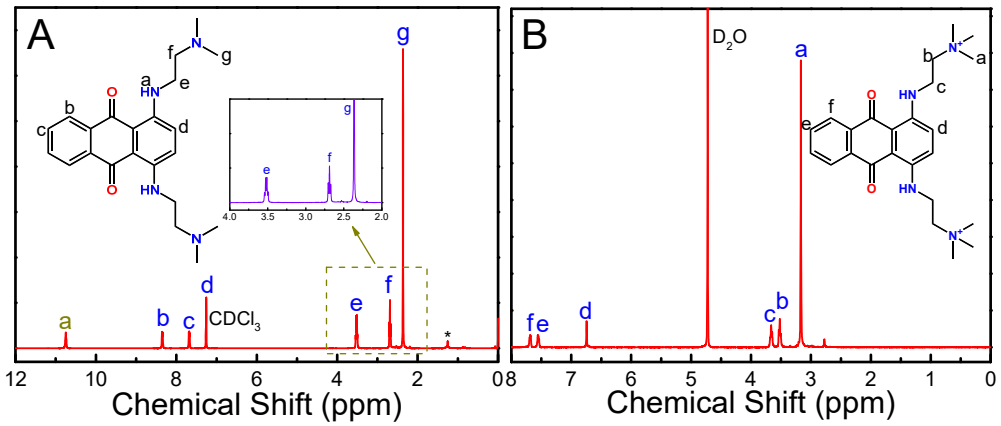
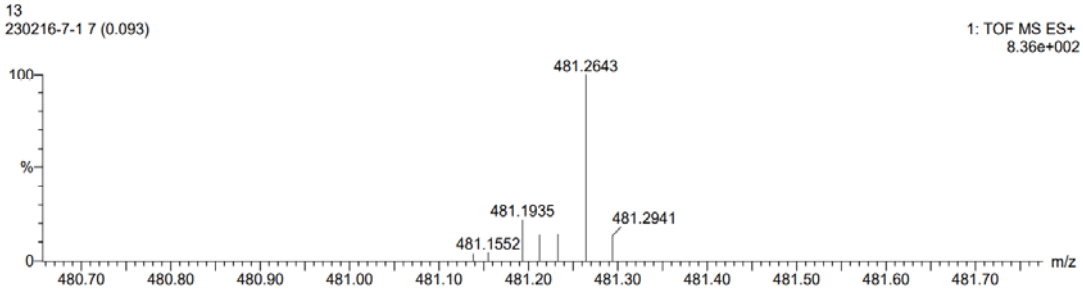


Fig. S1 (A)^{1}H NMR spectrum of BDEAQ. (B)^{1}H NMR spectrum of $BDEAQI_2$.

Elemental Composition Report **Page 1**

Single Mass Analysis
Tolerance = 20.0 PPM / DBE: min = -1.5, max = 50.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 3

Monoisotopic Mass, Even Electron Ions
1558 formula(e) evaluated with 1 results within limits (up to 50 closest results for each mass)
Elements Used:
C: 24-24 H: 35-35 N: 0-10 O: 0-41 Na: 0-3 Cl: 1-2
13
230216-7-1 7 (0.093)



Minimum:				-1.5				
Maximum:		5.0	20.0	50.0				
Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
481.2126	481.2137	-1.1	-2.3	8.5	51.8	n/a	n/a	C24 H35 N4 O2 Cl2

Fig. S2 MS spectrum of $BDEAQCl_2$ in the form of positive ions.

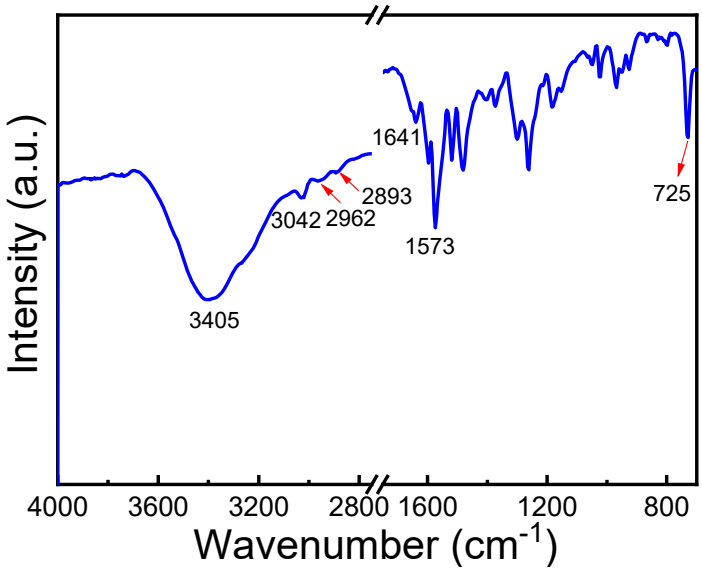


Fig. S3 FTIR spectrum of $BDEAQCl_2$.

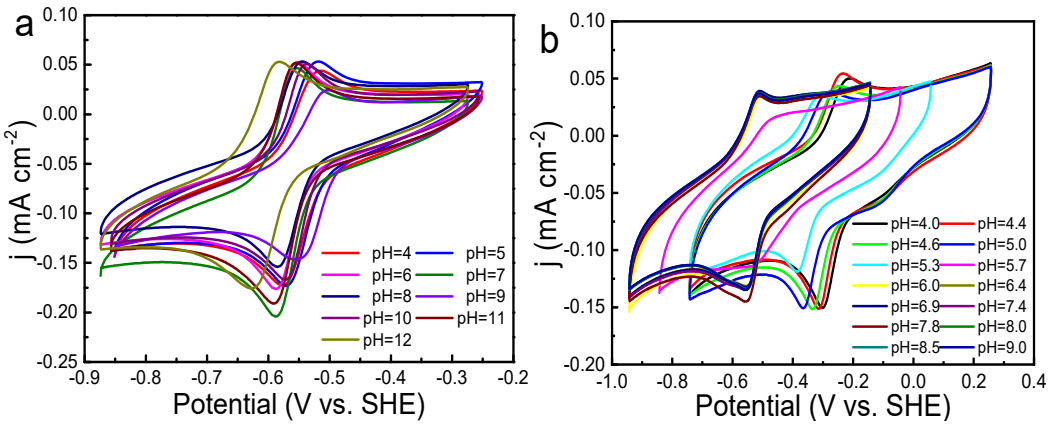


Fig. S4 CVs of 1 mM $BDEAQCl_2$ on a glassy carbon electrode in unbuffered (a) and buffered (b) 1 M NaCl solutions with different pH. The pH buffer is a 0.1 M acetic acid/sodium acetate solution containing 1 M NaCl.