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

Evaluation and Degradation Mechanism of Phthalimide Derivatives as Anolyte for Non-Aqueous Organic Static Battery

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Supplementary Information

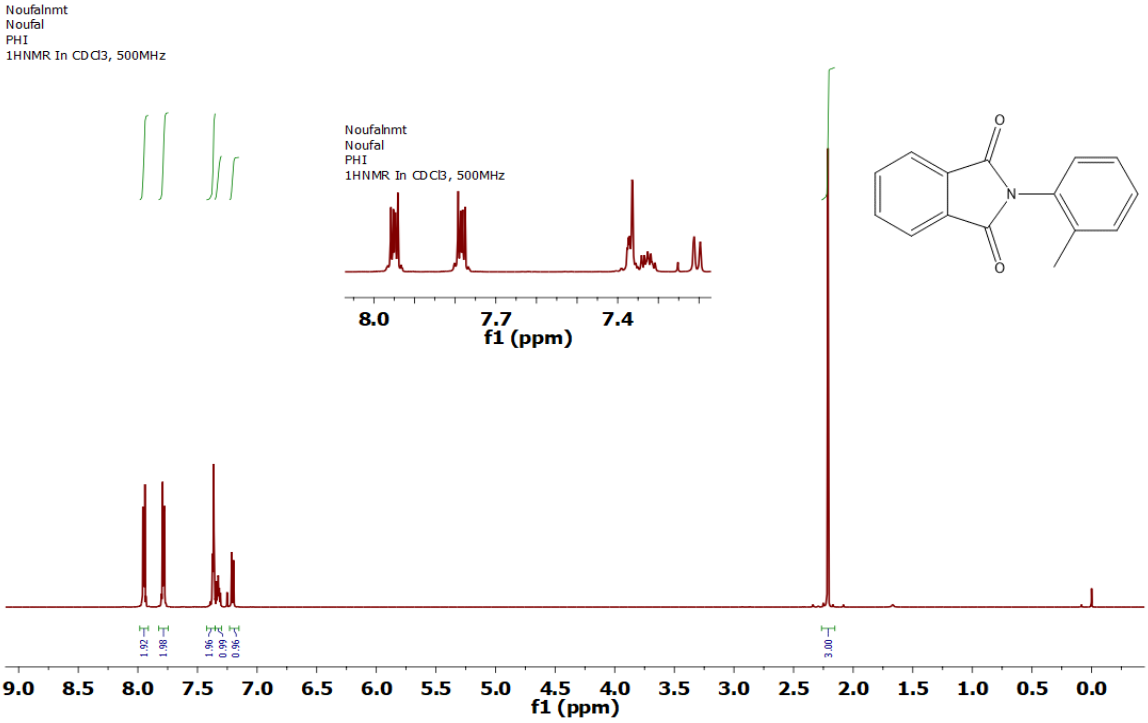

Figure S1. 1H NMR of 2-methylphthalimide derivative

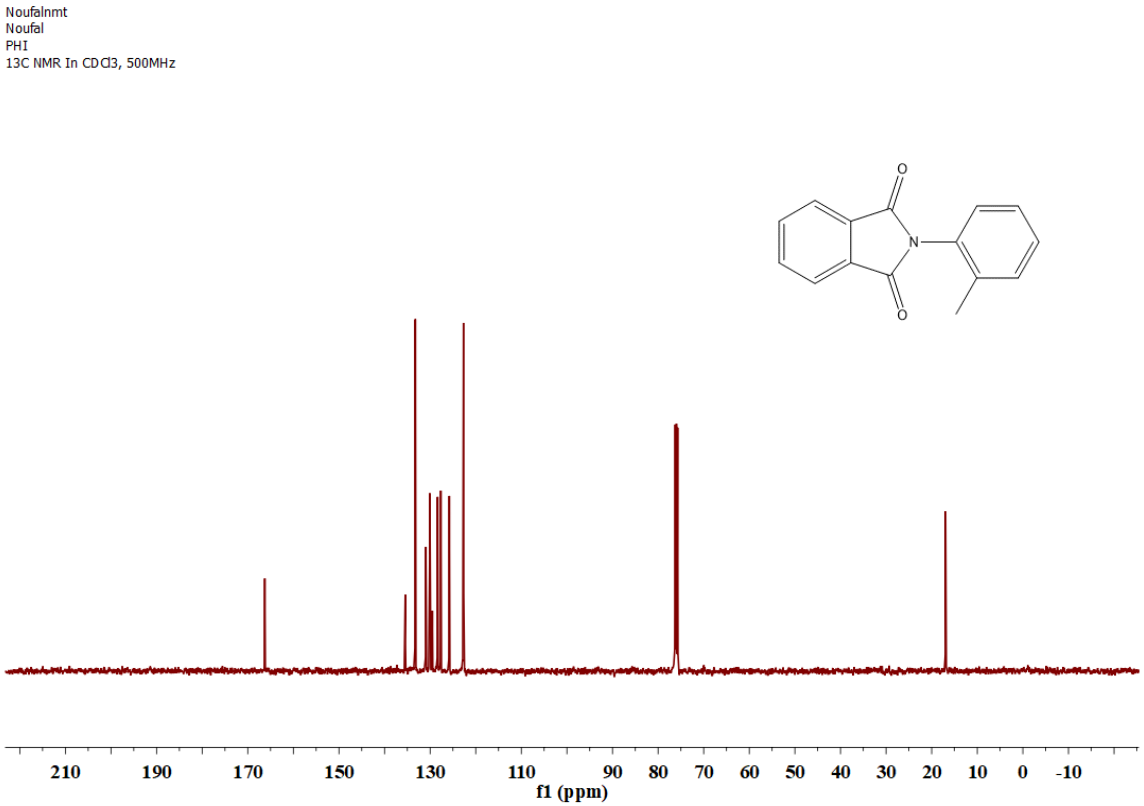

Figure S2. 13C NMR of 2-methylphthalimide derivative

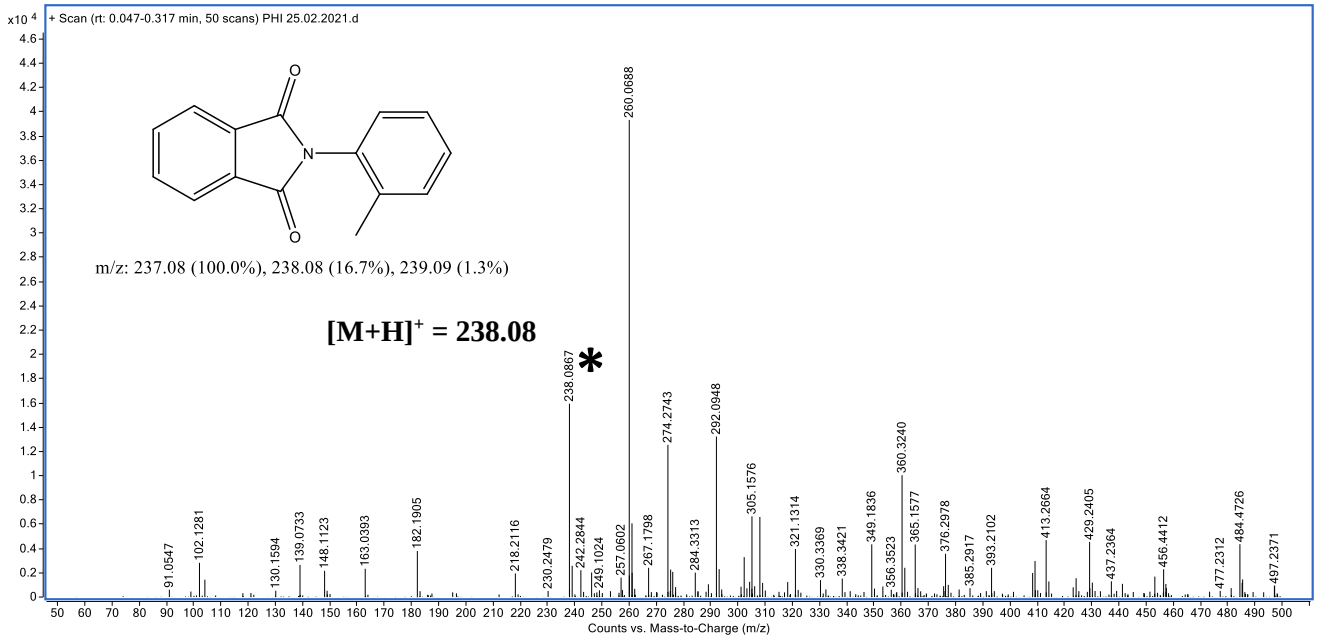

Figure S3. LCMS-ESI of 2-methylphthalimide derivative

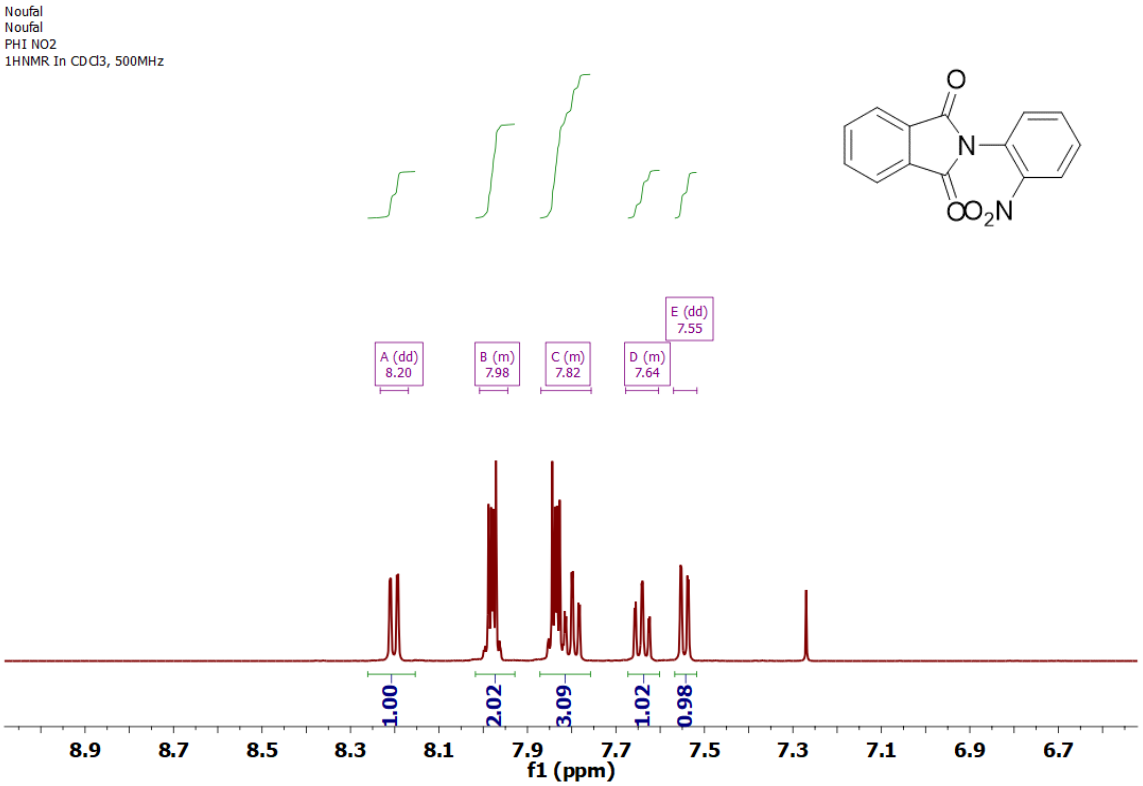

Figure S4. 1H NMR of 2-nitrohthalimide derivative

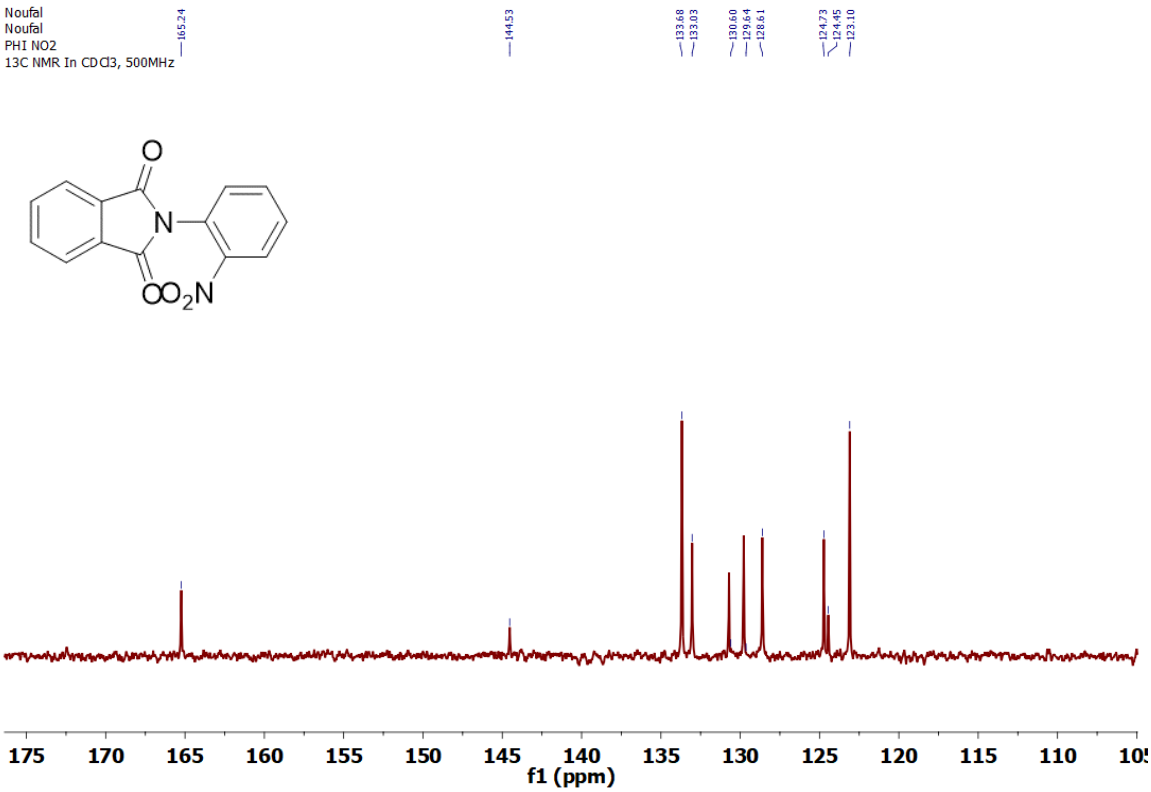

Figure S5. 13C NMR of 2-nitrohthalimide derivative

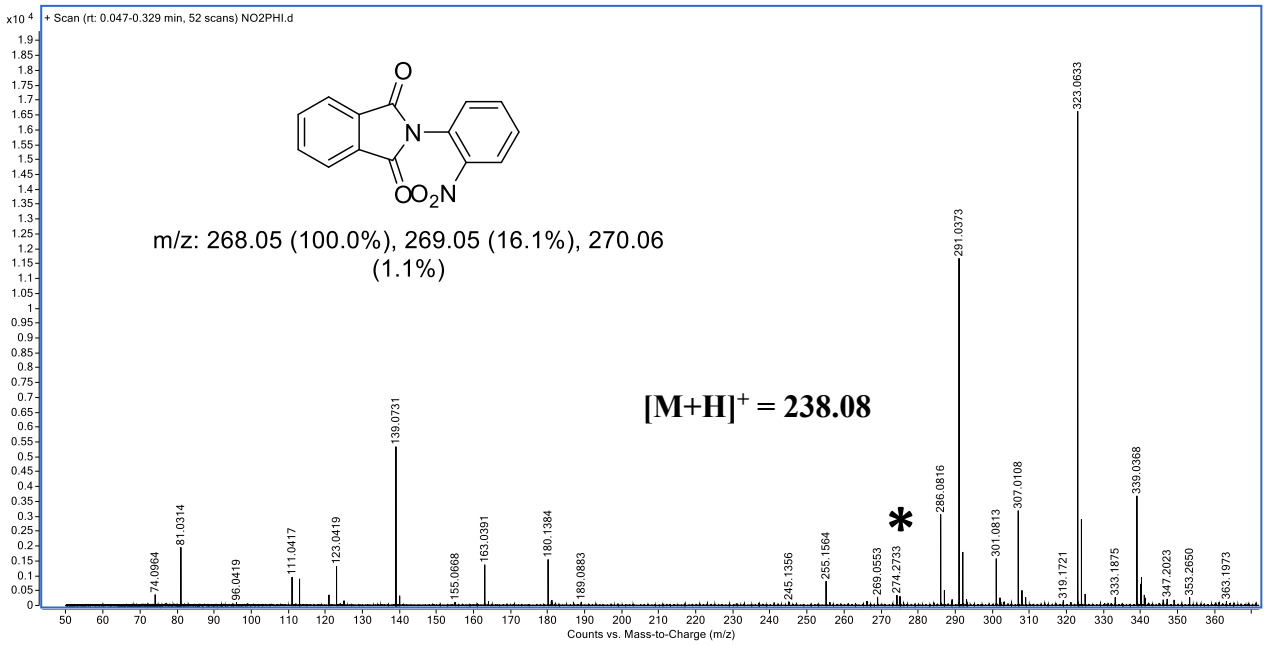

Figure S6. LCMS-ESI of 2-nitrpohthalimide derivative

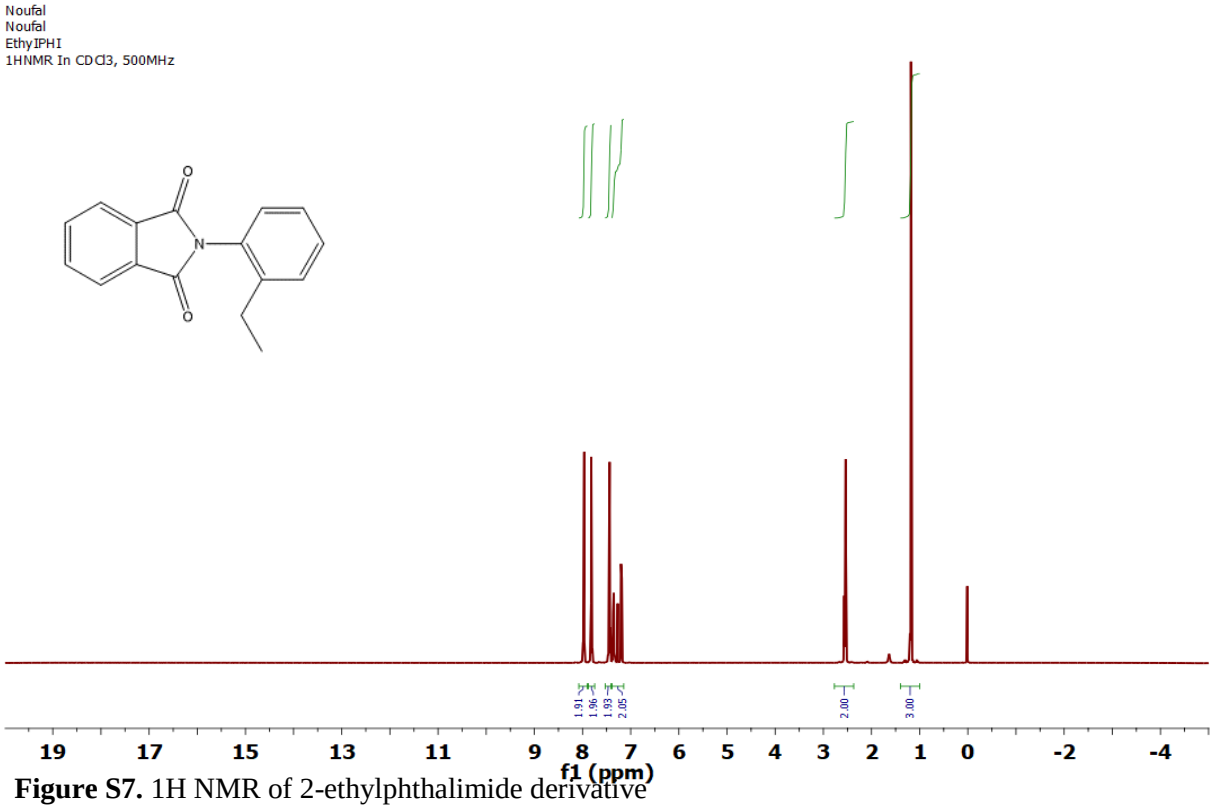

Figure S7. 1H NMR of 2-ethylphthalimide derivative

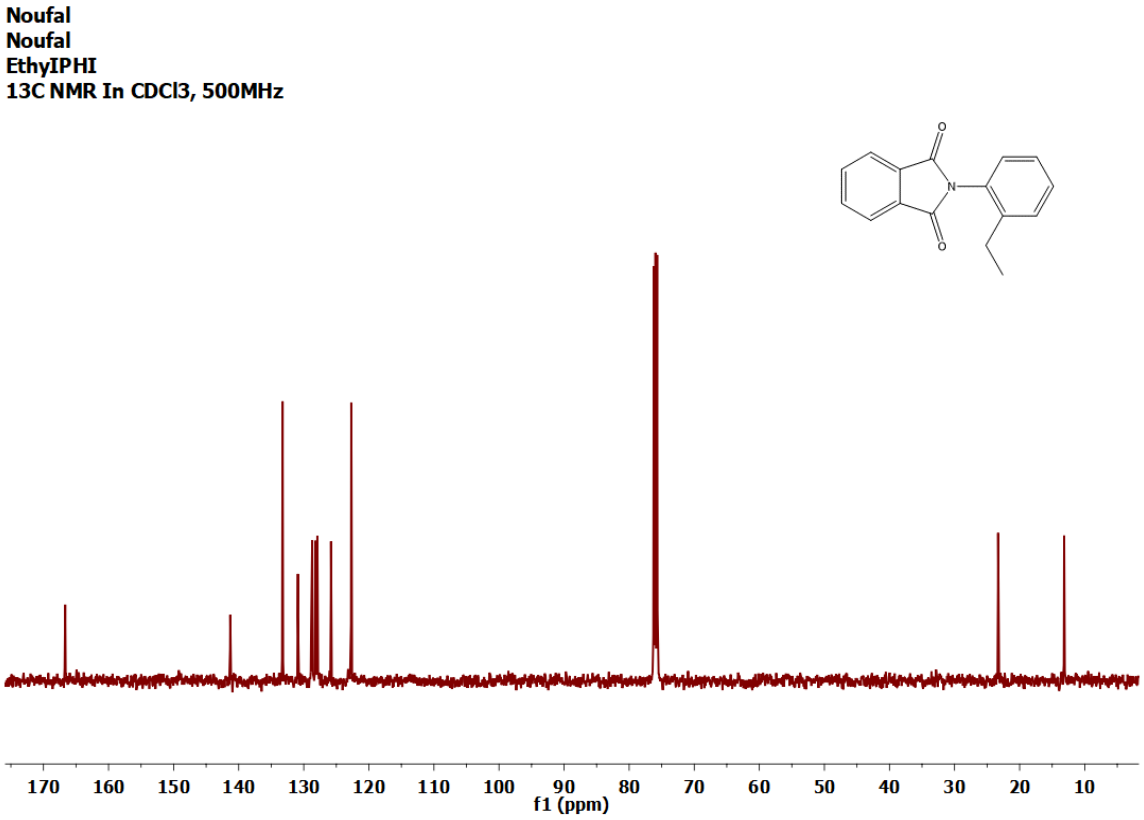

Figure S8. 13C NMR of 2-ethylphthalimide derivative

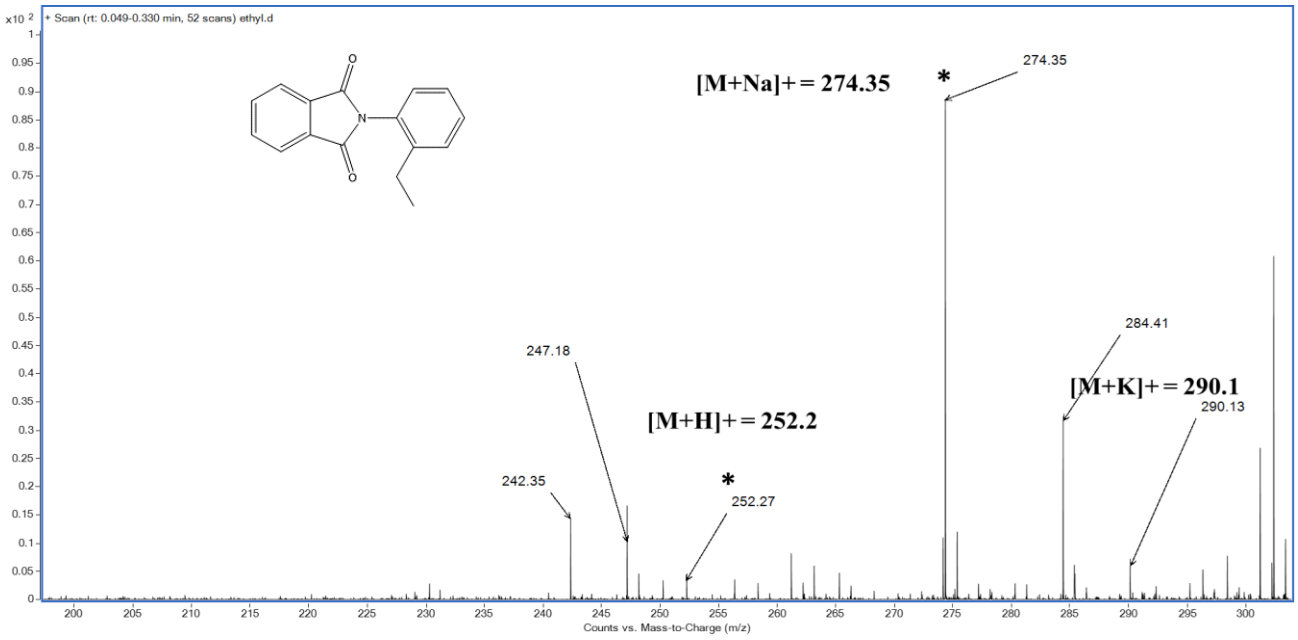

Figure S9. LCMS-ESI mass spectrum2-Ethylphhalimide

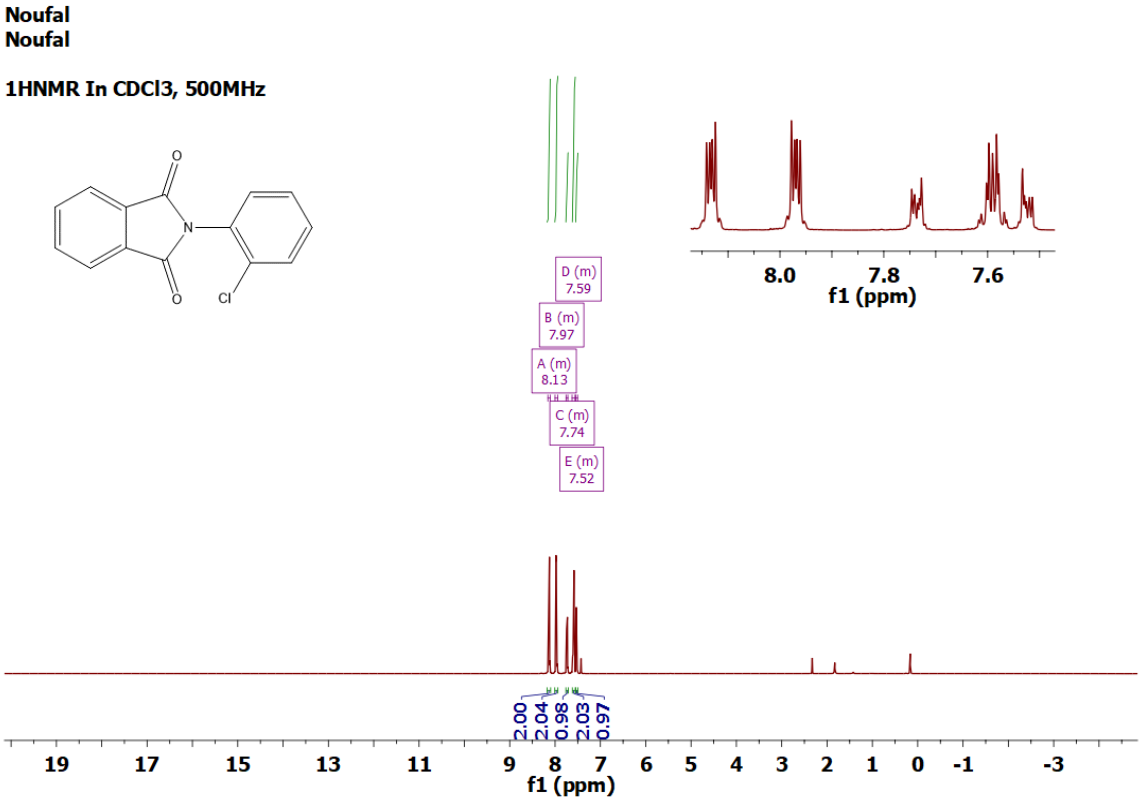

Figure S10. 1H NMR of 2-chlorolphthalimide derivative

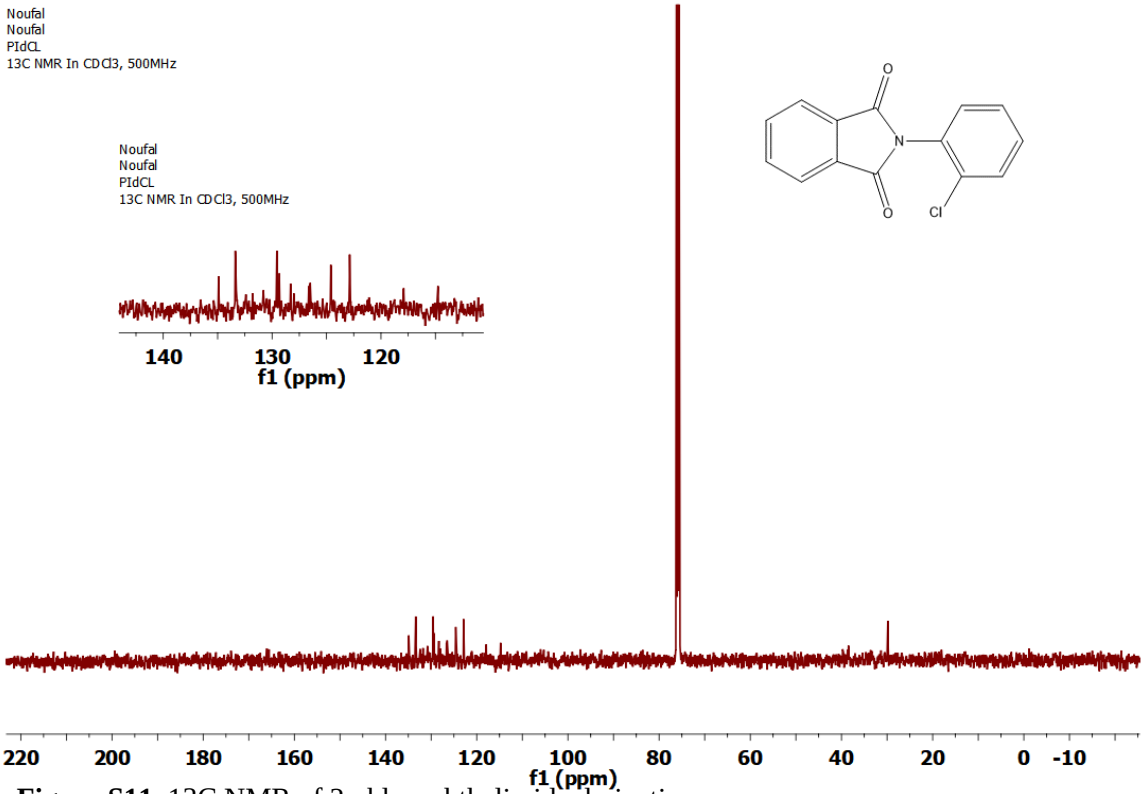

Figure S11. 13C NMR of 2-chlorophthalimide derivative

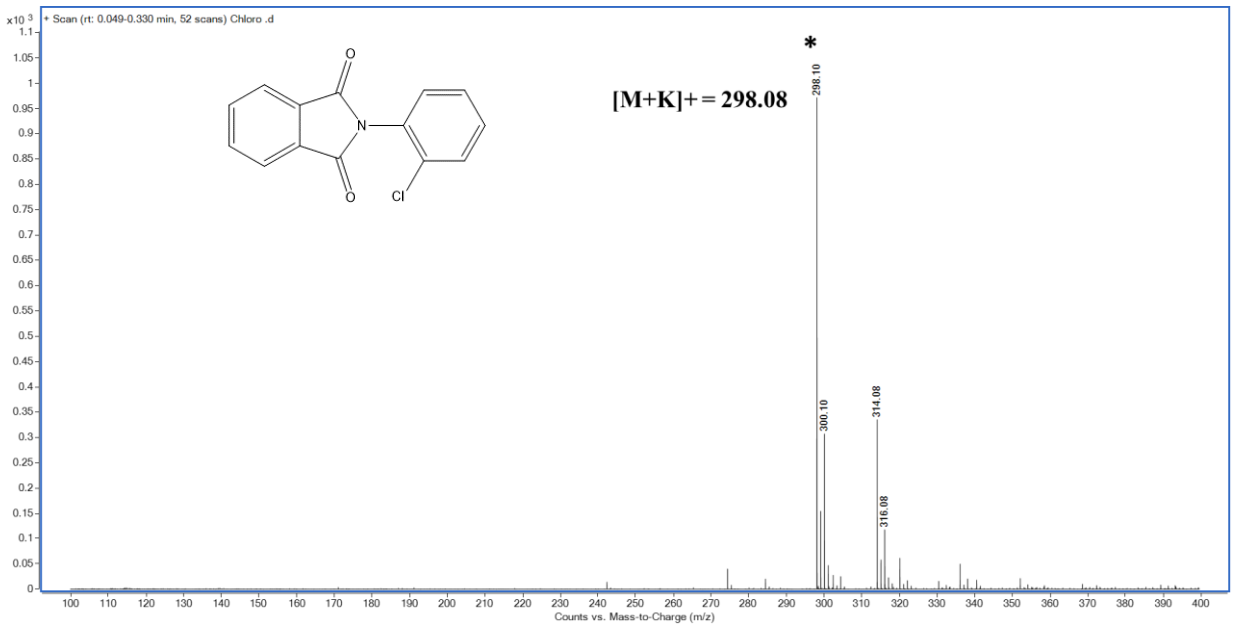

Figure S12. LCMS-ESI 2-chlorophthalimide derivative

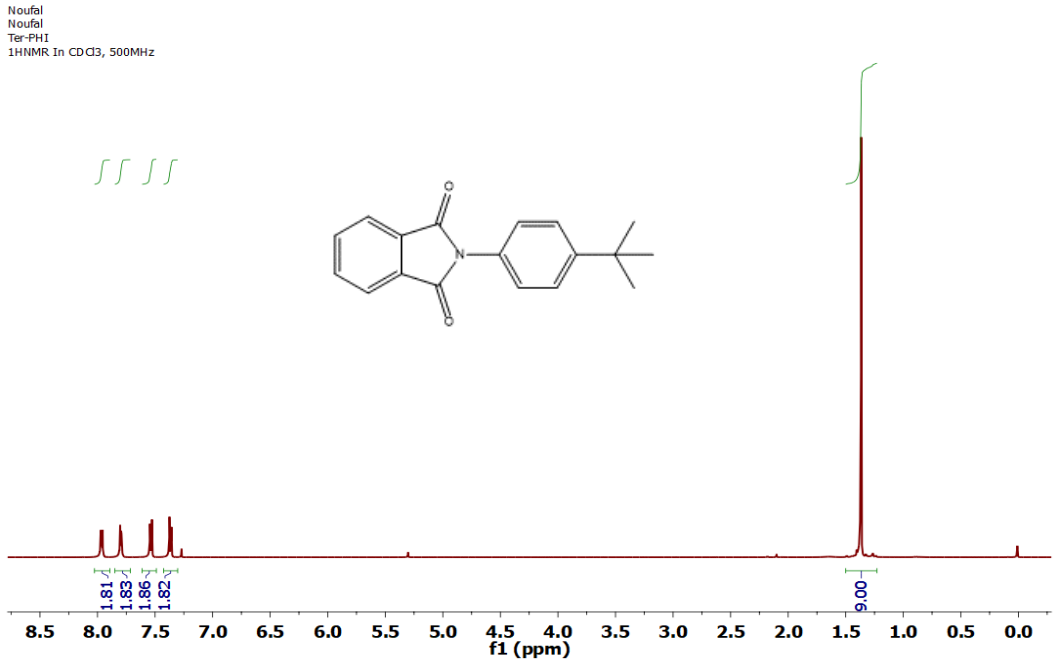

Figure S13. 1H NMR of 4-Tertiarybutylphthalimide derivative

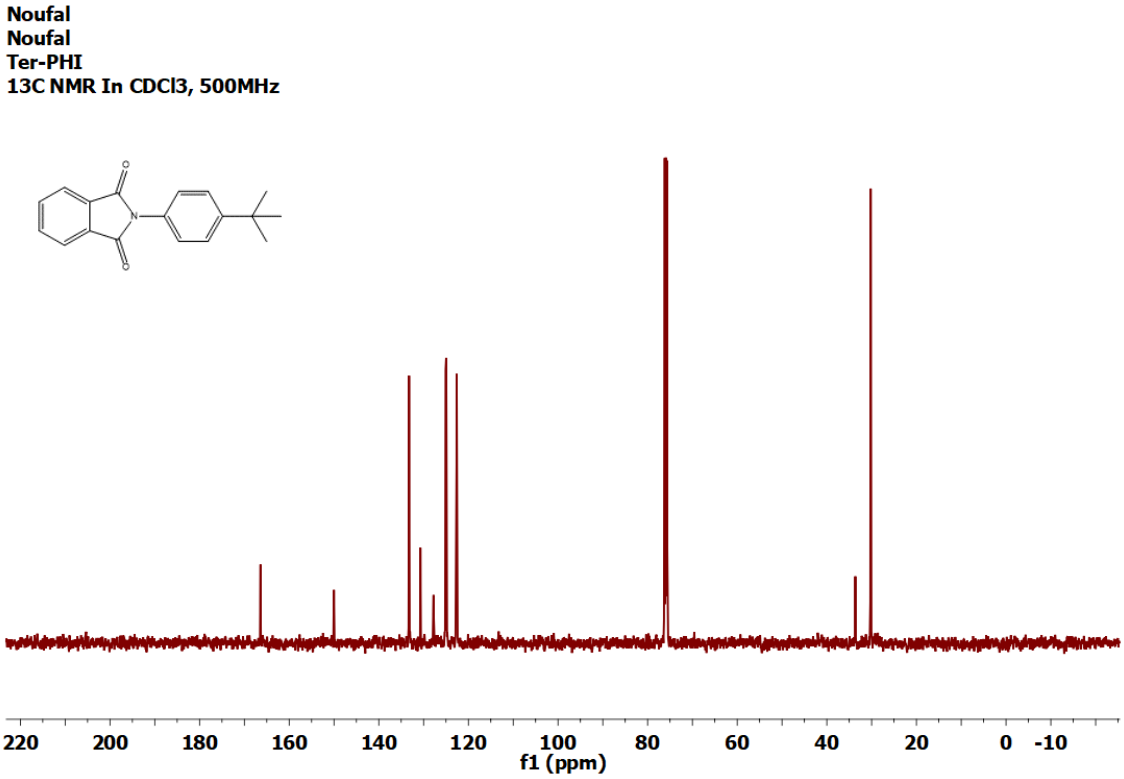

Figure S14. 13C NMR of 4-Tertiarybutylphthalimide derivative

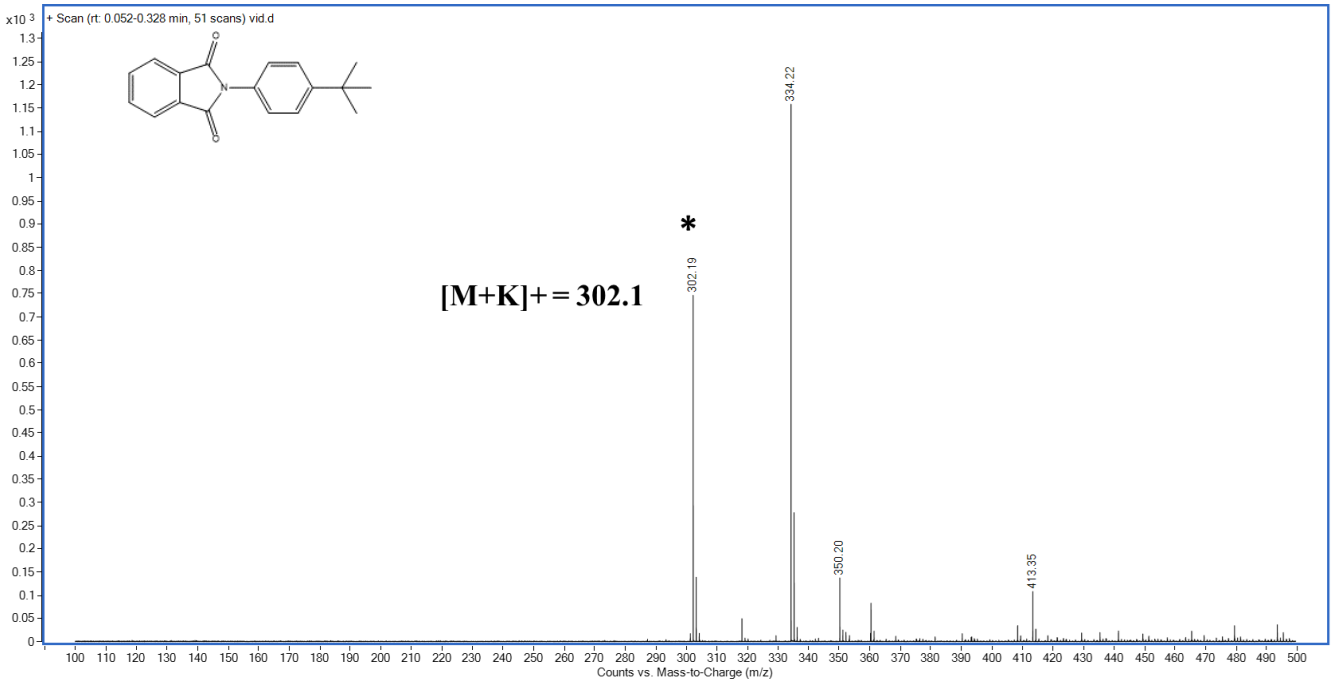

Figure S15. LCMS-ESI of 4-Tertiarybutylphthalimide derivative

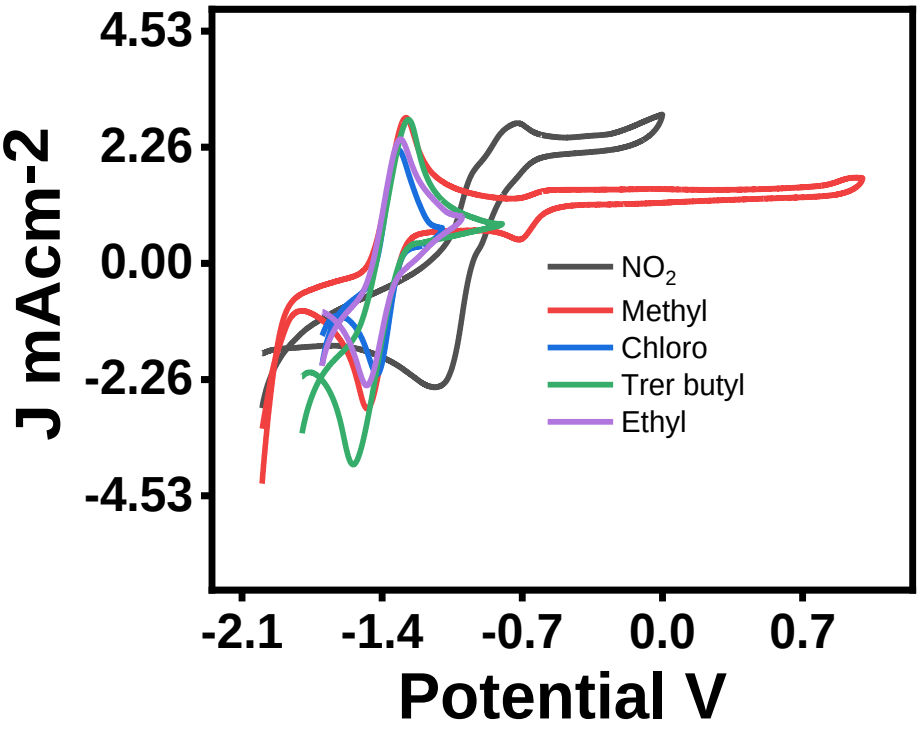

Figure S16. Voltammogram overlay of the synthesized derivatives.

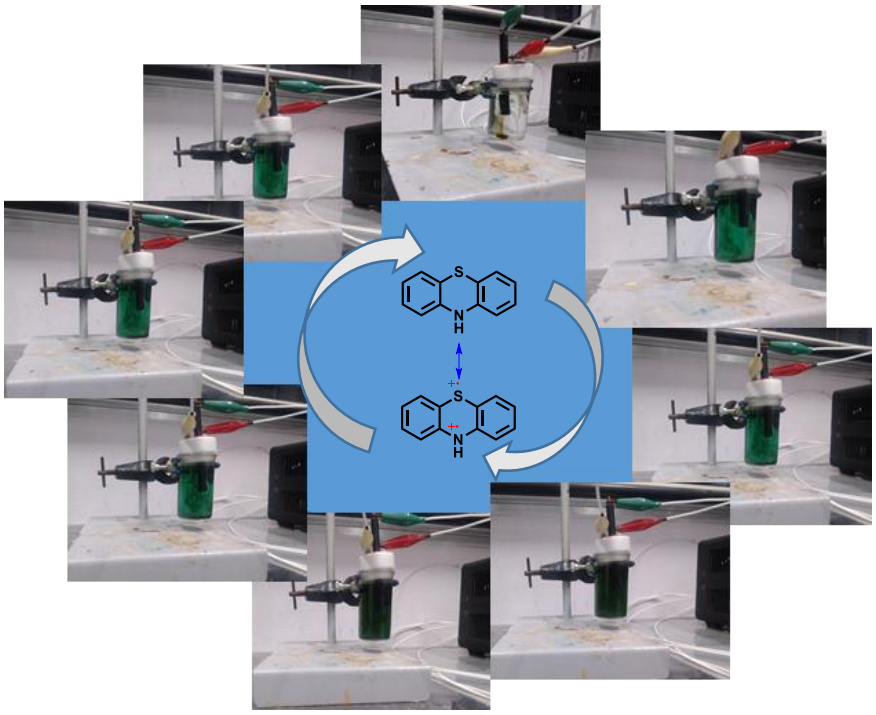

Figure S17. Optical images of the phenothiazine containing electrochemical cell showing the colour oscillatory reaction while redox chemistry.

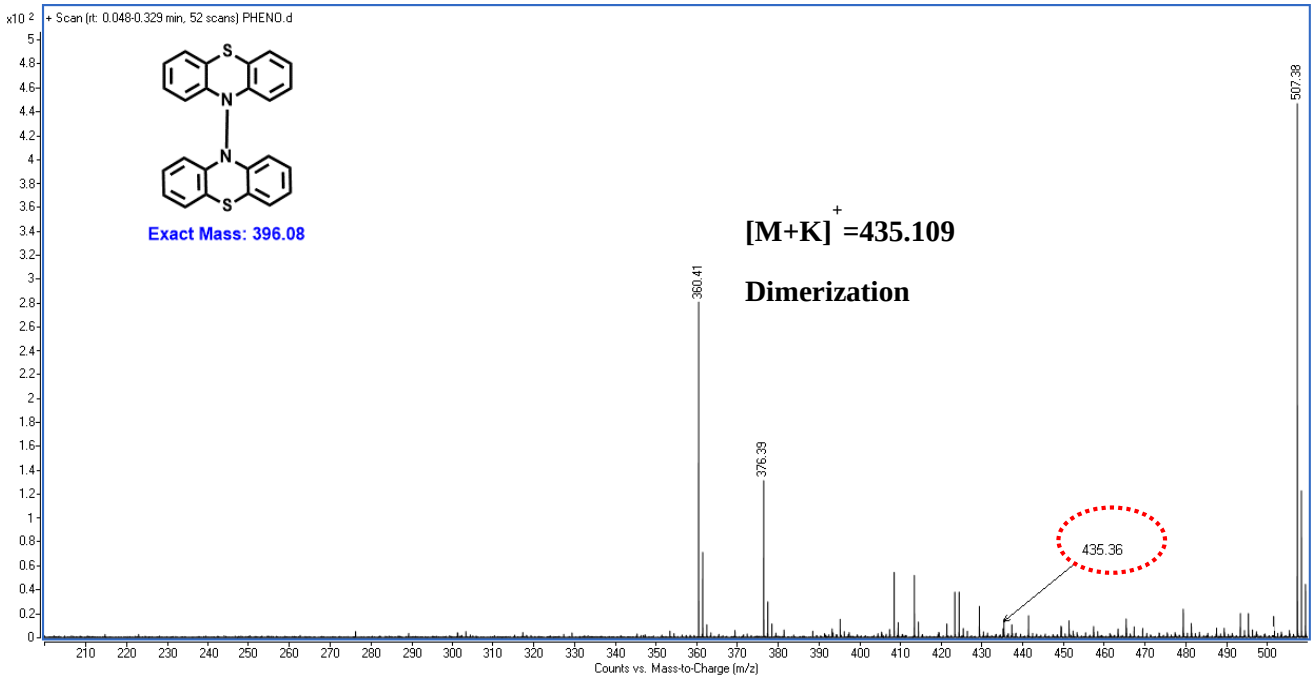

Figure S18. Mass profiling of the phenothiazine after battery study. Possible self-coupling as well as the corresponding base peaks were notated.

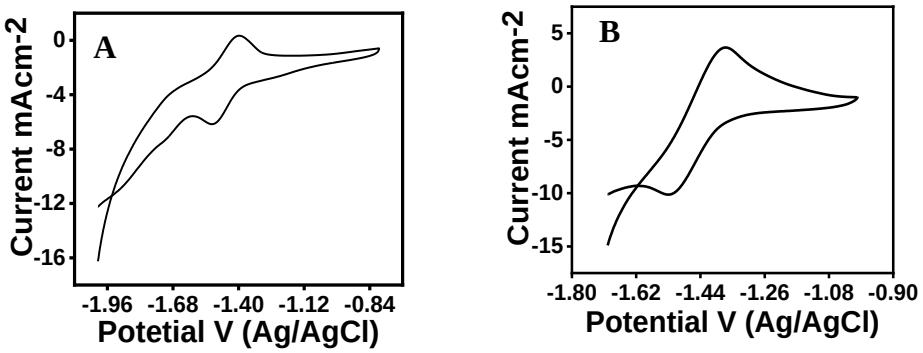

Figure S19. Cyclic voltammogram of A) tert-butyl phthalimide, B) 2ethyl-phthalimide after cycling experiment.