Electronic Supplementary Material (ESI) for Nanoscale.


# Electronic supplementary information:

# Chemical Routes to Discharging Graphenides

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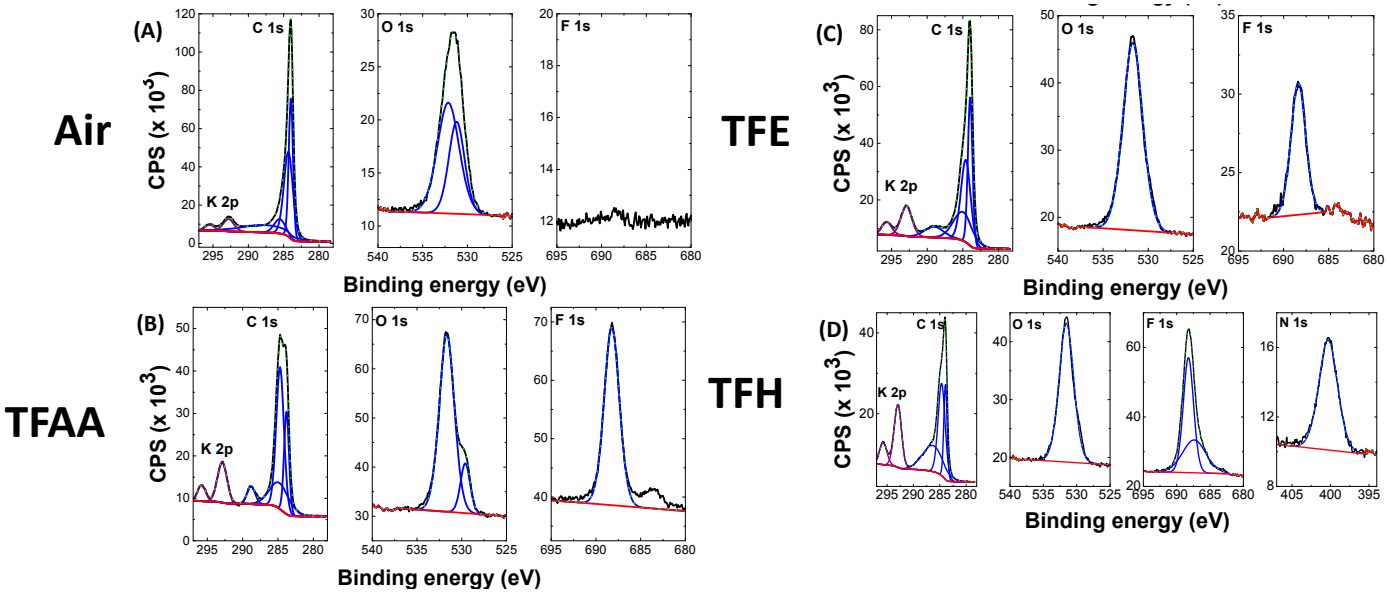
**SI Movie 1: Charge quenching of graphite intercalation compound $KC_8$ in air**



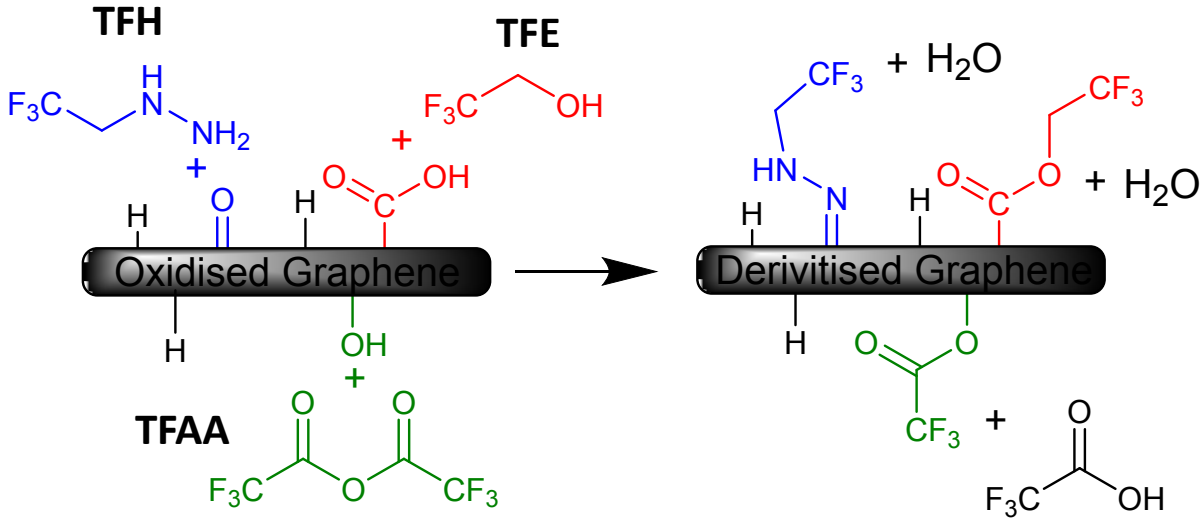




**Fig. S1:** Hi-resolution XPS spectra of the C 1s, K 2p, O 1s, F 1s regions for air quenched graphenide ($KC_8$), and derivitisations using TFAA (hydroxyl groups), TFE (carboxyl groups) and TFH (carbonyl groups), respectively. The N 1s spectra is also shown in the case of TFH derivitisation.

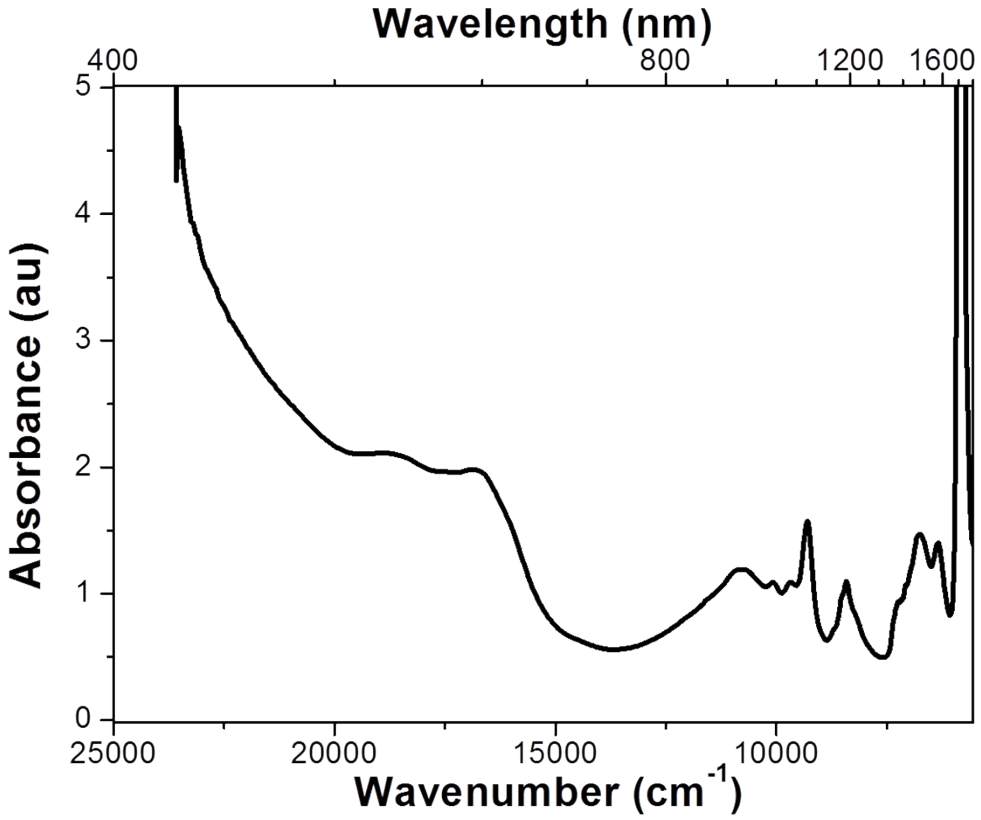



**Fig. S2:** UV-vis absorption spectrum showing the formation of the fulleride radical ion $C_{60}^{\cdot -}$ following graphenide charge quenching with $C_{60}$.

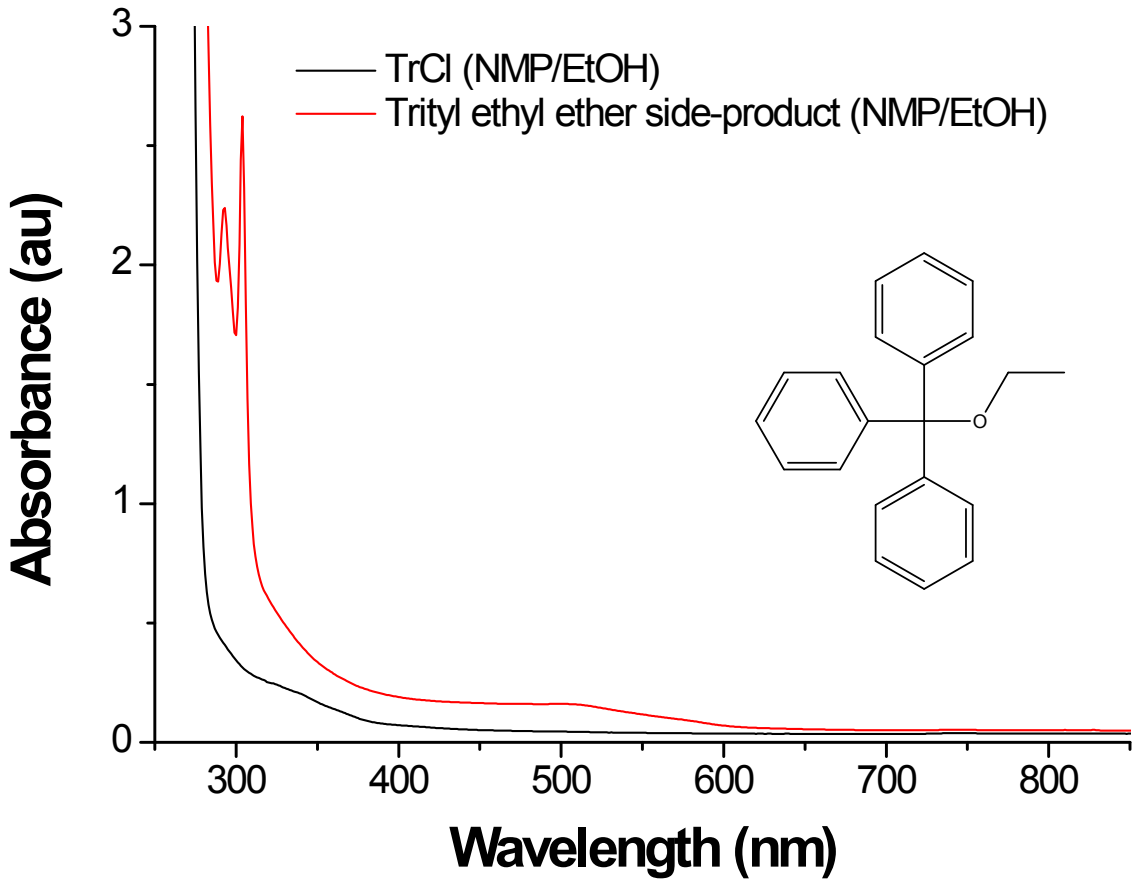



**Fig. S2:** UV-vis absorption spectrum of trityl chloride (black) and the trityl ethyl ether side-product (red) in NMP/ethanol solution following graphenide charge quenching with trityl chloride.

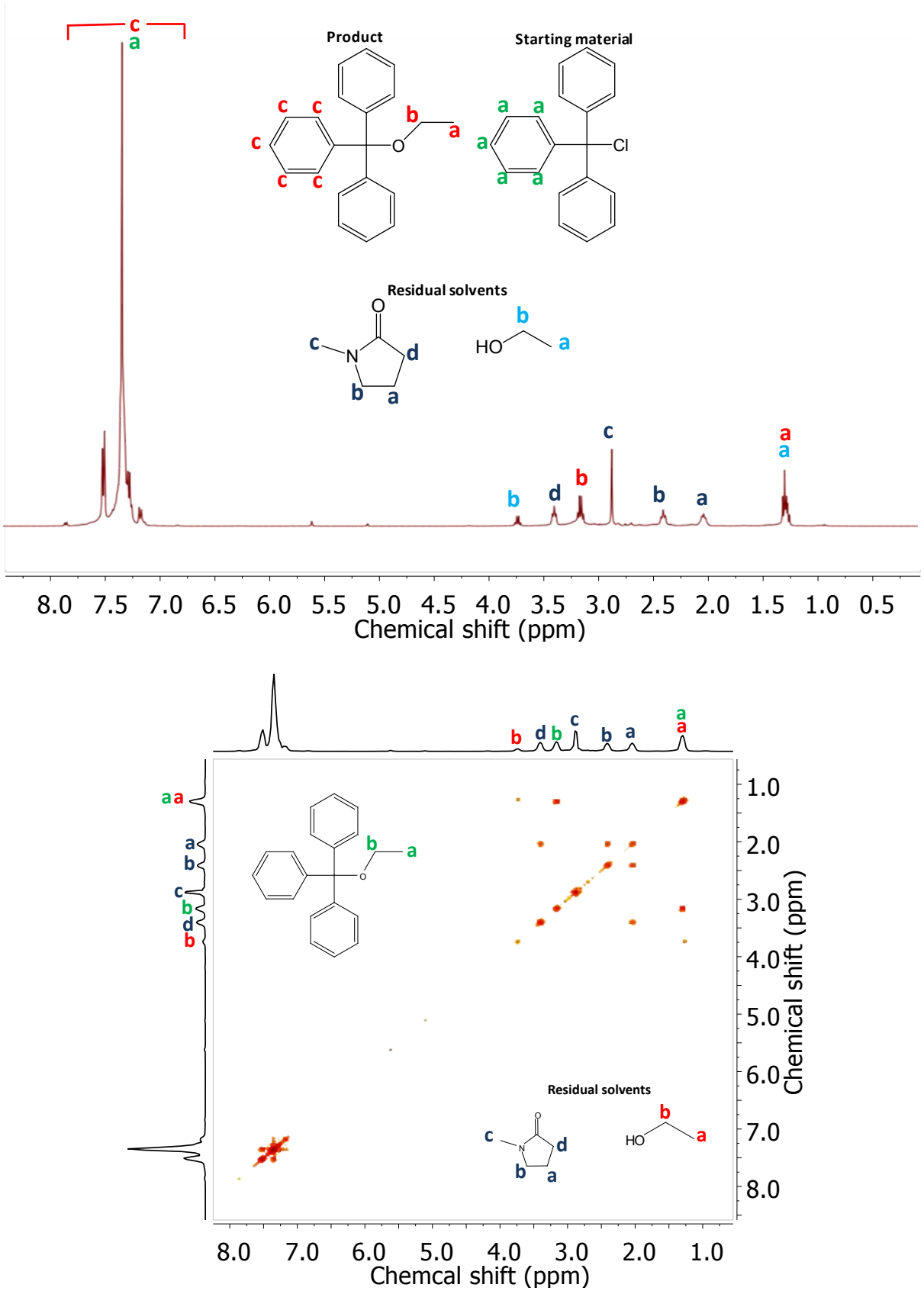



**Fig. S3:** $^{1}$H NMR (top) and corresponding COSY spectra (bottom) of the side-product following trityl chloride quenching of $KC_8$.

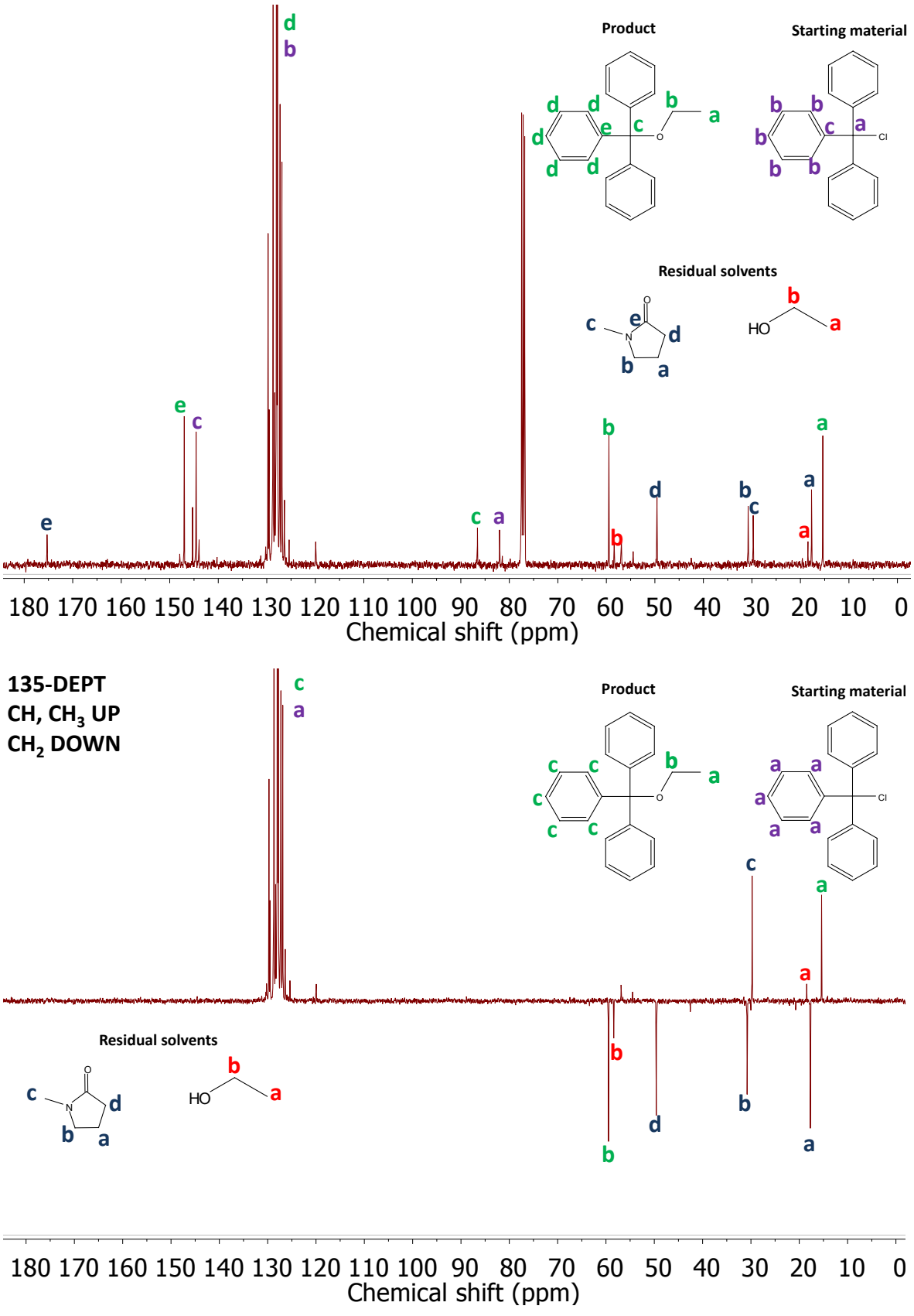



**Fig. S4:** $^{13}C$ NMR (top) and corresponding 135-DEPT spectra (bottom) of the side-product following trityl chloride quenching of $KC_8$.