

Supplementary Material (ESI) for New Journal of Chemistry

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Electronic Supplementary Information

**Nitrogen-doped unzipped carbon nanotubes/sulfur composite as
advanced cathode for lithium-sulfur batteries**

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Fig.S1 SEM image of NUCNTs

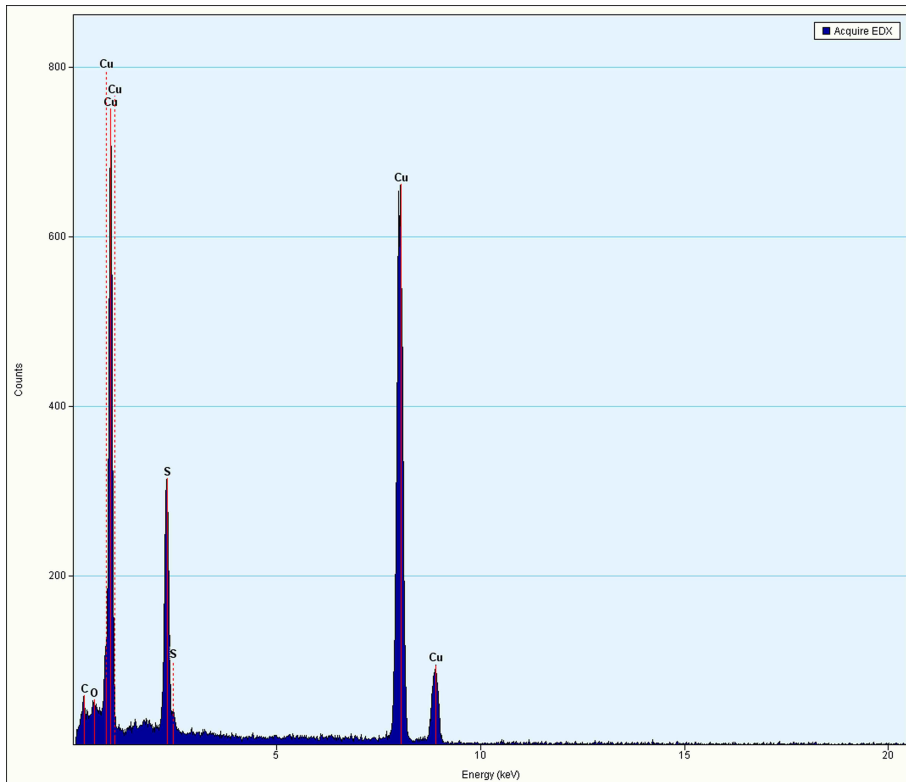


Fig.S2 EDS image of NUCNTs/S composite

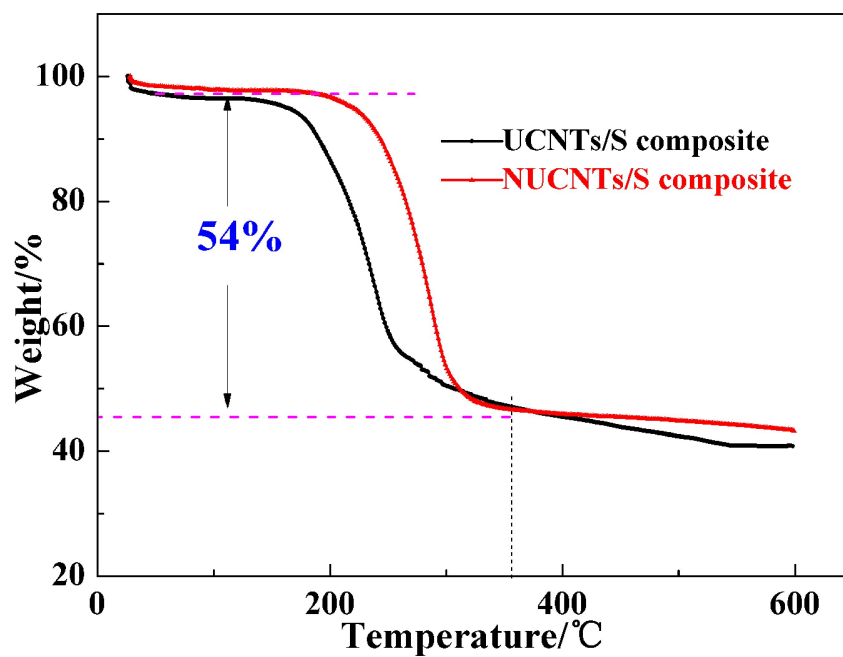


Fig.S3 TGA curves of UCNTs/S and NUCNTs/S composite in N₂ atmosphere

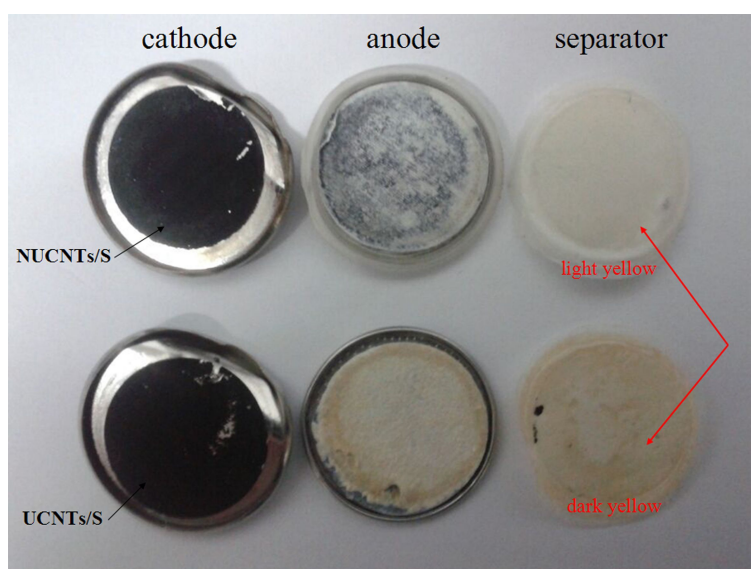


Fig.S4 Photograph of the electrolyte color for NUCNTs/S and UCNTs/S cathodes

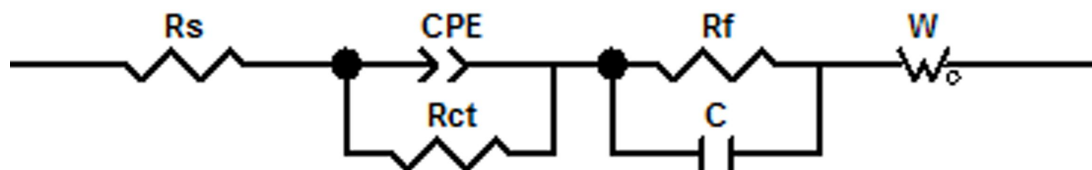


Fig.S5 Equivalent circuit used for fitting the impedance data

Table S1 Impedance values of the equivalent circuit fitted for the impedance spectra

Sample	R_s	CPE-T	CPE-P	R_{ct}	R_f	C	W-R	W-T	W-P
NUCNTs/S	16.1	1.3E-5	0.8	58.1	34.5	0.0006	409.7	572.2	0.4
UCNTs/S	15.1	1.9E-5	0.7	136.2	29.0	0.001	26.3	0.3	0.1