Electronic Supplementary Material (ESI) for RSC Advances.

Rationally designing coupling mechanism of physical adsorption and chemical charge effect for high performance Lithium sulfur batteries

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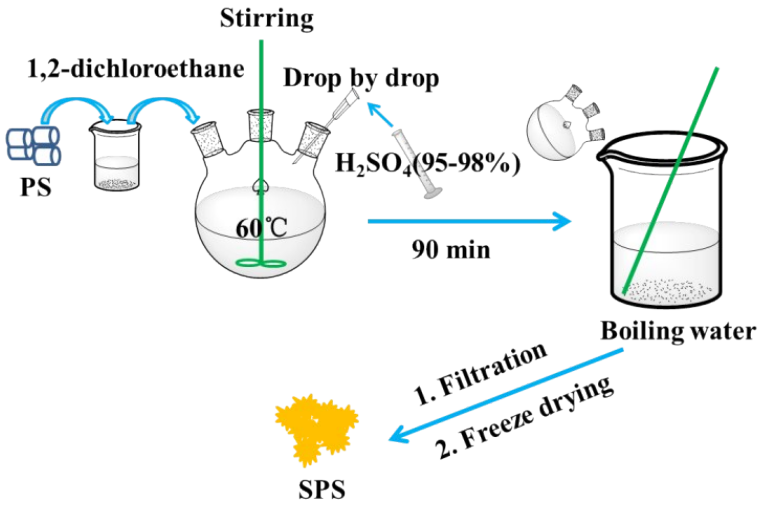

Fig.S1 The diagrammatic drawing of prepared SPS.

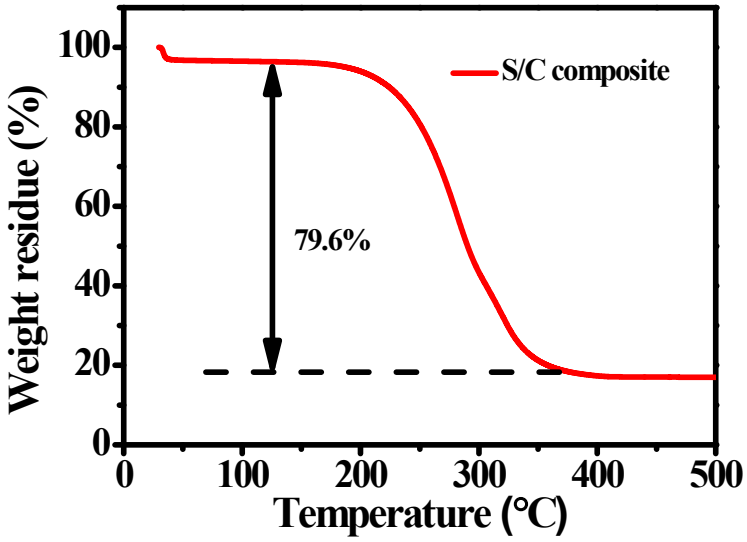

Fig.S2 TGA curve of S/C composite under Argon atmosphere

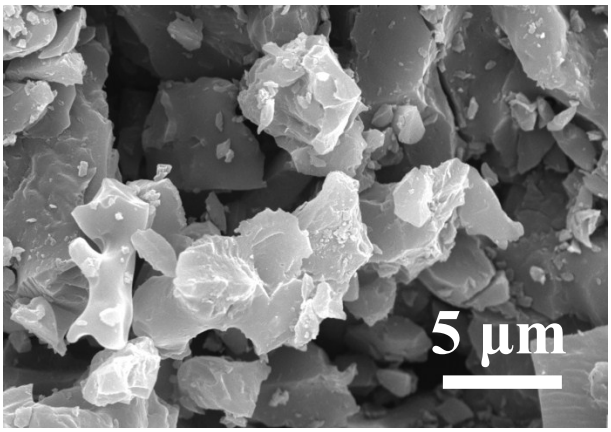

Fig.S3 SEM image of prepared NACC.

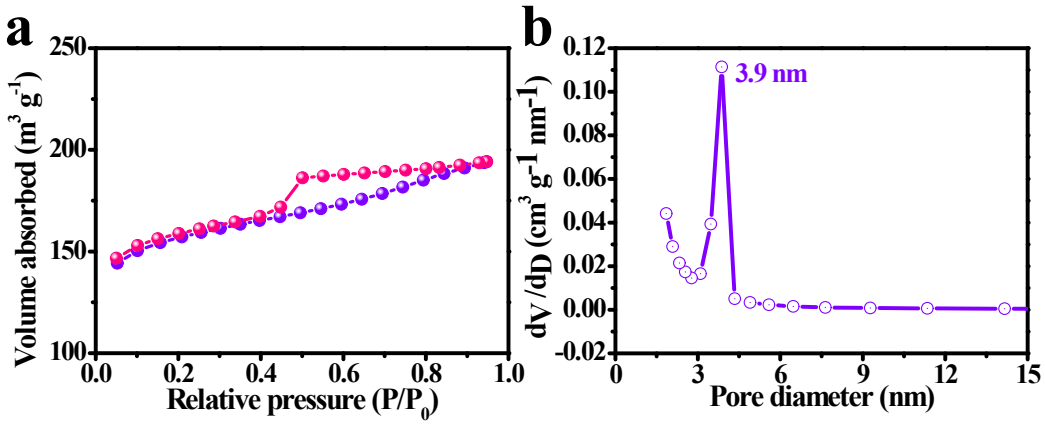

Fig.S4. (a) Nitrogen adsorption–desorption isotherms for prepared NACC, (b) BJH pore size distribution profiles.

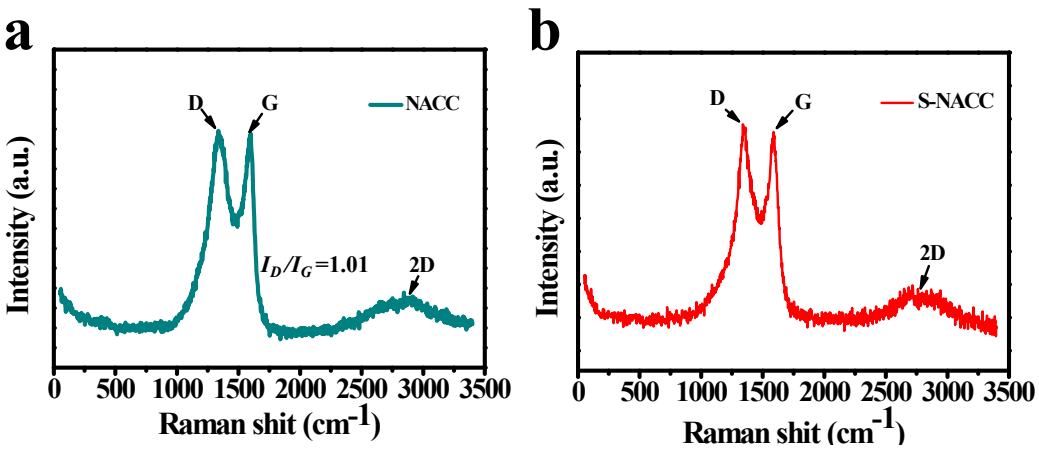

Fig.S5 The Raman spectra of (a) NACC, (b) S-NACC coated separator

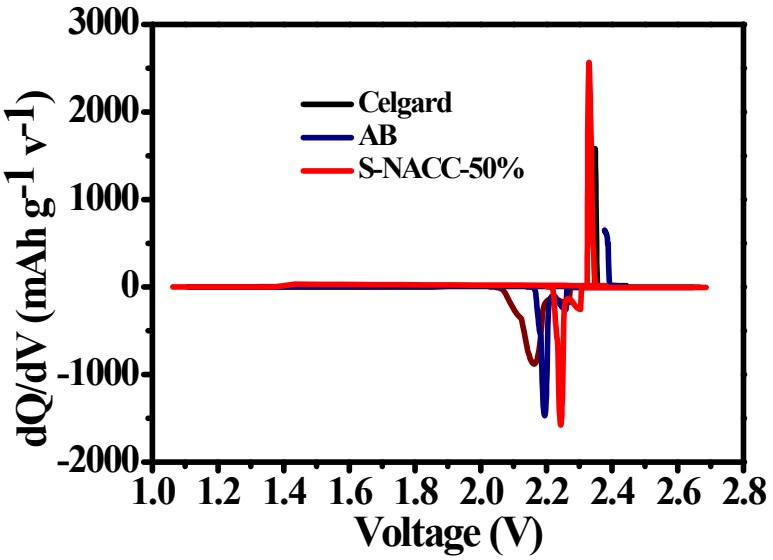

Fig.S6 The dQ /dV result of three different separators.

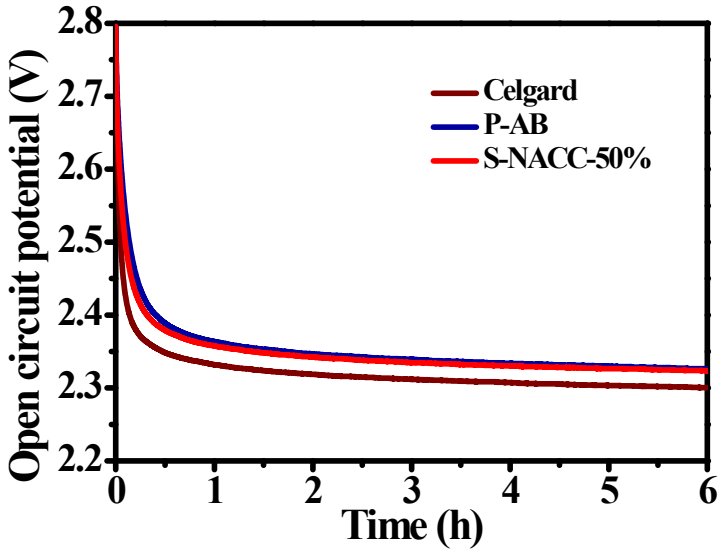

Fig.S7 Self-discharge behavior of Li–S batteries with different separators

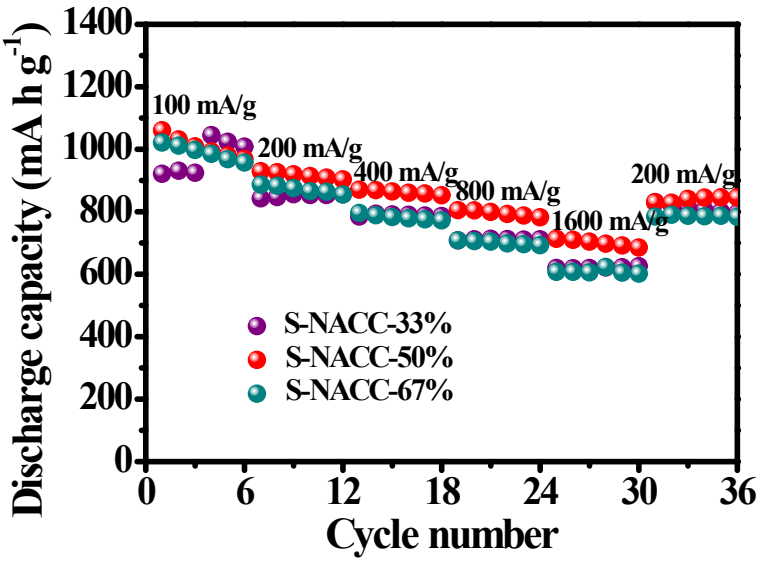

Fig.S8 The rate performance of different addition of NACC

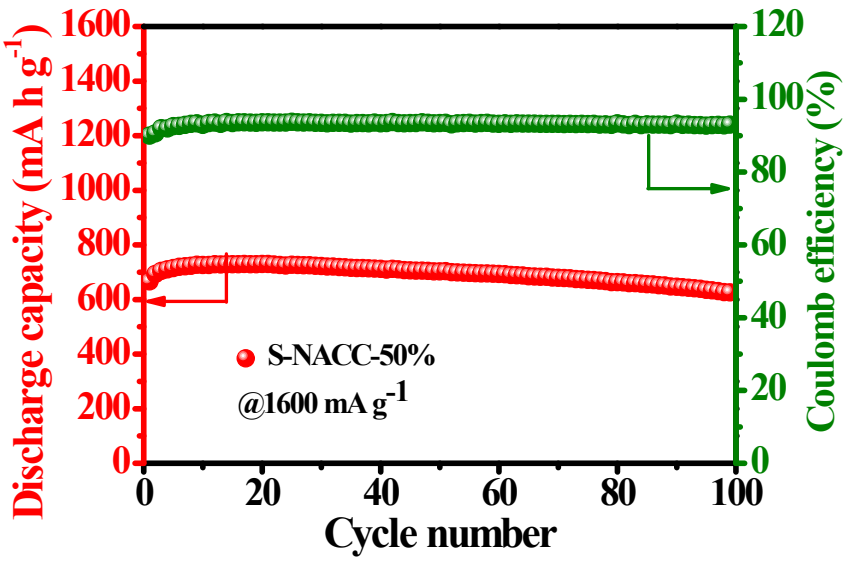

Fig.S9 the cycling performance of S-NACC-50% at 1600 mA g^{-1}