

## Supporting Information

### **N, S co-doped coal-based hard carbon prepared by two-step carbonization and a molten salt template method for sodium storage**

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Table S1 element content

	C (%)	N (%)	O (%)
LFC1200	84.35	1.07	14.58
LFC-LN	84.6	1.32	14.58

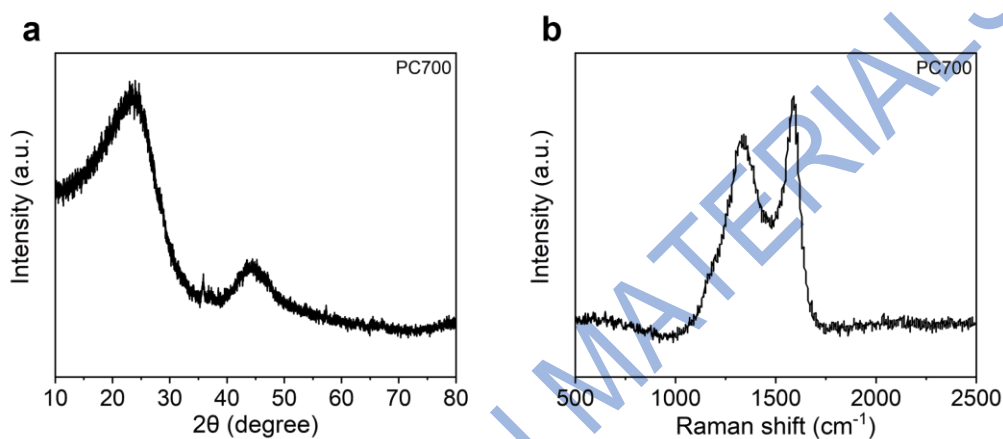


Fig. S1 (a) The XRD patterns and (b) Raman spectra of PC700.

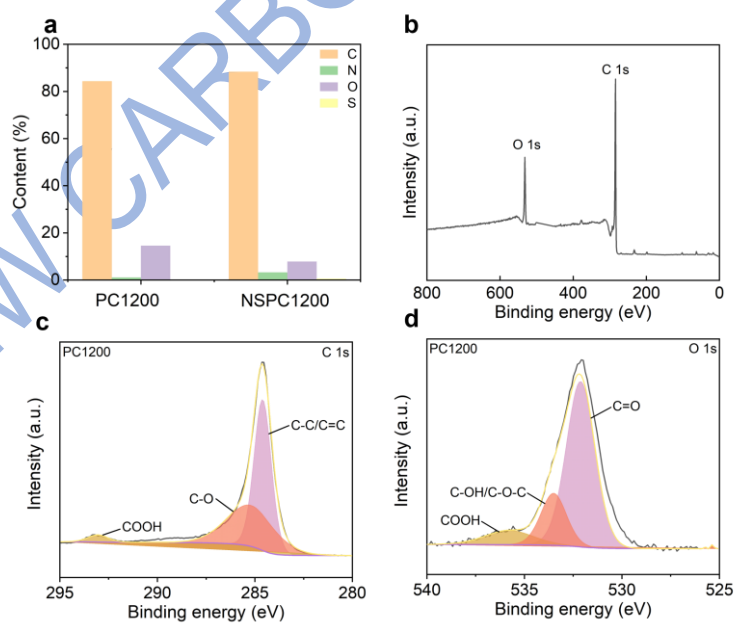


Fig. S2 (a) The elemental content of PC1200 and NSPC1200; (b) The XPS survey spectra of NSPC1200; (c) and (d) The High-resolution C 1s and O 1s spectra of NSPC1200.

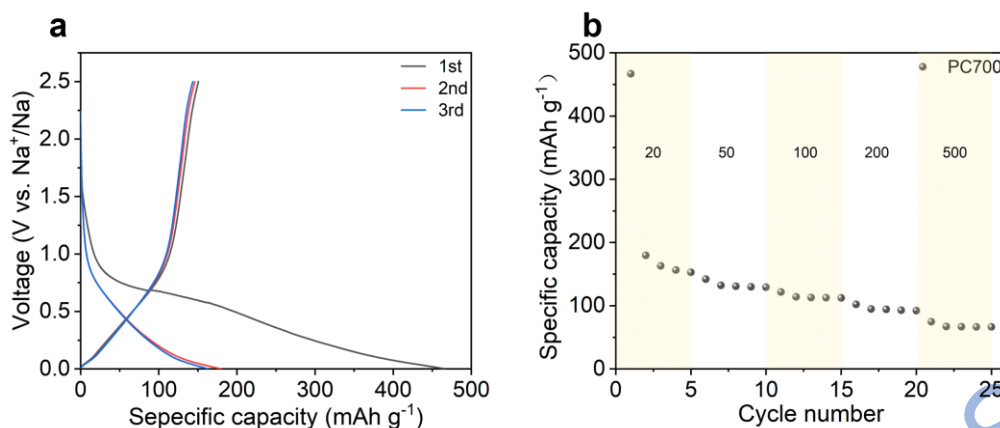


Fig. S3 (a) The charge/discharge curves and (b) rate performances of PC700.

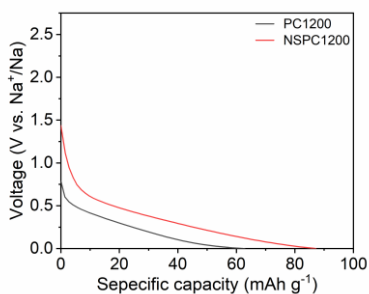


Fig. S4 The discharge curves of PC1200 and NSPC1200 at a current density of 500 mA g<sup>-1</sup>.

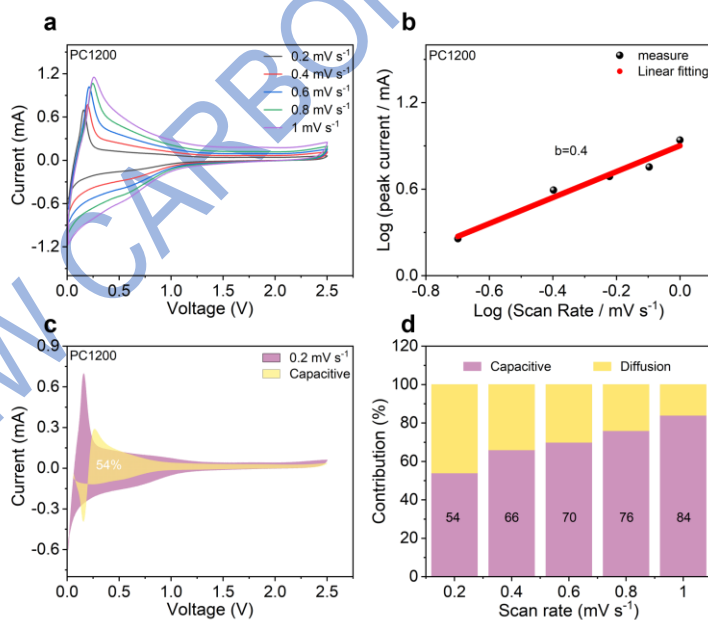


Fig. S5 (a) The CV curves at various scan rates (from 0.1 to 1.0 mV s<sup>-1</sup>); (b) The relationship between the peak current and scan rate in logarithmic format; (c) The capacitive contribution to charge storage at a scan rate of 0.2 mV s<sup>-1</sup>; (d) The contribution ratio of the capacitive and intercalated charge to capacity at different scan rates.