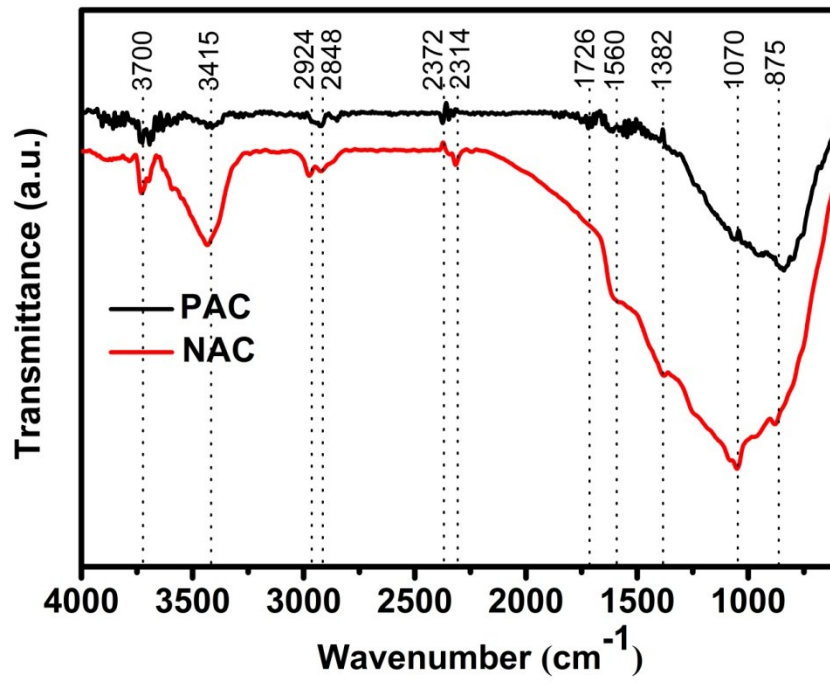
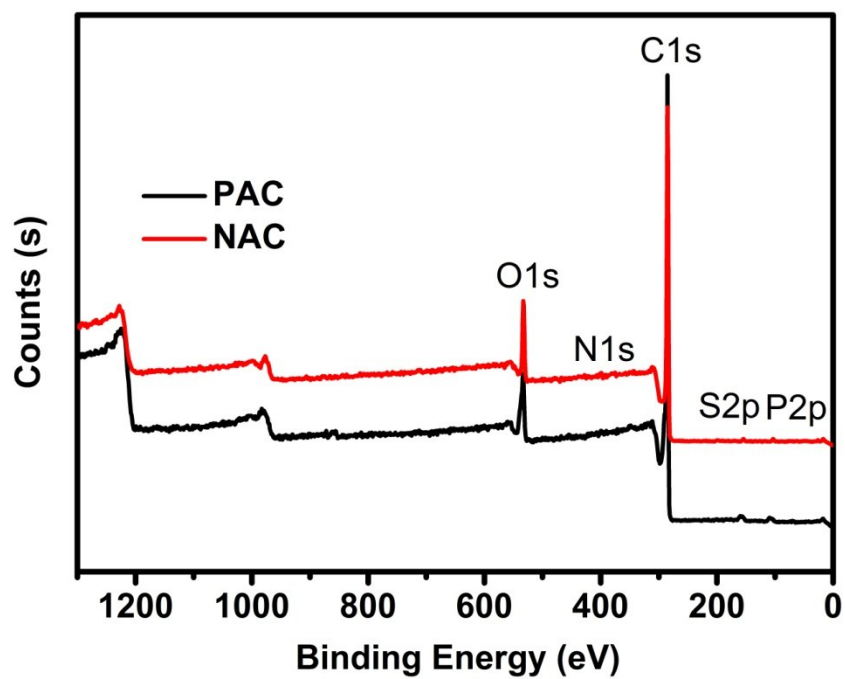


## **Electronic Supplementary Information**

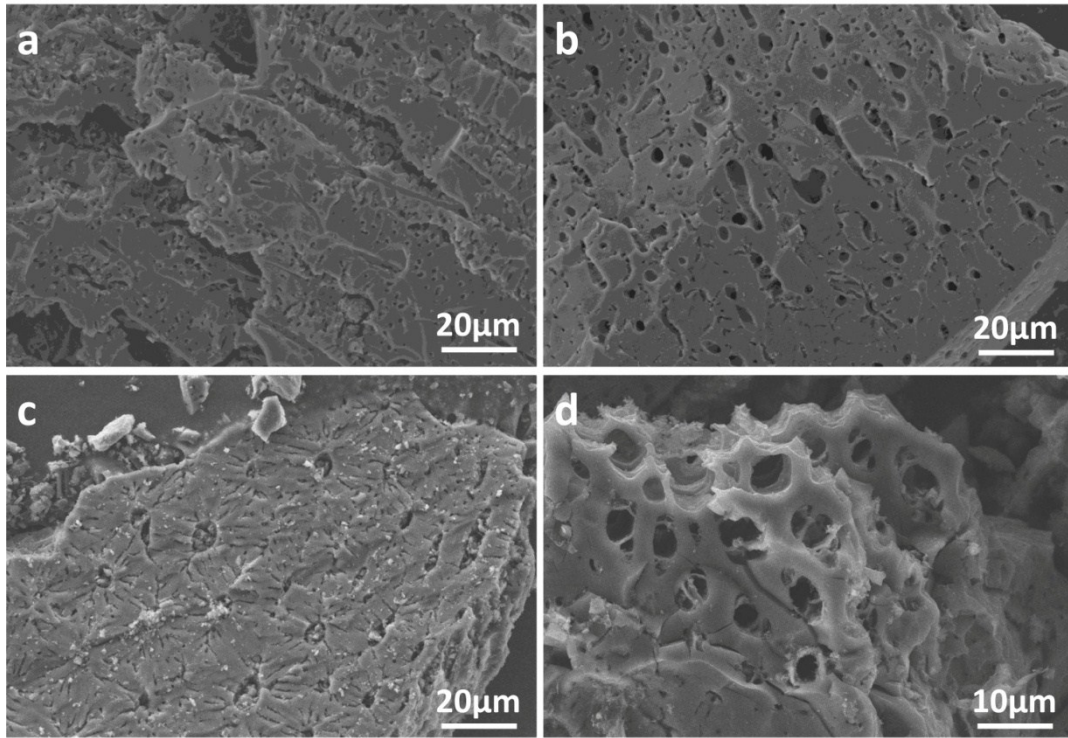
**Porous high specific surface area activated carbon  
with co-doping N, S, P for high-performance  
supercapacitors**



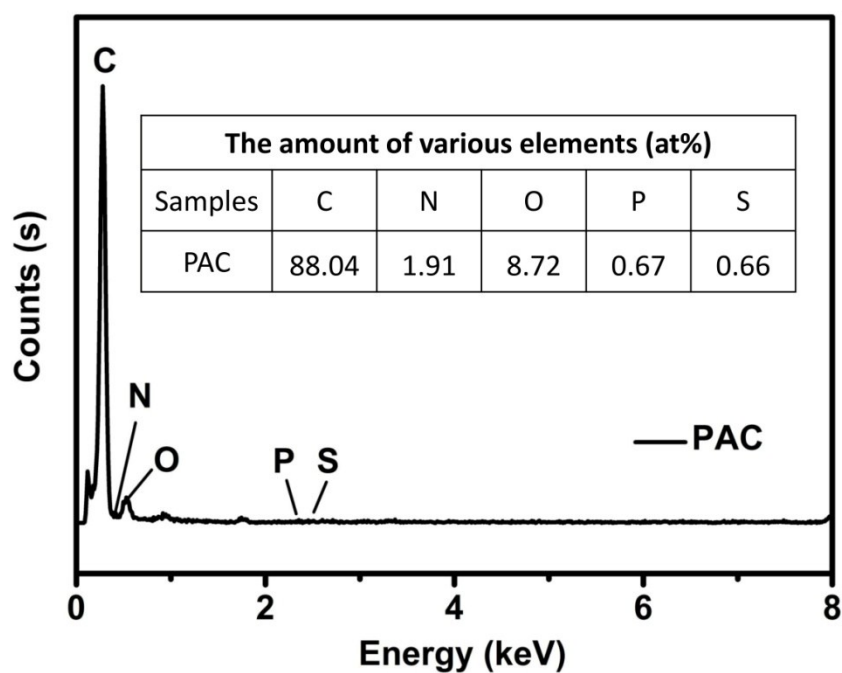
**Fig.S1** FTIR spectra for PAC and NAC.



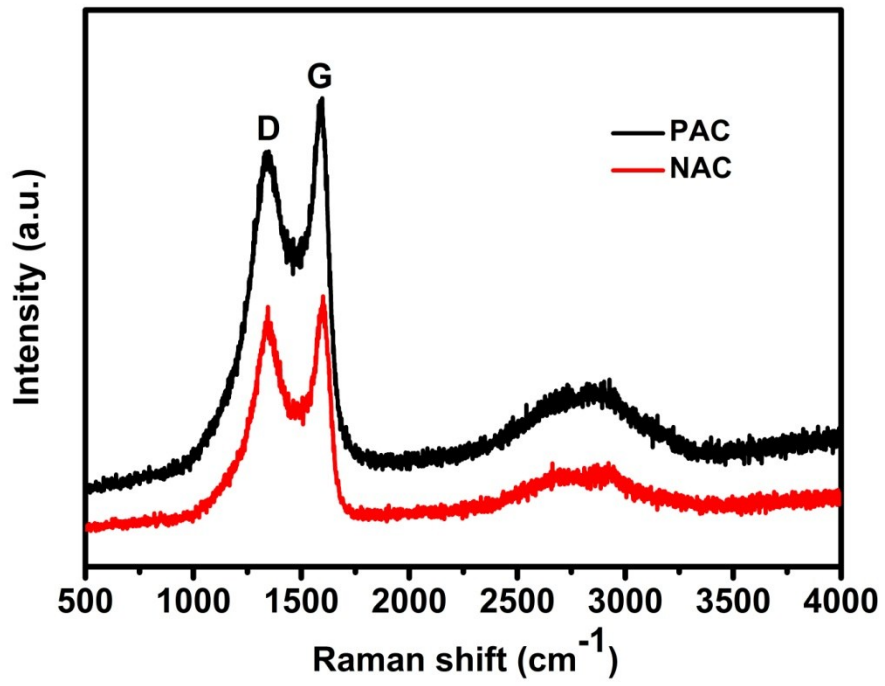
**Fig.S2** XPS spectra of PAC and NAC.



**Fig.S3** SEM images of (a) NAC and (b) PAC prepared from PKS carbonized material; (c) PKS carbonized material obtained after carbonization at 500 °C and (d) PAC after increasing the magnification.



**Fig.S4** EDX spectra of PAC. And the inset in Fig.S4 shows detailed EDX elements analysis of the PAC samples.



**Fig.S5** Raman spectroscopy showing prominent D and G peaks of PAC and NAC.

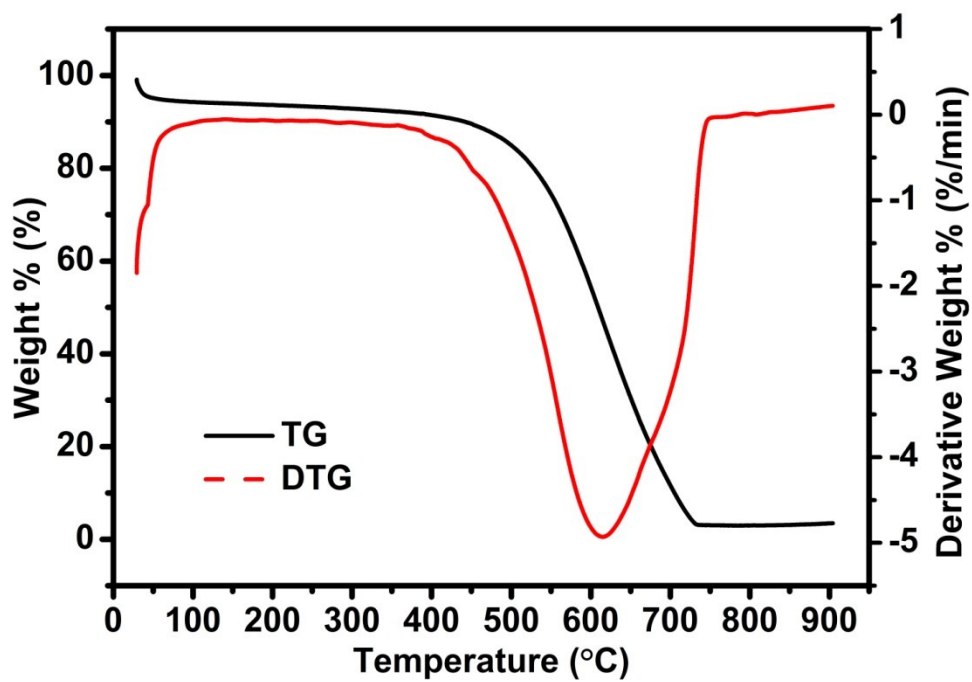


Fig.S6 TGA curve of the PAC.

**Table.S1** Textural and electrochemical properties of PKS derived activated carbons.

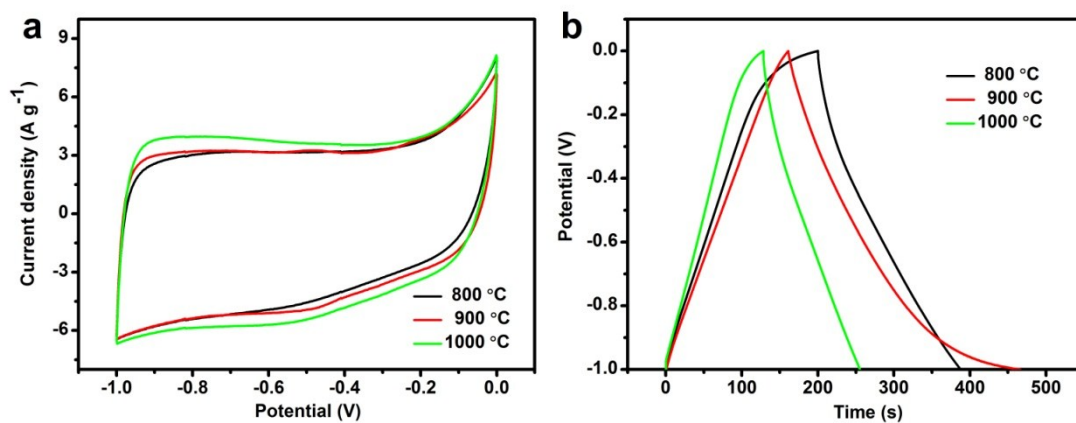
Samples	BET SSA ( $\text{m}^2 \text{g}^{-1}$ )				Pore volume ( $\text{cm}^3 \text{g}^{-1}$ )				$C_s^c$ ( $\text{F g}^{-1}$ )
	Tota l	Micr o	Meso	Ratio a	Tota l	Micr o	Meso	Ratio b	
PAC-800	1964	698	1266	0.55	0.48	0.21	0.27	0.77	235
PAC-900	2760	886	1874	0.47	1.61	0.47	1.14	0.41	380
PAC- 1000	1327	517	810	0.64	0.54	0.41	0.13	3.15	108

<sup>a</sup> The micropore area to mesopore area ratio.

<sup>b</sup> The micropore volume to mesopore volume ratio.

<sup>c</sup> The  $C_s$  values calculated from GC curves at a current density of  $1 \text{ A g}^{-1}$ , see Fig.S7.





**Fig.S7** Comparison of (a) CV curves recorded at a scan rate of  $10 \text{ mV s}^{-1}$  in a 3 M KOH solution and (b) galvanostatic charge-discharge curves at a current density of  $1 \text{ A g}^{-1}$  in a 3 M KOH solution with different calcination temperatures (800 °C, 900 °C, 1000 °C).