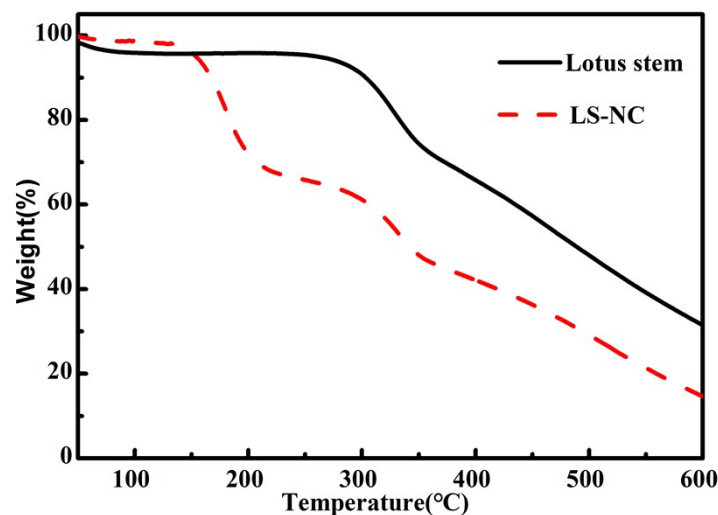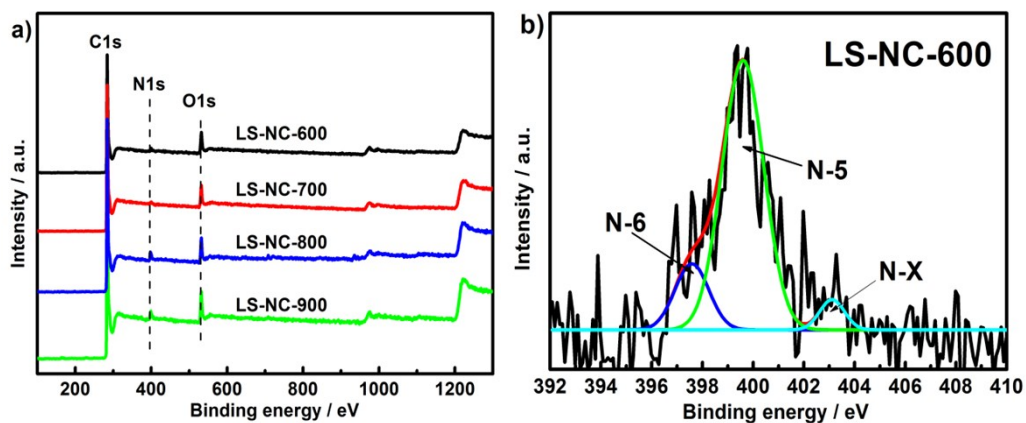1   # Supporting Information

2   ## Preparation of nitrogen-doped porous carbons with

3   ## high-performance supercapacitor using biomass of waste lotus stems

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8   Fig. S1 TGA curves of waste Lotus stem and LS-NC under N_2 atmosphere.

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10   Fig. S2 General XPS spectrum of LS-NC-600, LS-NC-700, LS-NC-800 and LS-NC-900, respectively.
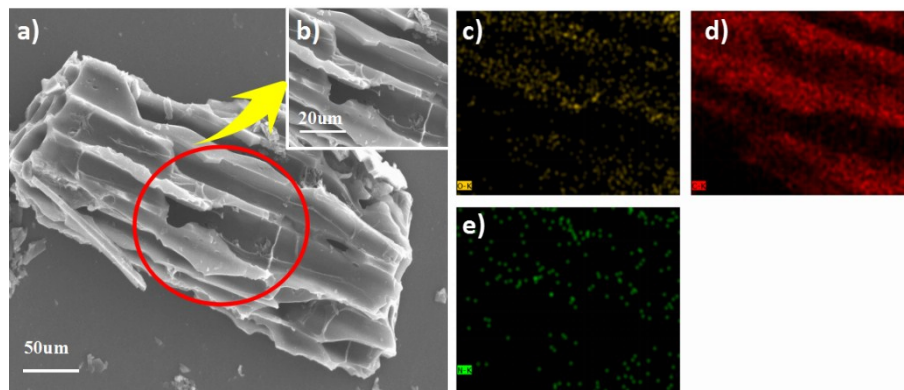
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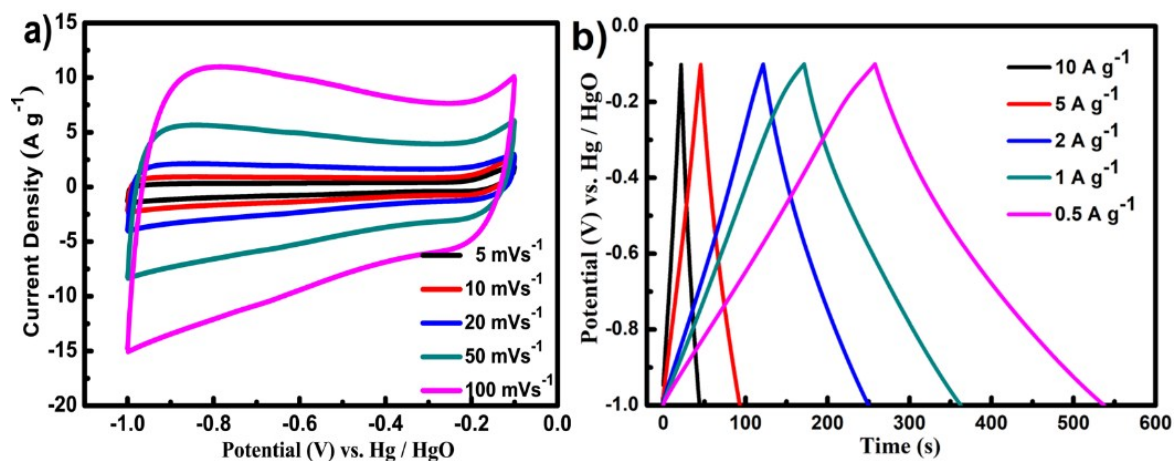15 Fig. S3 The SEM images and mapping images of LS-NC-600.

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21 Fig. S4 a) CV curves of LS-NC-500 at different scan rates; b) GCD curves

22 of LS-NC-500 at different current density

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39 Table. S1 Textural parameters of LS-NC-600, LS-NC-700, LS-NC-800 and LS-NC-900, respectively.

Sample	Textural properties			
	$S_{BET}^{a)}[m^2g^{-1}]$	$S_{BET}^{b)}[m^2g^{-1}]$	$V_p^{d)}[m^3g^{-1}]$	$D_a^{d)}[nm]$
LS-NC-600	1322	1088	0.94	2.85
LS-NC-700	2013	1800	1.17	2.34
LS-NC-800	2221	1876	1.52	2.74
LS-NC-900	1986	1610	1.46	2.94

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41 a) The specific surface areas were calculated using the BET method.

42 b) Micropore surface area calculated from t-plot method.

43 c) The total pore volume was determined from the amount of nitrogen adsorbed at a relative pressure of

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45 d) Average pore diameter.

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49 Table. S2 Summary of reported capacitive performance of the carbon materials.

Biomass precursors	C_m / F g^{-1}	Electrolyte	Reference
Algae	234 (at 0.5 A g^{-1})	6 M KOH	1
longan shell	322 (at 0.5 A g^{-1})	6 M KOH	2
Prawn shells	288 (at 5 A g^{-1})	6 M KOH	3
Enteromorpha prolifera	296 (at 0.5 A g^{-1})	30 wt% KOH	4
Willow catkin	298 (at 0.5 A g^{-1})	6 M KOH	5
Potato	255 (at 0.5 A g^{-1})	2 M KOH	6
Rice husk	243 (at 0.05 A g^{-1})	6 M KOH	7
Horseweed	184 (at 0.4 A g^{-1})	6 M KOH	8
Lotus stem	**360 (at 0.5 A g^{-1})**	**6 M KOH**	This work

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