Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

for

Preparation and evaluation of modified cyanobacteria-derived activated carbon for H_2 adsorption

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Table S1 Component analyses of CB ash by XRF experiments

component	CB ash (Wt.%)
SiO_2	10.56
Al_2O_3	25.84
Fe_2O_3	2.44
MgO	4.76
CaO	18.87
K_2O	7.98
P_2O_5	20.03
SO_3	9.17
TiO_2	0.33
MnO	0.08

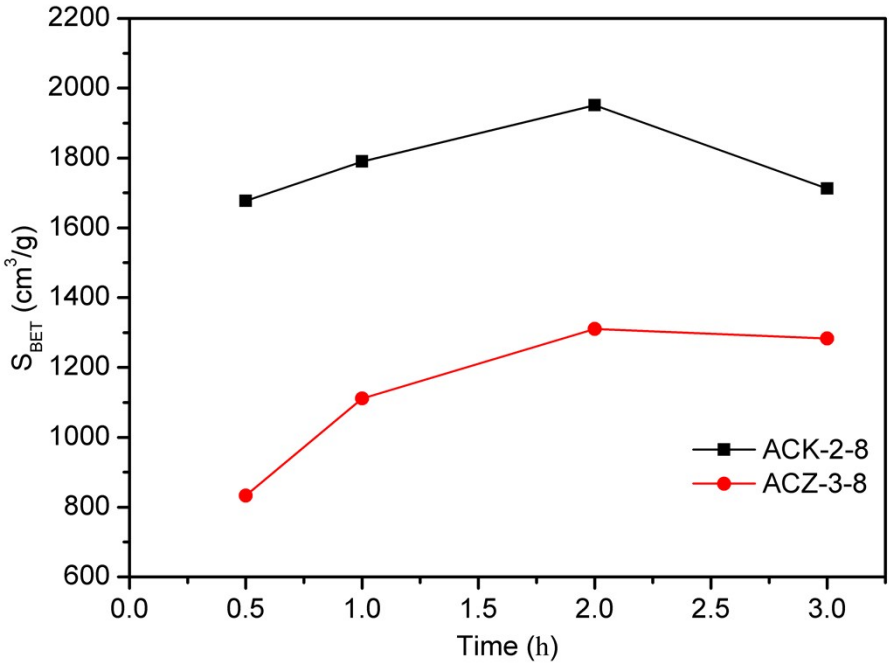

Fig. S1 Effect of activation time on N_2 adsorption-desorption experiment on ACK-2-8 and ACZ-3-8

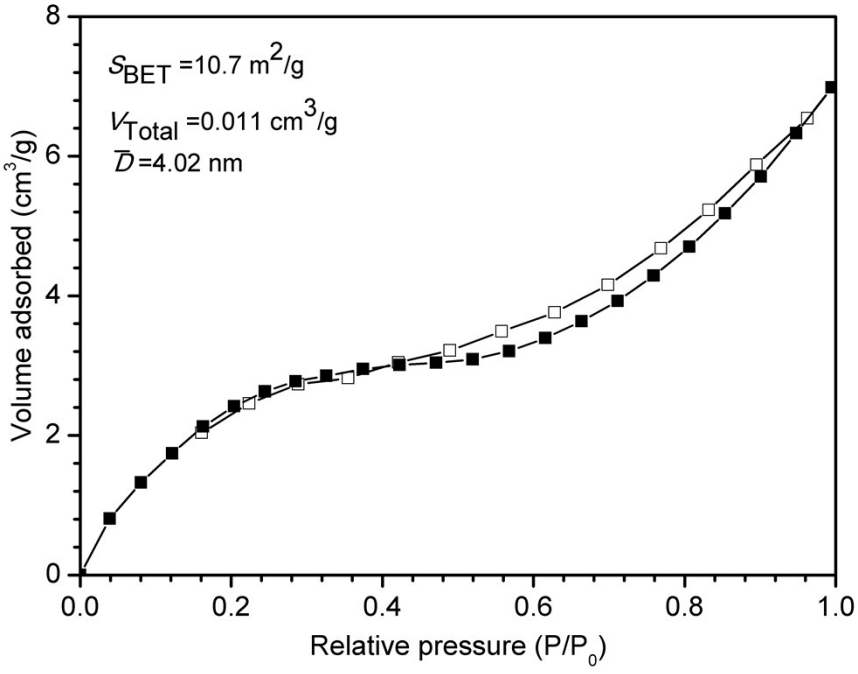

Fig. S2 Nitrogen adsorption (solid) /desorption (open) isotherm and Porous properties for pretreated carbonized material AC

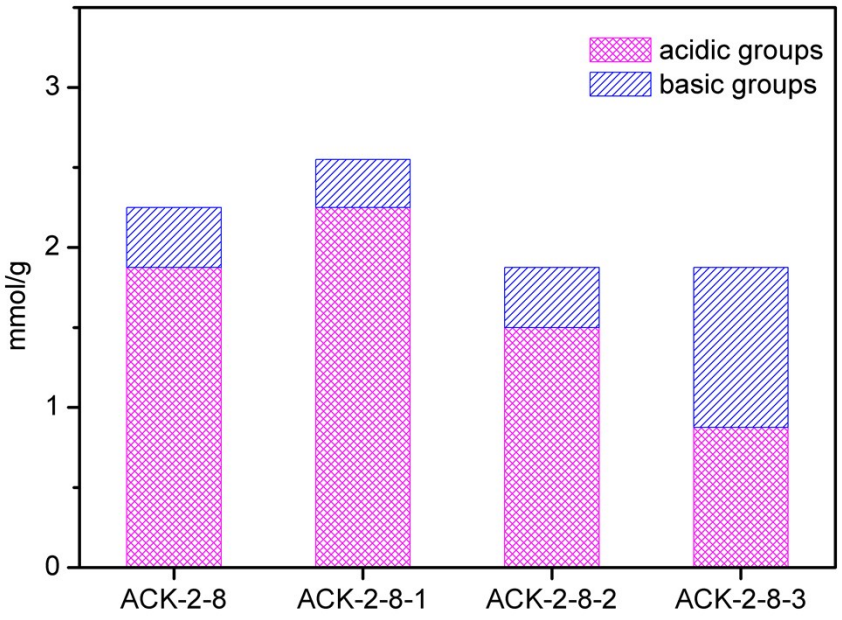

Fig. S3 Comparison of surface acidic-basic functional groups on different activated carbons

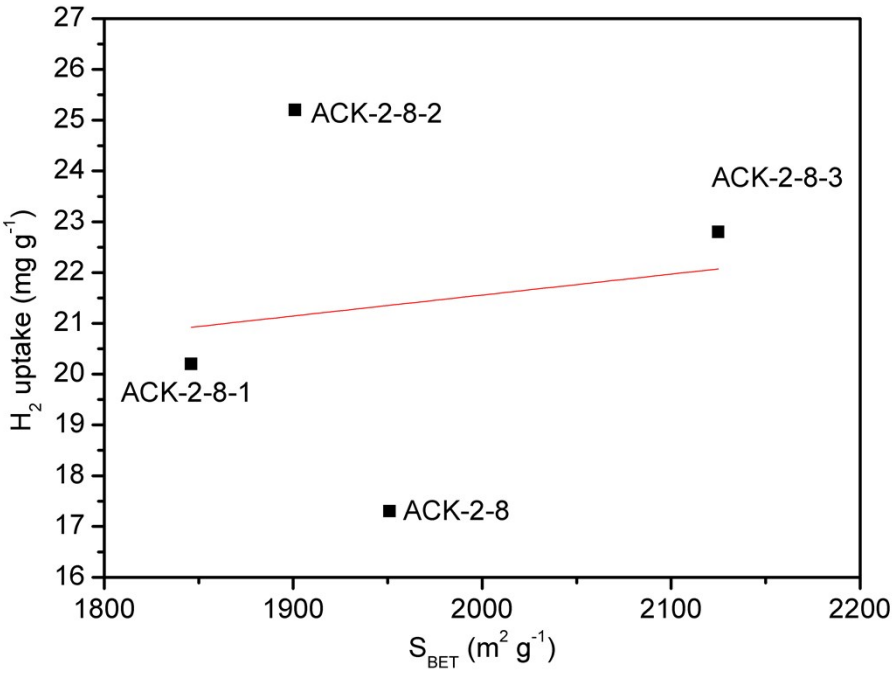

Fig. S4 The relationship between the H_2 adsorption amount (at -196 ºC and 1 bar) and BET surface area on some samples