Support information

Honeycombed activated carbon with greatly increased specific surface by direct activation of glucose for supercapacitors

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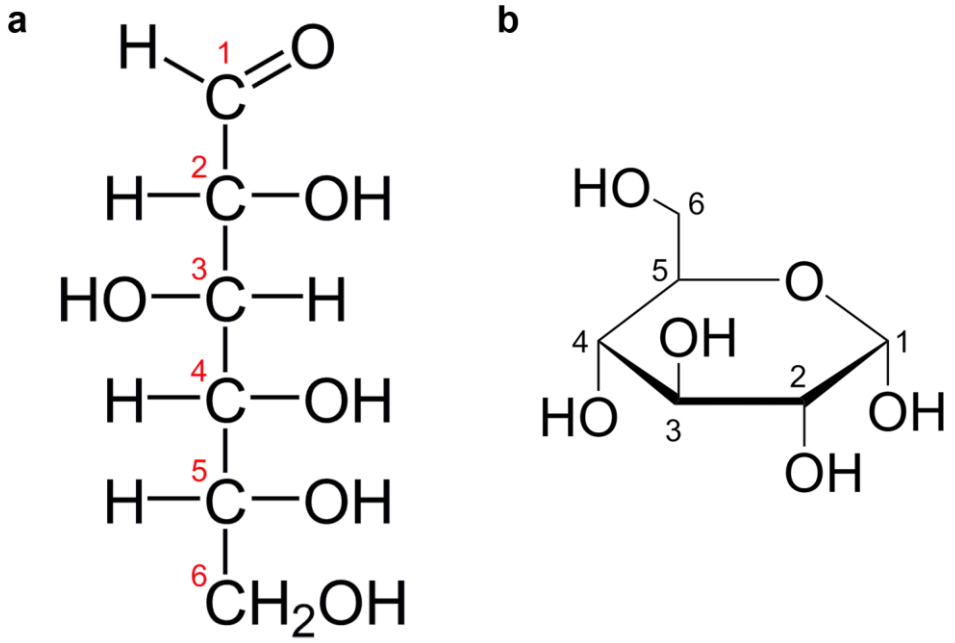

Fig. S1. Chemical structure of D(+)-glucose in (a) acyclic and (b) cyclic form.

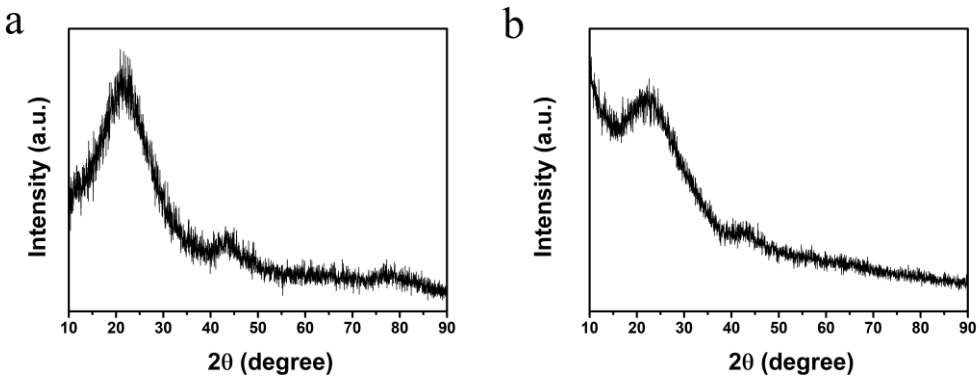

Fig. S2. XRD patterns of (a) AC-2 and (b) AC-12h.

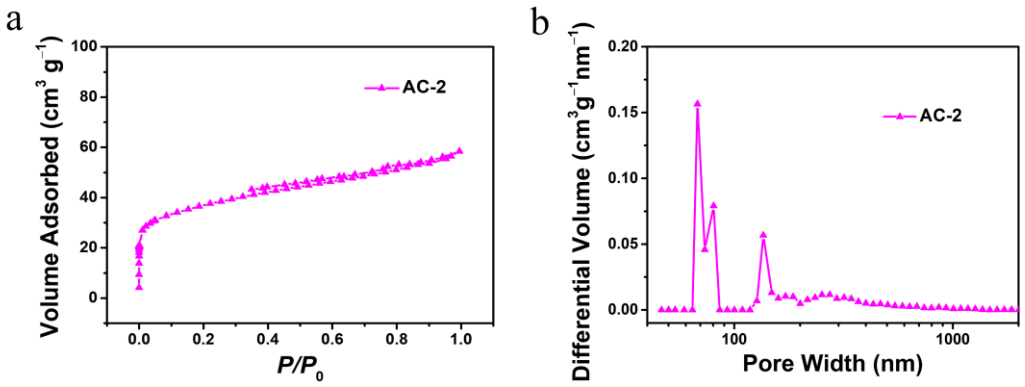

Fig. S3. (a) Nitrogen adsorption-desorption isotherm and (b) pore size distribution of AC-2.

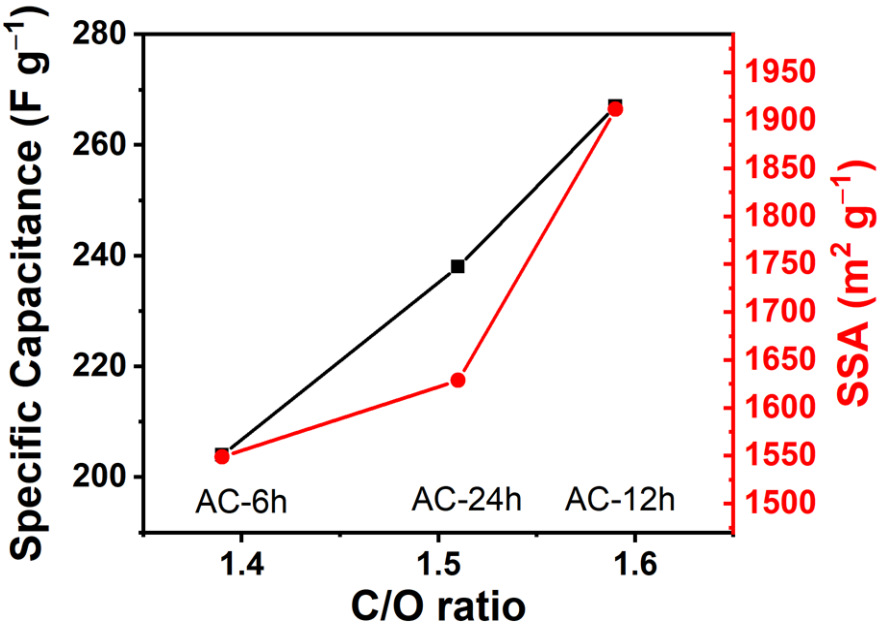

Fig. S4. Specific capacitance and SSA of ACs via one-step method *vs.* C/O ratio of Deoxy-glucoses.

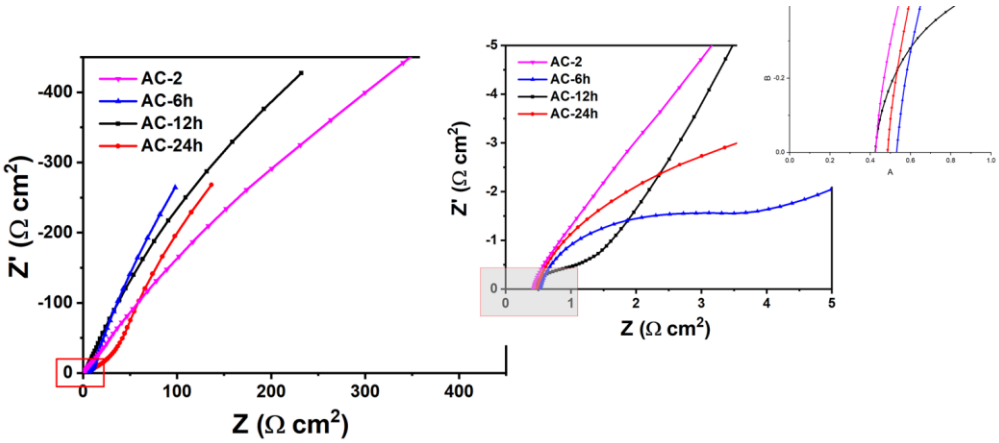

Fig. S5. EIS spectra of AC-2, AC-6h, AC-12h and AC-24h in three-electrode cells.

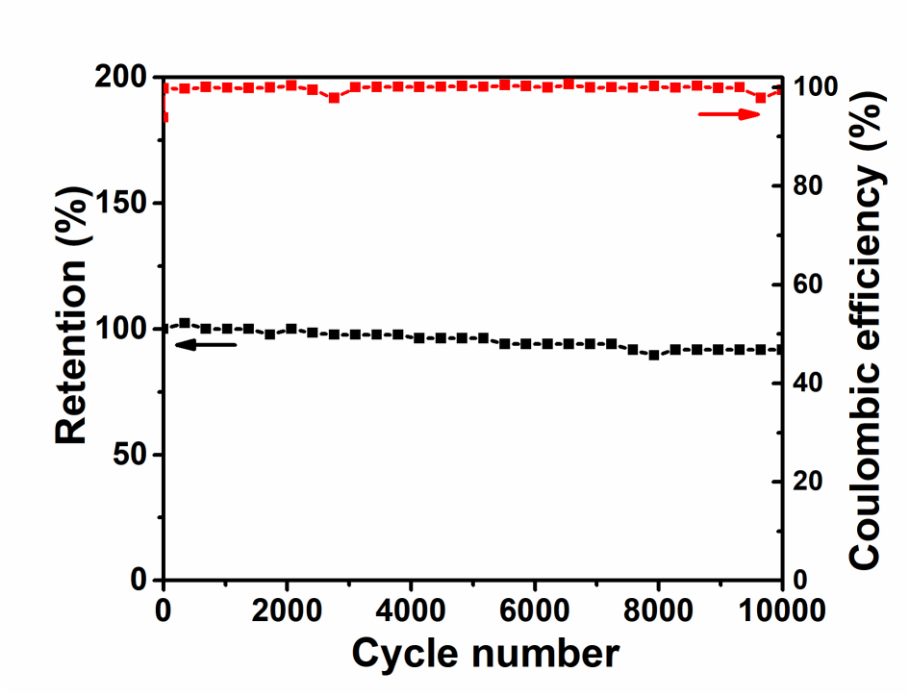

Fig. S6. Cyclic performance of AC-12h in two-electrode cell in KOH at 1 A g^{-1}.

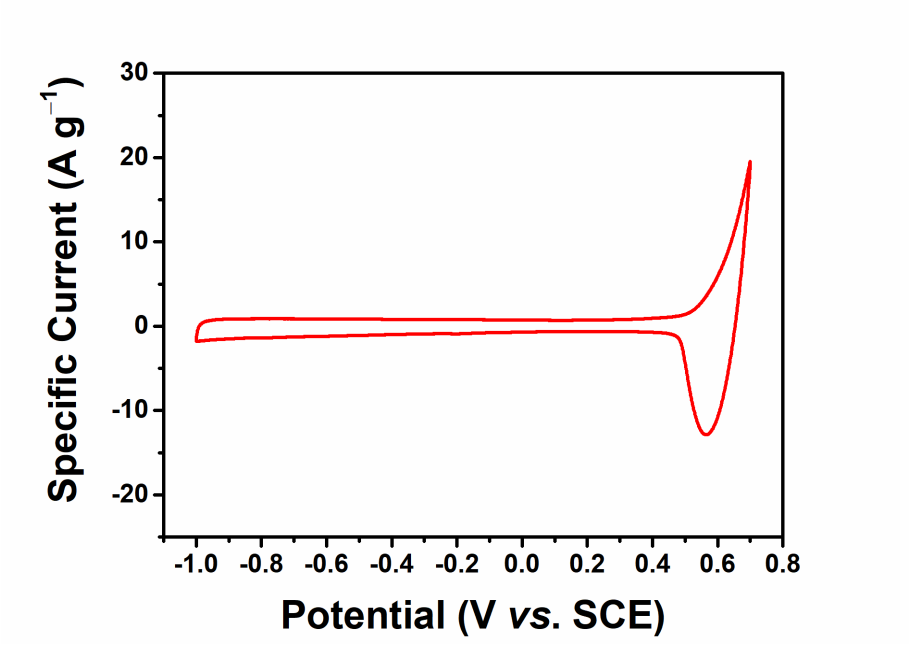

Fig. S7. CV of AC-12h in 2 mol L^{-1} KBr in three-electrode cell.

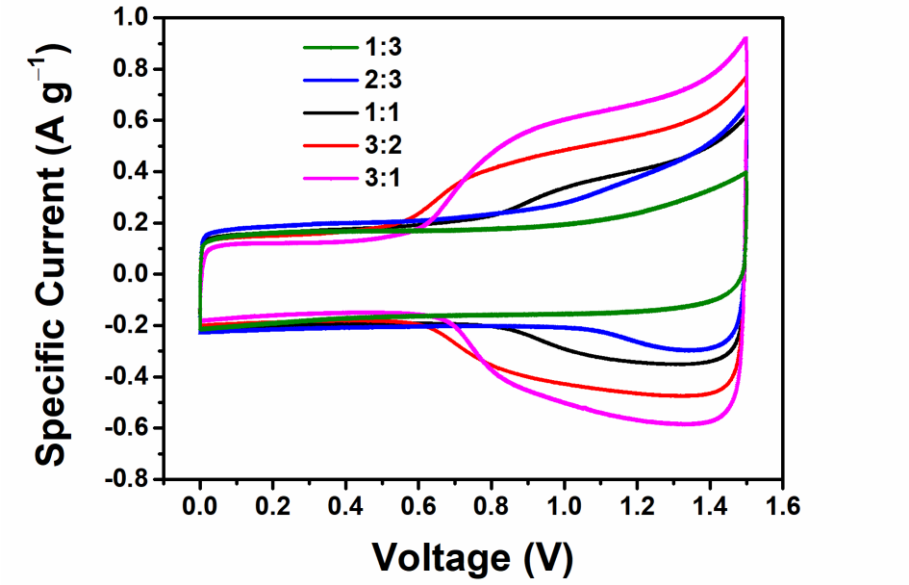

Fig. S8. CVs of two-electrode cells based on AC-12h with different ratios in 2 mol L^{-1} KBr at scan rate of 5 mV s^{-1}.

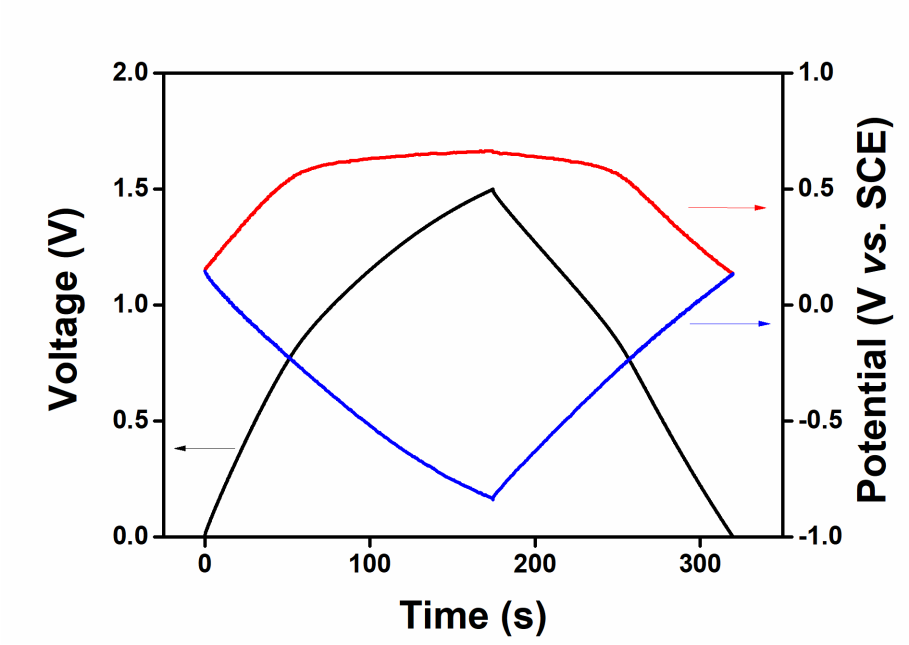

Fig. S9. GCD curves of two-electrode cell and corresponding negatrode and positrode based on AC-12h with ratio of 1:1 at specific current of 0.5 A g^{-1} in 2 mol L^{-1} KBr.

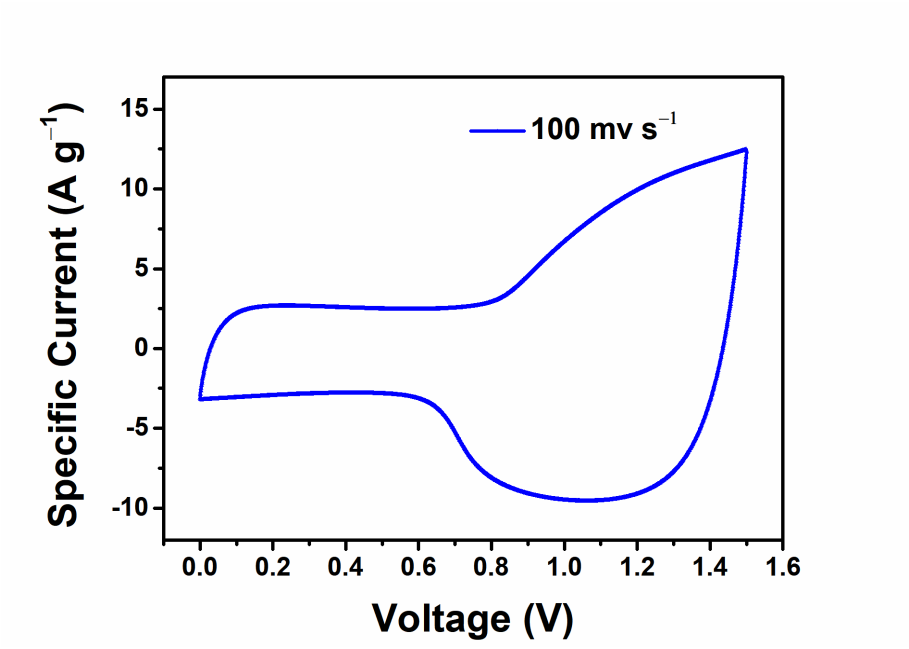

Fig. S10. CV of two-electrode cell based on AC-12h with ratio of 3:1 at scan rate of 100 mV s^{-1} in 2 mol L^{-1} KBr.

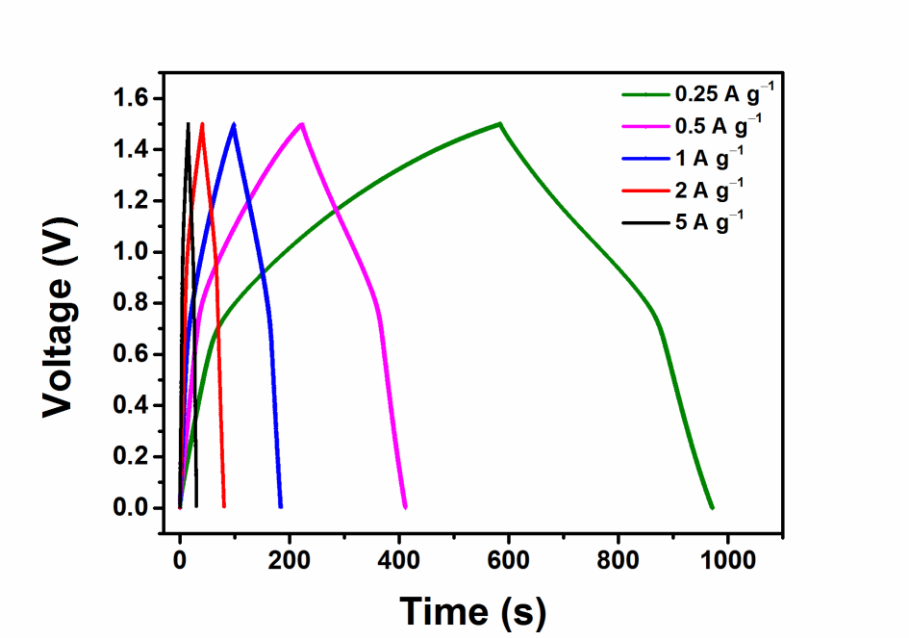

Fig. S11. GCD curves of two-electrode cell based on AC-12h with ratio of 3:1 at different specific current in 2 mol L^{-1} KBr.

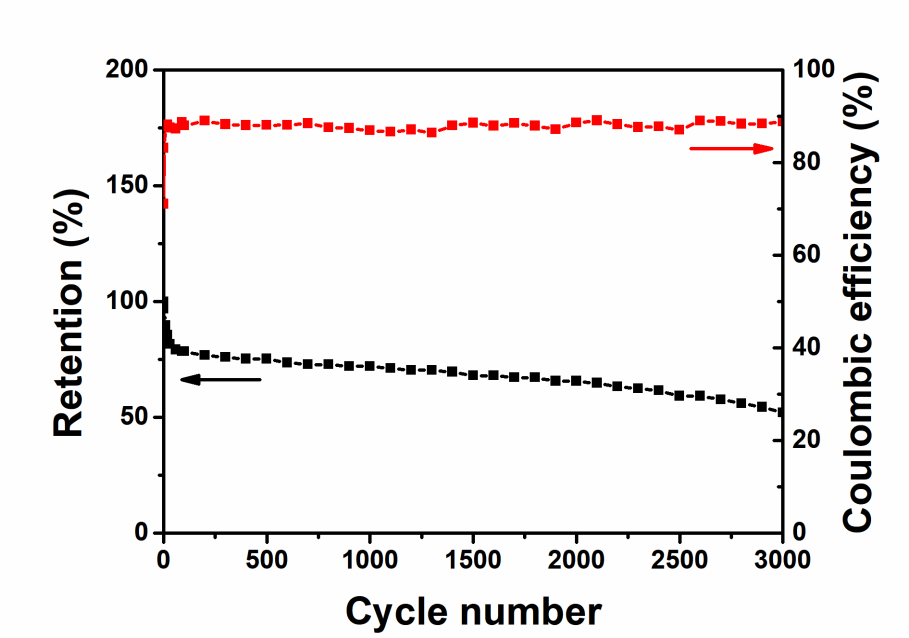

Fig. S12. Cyclic performance of two-electrode cell based on AC-12h with ratio of 3:2 in 2 mol L^{-1} KBr.

Table S1. Peak proportion in C1s of Deoxy-glucoses

	C–C/C=C	C–O	C=O	O–C=O
Deoxy-glucose 6h	21.25%	41.06%	10.68%	27.02%
Deoxy-glucose 12h	31.18%	32.14%	13.11%	23.57%
Deoxy-glucose 24h	26.00%	39.37%	15.71%	18.92%