

Investigation of different aqueous electrolytes on the electrochemical performance of activated carbon-based supercapacitors

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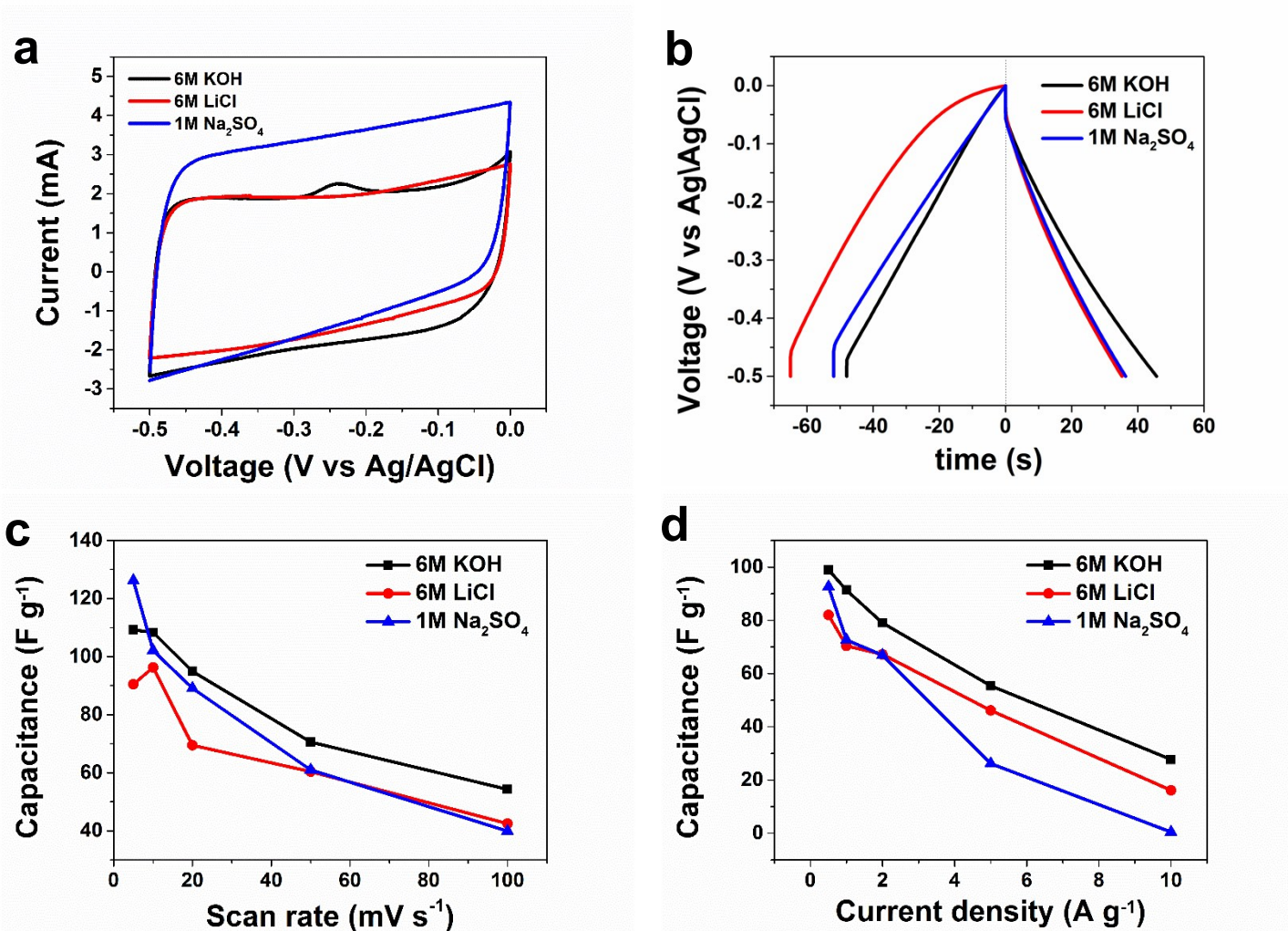


Figure S1 (a) CV curves at scan rates of 5 mV s⁻¹, (b) The galvanostatic charge/discharge curves at 1 A g⁻¹, (c) the specific capacitance as function of the scan rate and (d) the specific capacitance as function of the current density at 0.5 V potential window

Table S1 Result of the specific capacitance as function of the current density at 0.8 V potential window of 6 M KOH

6 M KOH	Current density (A g ⁻¹)				
	0.5	1	2	5	10
C _{Dch} (F g ⁻¹) ^a	129.5	118.49	107.11	89.38	69.88
C _{Ch} (F g ⁻¹) ^a	126.21	115.8	107.23	89.55	70.14
C _{Average} (F g ⁻¹)	127.86	117.15	107.17	89.47	70.01
η (%) ^b	102.6	102.32	99.89	99.81	99.63

^a C_{Dch} and C_{Ch} refer, respectively, to discharge and charge capacitance.

^b η = C_{Dch}/C_{Ch}, the charge/discharge efficiency of electrode with current density

Table S2 Result of the specific capacitance as function of the current density at 0.8 V potential window of 6 M LiCl

6 M LiCl	Current density (A g^{-1})				
	0.5	1	2	5	10
C_{Dch} (F g^{-1})	-	184.22	122.63	75.75	45.05
C_{Ch} (F g^{-1})	-	209.16	129.23	78.53	46.59
C_{Average} (F g^{-1})	-	196.69	125.93	77.14	45.82
η (%)	-	88.07	94.89	96.46	96.69

Table S3 Result of the specific capacitance as function of the current density at 0.8 V potential window of 1 M Na_2SO_4

1 M Na_2SO_4	Current density (A g^{-1})				
	0.5	1	2	5	10
C_{Dch} (F g^{-1})	-	93.3	86.09	70.71	31.58
C_{Ch} (F g^{-1})	-	120.9	96.78	74.43	32.38
C_{Average} (F g^{-1})	-	106.65	80.26	72.57	31.98
η (%)	-	77.17	88.95	95	97.52