

Fig. S1: Cyclic voltammetry (CV) measurements of Ni-BDC MOF electrode at different scan rates; (a) 1 M KOH electrolyte and (b) 1 M Na₂SO₄ electrolyte.

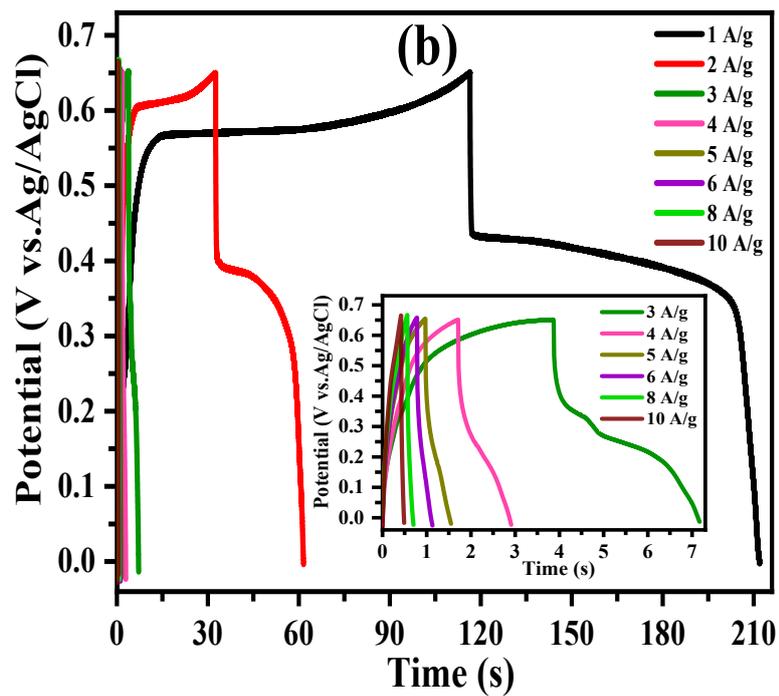
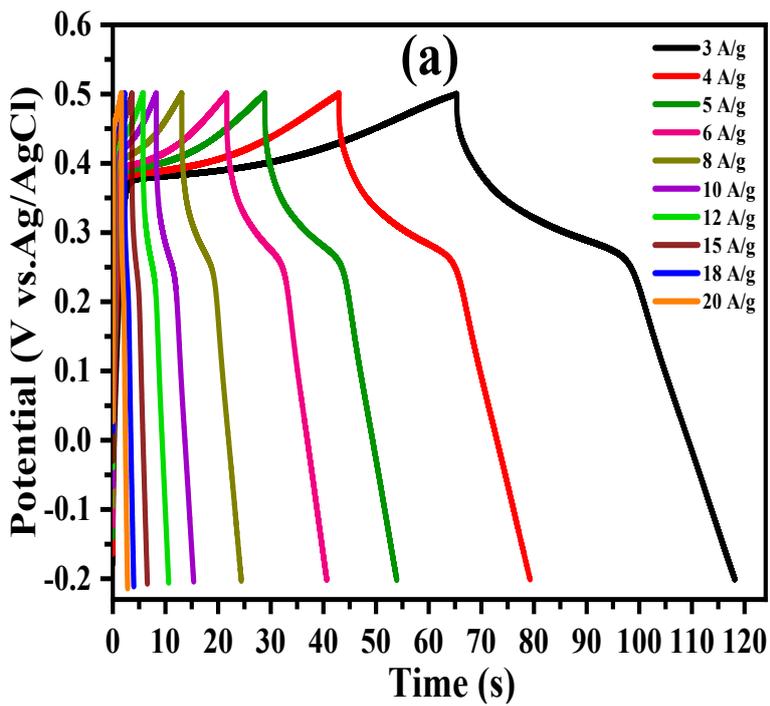


Fig. S2: (a) Galvanostatic charge-discharge (GCD) curves of Ni-BDC MOF electrode at different current densities; (a) 1 M KOH electrolyte and (b) 1 M Na₂SO₄

Electrolyte	R _s (Ω)	CPE1		R _{ct1} (Ω)	W	CPE2		R _{ct2} (Ω)
		Y ₀	n			Y ₀	n	
KOH	2.247	0.01384	0.4878	25.83	0.007577	0.03389	0.6659	891.9
H ₂ SO ₄	1.399	0.01186	0.4609	6.74	0.1204	0.005051	0.6724	72.54
Na ₂ SO ₄	2.975	0.001468	0.5533	7.157	0.003014	0.002746	0.9043	4733
H ₂ SO ₄ + KI	1.486	0.01950	0.677	1.316	---	0.003862	0.4739	44.38

electrolyte (inset is GCD curves at 3 to 10 A/g current densities).

Table S1. Electrochemical parameters derived from the electrochemical equivalent circuit (EC) fitting the data obtained from electrochemical impedance spectroscopy (EIS) for Ni-BDC MOF electrode in different electrolytes.

