

## Supporting Information

### **Three-dimensional printing, an emerging advanced technique in electrochemical energy storage and conversion**

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**Table S1** Brief summary of typical 3D printed electrocatalysts

Materials	Testing condition	$E_j = 10$ (V) <sup>b</sup>	Tafel slope (mV dec <sup>-1</sup> )	Ref.
ZIF-67/Ti-E	1.0 mol L <sup>-1</sup> NaOH	360 mV	66	[24]
Gr/AME-Ni Fe10%	0.1 mol L <sup>-1</sup> KOH	519 mV	46	[26]
MoS <sub>x</sub>	0.5 mol L <sup>-1</sup> H <sub>2</sub> SO <sub>4</sub>	297 mV	119	[25]
3D GC/NiFeP	1.0 mol L <sup>-1</sup> KOH	120 mV	97	[22]
NiCo <sub>2</sub> S <sub>4</sub> needle	1.0 mol L <sup>-1</sup> KOH	226 mV	38.7	[23]

**Table S2** Brief summary of typical 3D printed battery electrodes

Material	Current density	Capability	Ref.
graphene/PAA	40 mA g <sup>-1</sup>	500 mAh g <sup>-1</sup>	[42]
SnO <sub>2</sub> QDs	0.05 A g <sup>-1</sup>	991.6 mAh g <sup>-1</sup>	[43]
Ag nanoparticle	0.1 C	95 mAh g <sup>-1</sup>	[44]
LiMn <sub>2</sub> O <sub>4</sub>	0.5 C	40 mAh g <sup>-1</sup>	[45]
lithium cobalt oxide	C/40	121 mAh g <sup>-1</sup>	[46]
LFP fiber	50 mA g <sup>-1</sup>	110 mAh g <sup>-1</sup>	[30]
LaB <sub>6</sub> /SP@S	1 C	600 mAh g <sup>-1</sup>	[31]
3DP-NC	10 mA cm <sup>-2</sup>	30 mAh cm <sup>-2</sup>	[36]
3D Na@rGO/CNT	100 mA g <sup>-1</sup>	67.6 mAh g <sup>-1</sup>	[37]