

# Bi/3DPG composite structure optimization realizes high specific capacity and rapid sodium-ion storage

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## Supplementary materials

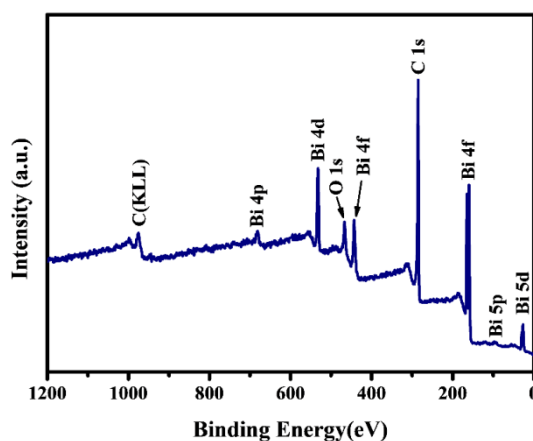


Fig. S1 XPS spectrum of Bi/3DPG-M composite.

Table S1 Pore analysis result of 3DPG and Bi/3DPG

Samples	SBET (m <sup>2</sup> /g)	V <sub>t</sub> (cm <sup>3</sup> /g)	Pore Volume (cm <sup>3</sup> /g)			Pore Volume (%)		
			V <sub>Mic</sub>	V <sub>Me</sub>	V <sub>Mac</sub>	V <sub>Mic</sub>	V <sub>Me</sub>	V <sub>Mac</sub>
3DPG	144.2206	0.059057	0.0047	0.4061	0.1621	0.8	70.9	28.3
Bi/3DPG-L	60.4929	0.021985	0.0066	0.1872	0.0354	2.9	81.7	15.4
Bi/3DPG-M	62.3252	0.023157	0.0080	0.1660	0.0294	3.9	81.6	14.5
Bi/3DPG-H	39.6126	0.014694	0.0007	0.0793	0.0582	0.5	57.4	43.7

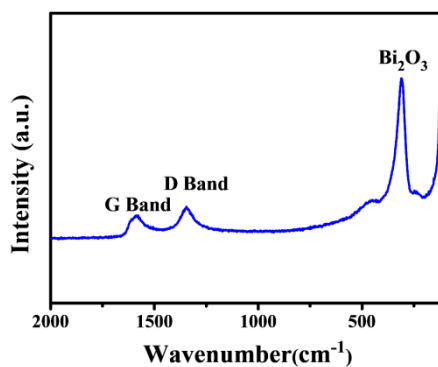
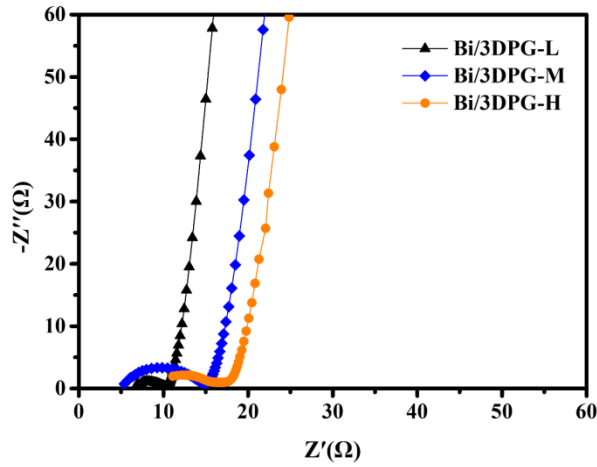
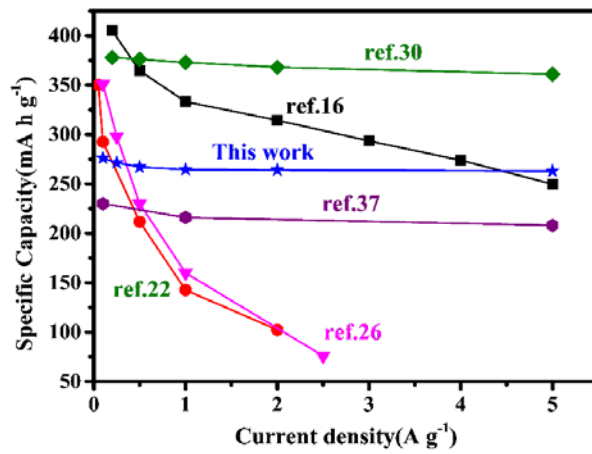


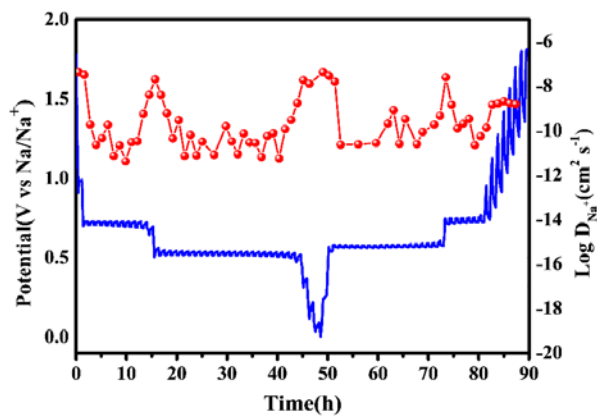
Fig. S2 Raman spectrum of Bi/3DPG-M.



**Fig. S3** Nyquist plots of Bi/3DPG-L, Bi/3DPG-M, and Bi/3DPG-H composite electrodes after 100 cycles at 0.1 A·g<sup>-1</sup>.



**Fig. S4** Rate performance comparison of Bi/3DPG-M with reported Bi-based anode materials for SIB.



**Fig. S5** GITT curves and the corresponding Na<sup>+</sup> diffusion coefficients of Bi/3DPG-M anode.