Supplementary Material

Microstructure modulation improving stability performance of Bi anode for lithium-ion batteries

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Figures

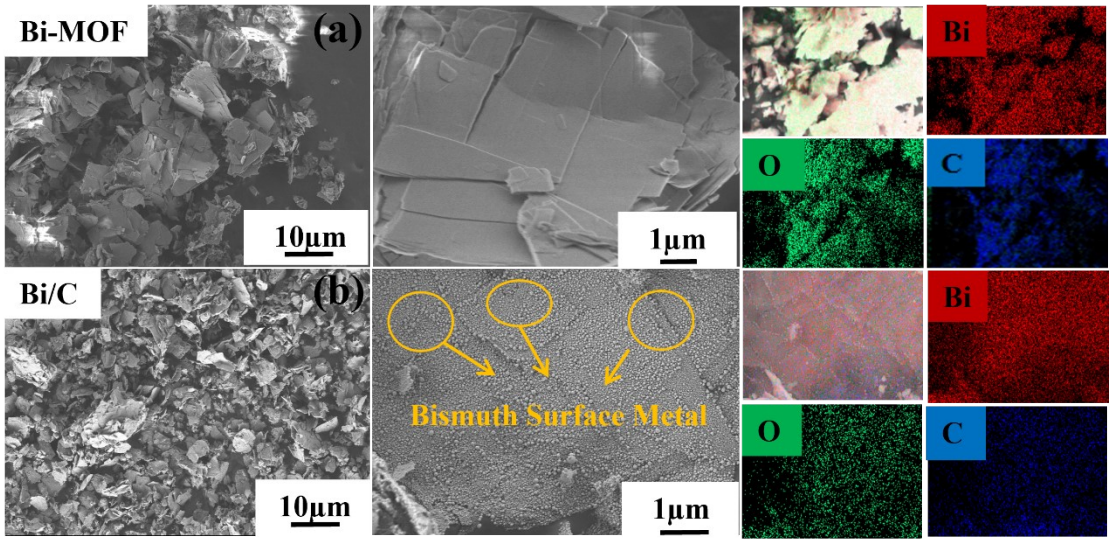

Fig. S1 (a) SEM and EDS plots of Bi-MOF; (b) SEM and EDS plots of Bi/C

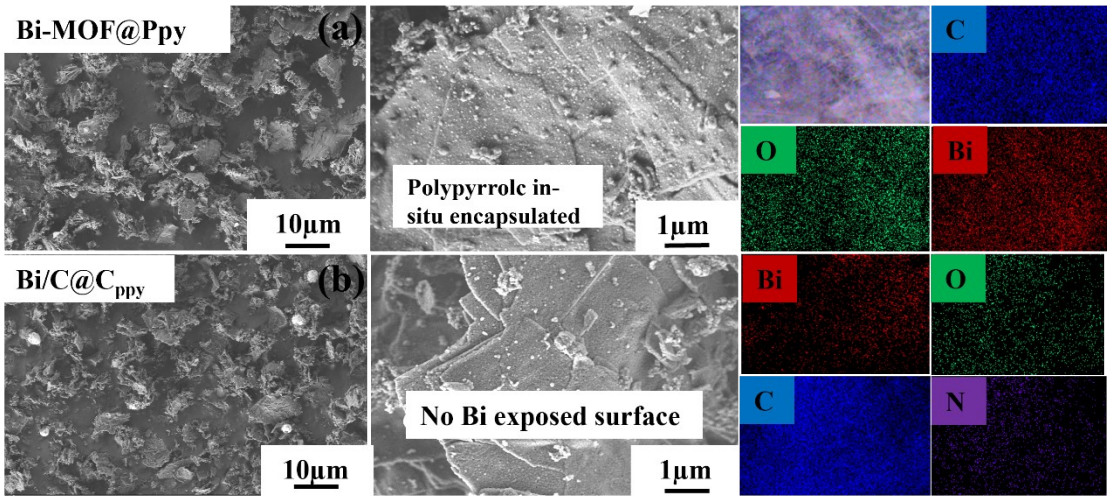

Fig. S2 (a) SEM and EDS plots of Bi-MOF@Ppy; (b) SEM and EDS plots of Bi/C@Cppy

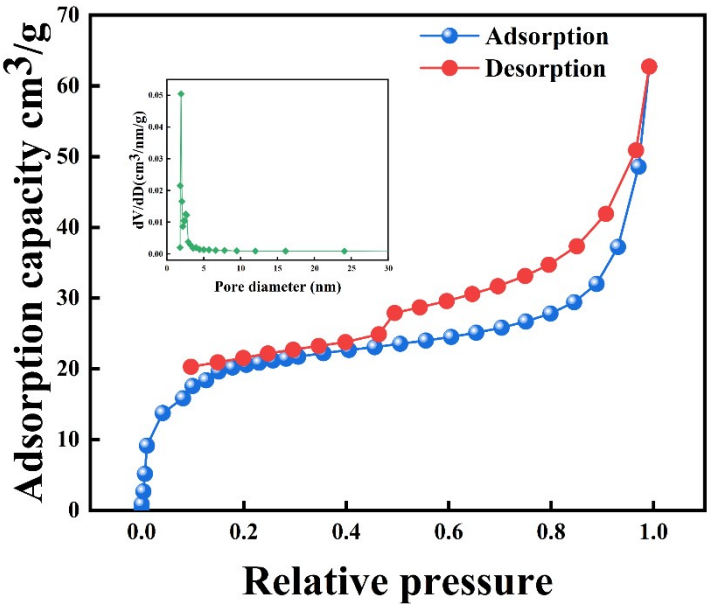

Fig.S3 N_2 adsorption-desorption isotherm

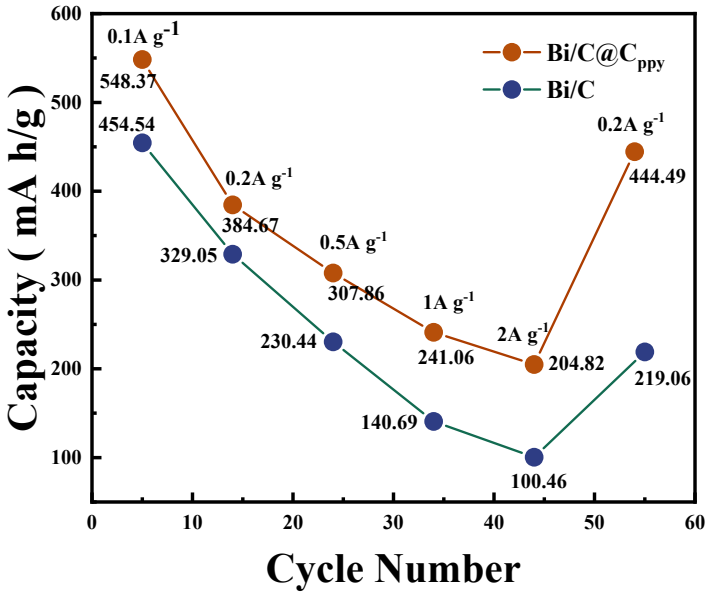

Fig.S4 The initial discharge/charge profiles of electrodes at various current densities

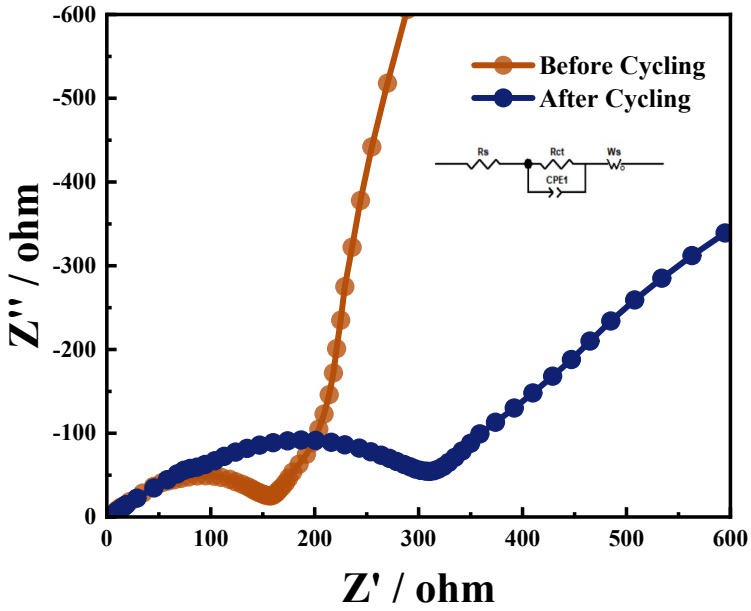

Fig. S5 The EIS curves of the Bi/C@C$_{Ppy}$ after cycling

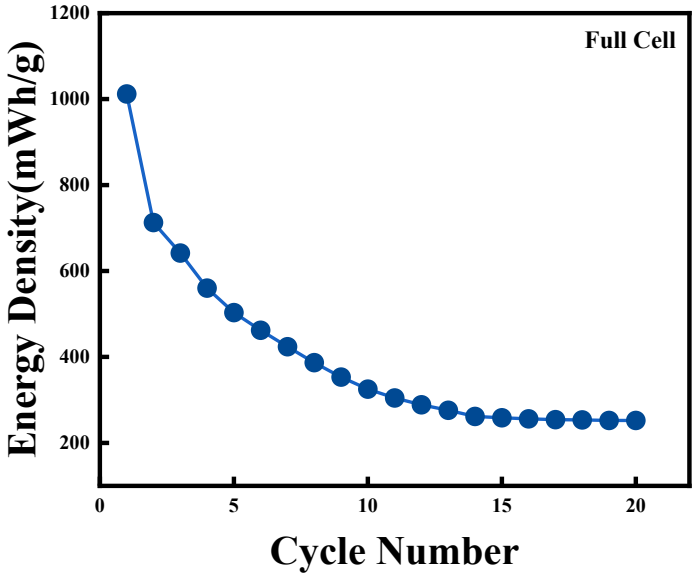

Fig. S6 The energy density of the full battery

Table S1 A comparison of this work and the reported Bi/C anodes

sample name	strategy	discharge capacity	full cell
Bi_2S_3@C[1]	carbon coated	331mAhg^{-1}@10Ag^{-1}	
Bi@C/C NL[2]	sandwiched carbon nanolayers	427.5mAhg^{-1}@0.5Ag^{-1}	
Bi_2/C[3]	Yolk–Shell Bi@C Nanospheres	200mAhg^{-1}@1.25Ag^{-1}	

Bi@C[4]	micro/meso-porous Bi@C nanoplates	556 mA hg $^{-1}$ mAhg^{-1}@0.01Ag^{-1}	
This work (Bi/C@C_{Ppy})	in-situ carbon coated	526.4mAhg^{-1}@0.1Ag^{-1}	$Li_{1.2}N_{0.13}Co_{0.13}Mn_{0.64}O_2$//Bi/C@$C_{Ppy}$

References

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