

Supporting Information

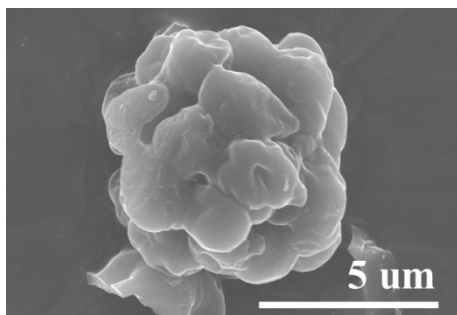


Fig. S1 The SEM image of the N/P-C.

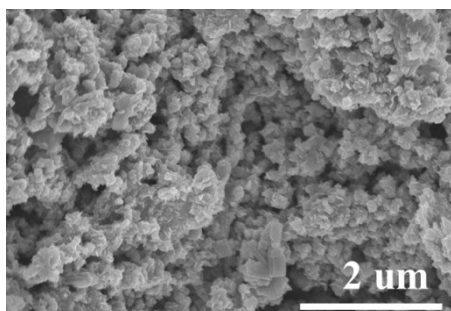


Fig. S2 The SEM image of the bulk MoS₂.

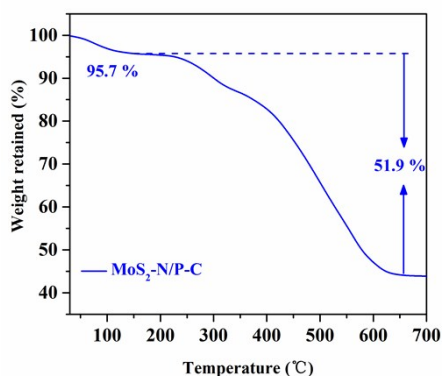


Fig. S3 The TGA curve of MoS₂-N/P-C obtained in an air flow at a heating rate of 10 °C min⁻¹ from room temperature to 700 °C.

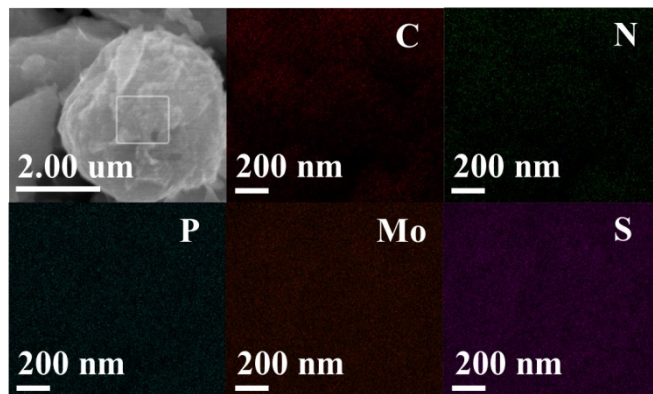


Fig. S4 Element mapping images of MoS₂-N/P-C from Energy Dispersive X-Ray Spectroscopy.

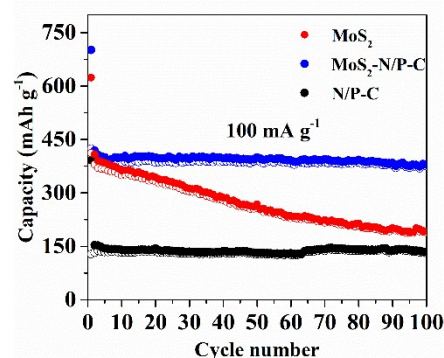


Fig. S5 Cyclic performances of the bulk MoS₂, N/P-C and MoS₂-N/P-C electrodes at current density of 100 mA g⁻¹.

Table S1 The elemental contents of MoS₂-N/P-C composite.

Element	Weight %
C	35.9
N	5.6
P	10.3
Mo	30.2
S	18.0

Table S2 Comparison of selected performance metrics of MoS₂ SIBs electrodes.

Electrode materials	Specific capacity (mAh g ⁻¹)	Current density (A g ⁻¹)	Number of cycles	Ref.
BD-MoS ₂	272	5	1000	S1
MoS ₂ /NSG-AG	320	0.5	500	S2
MoS ₂ /C-NR	385	0.5	350	S3

Ex-MoS ₂ /RGO@C	415	0.1	150	S4
MoS ₂ @CF	240	1	500	S5
MoS ₂ /C	340/320	2/4	600	S6
FM-HPCF	234	1	3000	S7
S/MoS ₂	413	0.1	100	S8
NW-MoS ₂ @rGO	289	2	500	S9
G@MoS ₂ -C	253	3	4500	S10
MoS ₂ -N/P-C	172	5	2000	This work

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