

Supporting Information

Sheet-like MoSe₂/C composites with enhanced Li-ion storage properties

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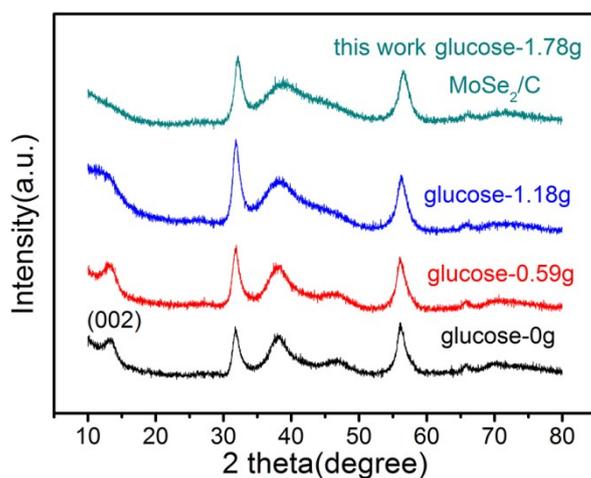


Fig. S1 The XRD patterns of MoSe₂/C composites with different glucose in the reaction system. The higher carbon content in the MoSe₂/C composites, the weaker the (002) plane diffraction peak.

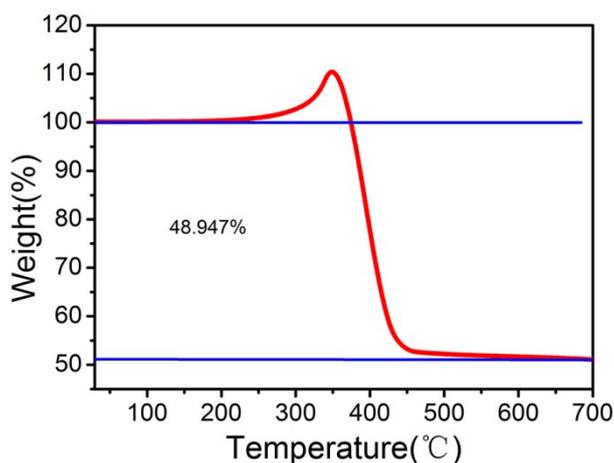
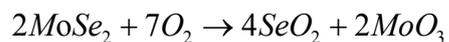


Fig. S2 TGA curves of MoSe₂/C composites

The weight increase below 350 °C, this can be attribute to the formation of SeO₂ during the oxidation of MoSe₂. While the weight loss in 350 °C to 550 °C is associate with the gasification of SeO₂, the further oxidation of MoSe₂ and combustion of the amorphous carbon, the final products are MoO₃.

The content of MoSe₂ in MoSe₂/C composites can be calculated from the reaction below.



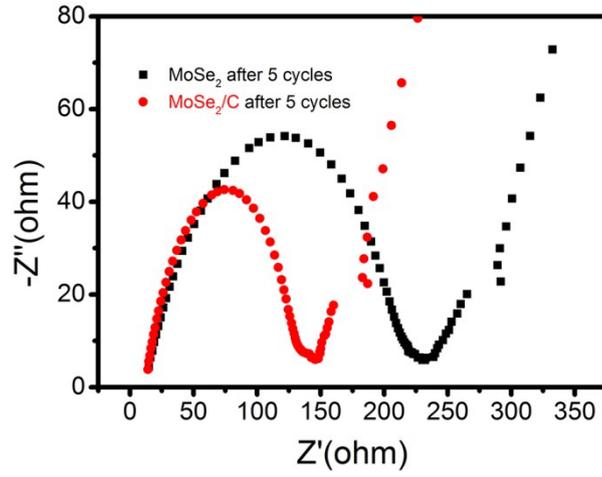


Fig. S3 Nyquist plots of pure MoSe₂ and MoSe₂/C composites after 5 cycles.

Table S1 | Impedance parameters derived using equivalent circuit model for MoSe₂ and MoSe₂/C composites electrodes

electrodes	Rs(Ω)	Rf(Ω)	Rct(Ω)
MoSe ₂ (fresh)	12.93	151.3	264.4
MoSe ₂ /C(fresh)	12.66	71.58	105.4
MoSe ₂ (after 5 cycles)	14.69	219.1	363.6
MoSe ₂ /C(after 5 cycles)	14.02	128.6	224.6