

Electronic Supplementary Information

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High performance platinum-free counter electrode of molybdenum
sulfide/carbon used in dye-sensitized solar cells †

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Figure S1-S4, Table S1

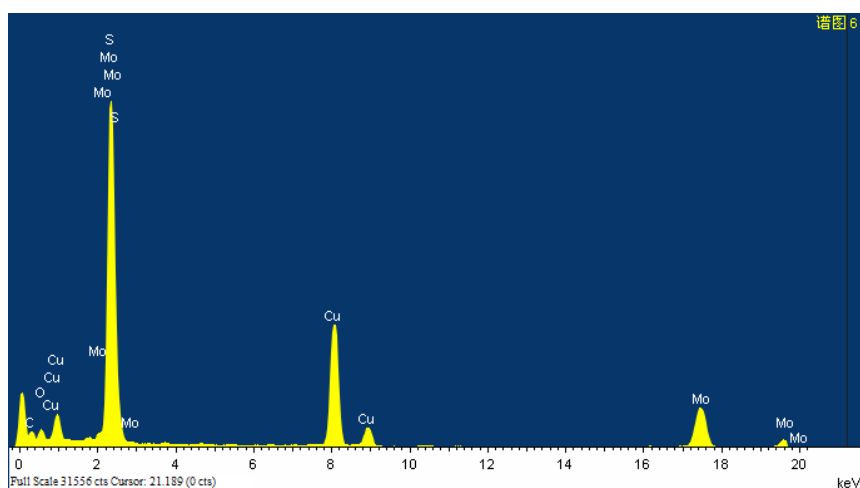


Fig. S1 EDS spectrum of the MoS₂/C sample.

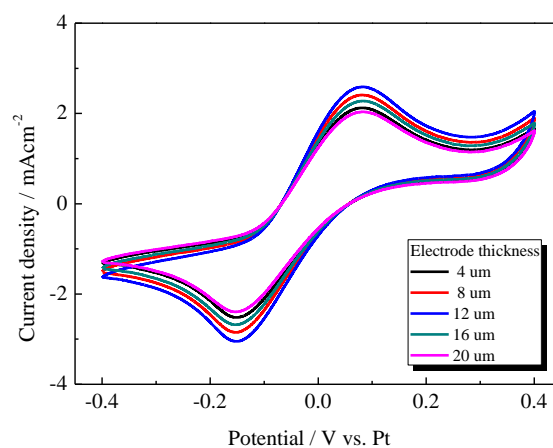


Fig. S2 CVs for MoS₂/C electrodes with different thicknesses, measuring at scan rate of 10 mV·s⁻¹.

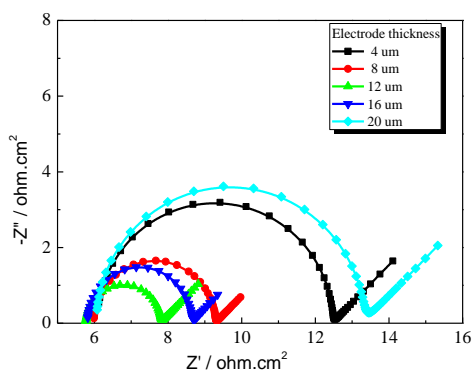


Fig. S3 Nyquist plots of the dummy cells based on two identical MoS₂/C electrodes with different thicknesses.

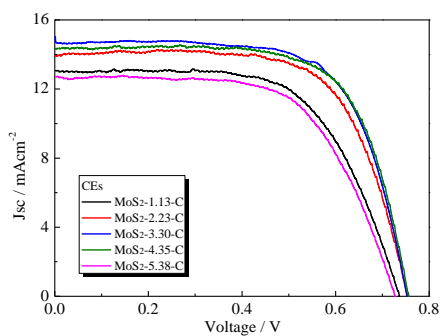


Fig. S4 *J-V* curves of the DSSCs based on the MoS₂/C CEs with different carbon contents.

Table S1 The photoelectric properties of the DSSCs based on the MoS₂/C CE with various thicknesses. (*V_{oc}*: open circuit voltage; *FF*: fill factor; *J_{sc}*: short-circuit current density)

CE thickness	<i>V_{oc}</i> (V)	<i>J_{sc}</i> (mA·cm ⁻²)	<i>FF</i>	<i>η</i> (%)
4 μm	0.68	12.29	0.61	5.10
8 μm	0.73	14.53	0.65	6.89
12 μm	0.75	15.07	0.68	7.69
16 μm	0.74	14.35	0.66	7.01
20 μm	0.67	12.48	0.58	4.85