Supplementary Material

Carbon-coated MoO_2 Nanoclusters Anchored on RGO Sheets as High Performance Electrodes for Symmetric Supercapacitors

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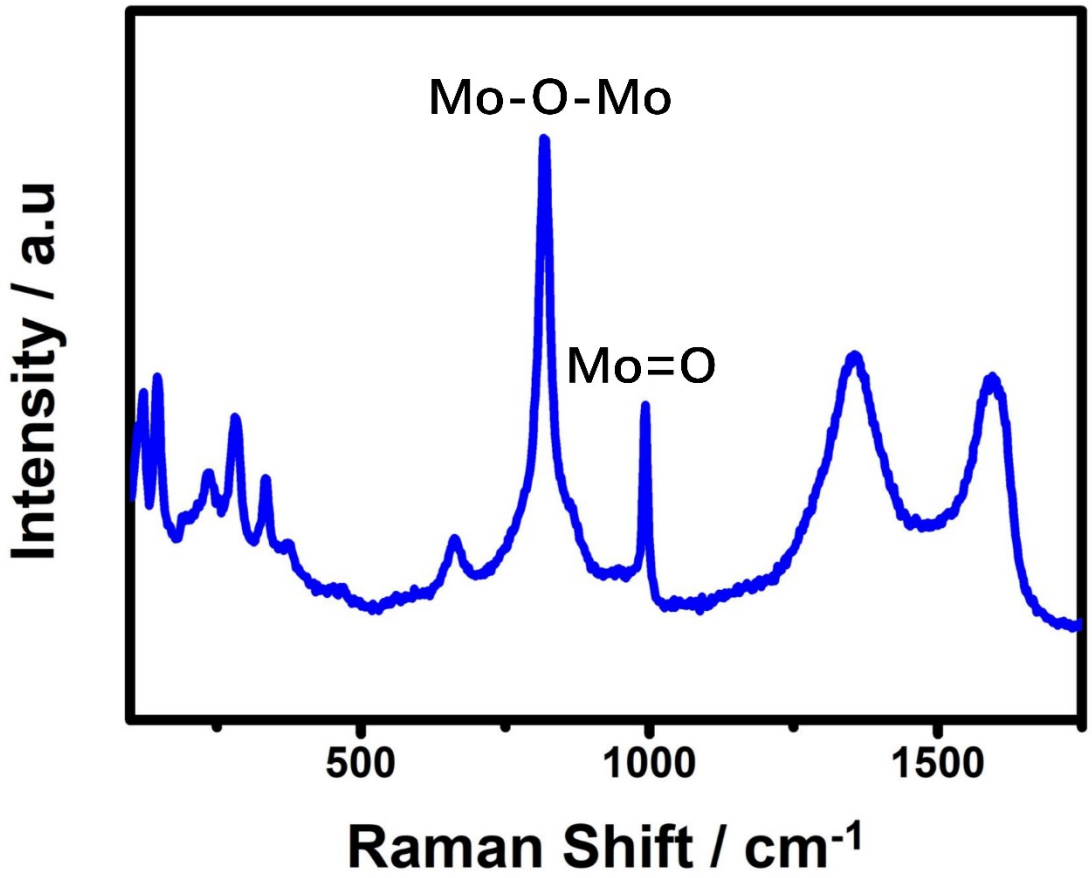

Figure S1. Raman spectrum of RGO@MoO_2/C.

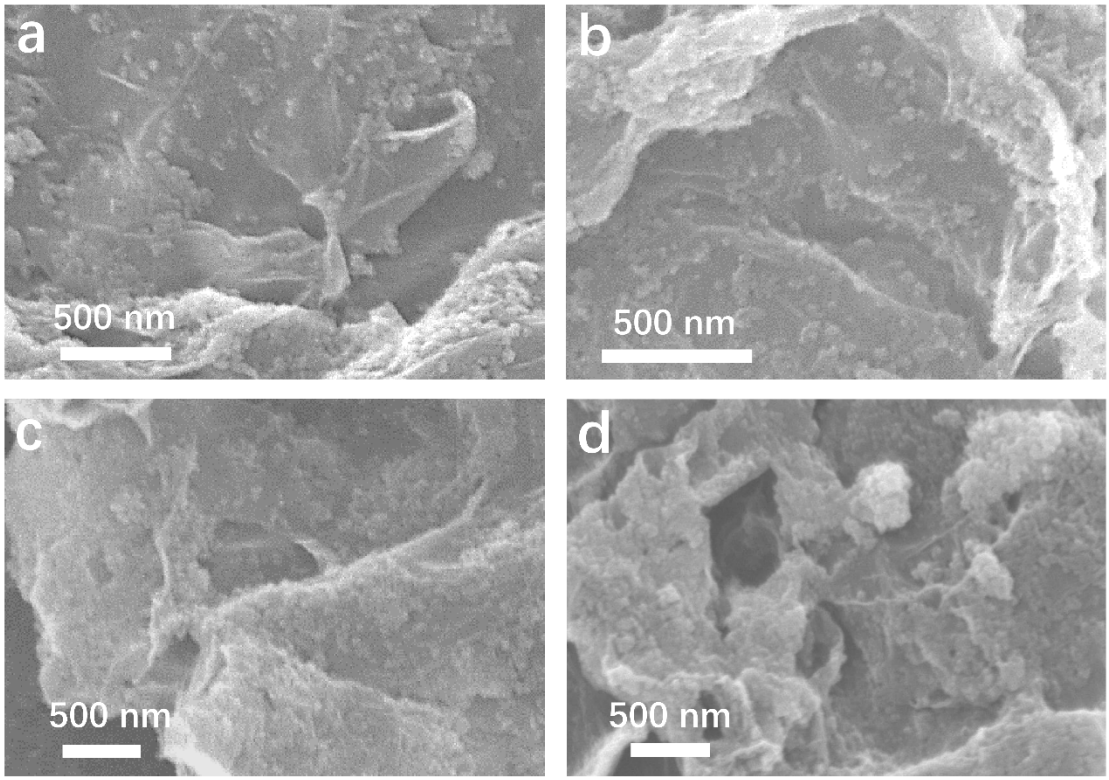

Figure S2. SEM images of RGO@MoO_2/C composites with different GO mass ratios: (a) 15 wt% GO, (b) 10 wt% GO, (c) 5 wt% GO and (d) 2.5 wt% GO.

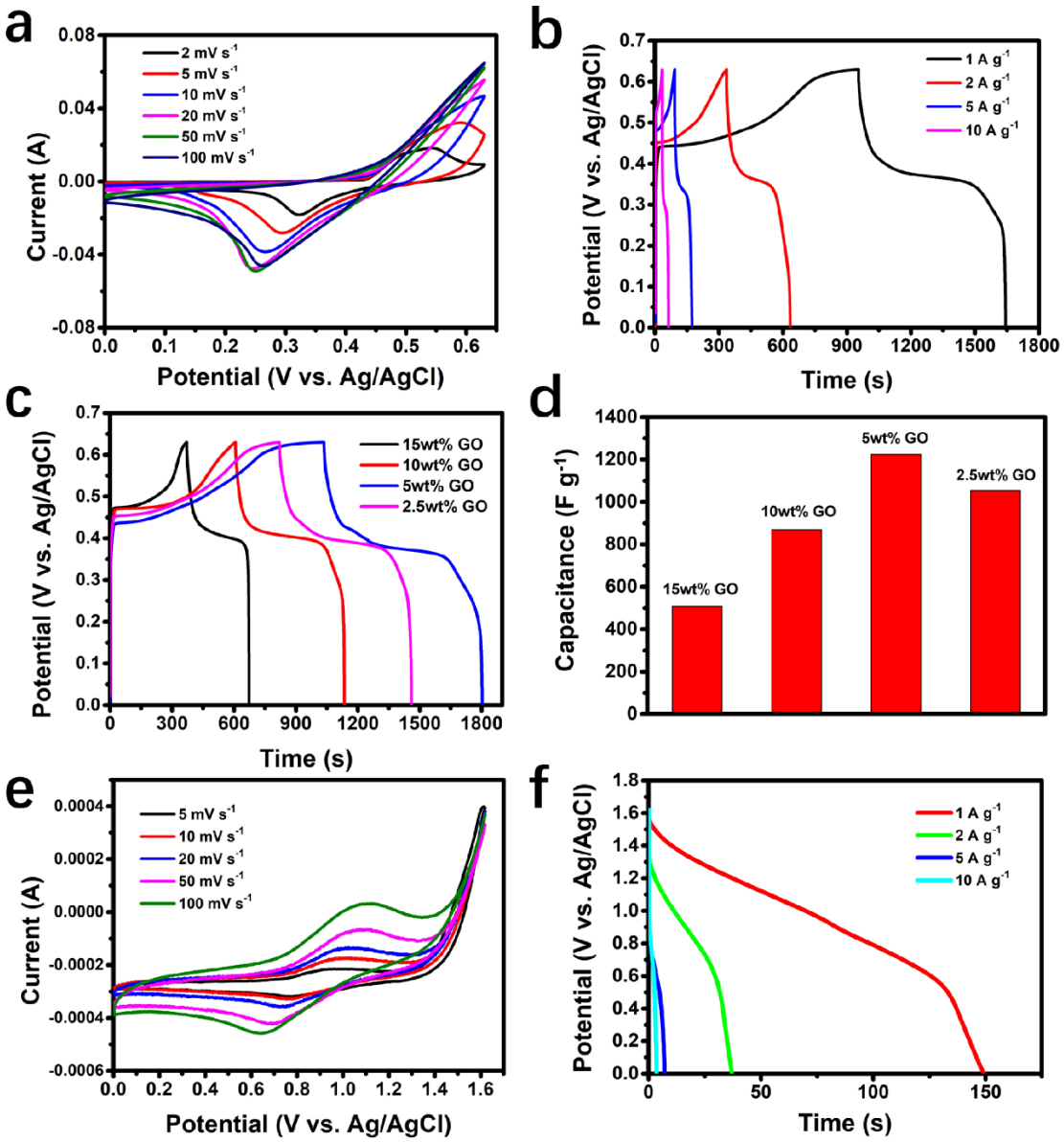

Figure S3. (a) CV curves and (b) CD curves of MoO_2/C. (c) CD curves (1 A g^{-1}) of RGO@MoO_2/C composites with different mass ratio and their (d) calculated specific capacitance. (e) CV curves and (f) discharging curves of the ASC.

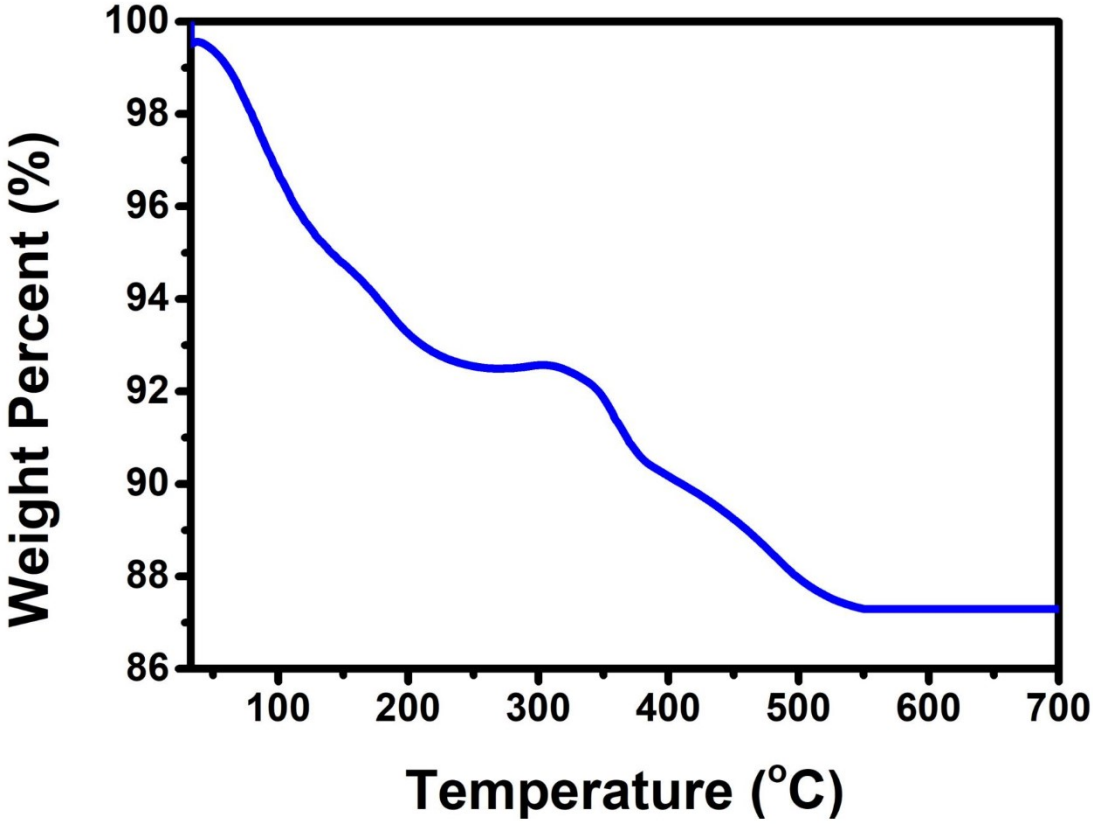

Figure S4. TGA curve of RGO@MoO_2/C.

Table S1. Comparison of the electrochemical performance in previously reported MoO_2 electrodes for supercapacitors.

Electrode materials	**Electrolyte**	**Initial capacitance**	**Capacitance retention**	**Reference**
RGO@MoO_2/C	3M KOH	1224.45 F g^{-1} (1 A g^{-1})	92% after 3000 cycles (5 A g^{-1})	This work
MoO_2 nanoparticles	3M KOH	621 F g^{-1} (1 A g^{-1})	90% after 1000 cycles (1 A g^{-1})	22
One-dimensional MoO_2 nanorods	1M H_2SO_4	140 F g^{-1} (1 A g^{-1})	_	25
MoO_2/CNTs	3M KOH	424.7 F g^{-1} (1 A g^{-1})	92.8% after 3000 cycles (5 A g^{-1})	35
Ordered Mesoporous Carbon/MoO_2	1M H_2SO_4	395 F g^{-1} (1 A g^{-1})	90% after 3000 cycles (5 A g^{-1})	38
MoO_2/RGO	1M H_2SO_4	434 F g^{-1} (1 A g^{-1})	90% after 1000 cycles (20A g^{-1})	39