Supplementary Information for

One-pot synthesis of graphene/zinc oxide by microwave irradiation with

enhanced supercapacitor performance

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Fig. S1 (a, c) CV curves of MRGO and ZnO at different scan rates measured in a three-electrode system; (b, d) Galvanostatic charge–discharge curves of MRGO and ZnO electrode with different current densities.

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Fig. S2 SEM image, CV curves with different scan rates and galvanostatic charge-discharge curves with different densities of MRGO/ZnO with the weight ratio of graphene oxide and $Zn(CH_3COO)_2 \cdot 2H_2O$ of 1:1 (a, b, c) and 4:1 (d, e, f), respectively.

Table S1 Electrochemical performance of the samples with different weight ratio of graphene oxide and Zn(CH₃COO)₂·2H₂O after microwave irradiation

| Weight ratio of graphene | 4:1 | 2:1 | 1:1 |
|---|----------------------|-----------------------|----------------------|
| oxide and | | | |
| Zn(CH ₃ COO) ₂ ·2H ₂ O | | | |
| Specific capacitance at a | 75 F g ⁻¹ | 201 F g ⁻¹ | 79 F g ⁻¹ |
| current density of 1 A g ⁻¹ | | | |



Fig. S3 Nyquist plots of MRGO, ZnO and MRGO/ZnO in a two-electrode system, inset is the expanded high-frequency region of the plots.