Supporting Information

Hierarchical Core-Shell 2D MOF Nanosheet Hybrid Arrays for High-Performance Hybrid Supercapacitors

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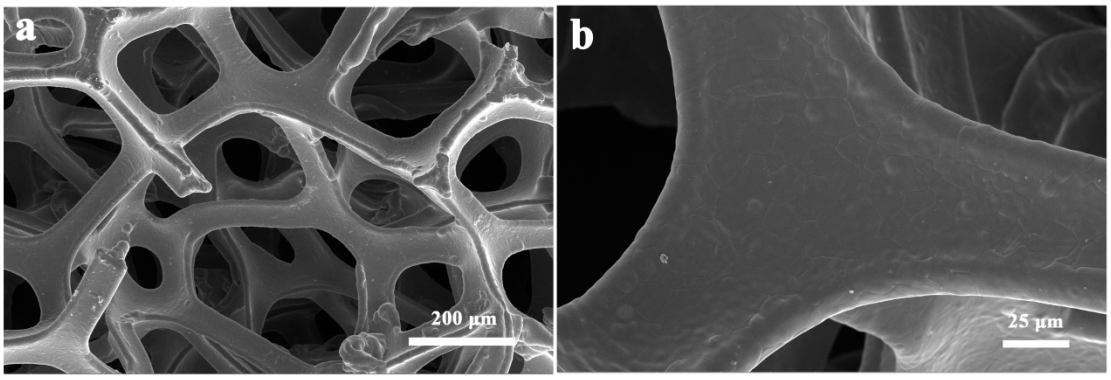

Figure S1. (a, b) SEM images of bare Ni foam at different magnifications.

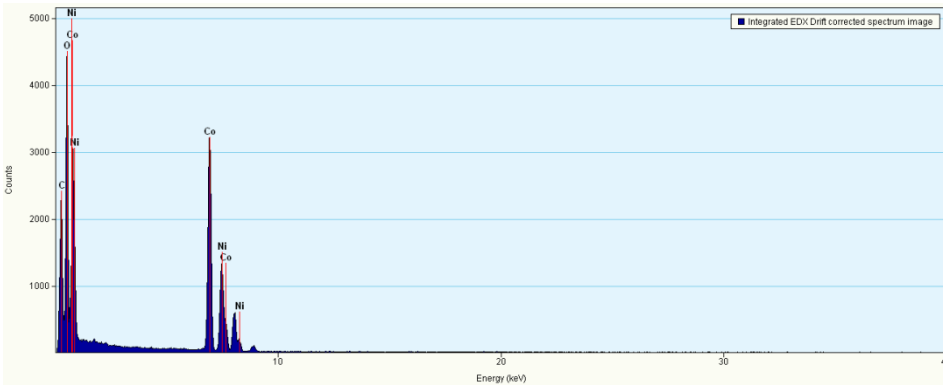

Figure S2. EDX spectrum of the Co_3O_4@Ni-MOF/NF

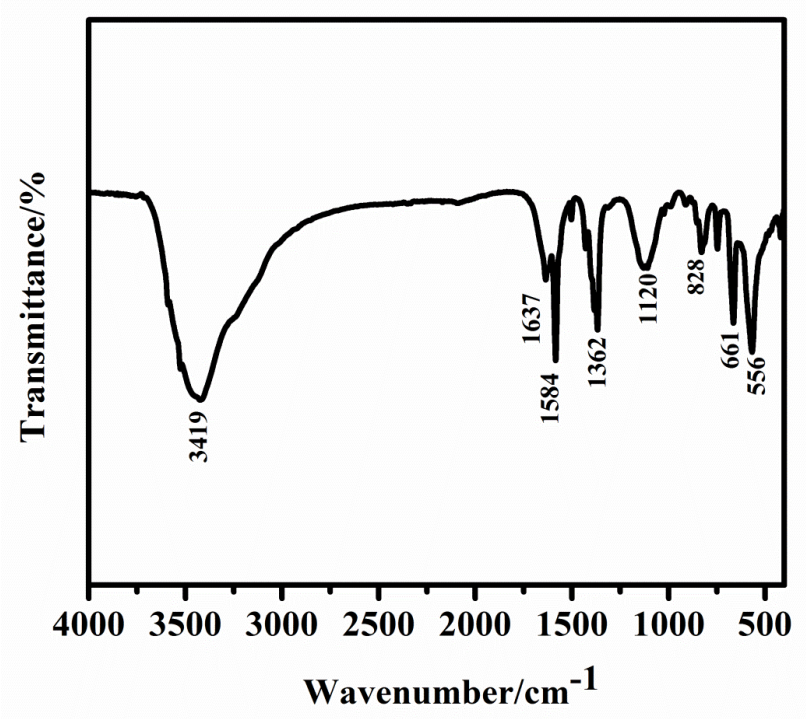

Figure S3. FTIR spectrum of the as-prepared Co_3O_4@Ni-MOF

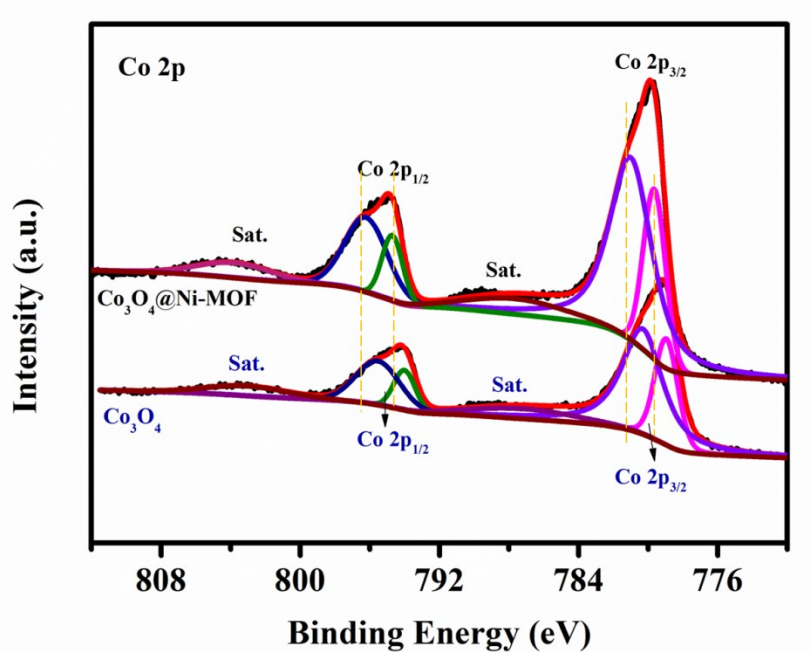

Figure S4. Core-level XPS spectra of the Co_3O_4@Ni-MOF and Co_3O_4 in Co 2p region.

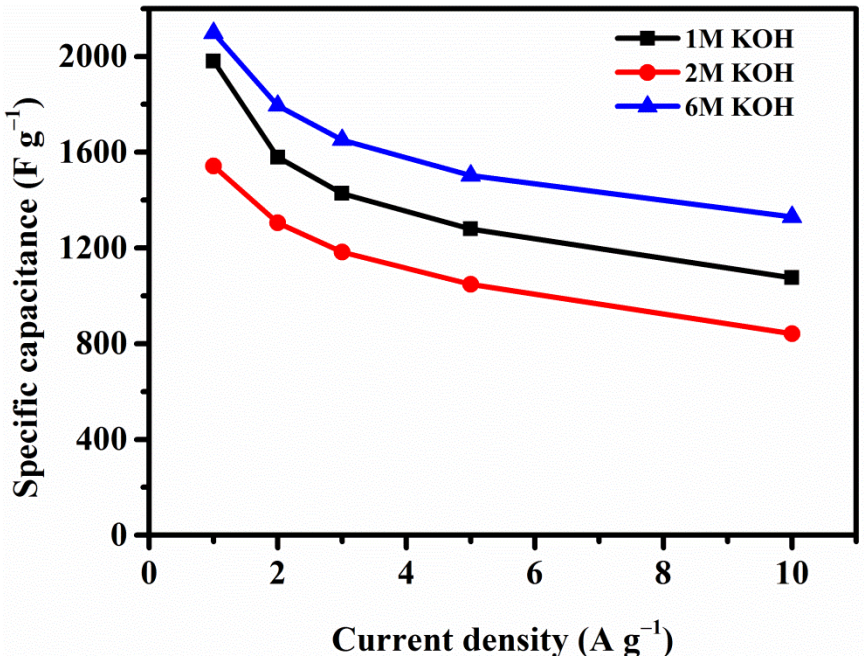

Figure S5. Specific capacitance of the Co_3O_4@Ni-MOF/NF electrode in different concentrations of KOH.

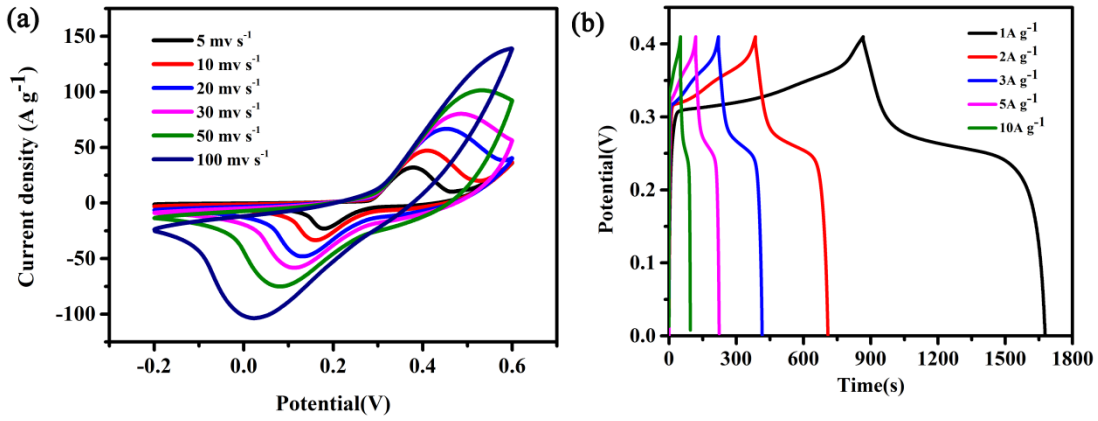

Figure S6. CV curves (a) at different scan rates and GCD curves (b) at different current densities of the Co_3O_4@Ni-MOF/NF.

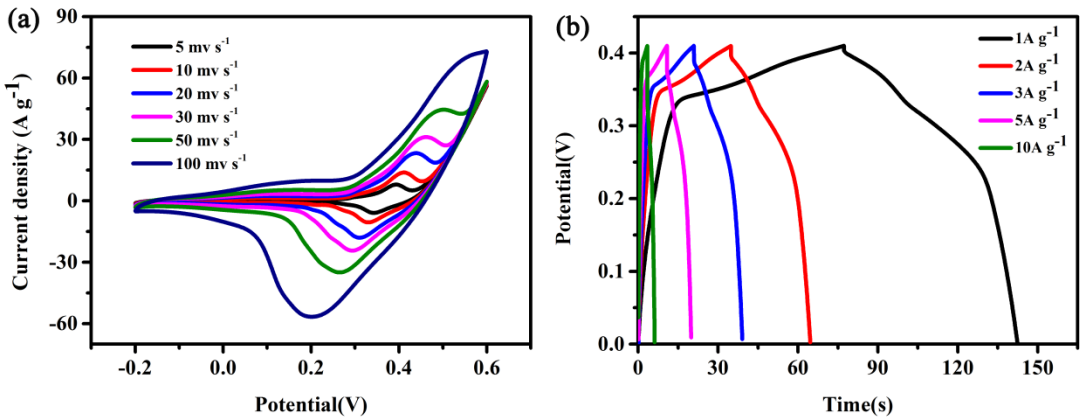

Figure S7. CV curves (a) at different scan rates and GCD curves (b) at different current densities of the Co_3O_4/NF.

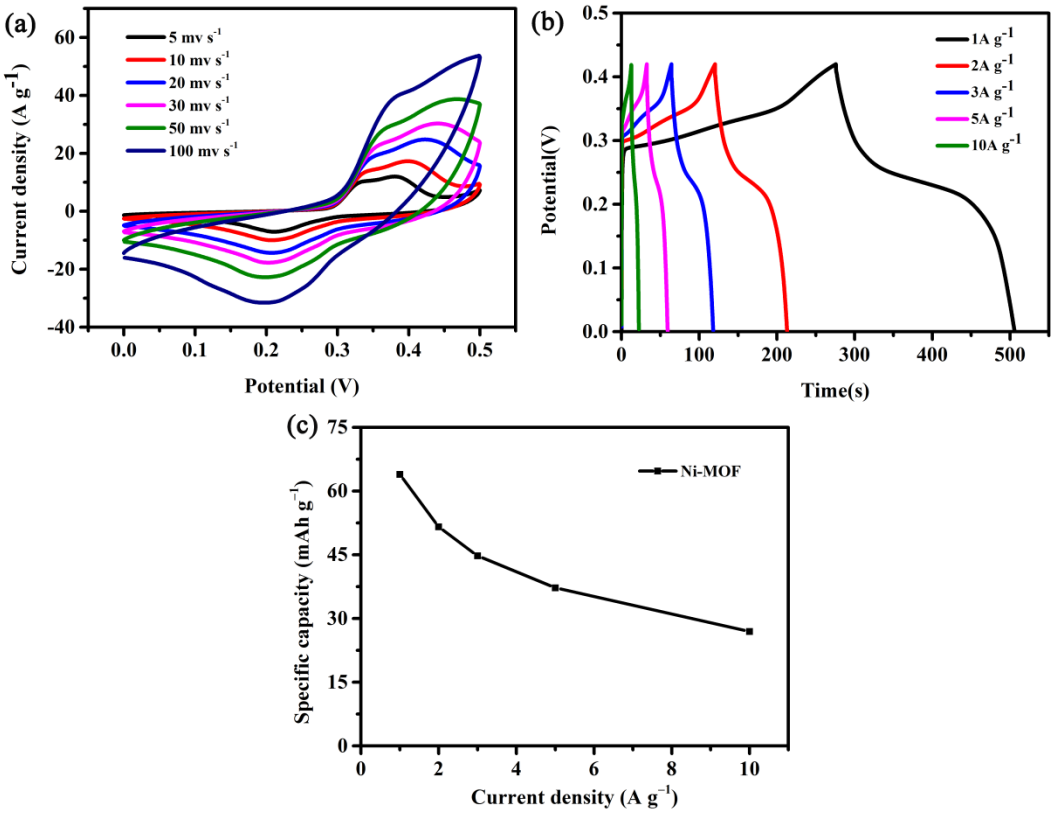

Figure S8. CV curves (a) at different scan rates, GCD curves (b) at different current densities and corresponding specific capacity (c) of the Ni-MOF.

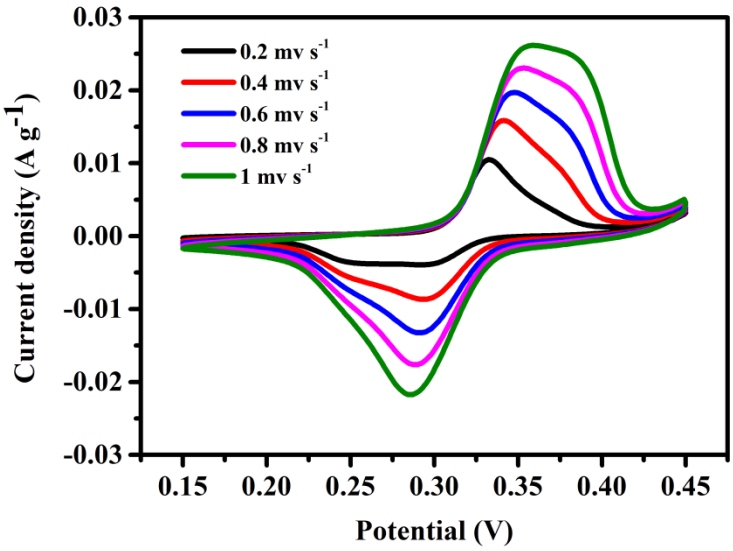

Figure S9. CV curves of the Co_3O_4@Ni-MOF/NF electrode at different current densities from 0.2 to 1 mV s^{-1}.

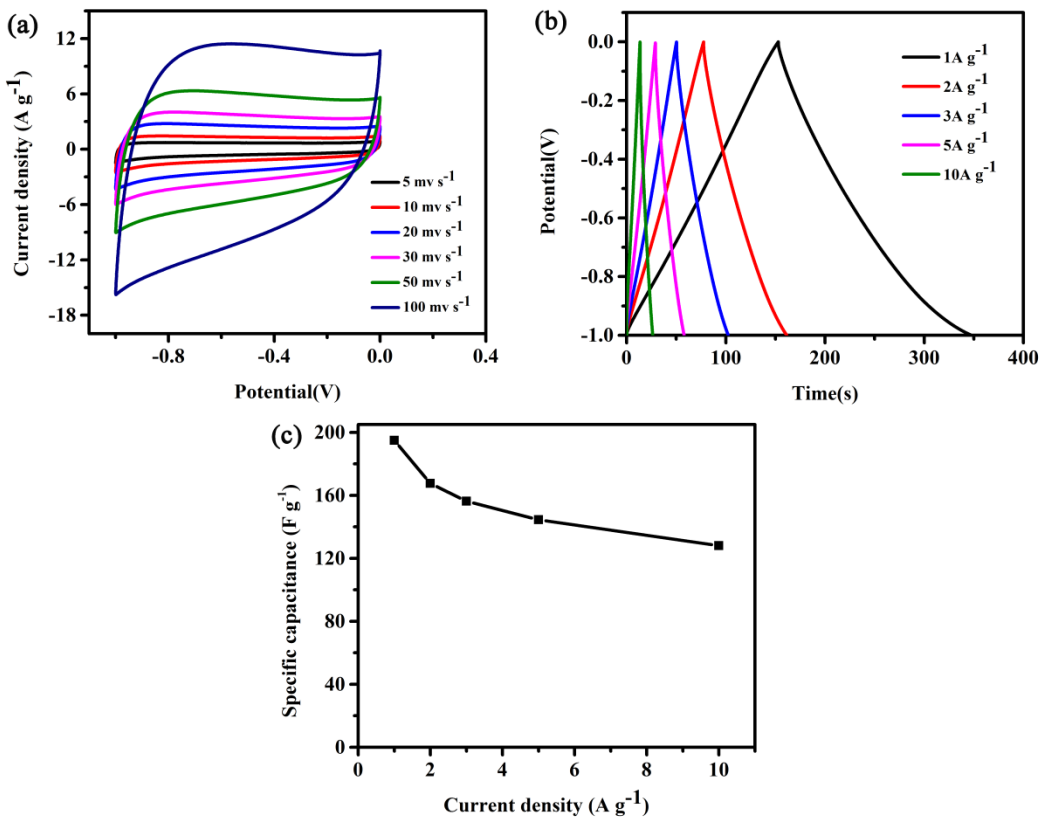

Figure S10. (a, b) CV and GCD curves of the AC at different scan rates and various current densities. (c) Specific capacitance values of AC obtained from GCD curves.

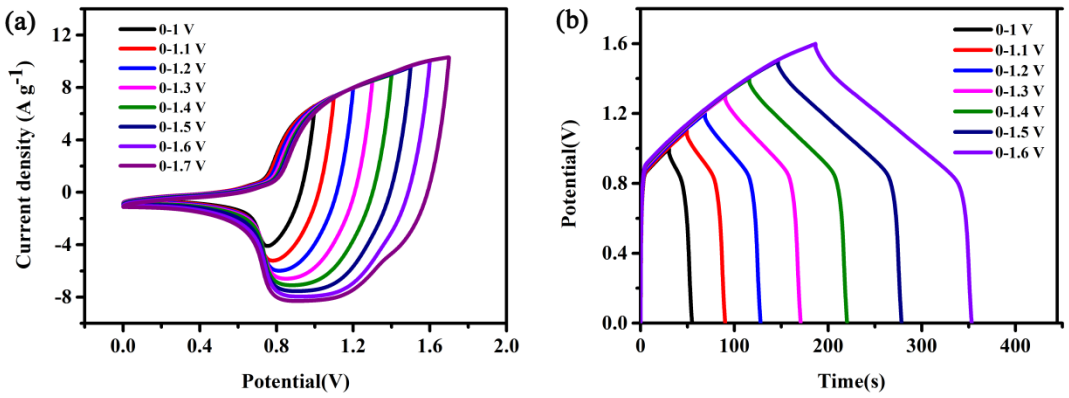

Figure S11. (a) CV curves of the Co_3O_4@Ni-MOF//AC at different voltage windows with scan rate of 50 mV s^{-1}. (b) GCD curves of the Co_3O_4@Ni-MOF//AC at different voltage windows with current densities of 1 A g^{-1}.

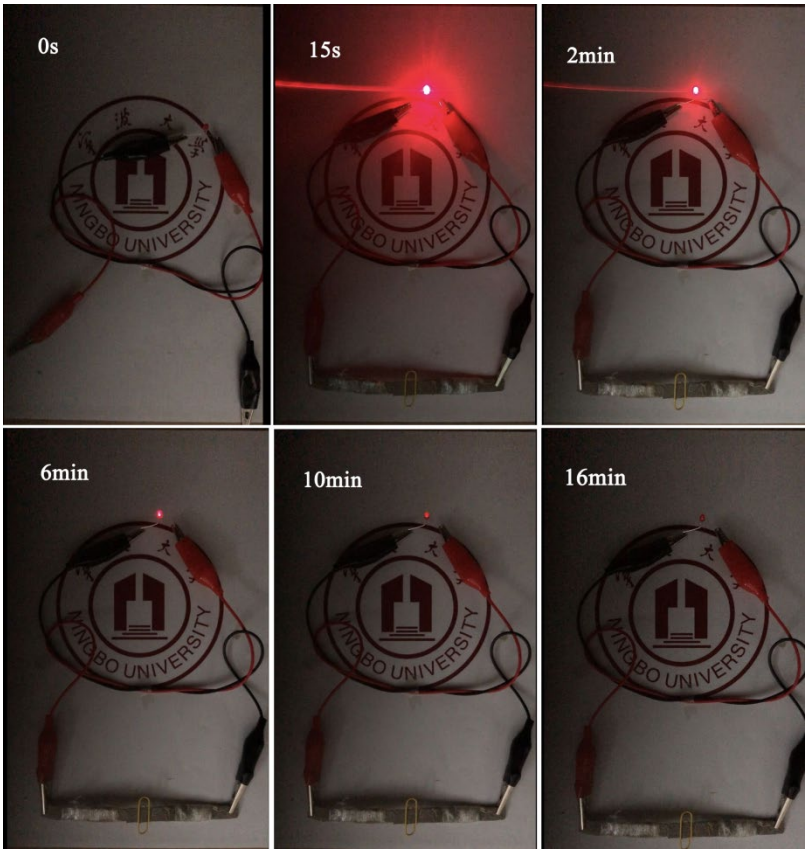

Figure S12. Photograph of the lighted red LED powered by two assembled ASCs in series.