

Supporting Information

Amino-functionalized MOF derived porous Fe₃O₄/N-doped C encapsulated within graphene network by self-assembling for enhanced Li-ion storage

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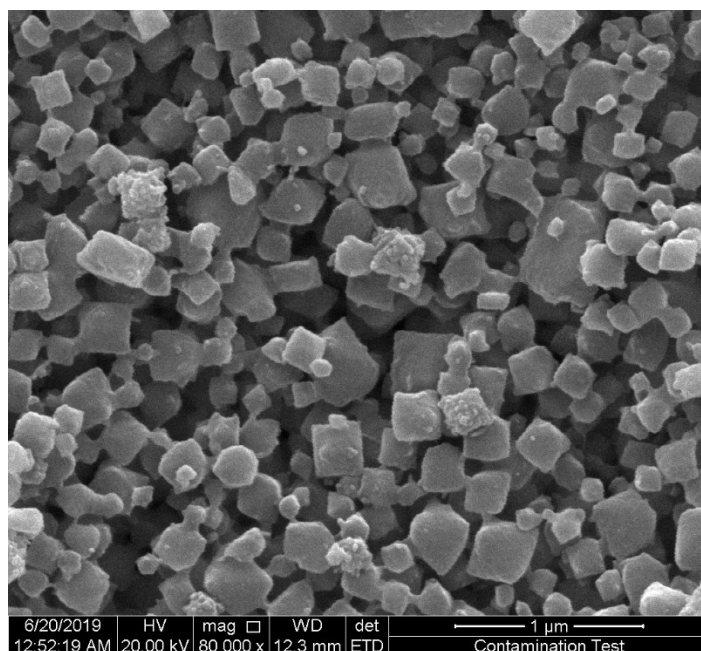


Figure S1. SEM image of the $\text{NH}_2\text{-MIL-101(Fe)}$.



Figure S2. Photograph images of the $\text{NH}_2\text{-MIL-101(Fe)@GO}$ hydrogel.



Figure S3. Photograph image of the $\text{NH}_2\text{-MIL-101(Fe)@GO}$ foam.

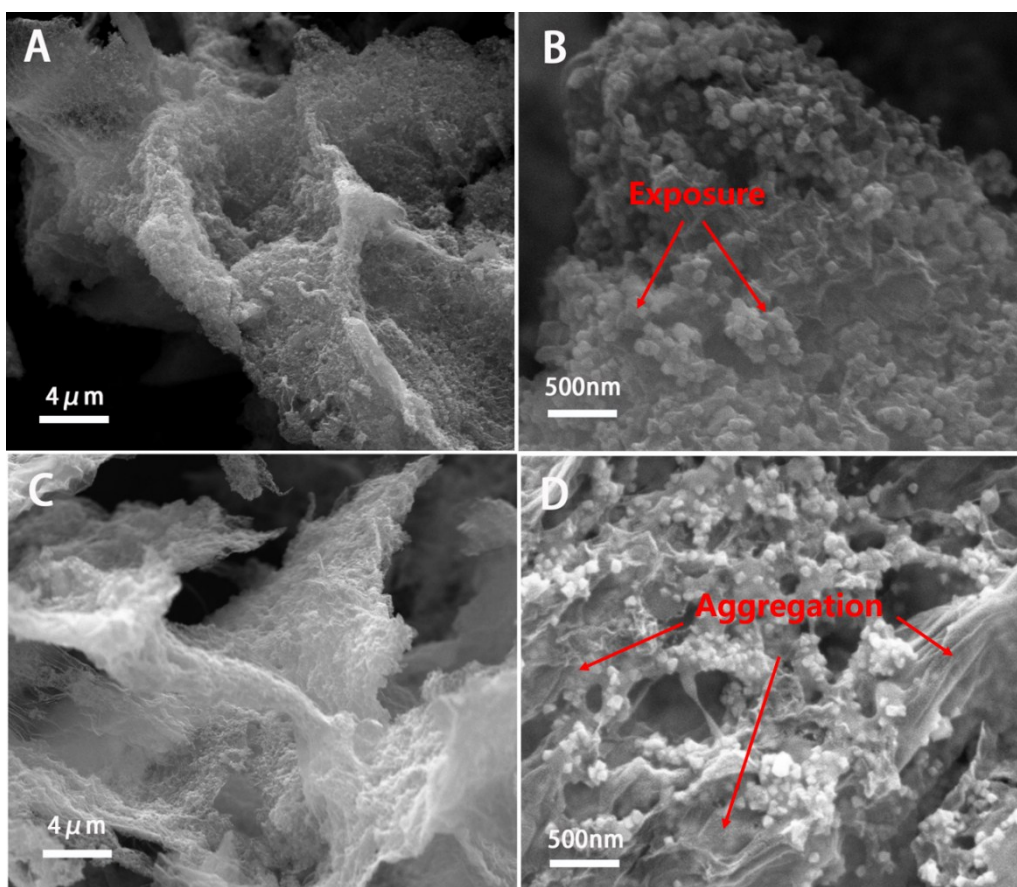


Figure S4. SEM images of (A, B) $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO-5\%}$, (C, D) $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO-20\%}$.

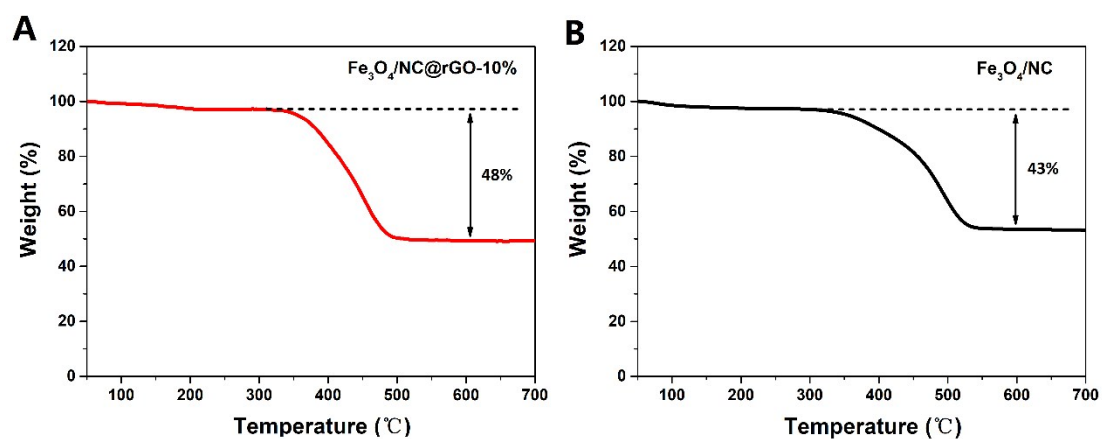


Figure S5. TGA curves of (A) $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO}-10\%$ and (B) $\text{Fe}_3\text{O}_4/\text{NC}$.

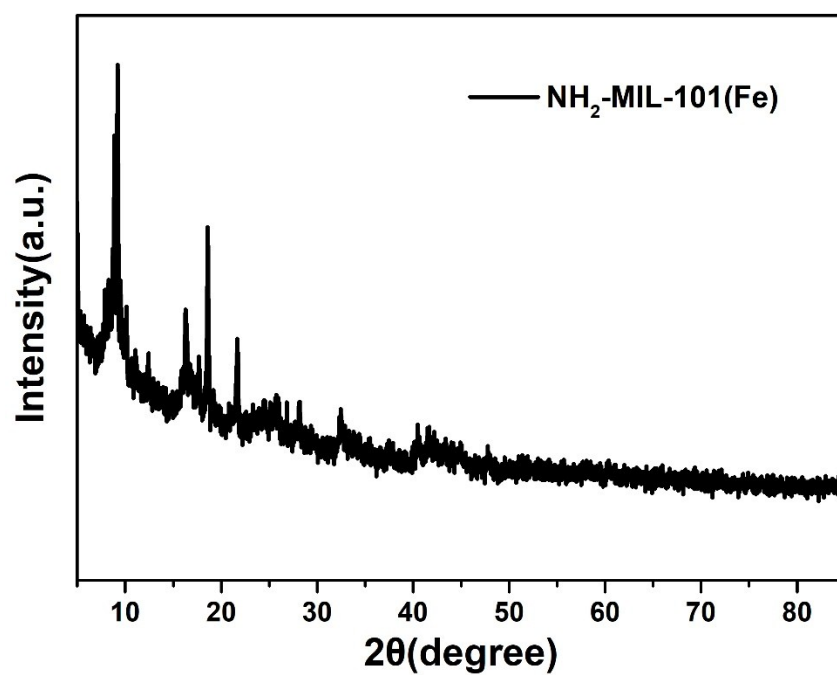


Figure S6. XRD pattern of the $\text{NH}_2\text{-MIL-101(Fe)}$.

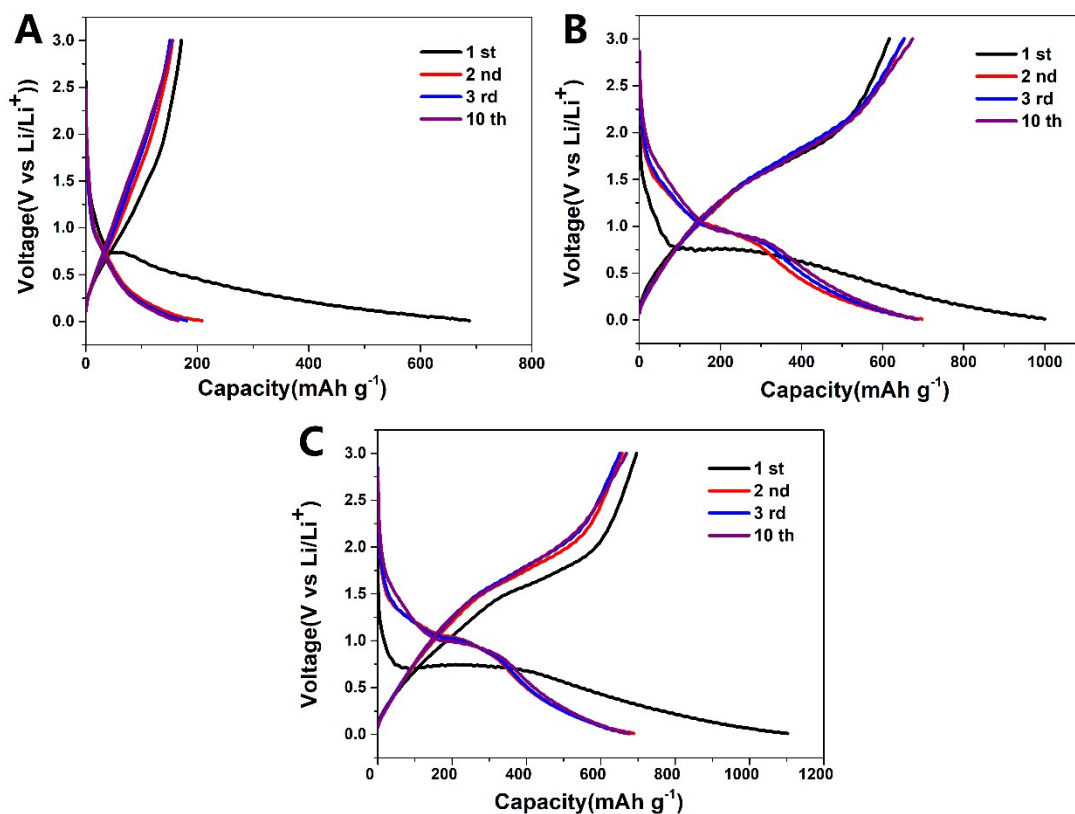


Figure S7. Galvanostatic charge/discharge curves of (A) $\text{Fe}_3\text{O}_4/\text{NC}$, (B) $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO}-5\%$ and (C) $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO}-20\%$ electrodes.

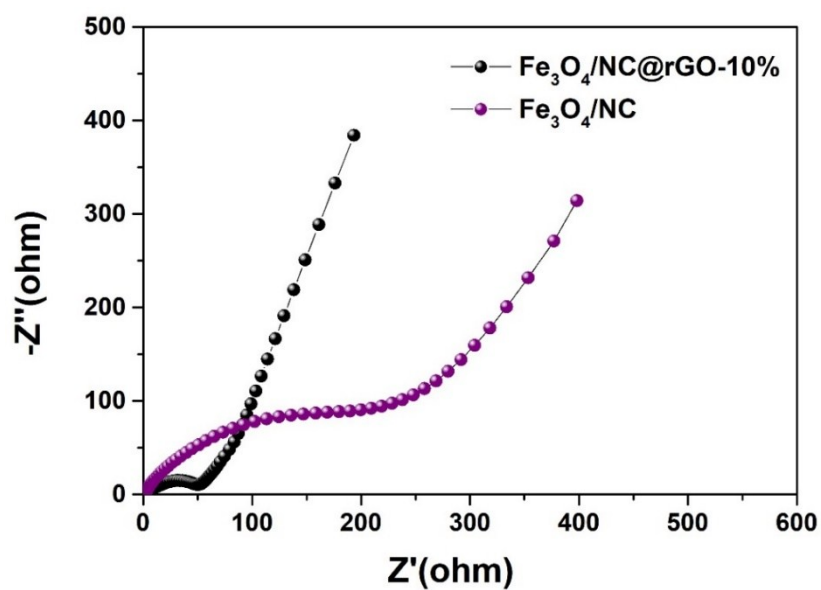


Figure S8. EIS of the $\text{Fe}_3\text{O}_4/\text{NC}$ and $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO}-10\%$ electrodes.

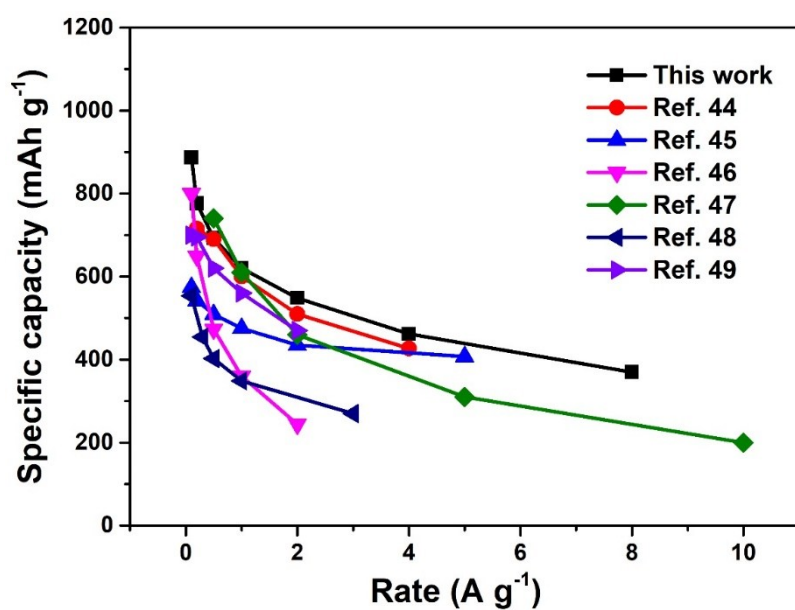


Figure S9. Comparison of the rate capability of the $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO}-10\%$ with those of other recently reported Fe_3O_4 -based electrodes.

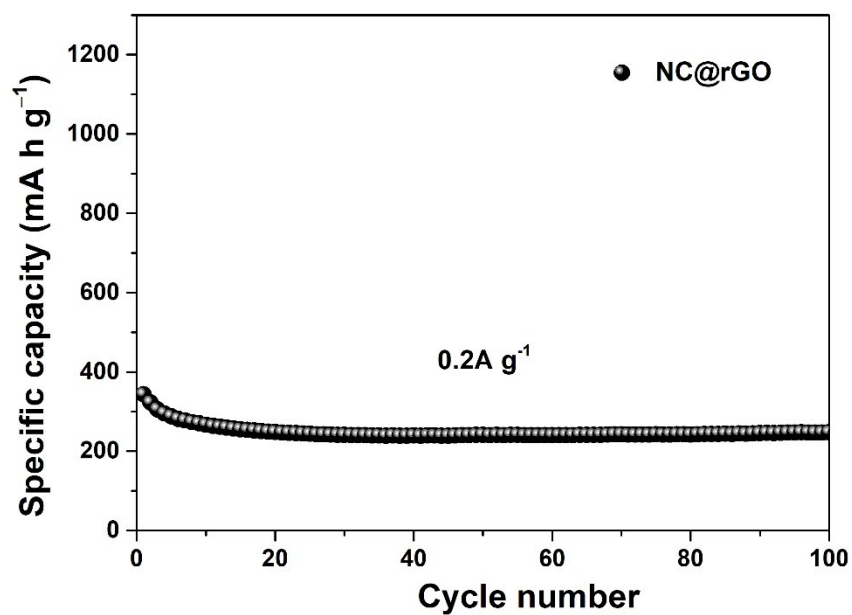


Figure S10. Cycle performance of $\text{NC}@r\text{GO}$ at the current density of 0.2 A g^{-1} .

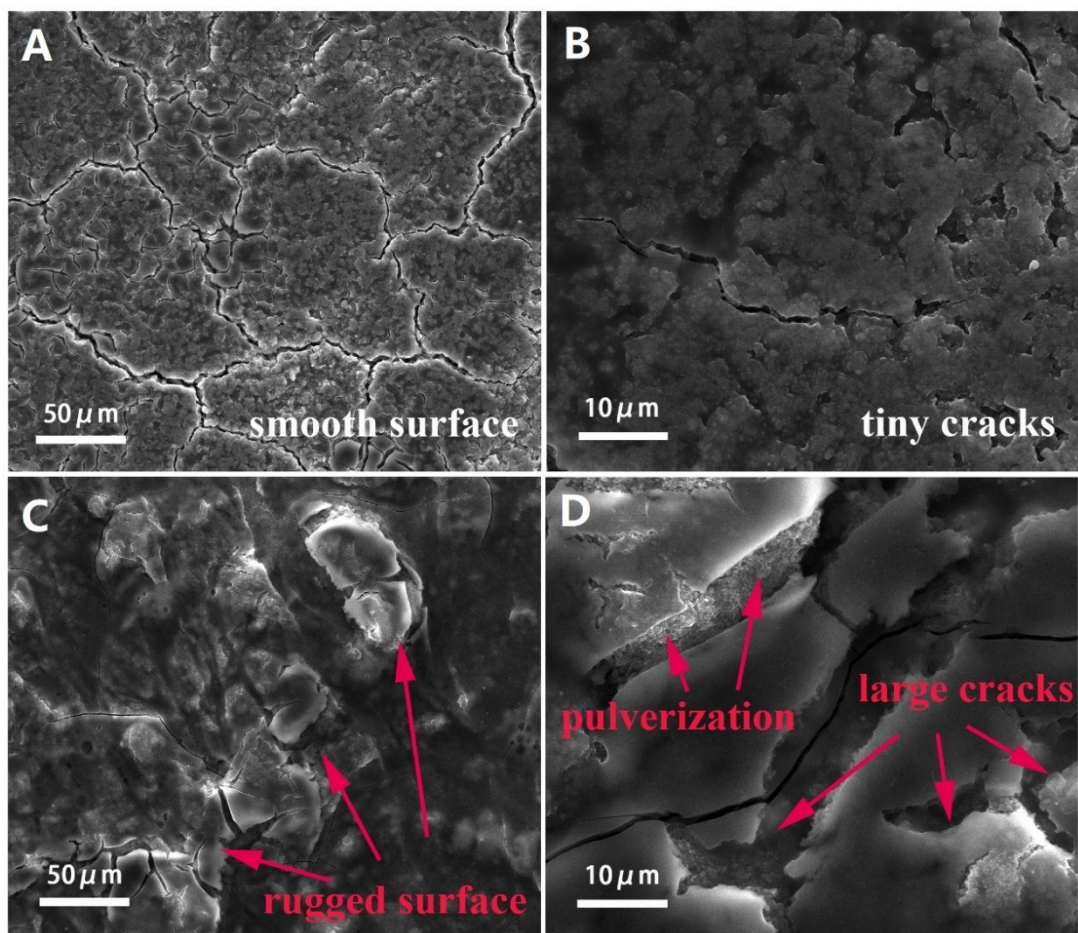


Figure S11. (A, B) SEM images of the $\text{Fe}_3\text{O}_4/\text{NC}@r\text{GO}-10\%$ electrode after 100 cycles, (C, D) SEM images of the $\text{Fe}_3\text{O}_4/\text{NC}$ electrode after 100 cycles.