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Electronic Supplementary Information for

Enhanced Rate Capability of Lithium Ion Battery Anode Based on Liquid-Solid-Solution Assembly of Fe_2O_3 on Crumpled Graphene

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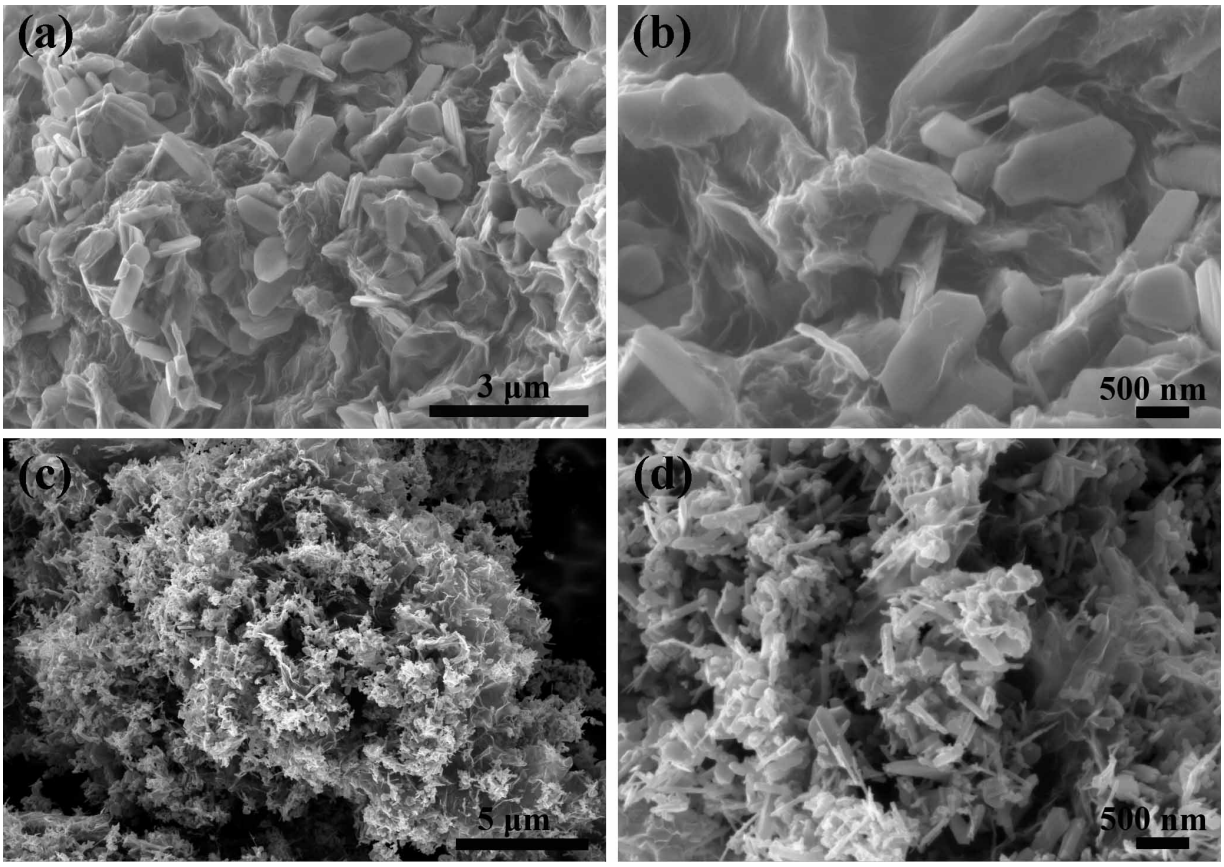

Figure S1. SEM images of a, b) Fe_2O_3@rGO (5:5) and c, d) Fe_2O_3@rGO (9:1) at different magnifications. The graphene sheets in Fe_2O_3@rGO (5:5) are thicker than Fe_2O_3@rGO (7:3), this may due to the higher graphene content in the composite. In contrast, the Fe_2O_3@rGO (9:1) shows Fe_2O_3 aggregation on the graphene surface, which may due to the higher Fe^{2+} nucleus density during crystallization process.

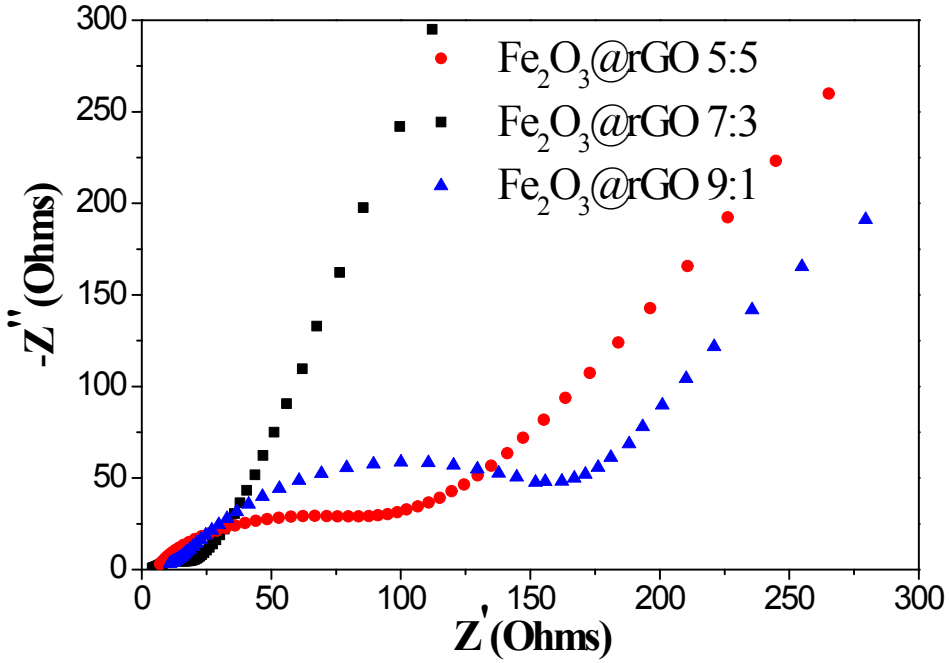

Figure S2. EIS of Fe_2O_3@rGO electrodes with various graphene amount after 20 charge-discharge cycles at 0.2 A g^{-1}.