

Supporting Information

Incorporation of Manganese Dioxide within Ultraporous Activated Graphene for High-Performance Electrochemical Capacitors

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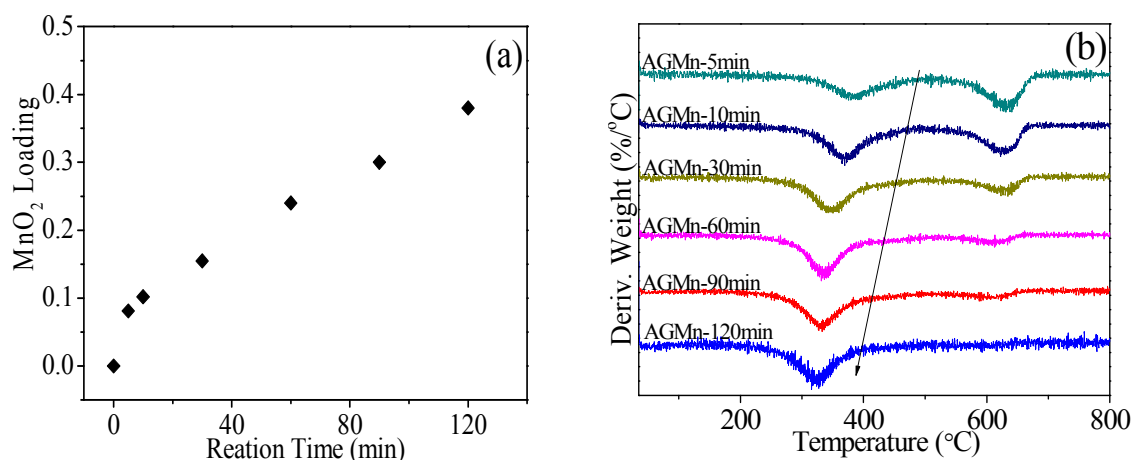


Figure S1. (a) MnO₂ mass uptake plotted as a function of reaction time, (b) DTG curves AGMn composites with different reaction times.

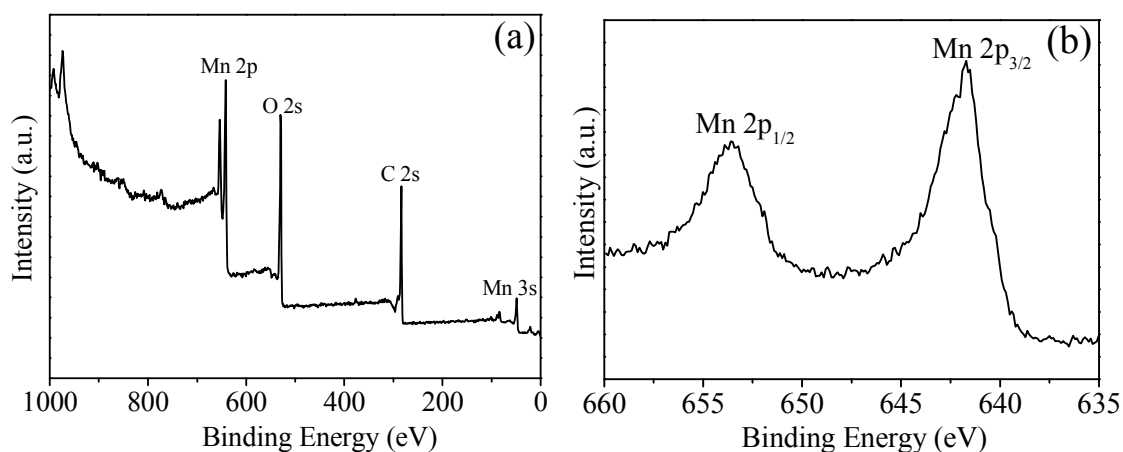


Figure S2. (a) XPS survey spectrum of AGMn-10min, indicating the presence of Mn and O as well as C elements in composites, (b) Mn spectrum for AGMn-10min.

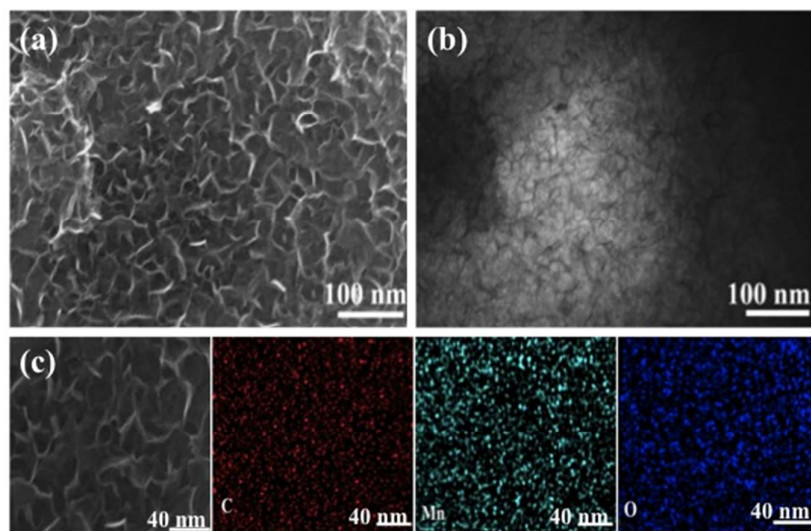


Figure S3. (a) High resolution SEM image of AGMn-120min nanocomposites, (b) BF-STEM image of the same area as (a), (c) SEM image combined with EDS mapping in the same area and relative intensities of C (red), Mn (green) and O (blue) elements.

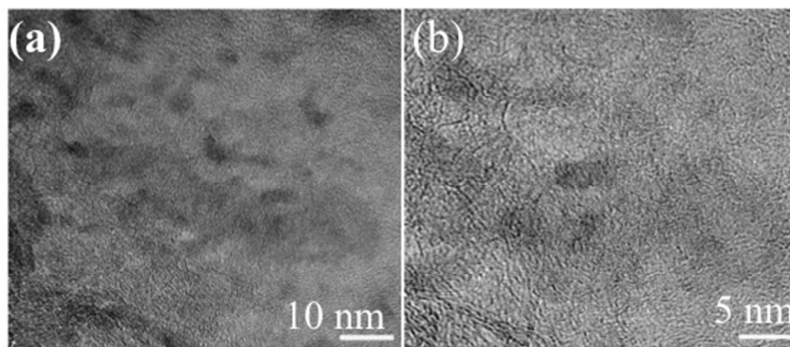


Figure S4. Transmission electron micrographs for AGMn-10min-h with different magnifications

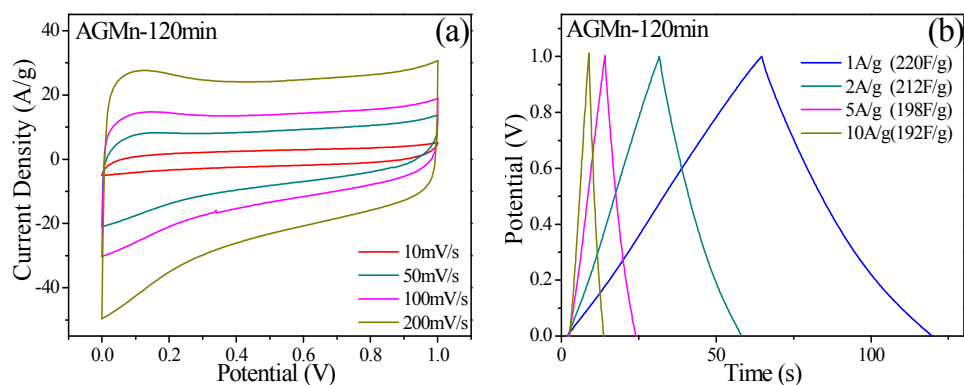


Figure S5. (a) Cyclic voltammograms and (b) charge-discharge curves with different rates for AGMn-120min composites.

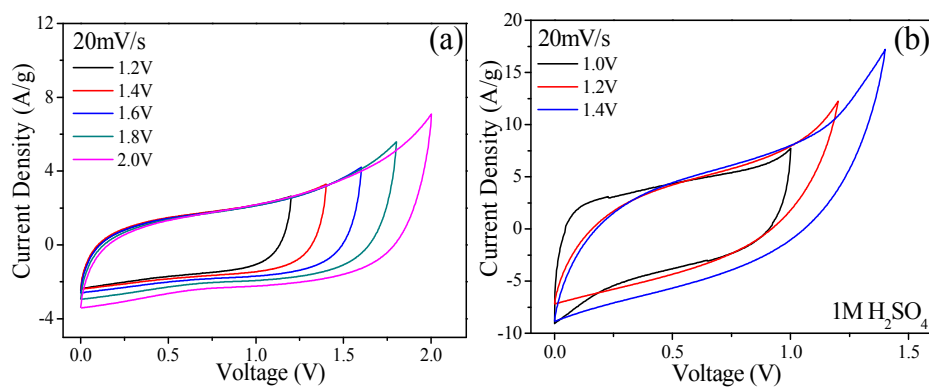


Figure S6. (a) CV curves of an optimized AGMn// aMEGO asymmetric supercapacitor measured at different potential windows in 1M Na₂SO₄ aqueous solution (b) and 1M H₂SO₄ aqueous solution at a scan rate of 20 mV/s.