

Supporting Information

Efficient coupling of the MnO₂/TiN on carbon cloth positive electrode and Fe₂O₃/TiN on carbon cloth negative electrode for flexible ultra-fast hybrid supercapacitors

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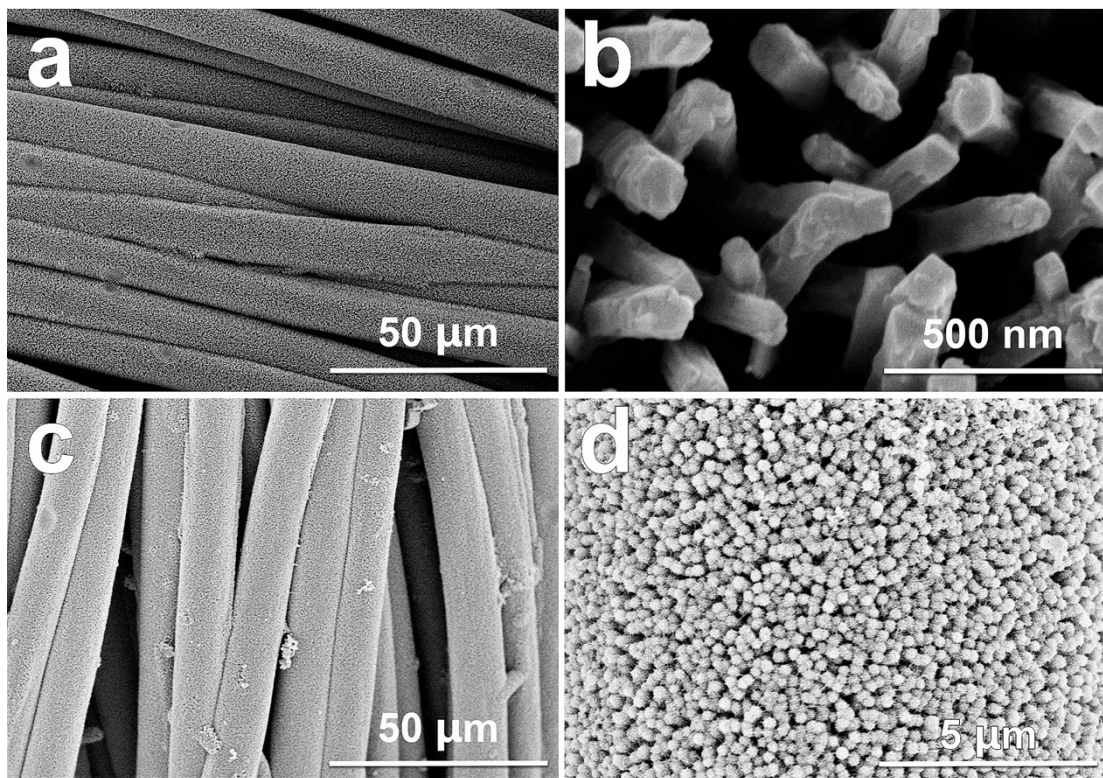


Fig. S1 SEM images: (a, b) TiN/CC and (c, d) MnO₂/TiN/CC at different magnifications

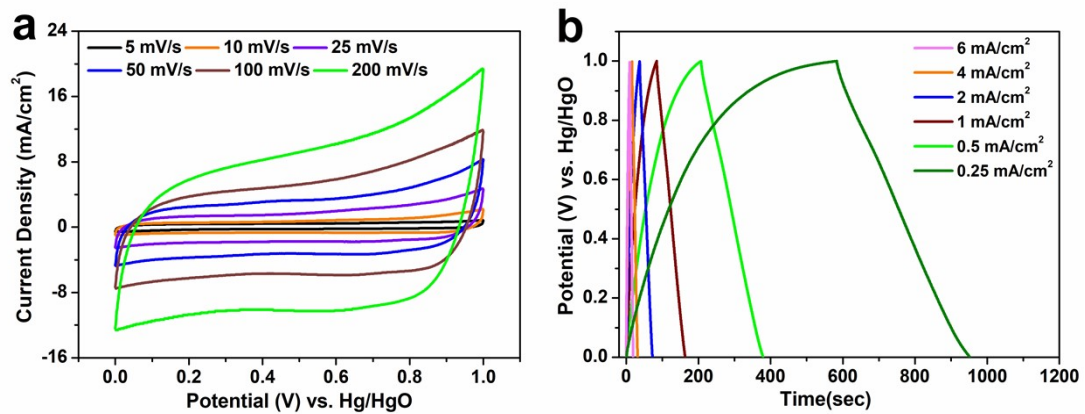


Fig. S2. Electrochemical characterization of MnO₂/CC: (a) CV curves acquired at different scanning rates and (b) GCD curves obtained at different current densities.

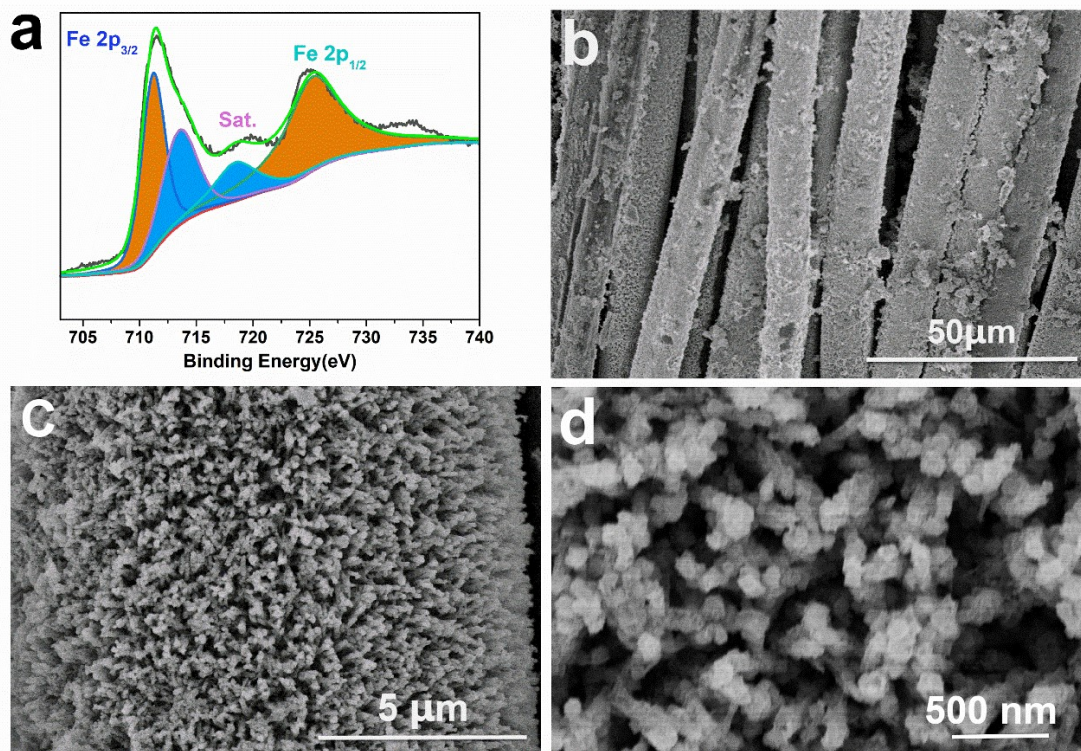


Fig. S3. (a) XPS Fe 2p spectrum of Fe₂O₃@TiN/CC; (b)-(d) SEM images of Fe₂O₃/TiN/CC at different magnifications.

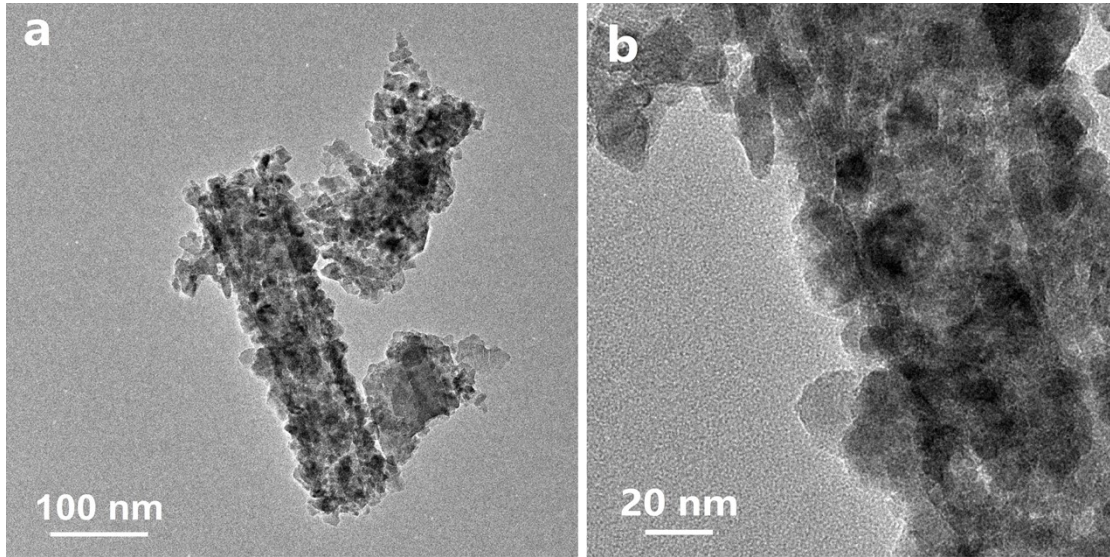


Fig. S4 (a-b) TEM images of the $\text{Fe}_2\text{O}_3/\text{TiN}$ core-shell structure at different magnifications

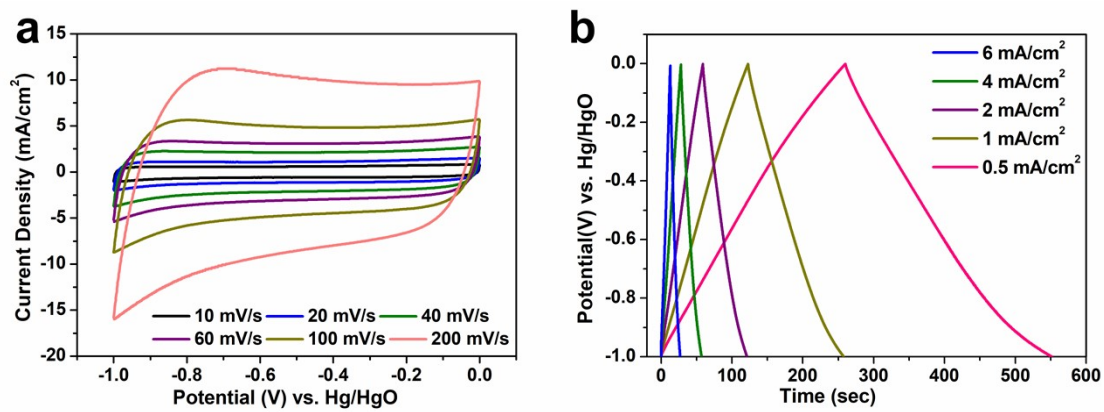


Fig. S5. Electrochemical characterization of TiN/CC: (a) CV curves obtained at different scanning rates and (b) GCD curves acquired at different current densities.

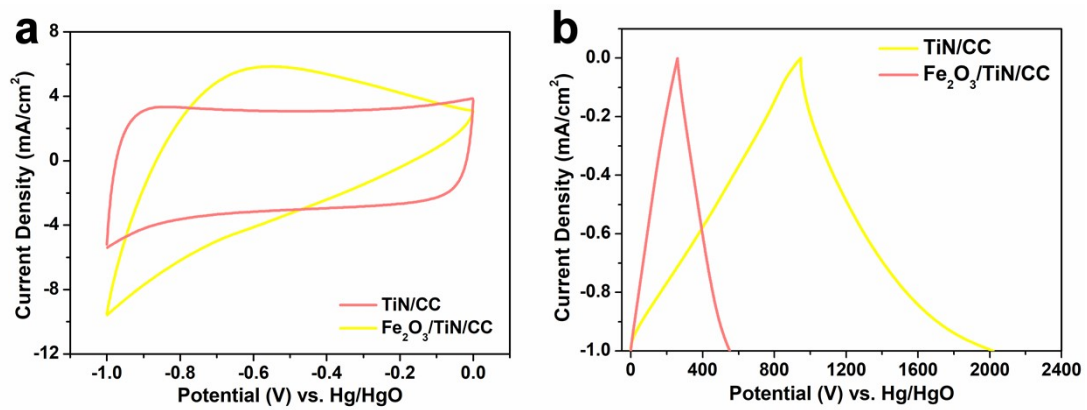


Fig. S6 (a) CV characteristics of TiN/CC and Fe₂O₃/TiN/CC at a scanning rate of 60 mV/s and (b) GCD characteristics of TiN/CC and Fe₂O₃/TiN/CC at a current density of 0.5 mA/cm².