

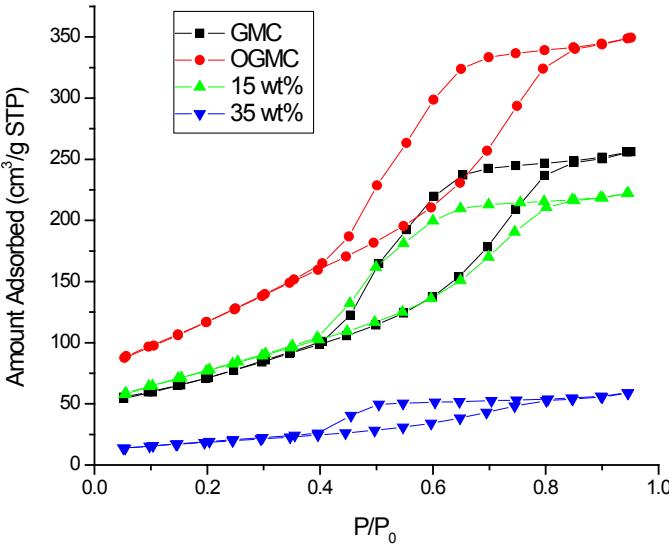


Figure A.1. Nitrogen adsorption isotherms for GMC, OGMC, 15 wt% MnO₂/C, and 35% MnO₂/C.

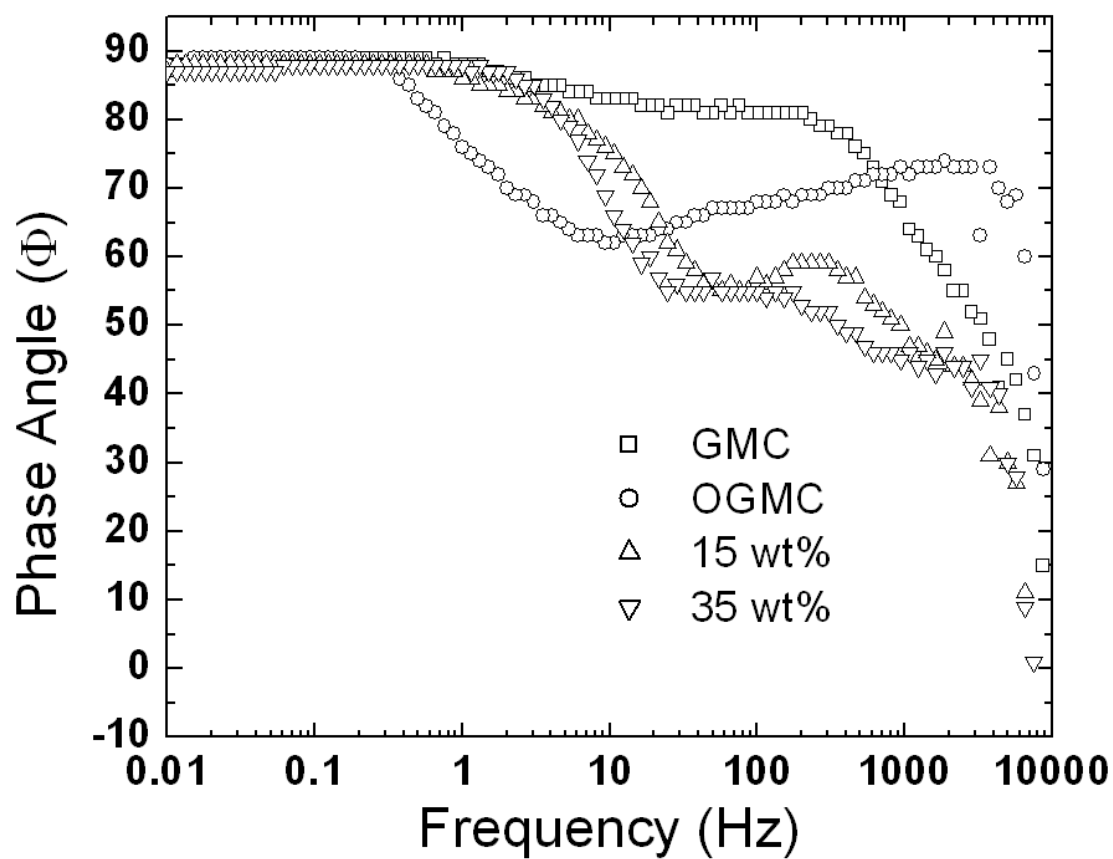


Figure A.2. Phase angle dependence on frequency based on Nyquist plots from Figure 8. At low frequencies, the phase angle is $\sim 88^\circ$, suggesting purely capacitive behavior.

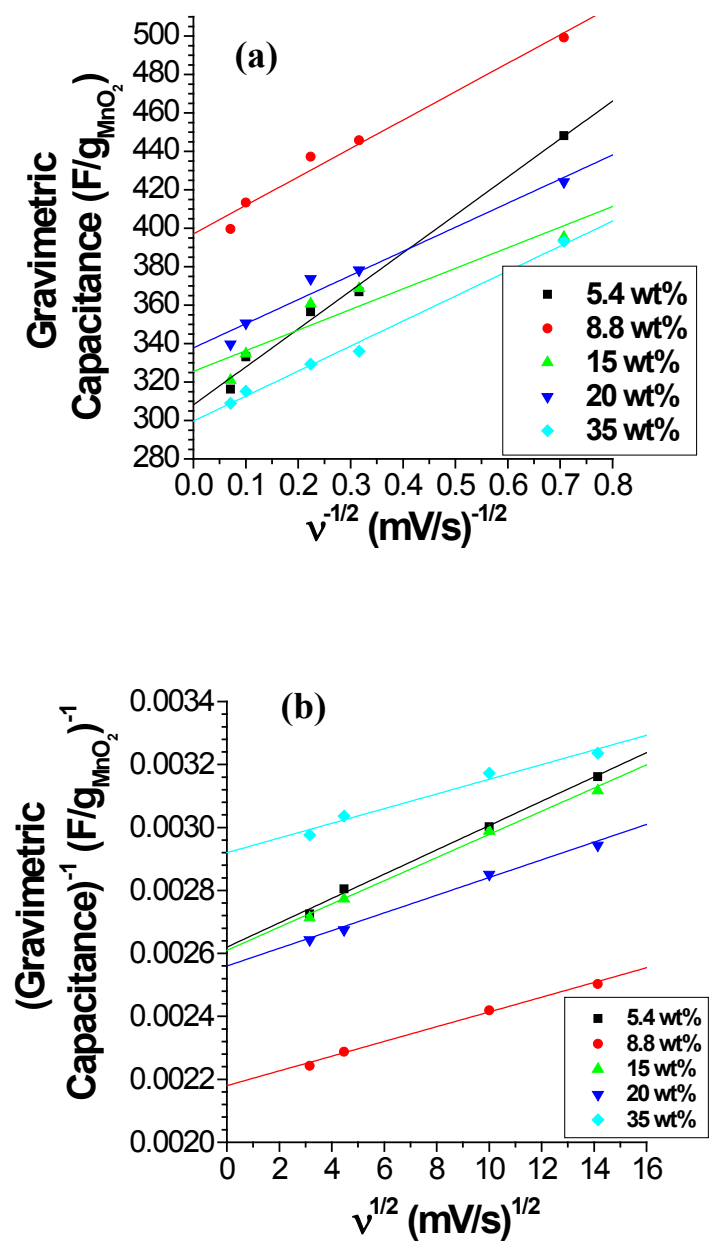


Figure A.3. Linear dependence of (a) C_{MnO_2} with $v^{-1/2}$ and (b) $(C_{MnO_2})^{-1}$ with $v^{1/2}$ to determine the surface contribution to pseudocapacitance compared to the total capacitance.

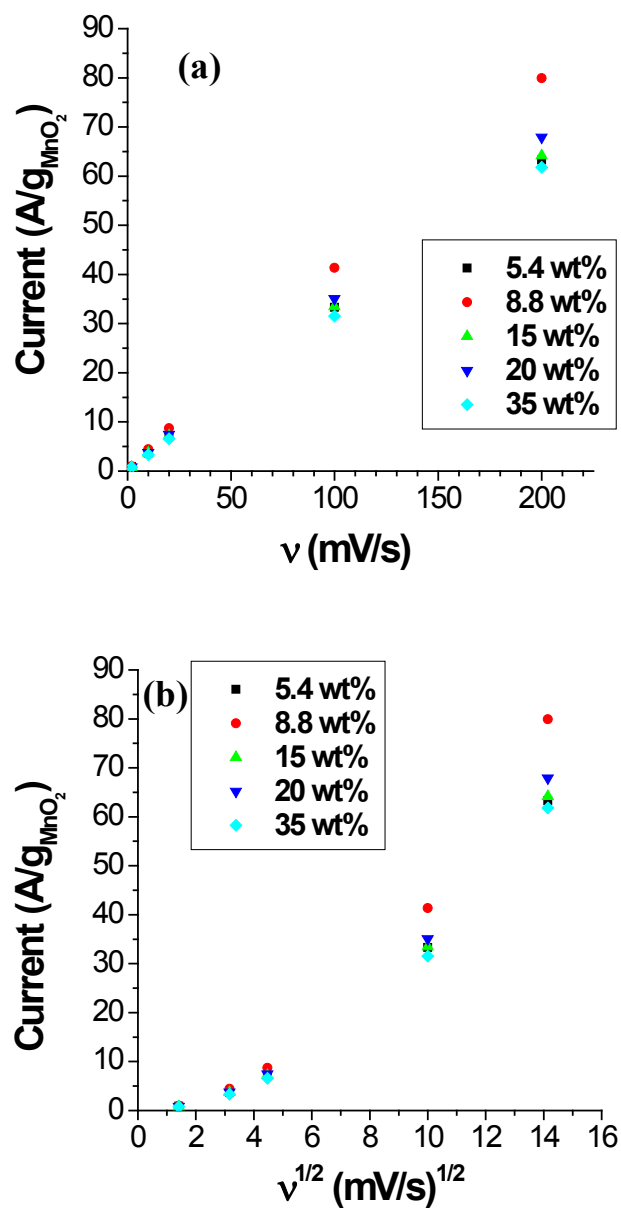


Figure A.4. (a) Linear dependence of current with ν and (b) nonlinear behavior of current with $\nu^{1/2}$ indicating that the capacitance is based on a surface mechanism and is not diffusion limited.