

SUPPORTING INFORMATION

Catechol-modified activated carbon prepared by the diazonium chemistry for application as active electrode material in electrochemical capacitor.

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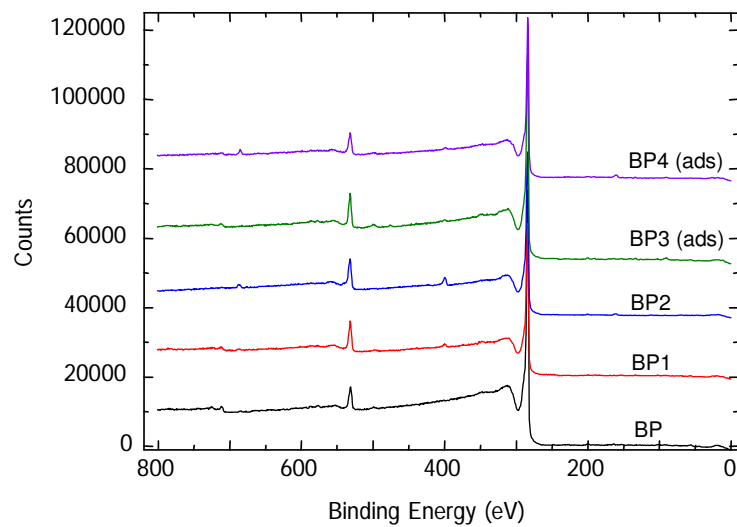


Figure SI 1. XPS survey spectra of unmodified and catechol-modified carbons.

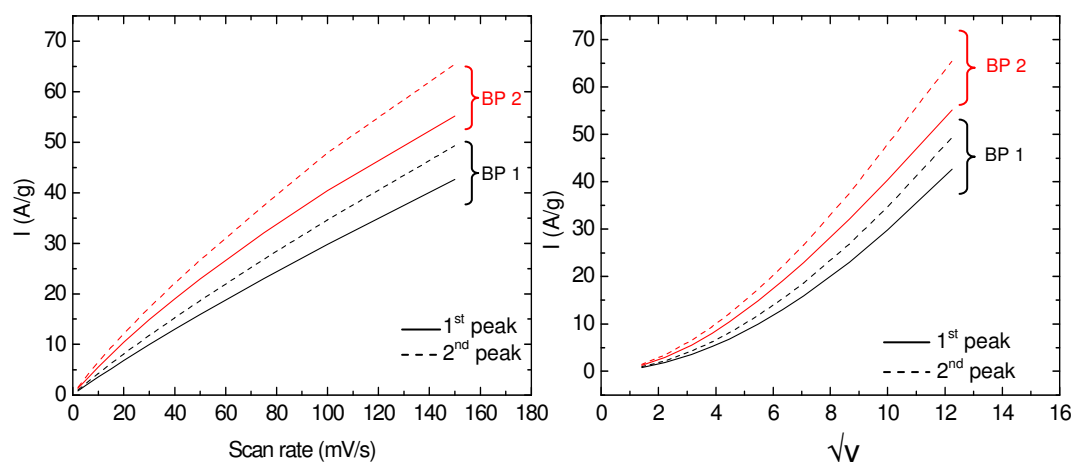


Figure SI 2. Scan rate dependence for the two redox waves (at 0.2 and 0.4 V) associated to the catechol groups for BP2 and BP3 electrodes.

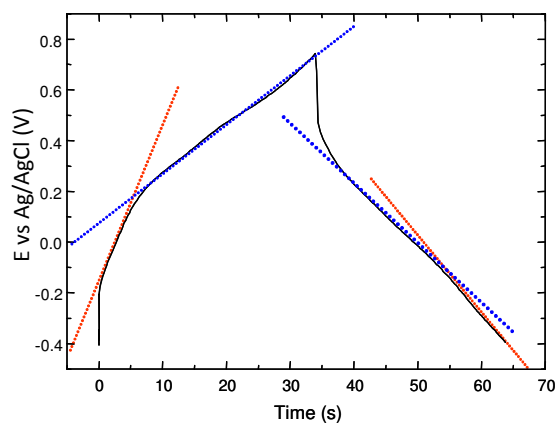


Figure SI 3. Constant current charge/discharge curves (cycle # 1) in 1M H_2SO_4 at 7.5 A/g for catechol-modified Black Pearls carbon with a catechol loading of 8.4 wt. %. Straight lines are drawn to indicate the potential ranges for the electroactivity of catechol groups (in blue, from 0.2 to 0.75 V upon charge and 0.3 to -0.2 V upon discharge) and the double layer region (in red, from -0.2 to 0.1 V upon charge and -0.2 to -0.4 V upon discharge).

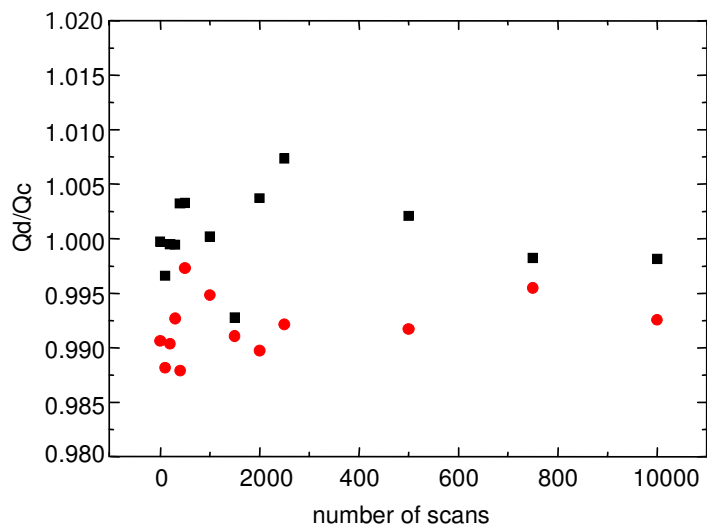


Figure SI 4. Coulombic efficiency as a function of the number of constant current charge/discharge cycles (red for BP1 and black for BP2).