Facilitation of NADH Electrooxidation at Treated Carbon Nanotubes

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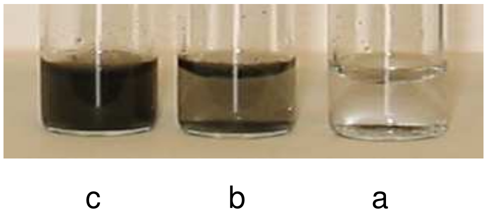

Fig. 1S. Suspensions of the original (a), water-boiled (b), and acid-microwaved (c) CNT in deionized water (0.2 mg mL^{-1}) after 3-min sonication and 5 h of standing.

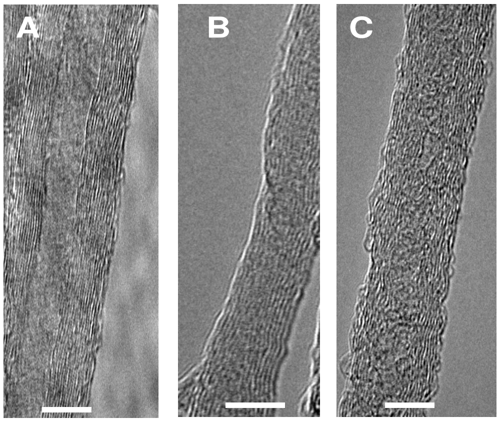

Fig. 2S. HRTEM images of the original (A), water-boiled (B), and acid-microwaved (C) CNT. The bars represent a distance of 5.0 nm.

Recording of EELS Spectra

The EELS spectra were recorded in STEM mode with a 0.2-nm probe size to enlarge the number of counts in the detector. The convergence and collection semi-angles were 3 and 10 mrad, respectively. The EELS profiles were collected with a 0.10 eV per channel dispersion, and the typical full width at half maximum of the zero-loss peak was approximately 1.0 eV. The energy scale was calibrated based on the position of the zero-loss peak and the C 1s absorption peak, corresponding to 0 and 285.5 eV, respectively. A Fourier-log deconvolution process was performed in order to eliminate the zero-loss peak and scattering effects. For the C 1s core loss spectra, a background subtraction was carried out assuming a second order power law as the background model. EELS line scans were collected in a cross-sectional direction through individual CNT.