

Treatment of Multi-Walled Carbon Nanotubes with Dichromic Acid: Oxidation and Appearance of Intercalation

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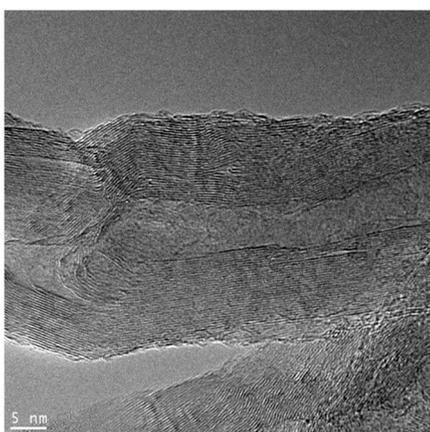
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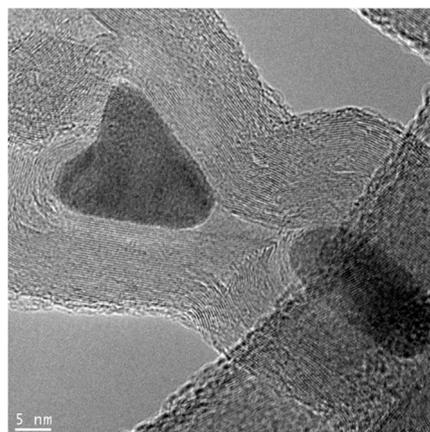
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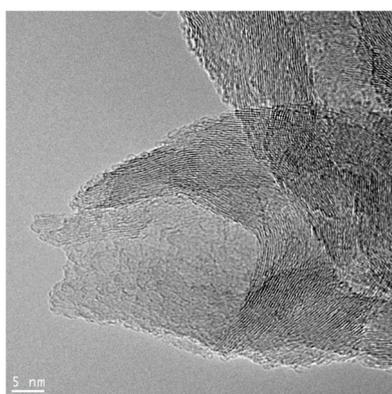
TEM images of treated MWCNTs are presented below.



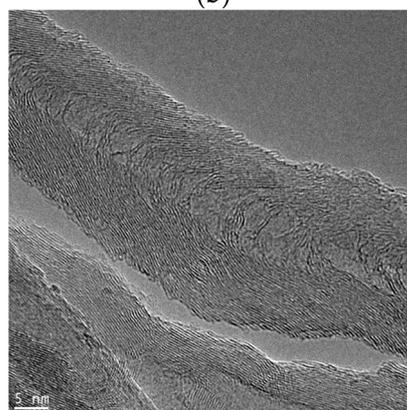
(a)



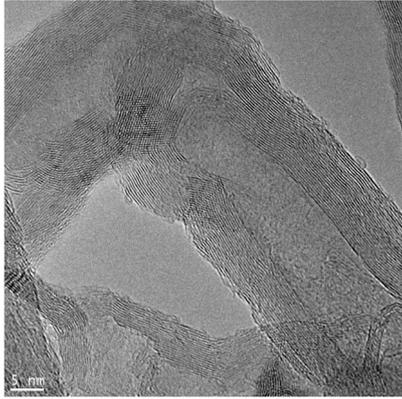
(b)



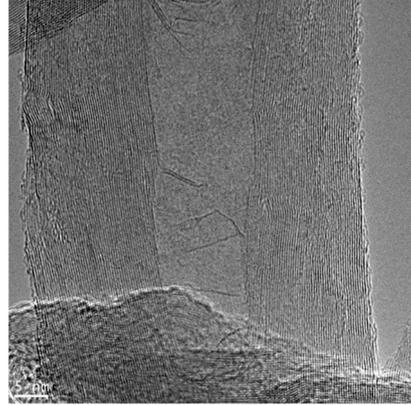
(c)



(d)

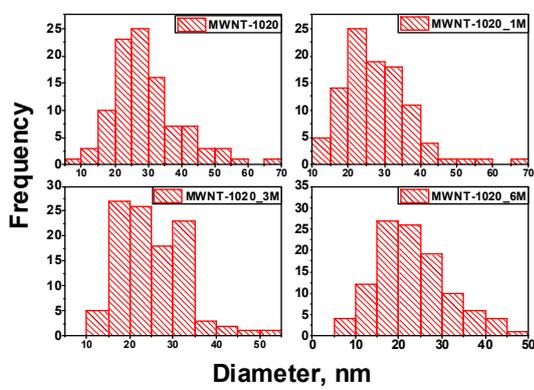


(e)

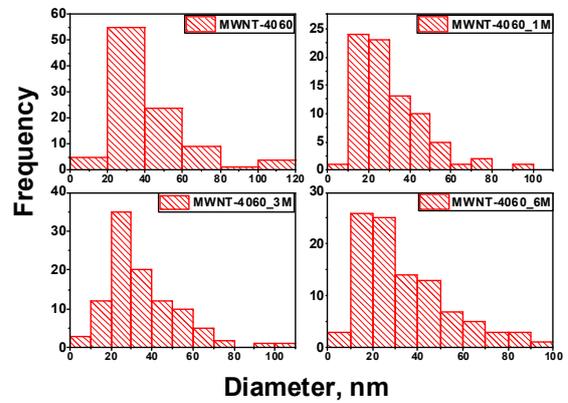


(f)

Figure S1. TEM images of treated samples of MWNTs: (a) MWNT-1020_1M; (c) MWNT-1020_3M; (e) MWNT-1020_6M; (b) MWNT-4060_1M; (d) MWNT-4060_3M; (f) MWNT-4060_6M.

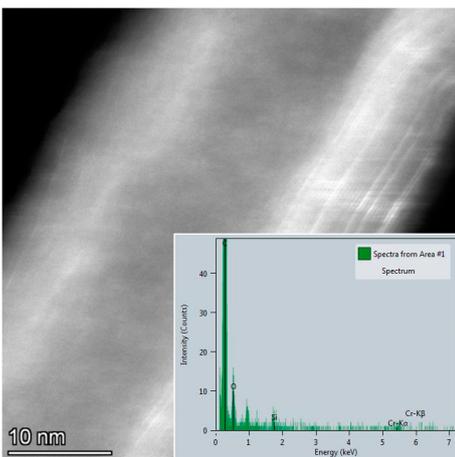


(a)

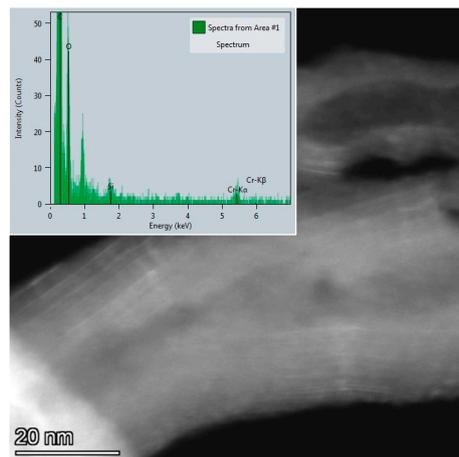


(b)

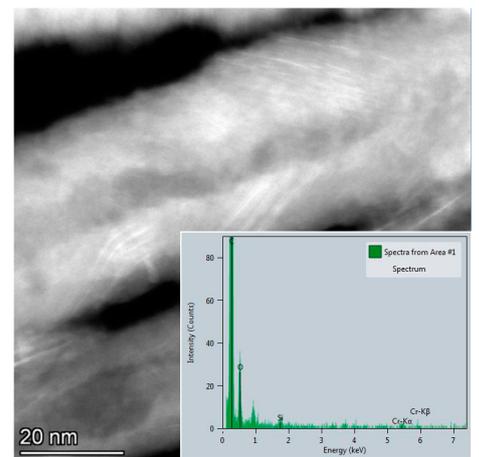
Figure S2. Distribution of diameters of CNFs formed during the treatment: (a) MWNT-1020 samples; (b) MWNT-4060 samples.



(a)



(b)



(c)

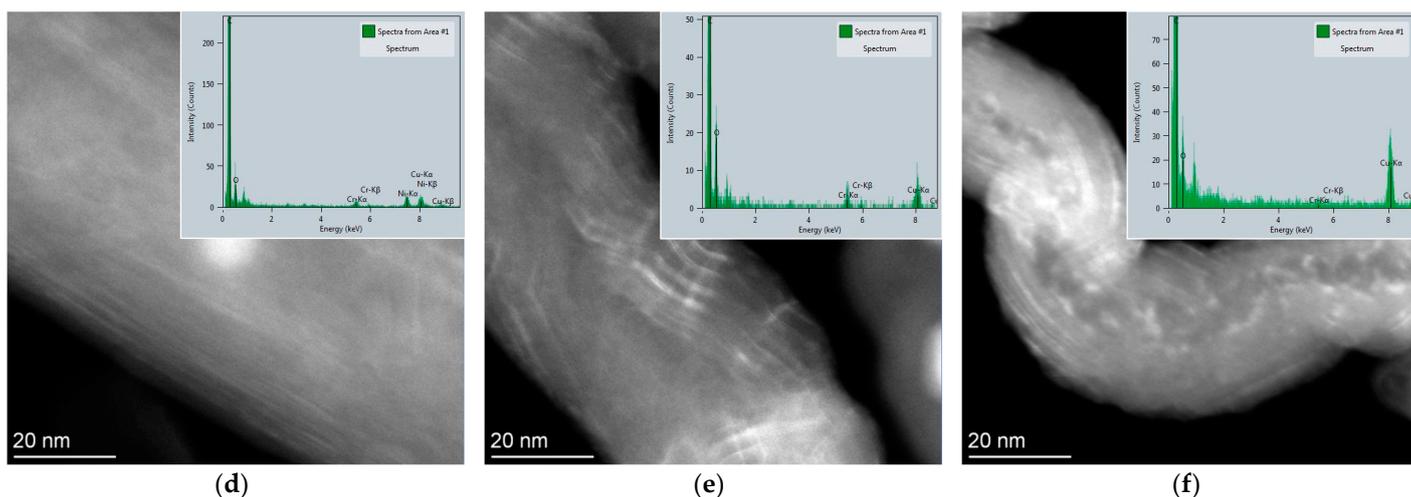


Figure S3. (a-f) HAADF-STEM micrographs of MWNT-4060_3M sample accompanied with EDX spectra.

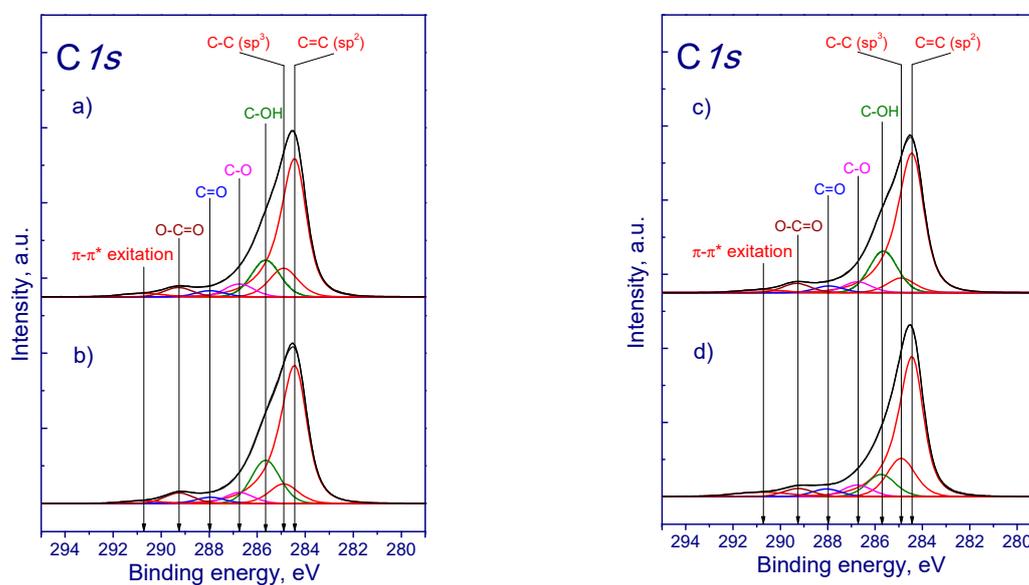
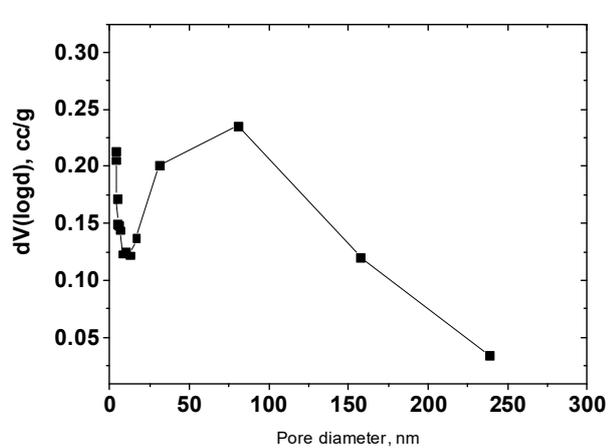
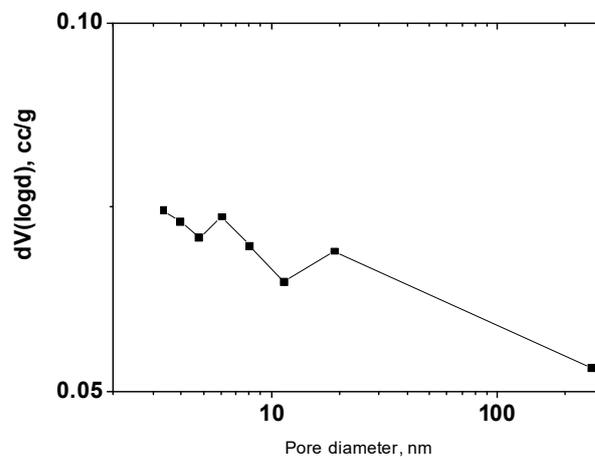


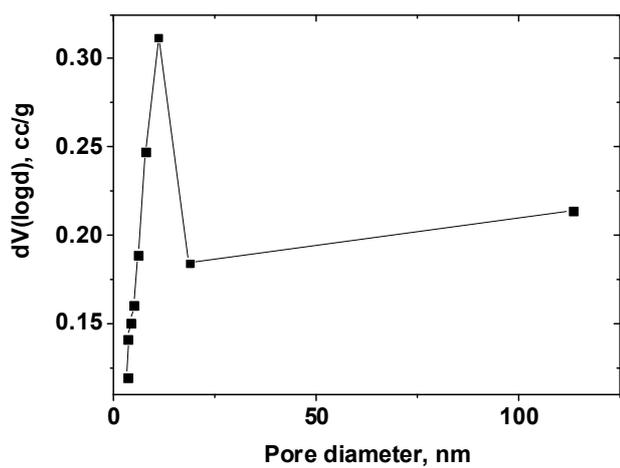
Figure S4. C1s X-ray photoelectron spectra of treated samples: (a) MWNT-4060_1M; (b) MWNT-1020_1M; (c) MWNT-4060_3M; (d) MWNT-1020_3M.



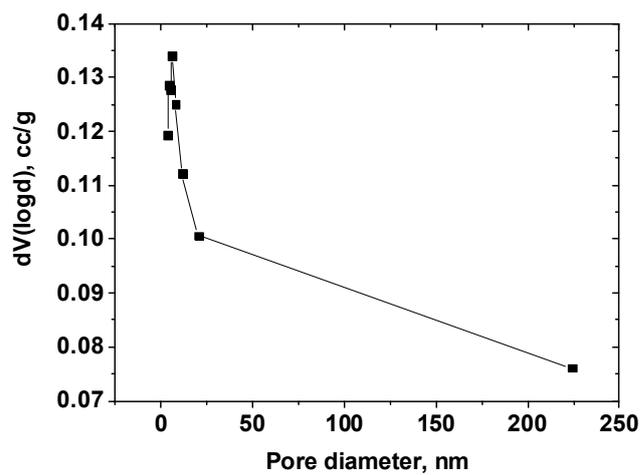
(a)



(b)



(c)



(d)

Figure S5. Pore size distribution of MWCNT samples with high specific capacitance: (a) WNT-1020; (d) MWNT-4060 initial samples; (c) MWNT-1020_6M; (d) MWNT-4060_3M chemically treated samples.