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Neon adsorption on single walled carbon nanohorns[1] V. KRUNGLEVICIUTE, K. LASK, A. D. MIGONE, Southern Illinois University, B. BULLER, T. BEATTIE, U. VENKATESWARAN, Oakland University — We present results for Ne adsorbed on single walled carbon nanohorns (SWNHs) purchased from NanoCraft, Inc. The as-received SWNHs were characterized with Raman spectroscopy. The spectra show two peaks attributable to the D and G-bands, with the G-band exhibiting a shoulder in contrast to a single Lorentzian peak reported in the literature. A portion of the SWNHs was sonicated in methanol for twenty minutes and heated under vacuum at 60oC for 12 hours (this treatment was followed to produce "nanohorn- paper"). Full adsorption isotherms were measured on this sample between 22 and 31 K, and low coverage isotherms were measured between 40 and 49 K. Neon measurements were also performed at 31 K on a sample of SWNHs that was not subjected to the methanol treatment, for comparison. We found no difference between the results obtained on these two sets of samples. We will also present isotherm data on SWNHs that were heated to 520 K under vacuum.

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