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Neon and Xenon adsorption on opened carbon nanohorns[1] CARL ZIEGLER, VAIVA KRUNGLEVICIUTE, ALDO MIGONE, Department of Physics Southern Illinois University, MASAKO YUDASAKA, SUMIO IIJIMA, Japan Science and Technology Corp., NEC Corporation, Tsukuba 305-8501, Japan — Adsorption isotherms were measured for neon adsorbed on opened (oxidized) carbon nanohorn aggregates. The isotherms were performed at eleven different temperatures between 19 to 40 K. Two distinct substeps are present in logarithmic plots of the adsorption data. The two substeps correspond to high and low binding energy sites present in the nanohorn aggregates. The values of the isosteric heat as a function of substrate loading was calculated; it shows features corresponding to the two adsorption isotherm substeps. The results for neon will be compared to those from ongoing measurements for xenon adsorbed on the same sample of open carbon nanohorn aggregates as well as to a previous study of neon on closed carbon nanohorns.

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