Supplementary Information for *Cavitation in Metastable Fluids Confined to Nanoscale Pores*

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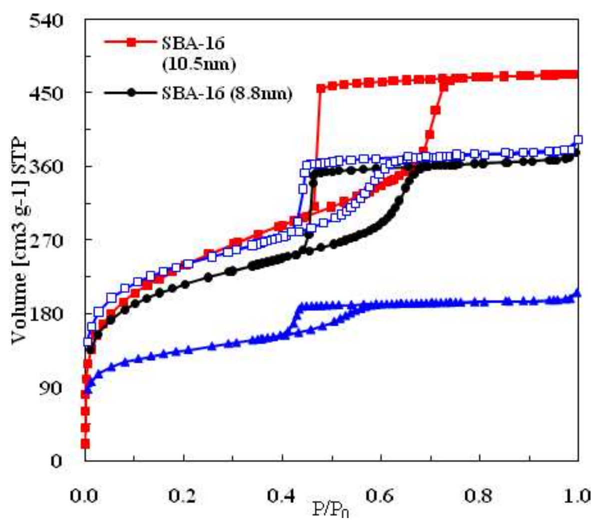
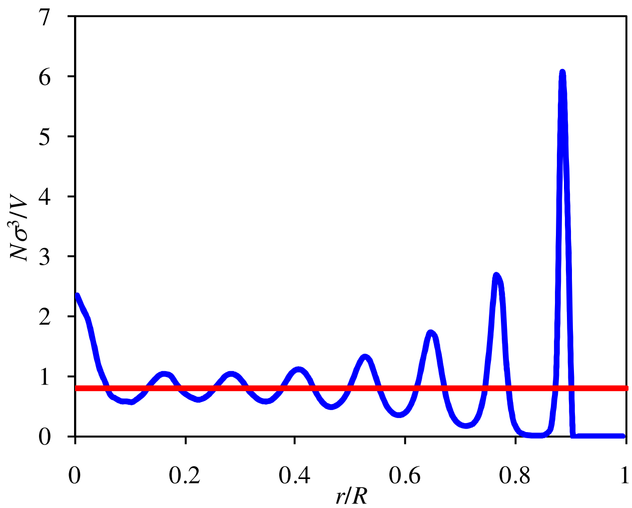
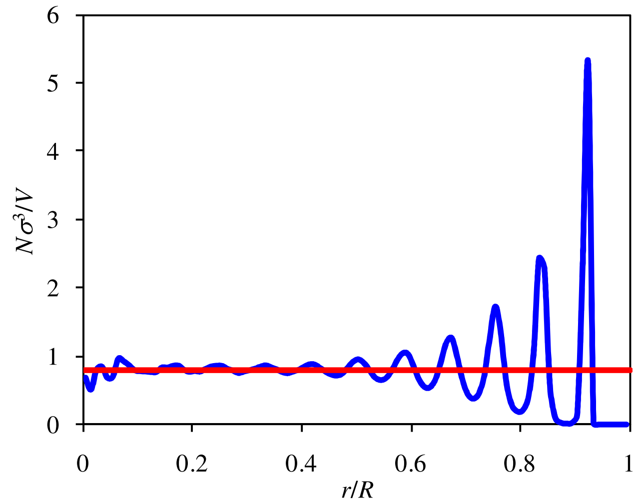
1. Nitrogen adsorption/desorption isotherms in SBA-16 silica materials with pore diameters < 11 nm. These data were presented in Figure 2 with scaled and shifted adsorption coordinates. Notice the cavitation pressure (taken at the mid-point of the desorption transition) decreases with mean pore size.



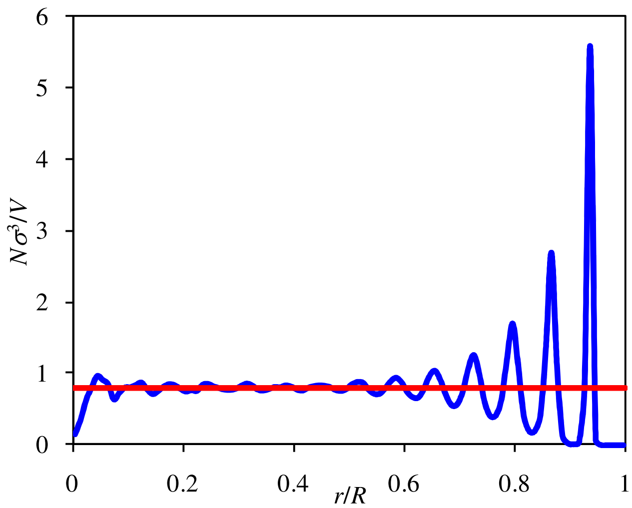
2. Density profiles from selected simulations. Densities measured at $\mu/\varepsilon = -9.5$ ($p/p_0 = 0.821$) and correspond to a liquid-filled pore. The red horizontal line is the value of the bulk density at the same chemical potential (pressure). Values were sampled equi-radially, so small radii have larger statistical error. Note that $R = d$ (external)/2, where d (external) = d (accessible) + 0.18 nm. Sharp layering appears close to the adsorbing wall. In small pores, the oscillating layers are still present at considerable amplitude in the pore center. Larger pores exhibit a fluid of near bulk density at their centers.



a. Pore, *d* (accessible) = 5.54 nm



b. Pore, *d* (accessible) = 8.02 nm



c. Pore, *d* (accessible) = 9.56 nm