Adsorption-induced deformation of microporous carbons: pore size distribution effect

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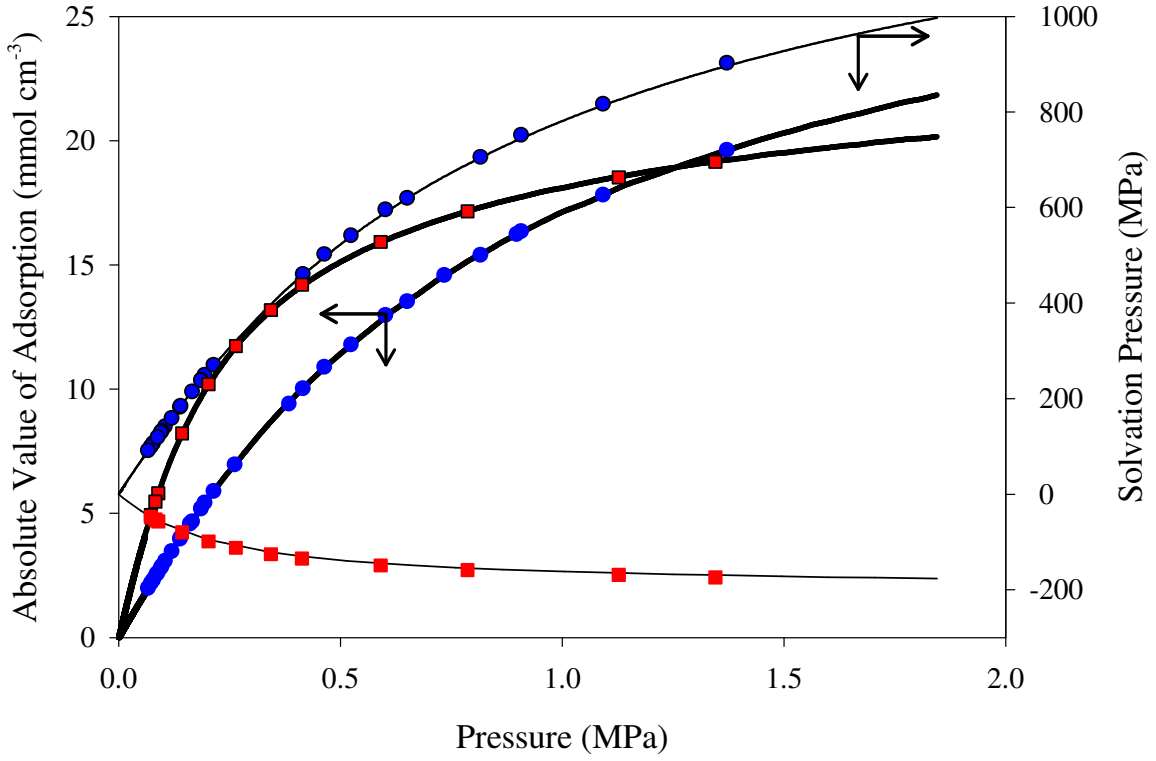

Figure 1S. Variation of solvation pressure and pore density of argon at 243 K versus external bulk pressure computed for slit-shaped carbon pore width 0.44 nm (red squares) and 0.29 nm (blue circles). The solid lines were computed from thermodynamics integration, whereas the points were evaluated from Gauge Cell Monte Carlo method.

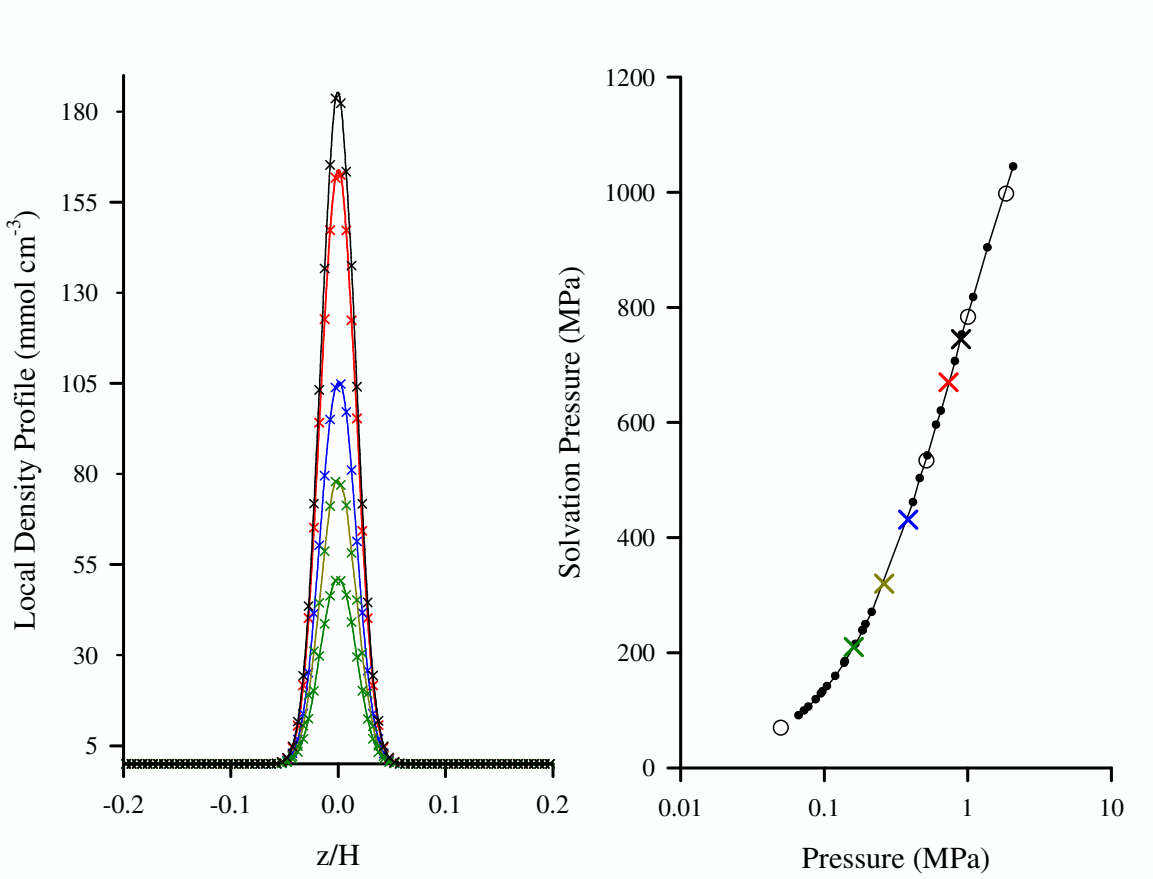

Figure 2S. Right panel presents the variation of solvation pressure of argon at 243 K versus external pressure for selected slit-shape carbon pore H_{eff} = 0.29 nm computed from thermodynamics integration (open circles) and Gauge Cell MC (black circles and color crosses). Left Panel displays the corresponding local density profiles collected by Gauge Cell MC Simulation.

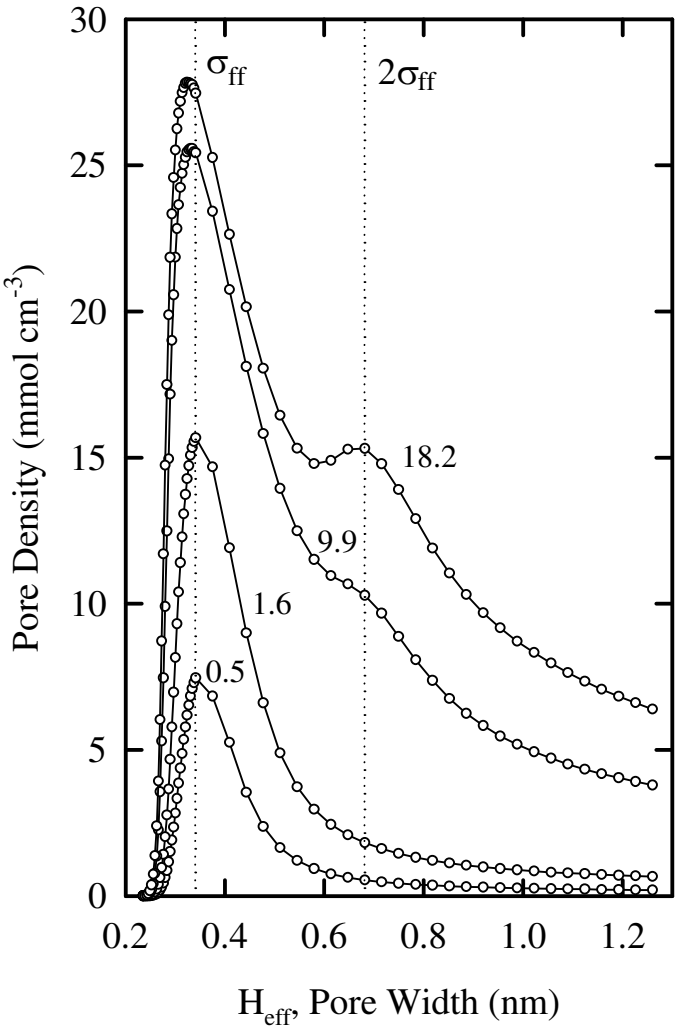

Figure 3S. Variation of pore density of argon at 243 K versus pore size computed from GCMC for external pressures of argon: 0.5, 1.6, 9.9, and 18.2 MPa.