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**Equilibration times of adsorption on external surfaces of carbon nanotube bundles** NAYELI ZUNIGA, Dep. of Physics, Southern Illinois Univ. Carbondale, JARED BURDE, MERCEDES CALBI, ep. of Physics, Southern Illinois Univ. Carbondale — We investigate the adsorption kinetics of gases on the exterior of a carbon nanotube bundle by monitoring the uptake and exchange of particles in regions of the surface characterized by different binding energies. By using a Kinetic Monte Carlo scheme, we follow the time evolution of the gas uptake for different values of external pressure and temperature. The presence of adsorption sites with different energies gives rise to distinctive features on the equilibration time as function of the coverage. We show that preliminary experimental results for  $\text{CF}_4$ , Ar, and  $\text{CH}_4$  on nanotube bundles with closed ends are consistent with our results.

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