

Abstract Submitted  
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**Argon adsorption on a microporous metal organic framework,  $\text{Cu}_3(\text{BTC})_2(\text{H}_2\text{O})_3(\text{Benzene-1,3,5-tricarboxylate})$** <sup>1</sup> K. LASK, V. KRUNGLEVICIUTE, L. HEROUX, A. D. MIGONE, Southern Illinois University, J.-Y. LEE, J. LI, Rutgers University — We will present results for argon adsorbed on  $\text{Cu}_3(\text{BTC})_2(\text{H}_2\text{O})_3(\text{Benzene-1,3,5-tricarboxylate})$  metal-organic frameworks. Full adsorption isotherms (up to saturation) were measured at four temperatures between 66 and 92 K. We observe three distinct sub-steps in the data, indicating that there are at least three different types of binding sites available for argon. We have calculated isosteric heats of adsorption as a function of coverage for this system. We have also measured four isotherms at low coverage for temperatures between 112 and 143 K in order to determine the binding energy for argon on the strongest binding sites available on this microporous metal organic framework. Our results will be compared to previous experimental and computer simulations for this system.

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