

Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

Argon adsorption on Co-FA porous metal-organic framework
VAIVA KRUNGLEVICIUTE, ALDO MIGONE, Department of Physics, Southern Illinois University, KUNHAO LI, JING LI, Department of Chemistry and Chemical Biology, Rutgers University — We have measured Ar adsorption isotherms on Co-FA at several temperatures between 60 and 100 K. Co-FA ($C_9H_{13}Co_3O_{13}$) is a porous, 3D metal-organic framework material produced by heating a mixture of Co(II) nitrate hexahydrate and formic acid in dimethylformamide. The Co-FA sample was annealed at 100°C (under vacuum) for about 20 hours prior to the adsorption measurements. The measurements were conducted using a volumetric adsorption apparatus. Only one step was observed in the isotherm data, from the lowest loading up to saturation. Values for the pore volume, effective surface area and isosteric heat will be presented.

Vaiva Krungleviciute

Date submitted: 02 Dec 2009

Electronic form version 1.4