

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Hydrogen adsorption on metal coated Multiwalled Carbon nanotubes XIANFENG ZHANG, DINESH RAWAT, TOYOHISA FURUHASHI, RAKESH SHAH, ALDO MIGONE, Department of Physics, Southern Illinois University at Carbondale, SAIKAT TALAPATRA — We present results of volumetric adsorption measurements of hydrogen, on Palladium-Gold (Pd-Au) coated multiwalled carbon nanotubes (MWNT). The nanotubes were prepared using air assisted chemical vapor deposition technique and were subsequently purified (acid treatment) before coating them with Pd-Au. Hydrogen adsorption measurements were performed at 77.3 K on as produced MWNTs as well as purified MWNT and compared with the adsorption isotherm obtained on Pd-Au coated MWNT samples under same experimental conditions. The effect of coating the MWNTs with Pd-Au on the adsorption behavior of hydrogen on these nanotubes will be discussed.

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Date submitted: 28 Nov 2008

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