سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
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عنوان مقاله:

Experimental Study of CO2 and CH4 adsorption on Multi-walled Carbon Nanotubes

محل انتشار:

سومین کنفرانس برنامه ریزی و مدیریت محیط زیست (سال: 1392)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Adsorption equilibrium of methane and carbon dioxide on pristine multi-walled carbon nanotube (MWCNT) were measured. The adsorption isotherms for both gases on MWCNT were obtained at 363.2 K and 37812 K and pressures up to 0 bar by a static volumetric method. MWCNT sample presented higher adsorption capacity for carbon dioxide in comparison with the methane in same conditions. Maximum adsorption capacity of MWCNT for methane and carbon dioxide at a pressure about 0 bar and temperature of 36312 k were 71012 and 71972mmol per gram of adsorbent, respectively. Experimental data were correlated by Freundlich and Sips equations

کلمات کلیدی:

Adsorption, Multi-walled carbon nanotube, Isotherm, Methane, Carbon dioxide

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