

عنوان مقاله:

Impregnation of activated carbon by metal acetate for enhancing CO₂ adsorption capacity

محل انتشار:

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خلاصه مقاله:

CO₂ adsorption on raw and impregnated activated carbon (AC) at 298 K and pressures ranging from 30 to 110 kPa has been investigated experimentally, using a vacuum adsorption apparatus, in order to get more information about the applicability of this material for flue gas cleaning. Impregnation by metal acetate shows up to 60% increasing in CO₂ adsorption capacity at 110 kPa. The adsorption data were fitted to the popular and applicable isotherm models, Freundlich and Sips, which are applied to heterogeneous adsorption systems. The Sips model was found to give the best fit for the adsorption of carbon dioxide on raw AC and Freundlich for impregnated AC.

کلمات کلیدی:

Adsorption isotherm, Carbon dioxide, Activated carbon, Impregnation

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