

عنوان مقاله:

Investigation of Adsorption Isotherms of Benzoic Acid on Activated Carbon

محل انتشار:

اولین همایش ملی تصفیه آب و پسابهای صنعتی (سال: 1391)

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خلاصه مقاله:

In industrial processes, granular activated carbon is generally used to recover and remove pollutants from waste water. In this paper, the equilibrium adsorption of benzoic acid on granular activated carbon has been investigated. Experiments were carried out by two sizes of activated carbon. The equilibrium data were analyzed with Langmuir, Freundlich, Radke–Prausnitz, Redlich-Peterson, Sips, and Freundlich- Jovanovic isotherm models using ordinary least square method. The results show that the adsorption process was more effectively described by Freundlich- Jovanovic isotherm model based on the values of the least square parameter, Durbin- Watson Test, and mean relative percent error. Furthermore, the results show that benzoic acid has been adsorbed more on the adsorbent with smaller size

کلمات کلیدی:

Adsorption, isotherm curves, activated carbon, modeling, statistical analysis

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