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Short Communication

Comments on "Adsorption of direct dyes from aqueous solutions by carbon nanotubes: Determination of equilibrium, kinetics and thermodynamics parameters"

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ABSTRACT

Two most suggested papers for pseudo-second-order kinetic model were published in 1984 and 1995 by Blanchard et al. and Ho, respectively. Blanchard et al. noted the overall exchange reaction of NH_4^+ ions fixed in zeolite by divalent metallic ions in the solution using a second-order kinetic model. Ho used the pseudo-second-order kinetic model to the copper ion/peat adsorption system. The adsorption involved chemical bonding and cation exchange. In this comment citation error and quotation error were pointed.

Recently, Kuo et al. [1] published the paper noted above. In Section 3.2.1, Effects of dye concentration, the authors noted a pseudo-second-order model, initial adsorption rate h, and intraparticle diffusion model. In the case of the pseudo-second-order model the authors cited two secondary materials as references [2,3]. In fact, the pseudo-second-order kinetic expression for the adsorption systems of divalent metal ions using sphagnum moss peat has been presented by Ho [4] and this kinetic expression has also been published in 1996 [5]. At the same time Ho has presented a definition for the initial adsorption rate from the pseudo-second-order model. A modified model has been made in the following years because a mistake was included in the paper published in 1996 [6–8]. However, in the case of initial adsorption rate, the authors noted that "the initial adsorption rate h (mg/g min) can be determined by using the equation $h = k_2 q_e^2$" without any citations. In the case of the intraparticle diffusion model, the authors cited the same two secondary materials as references [2,3]. A quotation error of the intraparticle diffusion model was contained in both references. The equation presented in the paper could not be found in the original paper of Weber and Morris [9].

Accuracy of quotations and citations is very important for the transmission of scientific knowledge. I suggest that Kuo et al. cite the original or the most frequently cited papers for the kinetic models to have more accuracy and details of information about kinetic expression.

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