Letter to Editor

Comment on “Biosorptive uptake of Cr(VI) from aqueous solutions by Parthenium hysterophorus weed: Equilibrium, kinetics and thermodynamic studies”

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Received July 01, 2012, Revised manuscript received August 10, 2012, Accepted August 15, 2012

Recently, Venugopal and Mohanty published the paper entitled as above [1]. In the section 3.9. Biosorption kinetics and rate determining step, Venugopal and Mohanty noticed that “the metal adsorption process depends on the number of metal ions present in the solution as well as the free sites on the biosorbent surface. The pseudo-second order equation is:” with Eq. (6).

The pseudo-second-order kinetic expression for the adsorption systems of divalent metal ions using sphagnum moss peat have been presented by Ho in 1995 [2], and this expression was also firstly published in Environmental Technology in 1996 [3]. Unfortunately, a correction to the kinetic model was rejected to be published by Environmental Technology. In 1997, a corrected pseudo-second order kinetic expression was reported because a mistake was included in the previous publications [4]. The model was also used in numbers of adsorption systems in subsequent years [5]. A review of second-order models for adsorption systems gave more details [6].

However, the same mistake was duplicated by Mohanty [7-9] and was published in Chemical Engineering Journal [8,9]. In addition, a comment has been made to point out this error in the paper [10]. Benguella and Benaissa [11] also responded that “We agree with the comment of Dr. Y.S. Ho on our manuscript published in Water Research 36 (10), 2463-2474 (2002).” In order to stop the proliferation of the mistake a comment has been made [10]. This type of error could be avoided if authors have had paid more attentions to details about the model from the original paper [11]. In my view, Venugopal and Mohanty should have cited the original paper for the kinetic models and thereby provided greater accuracy and information details about the kinetic expression they employed.

References

