Letter to the Editor

Reply to comment on "Nitrate removal from aqueous solution by adsorption onto various materials", by Y.S. Ho

We published a paper about the nitrate removal from aqueous solution by adsorption onto various materials [1]. Ho's comments relate to the accuracy of these models [2]. In Section 3.3 "Adsorption kinetics" we mentioned that "first order rate expression given by Lagergren" using Eq. (3) in the paper and we cited four papers. Supported by many papers and comments, it is reasonable well established that Lagergren first presented the pseudo first order model. In our paper however, we cited Altundoğan et al. [3], Wu et al. [4], Namasivayam et al. [5] and Namasivayam et al. [6] for this model. In fact Ho and McKay [7,8] and Namasivayam et al. [9] were cited in their paper. Ho and McKay cited Lagergren [10] in their paper. Frankly, it was not our intention to ignore this reference. Ho pointed out that Lagergren's equation has been widely cited, but there are many mistakes made in the reference section of papers than anywhere else [11]. The correct reference citing the original Lagergren paper was given by Ho and McKay [12]. We should have cited Lagergren for Eq. (3) in our paper.

In Section 3.3, "Adsorption kinetics" we mentioned the second order equation based on adsorption equilibrium capacity using Eq. (4) in the paper with no citation. Ho presented the pseudo second order model in several papers. We should have cited Ho [13] for Eq. (4) and we should have called this equation the pseudo second order rate expression. In order to distinguish a kinetic equation based on the adsorption capacity of a solid from one based on concentration of a solution, Lagergren's first order rate equation has been called pseudo first order [11]. We should have called Eq. (3) a pseudo first order rate expression.

We appreciate that Dr. Ho pointed out our citation and quotation errors. We fully agree with Dr. Ho viewpoint on the originality at these kinetic models and the contribution of a paper in its originality, creativity, continuity and development for research that follows. We also accept Dr. Ho's suggestion readily that we should cite Lagergren and Ho's original pseudo second order kinetic expression paper or relevant works in our paper.

References

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