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Biogeosciences Discussions

Interactive comment on "Phosphorus sorption and buffering mechanisms in suspended sediments from the Yangtze Estuary and Hangzhou Bay, China" *by* M. Li et al.

Anonymous Referee #1

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Overall comments: The article is interesting to the research field in phosphorus sorption and buffering mechanisms in suspended sediments in a bay area in China. The work seems well planned and performed. Concise and logic description of methodology makes the results trustable and meaningful. Some detailed comments are included below for the authors to consider in a revision of the paper. I recommend the acceptance of this manuscript for publish after minor revision.

Detailed comments: (1) Please explain why the salinity of 5 and pH of 8 were chosen in the experiments? As far as I know, the salinity in the Yangtze Estuary and Hangzhou Bay should be higher than 5.

(2) Langmuir, Freundlich and Tempkin adsorption isotherm equations are suggested be introduced and referenced when they are firstly appeared in the manuscript.

(3) The concept of Ps- EPC0 was not clearly introduced. Please improve it for a better understanding.

(4) The equation Ps-EPC0ïijİKâĂćEPC0 seems not satisfied to the Dimensional Homogeneity, since the units of Ps, EPC0 and K are mg/L, mg/L and L/g, respectively. Please explain it or revise it.

(5) Please check and confirm some expressions such as "sorption equilibria in water-sediment systems", "effluent outfall", "before being transported back to" and "were always less than", etc.

Interactive comment on Biogeosciences Discuss., 9, 17519, 2012.

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