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Drinking Water
Engineering and Science
Discussions

Interactive comment on "Estimating fast and slow reacting component in surface and groundwater using 2R model" *by* P. Jamwal et al.

Anonymous Referee #1

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The using of the two-reactant model (2R) to estimate the chlorine decay in surface water and ground water was studied in this manuscript. There are numerous grammatical errors in the manuscript, which makes the manuscript hard to read. I also have several comments related to the manuscript.

P199: what do the authors mean by "secondary treatment of water"? Normally, secondary treatment refers to a level of wastewater treatment.

The authors have defined the fast and slow reacting components present in different types of water in Table 1. However, their concentrations were not measured. Later on, in P204 L15, the authors state that "we observed that in groundwater the ratio of slow to fast reacting component is thirty times greater than that for the surface water." How did the authors observed that ratio for the groundwater was 30-times greater than that

for the surface water?

Could the authors kindly provide the source of the information in Table 1?

The 2R model have been studied by several authors, including Fisher et al., 2011; Mutoti et al., 2007; Rossman, 2006. Could the authors explicit the novelty of this manuscript compared with the previous studies?

Does the Figure 2 (Y-axis in concentration) display the same measured data as Figure 1(Y-axis in fraction)? If they are the same, I suggest to delete the Figure 1.

Figure 2: which figure shows the data for groundwater and which shows the data for surface water?

Other comments: P198 L5; P200 L1: "chlorine kinetics" -> " chlorine decay kinetics" P198 L7 (as well as multiple locations in the manuscript): "organic and inorganic matter" -> "organic and inorganic matters" P198 L10: "test" -> "tests" P198 L14: "dataset" -> "datasets" P201 L18: "whole dataset" -> "the whole datasets" P201 L21 (as well as multiple locations in the manuscript): "data set" -> "datasets" Figure 1: "IC" -> "ICC"

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