

Interactive comment on “Dissolved Organic Carbon Driven by Rainfall Events from a Semi-arid Catchment during Concentrated Rainfall Season in the Loess Plateau, China” by Linhua Wang et al.

Anonymous Referee #3

Received and published: 20 March 2019

This manuscript reported the changes in DOC concentration and flux and their relationship to rainfall events. Although the authors did some solid fieldwork, I think the authors need to restructure the manuscript to present their scientific findings. I have some major concerns for the authors: 1) The authors declared that there were no reports to the LPR, but I do not think that is the reason they conducted such a study. 2) They claimed that this study highlighted the interaction of rainfall and antecedent conditions for DOC exports in a catchment, but they did not say what interactions and what effects. 2) The introduction is very difficult to follow, they presented a numerous report (for example, L40-L64), I think they need to summary these studies and then the potential readers can know why they design this study. 3) The three objectives of

C1

this study were not well described in the introduction section. Actually, I think the LPR (L65-L81) and CERN is nothing to do with the scientific questions only if the authors can upscale their results to the whole LPR and explained the global significance of the DOC exports in LPR. I believe most readers have no idea about the sampling sites in this study, and they also do not care about this. 4)The result section is too long, making it difficult to read. The authors need to redo the tables and figures. I do not understand Figure 2a. It is also difficult to understand Fig. 8. The authors also need to explain the abbreviations for R1, R2 in table 2 so the readers need not to find them in the text. 5) The authors should clarify the rainfall amount and rainfall intensity, which is important to class the rainfall events. 6)L275-278, it is unclear about the time interval between these sampling times. If they want to conduct such analysis, they should check the original data to ensure the normal distribution. 7)Conclusions. The findings of this study indicate that DOC concentrations were highly variable, particularly during low runoff discharge periods, granted, this belongs to the conclusion. But many other sentences just simply repeated the results. The authors should think hard about the findings of this study and show that these findings are valuable.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2019-8>, 2019.

C2