

Interactive comment on “Tracing biogeochemical processes and pollution sources with stable isotopes in river systems: Kamniška Bistrica, North Slovenia” by T. Kanduč et al.

Anonymous Referee #1

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The manuscript by Kanduc et al. presents new hydrogeochemical and stable isotope data on a river system in North Slovenia. By means of mass balance approaches and the application of selected stable isotope systems (O, C and N) they estimate the contributions of different sources to the DIC pool of the chosen surface waters. This is currently an important issue: the reaction of surface waters under the pressure of climate change and anthropogenic activity. In this light, scientific work in this field is highly desirable. The present manuscript presents a solid data base and gives a related discussion of possible processes, sources and sinks. The chosen stable isotope systems are usefull, but would require, for instance, the consideration of oxygen isotopes in nitrate to cover all possible biogeochemical impacts on the C-N system. I also

C4808

miss the discussion of sulfate contributions to the cationic system. As it stands, it is a good paper that should be published. However, I am missing the innovative potential that is required to my impresssion for a publication in Biogeochemistry.

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