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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Soil water migration in the unsaturated zone of semi-arid region in China from isotope evidence" *by* Yonggang Yang and Bojie Fu

Anonymous Referee #5

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The authors have tried to do some fundamental research based on field survey and water samples analyses. The study sampled soil profile water stable isotopes of soil, and discussed soil water-plant water recharge sources. This study provides some useful information for soil moisture dynamics and stable characteristics. So it is significant. However, I could recommend the paper for publication after the following issues have been addressed by the authors:

P1 L19, D is used in the text for the first time, so please state this is Deuterium.

P4 , L 80ãĂĄ"groundwater in the unsaturated zone" There is no relevant analysis about groundwater in the whole passage, so it should be deleted. P7 , L52-53ãĂĄ P8 ,167 "The measured D and18 O of soil water range from -72.42‰ to -37.05‰ and -11.74‰

to -3.57‰ respectively." Add the little "delta" before 18O such as δ 18O.

p10, L 230-233ïijŇ" Most of the sampling sites in Anjiagou River basin (except 14-7-20 and 14-9-24 sites), the isotopic composition of soil water in shallow layer are enriched in D and 18O due to evaporation. The isotopic composition of soil water with depth in the soil profile. " Here the changes should be specifically explained.

p12, L 261-264ïijŇ"the preferred flow is rarely found in the Loess Plateau, except that there are which is caused by plant root system or animal invasion, etc." "The macrospores can be found in the 100-200cm soil layer in the study area, which are caused by plant root or animal activity." Here "plant root or animal activity" should be changed into "plant root or animal invasion", and exact illustration is needed.

P13 , L 292ãĂĄ"often-used" Here "often-used" should be changed into "often used".

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