

Interactive comment on “Isotopic signatures of production and uptake of H₂ by soil” by Q. Chen et al.

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The manuscript under review adds to the limited data available for isotopic effects during consumption and production of H₂ in soils. In particular, the manuscript provides one of the first results for the isotopic content of H₂ produced during N₂ fixation in soils yielding a result that is significantly different from that which is expected under H₂/H₂O equilibrium conditions. Certainly future work will build off of this result. I found both the experimental procedures and modeling to be thorough and well described. The manuscript is well written and the results are an important addition to the community of researchers who study the details of atmospheric H₂. I recommend publication as is.

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