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Interactive Comment

Interactive comment on "Sulfur isotope fractionation during heterogeneous oxidation of SO₂ on mineral dust" by E. Harris et al.

Anonymous Referee #3

Received and published: 4 April 2012

Like the other two reviewers, I don't have any major concerns with the manuscript presented here. Still, I will have a few questions: - Like it was mentioned by one of the other reviewers, how are the authors showing that the leaching protocole they are using is efficient? In other words, did they calculate this efficiency? How leaching time was adjusted? Was the leaching efficiency pH-dependent? - I am wondering about the necessity of using the NanoSIMS for the isotope analyses given its limitations in terms of percision compared to more "classical" ways of measuring isotope compositions. As the experimentation was in fine yielding SO2 or BaSO4, wasn't it more straightforward to run the isotope analysis on a regular CF-IRMS? - What about investigating the MIF S isotope compositions?

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Interactive Discussion

Discussion Paper



Interactive comment on Atmos. Chem. Phys. Discuss., 12, 2303, 2012.