

## List of publications and presentations

### Summary

- First author on 13 scientific publications, co-author on a further 12 publications
- 1032 citations, *h*-index of 17
- >30 presentations at international scientific conferences and meetings including three invited contributions

### Publication list

1. **Harris, E.**, Diaz-Pines, E., Stoll, E., Schloter, M., Schulz, S., Duffner, C., Li, K., Moore, K.L., Ingrisch, J., Reinthaler, D., Zechmeister-Boltenstern, S., Glatzel, S., Brüggemann, N. and Bahn, M. (2020) *Denitrifying pathways dominate nitrous oxide emissions from a managed grassland during drought and rewetting*, in review.
2. Yu, L., **Harris, E.**, Lewicka-Szczebak, D., Barthel, M., Blomberg, M., Harris, S., Johnson, M., Lehmann, M., Liisberg, J., Müller, C., Ostrom, N., Six, J., Toyoda, S., Yoshida, N. and Mohn, J. (2020) *What can we learn from N<sub>2</sub>O isotope data? Analytics, processes and modelling*, in press, Rapid Communications in Mass Spectrometry, doi: 10.1002/rcm.8858.
3. Yu, L., **Harris, E.**, Henne, S., Eggleston, S., Steinbacher, M., Emmenegger, L., Zellweger, C. and Mohn, J. (2020) *The isotopic composition of atmospheric nitrous oxide observed at the high-altitude research station Jungfrauoch, Switzerland*, Atmospheric Chemistry and Physics, 20, 6495-6519, doi: 10.5194/acp-2019-829.
4. Ibraim, E., Wolf, B., **Harris, E.**, Gasche, R., Wei, J., Yu, L., Kiese, R., Eggleston, S., Butterbach-Bahl, K., Zeeman, M., Tuzson, B., Emmenegger, L., Six, J., Henne, S. and Mohn, J. (2019) *Attribution of N<sub>2</sub>O sources in a grassland soil with laser spectroscopy based isotopocule analysis*, Biogeosciences, 16, 3247–3266.
5. **Harris, E.**, Ladreiter-Knauss, T., Butterbach-Bahl, K., Wolf, B. and Bahn, M. (2018) *Land-use and management alters methane and nitrous oxide fluxes in mountain grasslands*, Science of the Total Environment, 628-629, 997-1008.
6. Ibraim, E., **Harris, E.**, Eyer, S., Tuzson, B., Emmenegger, L., Six, J. and Mohn, J. (2018) *Development of a field-deployable method for simultaneous, real-time measurements of the four most abundant N<sub>2</sub>O isotopocules*, Isotopes in Environment and Health Studies, 54, 1-15, doi:10.1080/10256016.2017.1345902.
7. **Harris, E.**, Henne, S., Hüglin, C., Zellweger, C., Tuzson, B., Ibraim, E., Emmenegger, L. and Mohn, J. (2017) *Tracking nitrous oxide emission processes at a suburban site with semi-continuous, in-situ measurements of isotopic composition*, Journal of Geophysical Research - Atmospheres, 122, 1850-1870, doi:10.1002/2016JD025906.
8. **Harris, E.**, Emmenegger, L. and Mohn, J. (2017) *Using Isotopic Fingerprints to Trace Nitrous Oxide in the Atmosphere*, Chimia, 71, 46, doi:10.2533/chimia.2017.46.
9. Denk, T., Mohn, J., Decock, C., Lewicka-Szczebak, D., **Harris, E.**, Butterbach-Bahl, K., Kiese, R. and Wolf, B. (2017) *The nitrogen cycle: a review of isotope effects and isotope modeling approaches*, Soil Biology and Biochemistry, 105, 121-137.

10. Röckmann, T., Eyer, S., van der Veen, S., Popa, M.E., Tuzson, B., Monteil, G., Houweling, S., **Harris, E.**, Brunner, D., Fischer, H., Zazzeri, G., Lowry, D., Nisbet, E., Brand, W.A., Necki, J.M., Emmenegger, L. and Mohn, J. (2016) *In-situ observations of the isotopic composition of methane at the Cabauw tall tower site*, Atmospheric Chemistry and Physics, 16, 10469-10487, doi:10.5194/acp-16-10469-2016.
11. Mohn, J., Gutjahr, W., Toyoda, S., **Harris, E.**, Ibraim, E., Geilmann, H., Schleppe, P., Kuhn, T., Lehmann, M.F., Decock, C., Werner, R.A., Yoshida, N. and Brand, W. (2016) *Reassessment of the  $NH_4NO_3$  thermal decomposition technique for calibration of the  $N_2O$  isotopic composition*, Rapid Communications in Mass Spectrometry, 30(23), 2487-2496, 10.1002/rcm.7736.
12. Eyer, S., Tuzson, B., Popa, E., van der Veen, C., Röckmann, T., Brand, W.A., Fisher, R., Lowry, D., Nisbet, E.G., Brennwald, M.S., **Harris, E.**, Emmenegger, L., Fischer, H. and Mohn, J. (2016) *Real-time analysis of  $\delta^{13}C$ - and  $\delta D-CH_4$  in ambient methane with laser spectroscopy: Method development and first inter-comparison results*, Atmospheric Measurement Techniques, 9, 263-280.
13. **Harris, E.**, Joss, A., Emmenegger, L., Kipf, M., Wolf, B., Mohn, J. and Wunderlin, P. (2015) *Isotopic evidence for nitrous oxide production pathways in a partial nitrification-anammox reactor*, Water Research, 83, 258-270.
14. **Harris, E.**, Zeyer, K. and Mohn, J. (2015) *Nitrous oxide and methane emissions and nitrous oxide isotopic composition from municipal solid waste incineration plants in Switzerland*, Waste Management, 35, 135-140.
15. Wolf, B., Merbold, L., Decock, C., Tuzson, B., **Harris, E.**, Six, J., Emmenegger, L. and Mohn, J. (2015) *First online isotopic characterization of  $N_2O$  emitted from intensively managed grassland*, Biogeosciences, 12, 2517-2531.
16. **Harris, E.**, Sinha, B., van Pinxteren, D., Schneider, J., Poulain, L., Collett, J., d'Anna, B., Fahlbusch, B., Foley, S., Fomba, K.W., George, C., Gnauk, T., Henning, S., Lee, T., Mertes, S., Roth, A., Stratmann, F., Borrmann, S., Hoppe, P. and Herrmann, H. (2014) *In-cloud sulfate addition to single particles resolved with sulfur isotope analysis during HCCT-2010*, Atmospheric Chemistry and Physics, 14, 4219-4235.
17. **Harris, E.**, Ono, S., Nelson, D., Potter, K. and Prinn R. (2014) *Development of a spectroscopic technique for continuous online monitoring of oxygen and site-specific nitrogen isotopic composition of atmospheric nitrous oxide*, Analytical Chemistry, 86, 1726-1734.
18. Henning, S., Dieckmann, K., Ignatius, K., Schäfer, M., Zedler, P., **Harris, E.**, van Pinxteren, D., Mertes, S., Birmili, W., Merkel, M., Wu, Z., Wiedensohler, A., Wex, H., Herrmann, H. and Stratmann, F. (2014) *Influence of cloud processing on CCN activation behaviour in the Thuringian Forest, Germany during HCCT-2010*, Atmospheric Chemistry and Physics, 14, 1617-1645.
19. **Harris, E.**, Ono, S., Sinha, B. and Hoppe, P. (2013) *High-precision measurements of  $^{33}S$  and  $^{34}S$  fractionation during  $SO_2$  oxidation reveal causes of seasonality in  $SO_2$  and sulfate isotopic composition*, Environmental Science and Technology, 47, 12174-12183.
20. **Harris, E.**, Sinha, B., van Pinxteren, D., Tilgner, A., Fomba, K.W., Schneider, J., Roth, A., Gnauk, T., Fahlbusch, B., Mertes, S., Lee, T., Collett, J., Foley, S., Borrmann, S., Hoppe, P. and Herrmann, H. (2013) *Enhanced role of transition metal ion catalysis during in-cloud oxidation of  $SO_2$* , Science, 340, 727-730.

21. J. A. Huffman, C. Pöhlker, A. J. Prenni, P. J. DeMott, R. H. Mason, N. H. Robinson, J. Fröhlich-Nowoisky, Y. Tobo, V. R. Després, E. Garcia, D. J. Gochis, **E. Harris**, I. Müller-Germann, C. Ruzene, B. Schmer, B. Sinha, D. A. Day, M. O. Andreae, J. L. Jimenez, M. Gallagher, S. M. Kreidenweis, A. K. Bertram, and U. Pöschl (2013) *High concentrations of biological aerosol particles and ice nuclei during and after rain*, Atmospheric Chemistry and Physics, 13, 6151-6164.
22. **Harris, E.**, Sinha, B., Hoppe, P., Foley, S. and Borrmann, S. (2012) *Fractionation of sulfur isotopes during heterogeneous oxidation of SO<sub>2</sub> on sea salt aerosol: A new tool to investigate non-sea salt sulfate production in the marine boundary layer*, Atmospheric Chemistry and Physics, 12, 4619-4631
23. **Harris, E.**, Sinha, B., Foley, S., Crowley, J. N., Borrmann, S., and Hoppe, P. (2012) *Sulfur isotope fractionation during heterogeneous oxidation of SO<sub>2</sub> on mineral dust*, Atmospheric Chemistry and Physics, 12, 4867-4884
24. **Harris, E.**, Sinha, B., Hoppe, P., Crowley, J. N., Ono, S., and Foley, S. (2012) *Sulfur isotope fractionation during oxidation of sulfur dioxide: gas-phase oxidation by OH radicals and aqueous oxidation by H<sub>2</sub>O<sub>2</sub>, O<sub>3</sub> and iron catalysis*, Atmospheric Chemistry and Physics, 12, 407-423.
25. van Pinxteren, D., Birmili, W., Fomba, W., Gnauk, T., Iinuma, Y., Mertes, S., Mildenerger, K., Merkel, M., Müller, C., Müller, K., Poulain, L., Spindler, G., Henning, S., Stratmann, F., Tilgner, A., Wex, H., Wolke, R., Wiedensohler, A., Zhijun, W., Böttger, T., Borrmann, S., **Harris, E.**, Roth, A., Schneider, J., Sinha, B., George, I., Heard, D., Whalley, L., D'Anna, B., George, C., Müller, M., Amedro, D., Fittschen, C., Schoemaker, C., Collett, J., Lee, T., and Herrmann, H. (2011) *Hill Cap Cloud Thuringia 2010 - Overview and first results*, Atmospheric Environment, 45, S1, A 338.