Meredith Hastings Publications

Publications

I. Refereed journal articles (*student first author)


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**II. Abstracts** (*student first author*)

**Hastings, M.G.** (2009), Evaluating Anthropogenic impacts to the nitrogen cycle based upon the isotopes of nitrate (Invited), *Eos Trans. AGU, 90(52)*, Fall Meet. Suppl., Abstract B11F-06.


Schauer, A., S. Kunasek, B. Alexander, E.J. Steig, E. Sofen, J. Bautista, L. Vogel, **M.G. Hastings**, J.C. Jarvis (2009), Reduced size limits for nitrate $\delta^{15}$N, $\Delta^{17}$O and sulfate $\Delta^{17}$O isotope measurements and first results from the WAIS Divide Core, presented at the West Antarctic Ice Sheet Divide Science Meeting.

**Hastings, M.G.** (2009), Evaluating source and chemistry changes based on the isotopes of nitrate in ice cores, presented at the Past Global Changes Open Science Meeting.

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*Kunasek, S.A., B. Alexander, E.J. Steig, M.H. Thiemens, T.L. Jackson, M.G. Hastings, J.R. McConnell, D.J. Gleason, H.M. Amos (2008), Simultaneous measurements of $\Delta^{17}$O, $\delta^{15}$N, and $\delta^{34}$S of nitrate and sulfate in a 70-m ice core from the West Antarctic Ice Sheet Divide (WDC05-A), WAISCORES meeting.


*Jarvis, J.C., M.G. Hastings, and E.J. Steig (2007), Changes in the $\delta^{15}$N of nitrate in Greenland ice: implications for source changes over the last 500 years, presented at the Goldschmidt Conference, Cologne, Germany.


*Kunasek, S.A., B. Alexander, E.J. Steig, M.G. Hastings, J.C. Jarvis, and C.T. Yarnes (2006), Coupling nitrate $\Delta^{17}$O, $\delta^{15}$N, and $\delta^{18}$O in polar ice: Towards determination of paleoatmospheric oxidant concentrations and post-depositional processes, presented at the American Geophysical Union Fall Meeting.

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*Jarvis, J.C., M.G. Hastings, and E.J. Steig (2006), Isotopes of atmospheric NOx and HNO₃: Implications for ice core records of climate and atmospheric chemistry (A51B-0076), presented at the American Geophysical Union Fall Meeting.


III. Invited Lectures


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Lamont-Doherty Earth Observatory, “The Biogeochemical-Climate Record: A New Perspective on Nitrate,” February 2009.

Columbia University, Department of Chemical Engineering, “It’s not just fossil fuel: Nitrogen deposition to the North Atlantic,” February 2009.

Brown University, Center for Environmental Studies, “The Ice Core Record of Nitrate: A New Perspective,” October 2008.


Marine Biological Laboratory, Brown-MBL Program Retreat, “Using the isotopes of nitrate to trace the sources and chemistry of nitrate,” September 2008.


University of Pennsylvania, Department of Earth and Environmental Sciences, “The Biogeochemical-Climate Record: A New, Emerging Perspective,” March 2006.


National Center for Atmospheric Research, Atmospheric Chemistry Division, “Glacial/Interglacial changes in the isotopes of nitrate from the GISP2 ice core,” October 2005.


Harvard University, Atmospheric Sciences Seminar, “Using isotopes to discern sources, transport, and chemistry of nitrate at Bermuda,” May 2003.


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