## **Curriculum Vitae - Daniel Obrist**

Vice Provost for Academic Personnel and Development University of California Agricultural and Natural Resources 2801 2nd Street, Davis, California 95618 Phone: (530) 464-8301; Email: dobrist@ucanr.edu

Education	2002	<b>University of Nevada, Reno, Ph.D.</b> Graduate Program of Hydrologic Sciences Field: Hydrogeology	Reno, NV
	1998	<b>University of Basel, M.S.</b> Department of Biology Field: Integrative Biology and Plant Ecology	Basel, Switzerland

# Employment

2022-present	University of California Vice Provost for Academic Personnel and Development Agriculture and Natural Resources	Davis, CA
2017-2022	University of Massachusetts, Lowell Department Chair and Professor in Environmental Science (tenured) Department of Environmental, Earth, and Atmospheric Sciences	Lowell, MA
2007/08/10- 2017	University of Nevada, Reno Faculty Member Graduate Programs Hydrologic Sciences; Atmospheric Sciences; Environmental Sciences and Health	Reno, NV
2013-2017	Desert Research Institute <b>Research Professor</b> Division of Atmospheric Sciences	Reno, NV
2009-2013	Desert Research Institute Associate Research Professor Division of Atmospheric Sciences	Reno, NV
2007-2009	Desert Research Institute Assistant Research Professor Division of Atmospheric Sciences	Reno, NV
2006	Desert Research Institute <b>Postdoctoral Research Associate</b> Division of Atmospheric Sciences [Prof. H. Moosmüller]	Reno, NV

	2003-2005	University of Basel <b>Postdoctoral Research Associate (Senior</b> <b>Assistant),</b> Institute of Environmental Geosciences [Prof. Ch. Alewell]	Basel, Switzerland
	2003	University of Nevada, Reno <b>Postdoctoral Research Associate</b> Department of Environmental and Resource Sciences [Prof. M.S. Gustin]	Reno, NV
	1999-2002	Desert Research Institute <b>Research Assistant</b> Division of Earth and Ecosystem Sciences [Prof. John A. Arnone]	Reno, NV
	1997-1998	University of Basel <b>Research Assistant</b> Department of Integrative Biology	Basel, Switzerland
Teaching			
	2022	Course Instructor UMass Lowell ENVI.4150 Biogeochemical Cycles	
	2021	Course Instructor UMass Lowell ENVI.4150 Biogeochemical Cycles ENVI.4100 Soil Science ENVI.4120L Soil Science Laboratory ENVI.ENVI 5200 Environ. Impact Assessment & Ast	nalysis
	2020	<b>Course Instructor UMass Lowell</b> ENVI.5100 Environmental Pollution ENVI.4100 Soil Science ENVI.4120L Soil Science Laboratory	
	2019	<b>Course Instructor UMass Lowell</b> ENVI.1200 Principles of Environmental Science ENVI.1100 Global Environmental Studies	
	2018	<b>Course Instructor UMass Lowell</b> ENVI.2020 Earth Systems: Atmosphere and Oceans ENVI.1200 Principles of Environmental Science	
	2017	Course Instructor UMass Lowell ENVI.5100 Environmental Pollution	
	2015	<b>Course Instructor UNR</b> GEOL.701Z. Snow Hydrology. University of Nevad Graduate Seminar in Hydrology	a, Reno.
	2014	<b>Course Instructor UNR</b> ATMS 700R. Graduate Seminar in Atmospheric Scie	ences
	2011	<b>Course Instructor UNR</b> ATMS 792. Special topic: Air Quality Measurement Analysis	s and Data
	2011	<b>Course Instructor UNR</b> Special topic: ATMS 792 Special Topic: Hydromete	orology.

2009	Course Instructor UNR and UNLV
	ATMS 792 & GEOL 691. Hydrometeorology
2008	<b>Course Instructor UNR</b> ATMS 792. Special topic: Hydrometeorology.
2003-	Course Instructor, University of Basel, Switzerland: Hydrology;
2005	Soil Science

#### Student and Post-doc Mentoring

2003- Advisor, co-advisor, and graduate committee member of students, Principal mentorPresent of post-doctoral fellows:

Post-doctoral Fellows: Dr. Buyun Du (2021– present) Dr. Jun Zhou (2019 – present); Dr. Dean Howard (2017-2018; now at University of Colorado, Boulder, USA); Dr. Yannick Agnan (2014-2016, now at the Université Catholique de Louvain, Belgium); Dr. Christopher Moore (2011-2013; now at the Gas Technology Institute, Des Plaines, IL, USA); Dr. X. Faïn (2008-2010; now at the French National Centre for Scientific Research – CNRS, Grenoble, France).

M.S. and Ph.D. students: T. Wang (Intercampus Marine Science PhD Program, University of Massachusetts, Lowell); Alkuin Koenig (University of Grenoble, France); Clara Cogswell, Lea Richter, Christ Romero, L. Richter, T. Richards, A. Horton (Environmental Studies Program, University of Massachusetts, Lowell); C. Olson, Q. Zhao, M. McDaniel, R. David, B. Trustman, C. Pearson, A. Pierce, A. Pokharel, S. Vadwalas, A. Millhollen, G. Castillo (all University of Nevada, Reno); T. Khan (Michigan Technological University); O. Hararuk (University of Oklahoma, Norman); R. Teisserenc (Université du Québéc à Montréal); J. Fritsche (University of Basel, Switzerland); Visiting students: D. Howards, Macquarie University, Australia; S. Darby, University College Cork, Ireland; T. Le Dantec, ENSAT Toulouse; Y. Zhang (East China University of Science and Technology, Shanghai); G. Marty (Polytech' Grenoble); R. Schürmann, Lena Wohlgemuth (University of Basel).

Undergraduate and High School Students: M. Schwamb, J. Polen, K. OBeirne, M. Sachs, S. Bollen, S. Charoon, C. Douglas, L. Luchford, E. Daly, S. Haggett, E. Roy (UMass Lowell); C. Wong (Columbia U.); A. Harvey (MIT); C. Berger, C. Berger (Sparks High School); J. Hoberg, Q. Campbell, J. P. Ponco de Leo (Reno High School); O. Dillon, S. Lee, J. Dagget (University, of Nevada, Reno); L. Arnone (Swarthmore College).

## Administrative Accomplishment and Responsibilities

#### Vice Provost, Division of Agriculture and Natural Resources, University of California (UC ANR), August 2022 to present

UC Agriculture and Natural Resources connects the power of UC research in agriculture, natural resources, nutrition and youth development with local communities in California. UC ANR operates a statewide network of researchers and educators dedicated to the development and application of knowledge to address local community, agricultural, environmental and health issues. Over 150 UC ANR UCCE advisors conduct applied research, outreach and education from locally based Cooperative Extension offices serving all 58 counties from 70+ locations throughout the state. By working and living among those we serve, UC ANR expands the University of California's reach to engage all people and communities in California, ensuring equal access to the UC system.

#### Key responsibilities include:

- Promoting successful recruitment, development and retention of UC ANR academics: my prime responsibilities include management and supervision of hiring process of over 90 new academic positions funded by an increase in State funding, which allows UC ANR to rebuild its academic footprint across the State of California.
- Supporting streamlined performance evaluation of UC ANR personnel: I am working with Academic Assembly Council, ANR's Peer Review Committee, and Academic HR to organize and conduct merit and promotion processes to promote and reward innovation and excellence of UC ANR academics.
- Personnel development paths and mentoring: I lead a team in Learning and Development and Academic HR and to expand and implement mentoring and academic development programs and expand support for academic advisors and specialists.

#### Department Chair and Professor, Department of Environmental, Earth and Atmospheric Sciences, University of Massachusetts, Lowell (UML), 2017 to 2022

UML is a national R2 public research university and the second largest public university in the Commonwealth with over 18,000 students. The department is highly cross-disciplinary and aims to excel in education and research in Earth system sciences and human-environmental interactions. The department has vibrant undergraduate and graduate programs in Environmental Science and Geoscience, Meteorology and Atmospheric Sciences and Environmental Studies, and a Ph.D. program in Earth Systems sciences.

#### Key responsibilities and accomplishments include:

- I was responsible for academic planning and scheduling, curriculum development and management, faculty and staff review, evaluations and tenure and promotion processes, recruitment of new faculty and staff, student recruitment and academic success, department budgeting, and planning and management of academic and research space.
- I successfully increased student and course enrollment during my tenure reaching the highest undergraduate student major growth of the college of science over the past five years. Metrics show growth of +47% undergraduate enrollment; +110% graduate enrollment; +143% of student credit hours taught by the department, and first-year student retention increase to 82%-87%.

- I shepherded development of new academic programs including the department's first Ph.D. program in Earth System Science, a new B.S. program in Atmospheric Science and Meteorology, major restructuring of the B.S. in Environmental Science, and a new B.A. program in Sustainability (ongoing).
- I secured and recruited four new permanent and four part-time faculty positions and am responsible for faculty mentoring, annual performance reviews, promotion and tenure processes in a unionized University environment. We increased faculty diversity by increasing faculty from underrepresented groups in science (women and racial or ethnic groups) from 28% to 36%.
- I facilitated new research and teaching facilities and renovation of existing space, including four new analytical research laboratories, a new teaching computer laboratory, new graduate student space, and a 16 x 5 ft digital weather wall used for analyses of weather and climate patterns and GIS/modeling courses.

Memberships	1.	American Geophysical Union
(various duration)	3.	American Association for the Advancement of Science
	4.	Soil Science Society of America
	5.	Association for Environmental Studies and Sciences
Awards and Honors	2017 - 2022	Annual recognitions at UML's Faculty Symposia (High Research Expenditures and/or High Publication successes)
	2017	<b>Plenary Presentation: International Conference on Mercury as a</b> <b>Global Pollutant (ICMGP 2017).</b> "A review of global environmental mercury processes in response to human and natural perturbations: changes of emissions, climate and land use"
	2015	<b>Congressional Briefing</b> , Association of Ecosystem Research Centers (AERC): <i>Ecosystem Resilience to Extreme Events</i> . U.S. Capitol Visitor Center, Washington, DC.
	2013 - 2014	<b>Sabbatical Leave Award</b> : "Combining soil chemistry and atmospheric processes to assess fate of heavy metals in the environment." Institute of Biogeochemistry and Pollutant Dynamics, Swiss Federal Institute of Technology, Zürich, Switzerland and Institute for Forest Ecology and Management, Swedish University of Agricultural Sciences, Umeå, Sweden.
	2010	Awardee, Nevada System of Higher Education (NSHE) Board of Regents Rising Researcher Award.
	2009	Awardee, Peter B. Wagner Medal of Excellence for DRI Scholars in the Early Stages of Career Development.
	2003	<b>Best Dissertation Award</b> , Hydrologic Sciences Program, University of Nevada, Reno.
	1999 -	Three Outstanding Student Awards: Mackay School of Mines;
	2002	University of Nevada, Reno; Desert Research Institute (DRI).
	2000	Nevada Medal Research Fellowship 2000 – Award to recognize achievements of DRI graduate students.

	2000	<b>Colin Warden Memorial Award</b> – The endowment recognizes outstanding graduate students
Professional Service	2022 - present	Vice Provost, Agriculture and Natural Resources, University of California (UC ANR)
	2017 - present	Chairperson, Department of Environmental, Earth and Atmospheric Sciences, UMass Lowell
	2015 – 2018	Ad-hoc Graduate Faculty, Environmental Engineering, Michigan Technological University, Houghton, MI
	2015 - 2018	<b>Scientific Advisor,</b> Division of Environmental Protection of the State of Valais, Switzerland. Scientific guidance and coordination of remediation of polluted sites.
	2013 - 2017	Editor, Biogeosciences (until 2017); Associate Editor, Elementa (until 2016).
	2001-	Peer-review and panel review for funding agencies:
	Present	U.S. National Science Foundation (various programs); U.S. Department of Energy's Office of Science; Nevada NASA Space Grant Consortium; L'Agence Nationale de la Recherche, France; Swiss National Science Foundation; Natural Sciences and Engineering Research Council of Canada, Czech Science Foundation; Canadian Mercury Science Assessment; Environment Canada.
		<b>Peer-review</b> for journals, including: Analytica Chimica Acta; Atmosphere; Atmospheric Environment; Atmospheric Chemistry and Physics; Biogeochemistry; Biogeosciences; Biogeochemical Cycles; Chemosphere; Environmental Pollution; Environmental Science and Technology; Geophysical Research Letters; Global Change Biology; Journal of Arid Environments; Journal of Geophysical Research; Journal of Rangeland Ecology & Management; Journal of Soils and Sediments; Nature Geoscience; Proceedings of the National Academy of Sciences of the United States of America; New Phytologist; Scientific Reports; Science of the Total Environment; Soil Science Society of America Journal; Water, Air, and Soil Pollution; Scientific Reports; Nature.

### Funded Research Projects: Total funding as PI and Co-PI \$ 9.7 mio

- 2022 U.S. NSF DEB Suppl. Funding: Collaborative Research: Vegetation assimilation as a source of mercury in a salt marsh ecosystem and implications for soil and tidal water exposures. **Obrist D** (PI) \$59,360).
- 2021 U.S. NSF AGS Suppl. Funding: Collaborative Research: Collaborative Research: Magnitude and pathways of gaseous atmospheric mercury deposition in forests. **Obrist D** (PI); Commane R. \$174K (UMass component: \$124K).

2020	U.S. NSF DEB: Collaborative Research: Vegetation assimilation as a source of mercury in a salt marsh ecosystem and implications for soil and tidal water exposures. <b>Obrist D</b> (PI), Forbrich I (Co-PI). \$399,208 (UMass component: 298,242).
2018	U.S. NSF AGS: Collaborative Research: Collaborative Research: Magnitude and pathways of gaseous atmospheric mercury deposition in forests. <b>Obrist D</b> (PI); Commane R \$873K (UMass component: \$622K).
2018	University of Massachusetts, Lowell (seed grant): Building capacity for an interdisciplinary environmental monitoring program in Lowell: measuring levels of contamination and biodiversity. Chain F (PI), Gaschnig R (Co-PI), <b>Obrist D</b> (Co-PI). \$10,000.
2017	State of Valais, Switzerland, Division of Environmental Protection. Scientific advisor. <b>Obrist D</b> (PI). \$ 49,950.
2016	State of Alaska Division of Air Quality: Amendment to MOA for Mercury and Trace Metals Backtrajectory Study. <b>Obrist D</b> (PI), Pearson C (Co-PI) \$ 31.421
2016	State of Alaska Division of Air Quality: Memorandum of Agreement for Mercury and Trace Metals Backtrajectory Study. <b>Obrist D</b> (PI), Pearson C (Co-PI) \$ 49,101
2015	DOE/Office of Science Program Office: Office of Biological and Environmental Research: Systematic Investigation of the Biogeochemical Stability of Iron Oxide-Bound Organic Carbon: Linking Redox Cycles and Carbon Persistence. Yang Y (PI), Roden EE, <b>Obrist D</b> , Kersting AB, Gu B (Co-PIs). \$ 650,000
2014	NASA Experimental Program to Stimulate Competitive Research (EPSCoR): Building Capacity in Interdisciplinary Snow Sciences for a Changing World. <b>Obrist D</b> (Science PI); Tyler S, Hausrath L, Ferrell G (Co-PIs). \$ 1,125,000 (incl. cost share)
2013	U.S. NSF OPP: Collaborative Research: Soil-Snow-Atmosphere Exchange of Mercury in the Interior Arctic Tundra. Obrist D. (PI); Helmig D. (Co-PI). \$832,810 (DRI component \$415,918).
2013	U.S. NSF Dynamics of Coupled Natural-Human Systems (CNH): Managing Impacts of Global Transport of Atmosphere-Surface Exchangeable Pollutants in the Context of Global Change. Perlinger J. (PI); Norman E., <b>Obrist D.</b> , Selin N., Wu S. (Co-PIs). \$1,499,975.
2013	USGS 2013 State Water Research Institute Program: Estimation of atmospheric wet and dry deposition of nutrients to Lake Tahoe snowpack and watersheds. Schumer R (PI); <b>Obrist D</b> (Co-PI). \$146,221 (incl. cost share)

2012	DRI Division of Atmospheric Sciences EDGES grant: Development of a cold plate sampler to measure atmospheric mercury and volatile organic compounds. Moore C (PI), <b>Obrist D</b> (Co-PI). \$33,196.
2012	California Institute of Technology, NASA/Jet Propulsion Laboratory: Subcontract: Implications of Arctic Sea Ice Reduction on Tropospheric Bromine, Ozone, and Mercury Chemical Process, Transport, and Distribution. <b>Obrist D</b> (PI); Moore C. (Co-PI). \$59,857 (incl. cost share)
2011	U.S. NSF: Collaborative Research: Reno Mercury Inter-comparison Experiment. <b>Obrist D</b> (PI), Moosmüller H (Co-PI). \$50,023 (DRI component)
2010	USDA Forest Service (SNPLMA Round 10): Particulate Emissions from Biomass Burning: Quantification of the Contributions from Residential Wood Combustion, Forest Fires, and Prescribed Fires. <b>Obrist D</b> (PI); Gertler A; Zielinska B (Co-PIs). \$225,594 (including cost share).
2009	U.S. NSF Major Research Instrumentation (MRI): Development of a Cavity Ring-Down Sensor for Real-Time Measurement of Mercury Concentrations and Fluxes. <b>Obrist D</b> (PI); Moosmüller H, Faïn X, Hallar AG (Co-PIs). \$ 934,985 (including cost share)
2009	U.S. NSF EAR: Upgrades to Storm Peak Laboratory, a High Elevation Atmospheric Research and Education Station, Hallar AG (PI), Lowenthal D, McCubbin I, Moser D, <b>Obrist D</b> (Co-PIs). \$601,245
2009	DRI IPA: Atmospheric mercury sequestration and storage in Arctic carbon-rich soils. <b>Obrist D</b> (PI). \$19,033
2008	U.S. NSF AGS: Atmospheric Chemistry: Mercury Oxidation and Depletion in the Reactive Halogen Enriched Troposphere of the Dead Sea. <b>Obrist D</b> (PI); Luria M (Co-PI). \$545,234 (including cost share)
2008	State of Colorado Air Pollution Control Division: Atmospheric mercury levels and impact of Asian long-range transport at Storm Peak Laboratory in Steamboat Springs, Colorado. <b>Obrist D</b> (PI); Hallar G (Co-PI).\$4,191
2008	Nevada NASA EPSCoR: Observations of reactive halogens and speciated mercury at a high-elevation observation platform to characterize the oxidative capacity of the troposphere. <b>Obrist D</b> (PI); Hallar G, Volkamer R (Co-PIs). \$16,554
2008	DRI VPR office (Substantial Effort Grant): Air-snow exchange of mercury at Summit, Greenland: impact on the tropospheric reservoir and implications for long-term records preserved in ice cores. Faïn X (PI); <b>Obrist D</b> (Co-PI). \$29,985

2007	Lawrence Foundation: Impact of Atmospheric Mercury on Rocky Mountain Region. Hallar G (PI), <b>Obrist D</b> (Co-PI). \$5,000
2007	U.S. EPA STAR Consequences of Global Change for Air Quality: Effects of global change on the atmospheric mercury burden and mercury sequestration through changes in ecosystem carbon pools. <b>Obrist D</b> (PI); Johnson DW, Lindberg SE (Co-PIs). \$898,735
2006	U.S. NSF EPSCoR: Proof of Concept Program: Development of an Optical Method for Sensing Mercury in Real Time with Below Background Sensitivity. Moosmüller H (PI); Arnott WP (Co-PI), <b>Obrist D</b> (Post-doc). \$74,951
2006	U.S. NSF AGS: Small Grant for Exploratory Research (SGER): Atmospheric mercury (Hg) emission from combustion of biomass. <b>Obrist D</b> (PI). \$35,597
2006	U.S. NSF EPSCoR Proof-of-concept Program: Scaling environmental processes in heterogeneous arid soils (SEPHAS): Application of a $^{222}$ Rn/H <sub>2</sub> O method to measure nighttime evapotranspiration in arid ecosystems to complement and scale-up conventional measurement methods. <b>Obrist D</b> (PI); Jasoni R (Co-PI), Arnone JA (Co-PIs). \$31,823
2006	Desert Research Institute, Research Enhancement Program: Atmospheric mercury monitoring at DRI's Storm Peak Laboratory to determine the fate of East Asian atmospheric mercury pollution during continental transport. <b>Obrist D</b> (PI); Hallar G (Co-PI). \$4,866
2006	Desert Research Institute, Research Enhancement Program: Acquisition of a Tekran 2537A Mercury Vapor Analyzer. <b>Obrist D</b> (PI); Moosmuller H (Co-PI). \$35,000
2006	DRI IPA: Atmospheric mercury emissions and mercury contamination due to modern gold mining in Nevada. <b>Obrist D</b> (PI); Moosmüller H (Co-PI). \$12,142
2004	Swiss National Science Foundation: Hg <sup>0</sup> fluxes and reductive processes in the Alps. <b>Obrist D</b> (PI); Alewell C (Co-PI). \$129,000
2004	University of Basel: Small Research Grant. <b>Obrist D</b> (PI). \$4,500
2001	Geological Society of America Research Grant, <b>Obrist D</b> (PI). \$5,000

## **Book chapters (peer-reviewed)**

3. Nerentorp M, Jonsson S Wang F. (coordinating lead authors); Bravo AG, Cairns WRL, Chételat J, Douglas TA, Lescord G, **Obrist D**, Outridge P, St Pierre KA, Ukonmaanaho L, Zdanowicz C (co-

authors). Arctic Monitoring and Assessment Programme (AMAP) Mercury Assessment. Chapter 4. Changes in Arctic Mercury levels – Processes affecting Mercury transformations and biotic uptake. AMAP Mercury Assessment, 2021. Tromsø, Norway.

- Dastoor A (coordinating lead author), Wilson, S, Angot, H, Dibble T, Kirk, J, Mao H, Mason R, Obrist D, Thackray C, Travnikov O, Zhang L, Douglas T, Jiskra M, Outridge P, St. Pierre K, Zdanowicz C, Nerentrop M (lead authors). Arctic Monitoring and Assessment Programme (AMAP) Mercury Assessment. Chapter 3: Changes in Arctic mercury levels: emissions sources, pathways and accumulation. AMAP Mercury Assessment, 2021. Tromsø, Norway.
- Steffen A, Angot H, Dastoor A, Dommergue, A, Heimb Heimbürger-Boavida L-E, Obrist D, Poulain A. Mercury in the Cryosphere, in "Advances in Atmospheric Chemistry, vol. 3", "Chemistry of the Cryosphere", Shepson PD and Domine F, editors, World Scientific Publishing, Singapore, pages 924, https://doi.org/10.1142/12095, 2021.

# Publications (peer-reviewed journal articles) \* highest impact factors highlighted \*

- Wang T, Du B, Forbrich I, Zhou J, Polen J, Sunderland EM, Balcom PH, Chen C, Obrist D. Above- and belowground plant mercury dynamics in a Salt Marsh estuary in Massachusetts, USA. *In review*.
- 87. Bioremediation of cadmium(II), nickel(II), and zinc(II) from liquid media by different Rhodobacter species. Chung KY Yoo J; Oh EJ; Park JS.; Kim DW; Kim DH; **Obrist D.** *Water. In review.*
- 86. Zhou, J., Roy E., Lee J., Hollinger D., Bollen S., Fraver S., **Obrist D**. Net ecosystem exchange of atmospheric gaseous elemental mercury (GEM) over deciduous and coniferous forests. *In review*.
- 85. Agnan Y, Castrec-Rouelle M, Kohli A, Pouillé S, **Obrist D**, Shirokova LS, Pokrovsky OS, Loiko SV, Alexis MA. Control of water-extractable carbon and nitrogen production in permafrost-affected soils. *Geoderma. In review*.
- 84. Zhou J, Xia R, **Obrist D**, Liu H, Cui H, Wang, Sun Y, Wang T, Zhou J. Cadmium isotope evidence for the foliar and root uptake of Cd from atmospheric deposition. *In review*.
- \*83.\* Obrist D, Roy EM, Harrison J, Kwong C, Munger JW, Moosmüller H, Romero C, Sun S, Zhou J, Commane R. Previously unaccounted atmospheric mercury deposition in a mid-latitude deciduous forest. *Proceedings of the National Academy of Sciences of the United State of America*, 118, 29 e2105477118, 2021.
- \*82.\* Dastoor A., et al. Arctic mercury cycling. *Nature Reviews Earth and Environment*, 3, pages 270–286, 2022.
- 81. Zhou J, **Obrist D**. Global Mercury Assimilation by Vegetation. *Environmental Science and Technology*, 55, 20, 14245–14257, 2021.
- 80. Wang T, **Obrist D**. Inorganic and methylated mercury dynamics in estuarine water of a salt marsh in Massachusetts, USA. *Environmental Pollution*, 294, 118657, 2022.

- Angot H, Rutkowski E, Sargent M, Wofsy SC, Hutyra LR, Howard D, Obrist D, Selin NE. Atmospheric mercury sources in a coastal-urban environment: A case study in Boston, Massachusetts, USA. *Environmental Science: Processes and Impacts*, DOI https://doi.org/10.1039/D1EM00253H, 2021.
- 78.\* Zhou J, Obrist D, Dastoor A, Jiskra M, Ryjkov A. Vegetation uptake of mercury and impacts on global cycling. *Nature Reviews Earth and Environment*, 2, 269–284, 2021.
- 77. Liu H-L, Zhou J, Li M, **Obrist D**, Wang X-Z, J Zhou. Chemical speciation of trace metals in atmospheric deposition and impacts on soil geochemistry and vegetable bioaccumulation near a large copper smelter in China. *Journal of Hazardous Materials*, 413, 125346, 2021.
- Yang Y, Zhao Q, Dunham-Cheatham S, Adhikari D, Chen D, Poulson S, Patel A, Obrist D, Verburg P, Wang X, Roden E, Thompson A. Oxidation of Soil Organic Carbon during an Anaerobic-Aerobic Transition. *Geoderma*, Volume 377, 1, 114584, 2020.
- 75. Howard D, Agnan Y, Helmig D, Yang Y, **Obrist D**. Environmental controls on ecosystem-scale cold season methane and carbon dioxide fluxes in an Arctic tundra ecosystem. *Biogeosciences*, 17, 4025–4042, 2020.
- 74. Dunham-Cheatham SM, Zhao Q, **Obrist D**, Yang Y. Unexpected mechanism for glucose-primed soil organic carbon mineralization under an anaerobic-aerobic transition. *Geoderma*, 376, doi doi.org/10.1016/j.geoderma.2020.114535, 2020.
- 73. Sun S, Ma M, Hea X, Obrist D, Zhang Q, Yin X, Sun T, Huang J, Guo J, Kang S, Qin D. Vegetation mediated mercury flux and atmospheric mercury in the alpine permafrost region of the central Tibetan Plateau. *Environmental Science and Technology*, 54, 10, 6043–6052, 2020.
- 72. Khan T, **Obrist D**, Agnan Y, Selin N, Perlinger J. Atmosphere-terrestrial exchange of gaseous elemental mercury: parameterization improvement through direct comparison with measured ecosystem fluxes. *Environmental Science: Processes and Impacts*, 21, 1699-1712, 2019.
- 71. Jiskra M. Sonke JE, Agnan Y, Helmig D, **Obrist D**. Insights from mercury stable isotopes on terrestrial atmosphere exchange of Hg(0) in the Arctic tundra, *Biogeosciences*, 16, 4051–4064, 2019.
- 70.\* Wang S, McNamara SM, Moore CW, Obrist D, Steffen A, Shepson PB, Staebler RM, Raso ARW, Pratt KA. Direct Detection of Atmospheric Atomic Bromine Leading to Mercury and Ozone Depletion. Proceedings of the National Academy of Sciences of the United States of America (PNAS), DOI: 10.1073/pnas.1900613116, 2019.
- 69. Osterwalder S, Shetaya W, Frossard A, Huang J-H, Alewell C, Frey B, Agnan Y, Biester H, Kretzschmar R, **Obrist D**. Mercury re-emission from industrially contaminated soils: the combined role of chemical, microbial, and meteorological factors. *Environmental Pollution*, 250, 944-952, 2019.
- 68. Pearson C, Howard D, Moore C, **Obrist D**. Mercury and trace metal wet deposition across five stations in Alaska: controlling factors, spatial patterns, and source regions. *Atmospheric Chemistry and Physics*, 19, 6913-6929, 2019.
- 67. Olson CL, Jiskra M, Sonke JE, **Obrist D**. Mercury in tundra vegetation of Alaska: Spatial and temporal dynamics and stable isotope patterns. The Science of the Total Environment, Mercury in tundra vegetation of Alaska: Spatial and temporal dynamics and stable isotope patterns. *The Science of the Total Environment*, 660, 1502-1512, 2019.

Chen C, Driscoll C, Eagles-Smith CA, Eckley CA, Gay DA, Hsu-Kim H, Keane S, Kirk J, Mason R, Obrist D, Selin H, Selin N, Thompson MR. A Critical Time for Mercury Science to Inform Global Policy. *Environmental Science and Technology*, 52, 9556-9561, 2018.

Selected Second Runner Up Feature article of 2018 (Sedlak DL. Environ. Sci. Technol. 2019, 53, 3343-3344).

- 65. Olson C, Jiskra M, Biester H, Chow J, **Obrist D**. Mercury in Active-Layer Tundra Soils of Alaska: Concentrations, Pools, Origins, and Spatial Distribution. *Global Biogeochemical Cycles*, 32, 7, 1058-107, 2018.
- 65.\* Jiskra M, Sonke JE, **Obrist D**, Bieser J, Ebinghaus R, Myhre CL, Pfaffhuber, KA, Wängberg I, Kyllönen K, Worthy D, Martin LG, Labuschagne C, Mkololo T, Ramonet M, Magand O, Dommergue A. A vegetation control on seasonal variations in global atmospheric mercury. *Nature Geoscience*, 11, 244-250, 2018.
- 64. Agnan Y, Douglas TA, Helmig D, Hueber J, **Obrist D**. Mercury in arctic tundra snowpack: temporal and spatial concentration patterns and trace–gas exchanges. *The Cyosphere*, 12, 1939-1956, 2018.
- 63. **Obrist D**, Kirk J, Zhang L, Sunderland E, Jiskra M, Selin NE. A review of global environmental mercury processes in response to human and natural perturbations: changes of emissions, climate and land use. *Ambio*, 47. 16-14, 2018.
- 62.\* Obrist D, Agnan Y, Jiskra M, Hedge C, Colegrove D, Hueber J, Moore C, Sonke J, Helmig D. Tundra uptake of atmospheric elemental mercury drives arctic mercury pollution. *Nature*, 547, 201-204, 2017.
- 61. Denzler B, Bogdal C, Henne S, **Obrist D**, Steinbacher M, Hungerbühler K. Inversion Approach to Validate Mercury Emissions Based on Background Air Monitoring at the High Altitude Research Station Jungfraujoch (3580 m). *Environmental Science and Technology*, 51(5) 2846-2853, 2017.
- 60. Zhao Q, Adhikari D, Huang R, Patel A, Wang X, Tang Y, **Obrist D**, Roden E, Yang Y. Coupled Dynamics of Iron and Iron-bound Organic Carbon in Forest Soils during Anaerobic Reduction. *Chemical Geology*, 464, 118-126, 2017.
- 59. Perlinger JA, **Obrist D**, Norman ES, Selin NE, Urban NR, Wu S, Gorman HS. Measurement and modelling of atmosphere-surface exchangeable pollutants (ASEPs) to better understand their environmental cycling and planetary boundaries. *Environmental Science and Technology Viewpoints*, 50 (17), pp 8932–8934, 2016.
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- 3. Arnone JA, **Obrist D**. A large daylight geodesic dome for quantification of whole ecosystem CO<sub>2</sub> and water vapor fluxes in arid ecosystems. *Journal of Arid Environments*, 55: pp. 629-643, 2003.
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#### **Conference and Seminar Presentations**

- 249. Wang T, Forbrich I, Zhou J, Polen J, Obrist D. Atmosphere-surface exchange of gaseous elemental mercury (GEM) in a salt marsh estuary in Massachusetts, USA. NADP Fall Meeting and Scientific Symposium, November 2022, Knoxville, TN (online).
- 248. Wang T, Du B, Zhou J, Polen J, O'Beirne K, Sachs M, Bollen S, Forbrich I, Sunderland EM, Balcom PM, Landis J, Obrist. Mercury Dynamics in a Salt Marsh Estuary in Massachusetts, USA. Plum Island Ecosystems Long Term Ecological Research (PIE LTER) All Scientist Meeting, Virtual, May 2022.
- 247. Dastoor A et al. Current State of Mercury Mass Balance in the Arctic. International Conference on Mercury as a Global Pollutant, Virtual, July 2022.
- 246. Heimbürger-Boavida LE, Kohler SG, Angot H, et al. Arctic Ocean Mercury and Methylmercury Cycling. International Conference on Mercury as a Global Pollutant, Virtual, July 2022.
- 245. Zhou J, Roy E, Lee J, Hollinger D, Fraver S, Bollen S, **Obrist D**. Comparing net ecosystem exchange patterns of atmospheric gaseous elemental mercury (GEM) over between a a deciduous and coniferous temperate forest and an evergreen needle-leaf forest. International Conference on Mercury as a Global Pollutant, Virtual, July 2022.
- 244. Wang T, Forbrich I, Zhou J, Du B, Polen J, **Obrist D**. Above- and Belowground Plant Mercury Dynamics in a Salt Marsh Estuary In Massachusetts, USA. International Conference on Mercury as a Global Pollutant, Virtual, July 2022.
- 243. Du B, Wang T, Forbrich I, Zhou J, Landis JD, Sunderland EM, Balcom PH, **Obrist D**. Investigating mercury in soils of a rural salt marsh in Massachusetts, USA: spatial and

temporal patterns, speciation, source origins, and mobility. International Conference on Mercury as a Global Pollutant, Virtual, July 2022.

- 242. Wang T, Zhou J, Du B, Polen J, O'Beirne K, Sachs M, Bollen S, Forbrich I, Sunderland EM, Balcom PH, Obrist D. Mercury Dynamics in a Salt Marsh Estuary in Massachusetts, USA. UMass Intercampus Marine Science Research Symposium, March 2022.
- 241. Wang T, Forbrich I, Zhou J, Polen J, O'Beirne K, Sachs M, Bollen S, Sunderland EM, Balcom PH, Obrist D. Above- and Belowground Plant Mercury Dynamics in a Salt Marsh Estuary in Massachusetts, USA. UMass Intercampus Marine Science Research Symposium, March 2022.
- 240. **Obrist D.** Cycling of mercury (Hg) in terrestrial ecosystems. Environmental Seminar Speaker Series, UMass Lowell, February 2022.
- 239. Zhou J, Roy E. Lee J, Hollinger D, Shawn F, Bollen S, **Obrist D**. Net ecosystem exchange of atmospheric gaseous elemental mercury (GEM) over an evergreen needle forest. American Geophysical Union Fall Meeting 2021.
- 238. Roy E, Zhou J, Bollen S, Commane R, Whelan M, **Obrist D**. Atmospheric Mercury concentrations modulated by local and regional forest sinks. American Geophysical Union Fall Meeting 2021.
- 237. Zhou J, Roy E. Lee J, Hollinger D, Shawn F, Bollen S, **Obrist D**. Net ecosystem exchange of atmospheric gaseous elemental mercury (GEM) over an evergreen needle forest. NADP Fall Meeting, October 2021, online.
- 236. Wang T, Forbrich I, Zhou J, O'Beirne K, Sachs M, Bollen S, **Obrist D**. Mercury dynamics in salt marsh of the Plum Island Sound estuary in Massachusetts, US. American Geophysical Union Fall Meeting 2021.
- 235. Obrist D, Zhou J, Roy E, Wang T, Bollen S, O'Brien K, Sachs M, Pollen J, Emma Daly, Romero C, Munger JW, Commane R, Fraver S, Lee J, Forbrich I. Mercury Cycling and Sources in Terrestrial Environments. Seminar Presentation Harvard University Atmospheric & Environmental Chemistry (AEC) Seminars. October 2021.
- 234. Wang, T. **Obrist D**. Inorganic and methylated mercury dynamics in tidal water of a salt marsh estuary in Massachusetts. 2021 Virtual UMass Intercampus Marine Science Research Symposium, March 2021.
- 233. Dastoor A, Wilson S, Travnikov O, Outridge P, Obrist D, Angot H, Mason R, St. Pierre K, Zdanowicz C, Bieser J, Jiskra M, Nerentorp M, Heimbürger-Boavida LE, Douglas T, Christensen J, Ryjkov A, Petrova M, Schartup A, Soerensen A. Current state of Arctic mercury cycling: Sources, pathways and levels. Goldschmidt 2021, Lyon, France, July 2021.
- 232. Angot H, Rutkowski E, Sargent M, Wofsy SC, Hutyra LR, Howard DA, **Obrist D**, Selin NE. A top-down emissions estimation in the Boston urban region suggests an underestimation of small point and/or non-point mercury emissions. Goldschmidt 2021, Lyon, France, July 2021.
- 231. Obrist D, Roy E, Romero C, Zhou J, Sun S, Munger WB, Commane R. Ecosystemscale and forest-floor exchange fluxes of gaseous atmospheric mercury in a remote temperature forest in Massachusetts, USA. 5<sup>th</sup> Conference on Atmospheric Biogeosciences, American Meteorological Society, Minneapolis, MN, USA, June 2021.

- 230. Munger JW, Budney J, Wofsy S, Kwong C, Commane R, Roy E, **Obrist D**. Three Decades of Reactive Trace-gas Exchanges over a New England Forest. 5<sup>th</sup> Conference on Atmospheric Biogeosciences, American Meteorological Society, Minneapolis, MN, USA, June 2021.
- 229. **Obrist D**, Wang T, Forbrich I. Sources and sinks of mercury in a salt marsh ecosystem. PIE LTER Annual Meeting, Marine Biological Laboratory, Woods Hole, Massachusetts, USA. February 2021.
- 228. **Obrist D**, Wang T, Roy E, Romero C, Zhou J, Munger JW, Budney J, Commane R, Harrison J, Forbrich I. Dry deposition of atmospheric mercury across forests and ecosystems: an underestimated atmospheric mercury sink. Seminar SUNY College of Environmental Science and Forestry Chemistry Department, Syracuse, NY, USA, March 2021.
- 227. Kwong C, Fiore A, Munger JW, Obrist D, Roy E, Commane R. Evaluation of a fluxgradient method for determining O<sub>3</sub> deposition velocities over a mixed hardwood forest. Fall Meeting, American Geophysical Union Fall meeting, San Francisco, December 2020.
- 226. Zhou J, **Obrist D**. Mercury uptake by plants: Sources, translocation and implications for regional and global mercury cycling. Fall Meeting, American Geophysical Union Fall meeting, San Francisco, December 2020.
- 225. Wang T, **Obrist D**. Mercury Export from a Salt Marsh Ecosystem to Tidal Water in the Great Marsh, the Parker River Wildlife Estuary in Massachusetts. Fall Meeting, American Geophysical Union Fall meeting, San Francisco, December 2020.
- 224. Harrison J, Kwong C, **Obrist D**, Munger JW, Berkelhammer M, Commane R. Soil fluxes of carbonyl sulfide after fall senescence in a mixed hardwood forest. Fall Meeting, American Geophysical Union Fall meeting, San Francisco, December 2020.
- 222. Wang T, **Obrist D**. Lateral Export of Mercury from a Saltmarsh Ecosystem to Tidal Water in the Great Marsh, the Parker River Wildlife Estuary in Massachusetts, US. SETAC North America 41st Annual Meeting, Fort Worth, Texas, November 2020.
- 223. Romero C, Obrist D, Munger JW, Commane R, Zhou J, Roy E. Atmospheric Hg Concentration Dynamics Over a Temperate Deciduous Broadleaf Forest. National Atmospheric Deposition Program (NADP) 2020 Fall Meeting and Scientific Symposium, October 2020.
- 222. **Obrist D**, Roy E, Romero C, Zhou J, Munger JW, Budney J, Commane R, Harrison J. Net ecosystem exchange of atmospheric gaseous elemental mercury (GEM) over a temperate forest. National Atmospheric Deposition Program (NADP) 2020 Fall Meeting and Scientific Symposium, October 2020.
- 221. Zhou J, **Obrist D**, Dastoor A, Jiskra M, Ryjkov A. Mercury uptake by plants using a global database. SETAC North America 41st Annual Meeting, Fort Worth, Texas, November 2020.
- 220. Jiskra M, Sonke JE, Agnan J, Helmig D, **Obrist D**. The role of permafrost soils in Arctic mercury cycling. 12th International Symposium Geochemistry of the Earth's Surface. "Earth System Interactions on a changing planet." Zurich, Switzerland, August 2020.
- 219. Toyota K, Ryzhkov A, Dastoor AP, Chen J, Stroud CA, Lupu A, Zhang J, Savic-Jovcic V, Zheng Q, Moran MD, Staebler R, Steffen A, Netcheva S, McLinden CA, Sihler H, Halfacre JW, Simpson WR, Shepson P, Moore CW, Obrist D, Friess U, Zielcke J, Theys N. 3-D modeling of bromine chemistry and boundary-layer mercury depletion across the springtime Arctic. 16<sup>th</sup> International Global Atmospheric Chemistry (IGAC) 2020 conference, Manchester, United Kingdom, September 2020.
- 218. Roy E, **Obrist D**, Romero C, Zhou J, Sun S, Munger WB, Commane R. Partitioned Gaseous Elemental Mercury Fluxes at Harvard Forest near Petersham, MA. Virtual

Student Research & Community Engagement Symposium, University of Massachusetts, Lowell, USA. April 2020.

- 217. Wang T, **Obrist D**. Mercury Cycling in the Saltmarsh of Great Marsh, the Parker River Wildlife Estuary in Massachusetts, US. Virtual Student Research & Community Engagement Symposium, University of Massachusetts, Lowell, USA. April 2020.
- 216. Zhou J, **Obrist D**. Mercury concentrations in plant vegetation using a global database. North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry (NAC-SETAC) Annual Meeting, Groton, CT, USA, April 2020.
- 215. Wang T, **Obrist D**, Haggett SB, Daly EP. Mercury Dynamics in the Saltmarshes of the Parker River Wildlife Estuary in Massachusetts. North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry (NAC-SETAC) Annual Meeting, Groton, CT, USA, April 2020.
- 214. Pratt KA, Wang S, McNamara SM, Moore CW, **Obrist D**, Steffen A, Shepson PB, Staebler RM, Raso ARW, Direct Detection of Atmospheric Atomic Bromine Leading to Mercury and Ozone Depletion. European Geophysical Union Annual Meeting, Vienna, Austria. April 2020.
- 213. Jiskra M, Sonke JE, Lim AG, Koiko SL, Kosykh N, Pokrovsky O, Agnan Y, Helmig D, **Obrist D**. The role of Permafrost soils in Arctic mercury cycling: source tracing with Hg stable isotopes and revised pool estimate. European Geophysical Union Annual Meeting, Vienna, Austria. April 2020.
- 212. Roy EM, Sun S, **Obrist D**, Munger JW, Commane R. Gaseous Elemental Mercury Fluxes at Harvard Forest Near Petersham, Massachusetts. 19th Annual AMS Student Conference, Boston MA, USA, January 2020. *Received Outstanding undergraduate student presentation award.*
- 211. Commane R, Berkelhammer M, Kwong C, Munger JA, **Obrist D**, Wehr RA. An overview of fluxes of Carbonyl Sulfide at Harvard Forest, 2nd International Carbonyl Sulfide Workshop: The biosphere-atmosphere exchange and global budget of COS, Obergurgl, Austria, November 2019.
- 210. Agnan Y, Alexis MA, Kohlic A, Parlanti É, Derenne S, Sourzac M, Anquetil C, Obrist D, Castrec-Rouelle M. Chemical composition of soil organic matter in Arctic and subarctic environments: from bulk to water-extractable soil organic matter. Arctic Week 2019, Paris, France, December 2019.
- 209. Khan, TR. **Obrist D**, Agnan, Selin, NE, Perlinger JA. Use of ecosystem-level flux measurements to improve atmosphere-surface exchange parameterization of elemental mercury for chemical transport models. National Atmospheric Deposition Program Annual Fall Meeting, Boulder, CO, USA. November 2019.
- 208. Agnan Y, Alexis MA, Kohli A. Parlanti É, Derenne S, Sourzac M, Anquetil C, Obrist D, Castrec-Rouelle M. Quality of soil organic matter in high-latitude environments: from bulk to water-extractable soil organic matter. 7<sup>th</sup> International Symposum on Soil Organic Matter, Adelaide, Australia, October 2019.
- 207. Roy EM, Sun S, **Obrist D**, Munger JW, Commane R. Gaseous Elemental Mercury Fluxes At Harvard Forest Near Petersham, MA. UMass Lowell UROC Immersive Scholar Symposium, Lowell MA, USA, October 2019.
- 206. Wang T, **Obrist D**, Haggett S. Contributions of saltmarsh ecosystems to Hg loads in the Parker River Wildlife Estuary in Massachusetts, USA. Canadian Ecotoxicity Workshop, Québéc City, Canada, October 2019.

- 205. **Obrist D**, Wang T, Roy E, Daly E, Commane R. Munger, JW. The role of gaseous mercury fluxes as deposition and sources of mercury loads in arctic and temperate ecosystems. Canadian Ecotoxicity Workshop, Québéc City, Canada, October 2019.
- 204. Wang T, **Obrist D**, Haggett S. Mercury Cycling in the Saltmarsh of the Parker River Wildlife Estuary in Massachusetts, USA. International Conference on Mercury as a Global Pollutant, Krakau, Poland, September 2019.
- 203. Obrist D, Munger JW, Sun S, Roy EM, Commane R. Exchange of gaseous mercury over a temperate deciduous forest measured by a micrometeorological gradient method first results and experimental challenges. International Conference on Mercury as a Global Pollutant, Krakau, Poland, September 2019.
- 202. Bank, M.S., Amouroux D, Feng X, Gustin M, Horvat M, Obrist D et al. 2019. Using soils and biota to evaluate the effectiveness of the Minamata Convention on Mercury. International Conference on Mercury as a Global Pollutant, Krakau, Poland, September 2019.
- 200. Yang Y, Roden E.E, Obrist D, Kersting A.B. Gu B. Complex effects of redox reactions on the release and degradation of organic carbon. U.S. Department of Energy Office of Biological and Environmental Research, 2019 Environmental System Science (ESS), Potomac, DC, May 2019, Potomac, MD, USA.
- 201. Roy E, Sun S, **Obrist D**. Trends in Atmospheric Mercury Concentrations At Harvard Forest Near Petersham, MA. 22nd Annual Student Research & Community Engagement Symposium, University of Massachusetts, Lowell. May 2019.
- 200. Roy E, **Obrist D**, Sun S, Munger WB, Commane R. Gaseous Elemental Mercury Fluxes At Harvard Forest Near Petersham, MA. UROC Immersive Scholar Symposium, University of Massachusetts, Lowell. August 2019.
- 199. Wang T, Haggett S, Obrist D. Mercury Cycling in the Saltmarsh of the Parker River Wildlife Estuary. 2019 UMass Intercampus Marine Science Research Symposium, Dartmouth, MA, USA. April 2019.
- Richter L, Obrist D, Yang Y, Temperature dependency of methanotrophs in Arctic tundra soils. European Geophysical Union Annual Meeting, Vienna, Austria, April 2019.
- 197. Wang T, Haggett S, Sun S, Obrist D. Mercury Cycling in the Saltmarsh of the Parker River Wildlife Estuary. Massachusetts Association of Conservation Commissions (MACC) Annual Environmental Conference, Worcester, MA, USA, March 2019.
- 196. Richter L, Obrist D. Freezing and thawing dynamics of methane and carbon dioxide fluxes in Arctic soils. Massachusetts Association of Conservation Commissions (MACC) Annual Environmental Conference, Worcester, MA, USA, March 2019.
- 195. Obrist D. Terrestrial Mercury Cycling. Seminar presentation, State Key Laboratory of Environmental Geochemistry, Chinese Academy of Sciences, Guiyang, China. March 2019.
- 194. **Obrist D**. Deposition and accumulation of mercury in terrestrial ecosystems (and why it matters). Seminar presentation, Department of Marine Sciences, University of Connecticut, Goton, CT, USA. February 2019.
- 193. **Obrist D**, Howard D, Jiskra M, Khan T, Agnan Y, Perlinger J. Gaseous deposition of atmospheric elemental mercury in ecosystems what we know and what is missing.

National Atmospheric Deposition Program Annual Fall Meeting, Albany, NY, USA. November 2018.

- 192. Howard D, Richards T, Munger WJ, **Obrist D**. Investigating gaseous atmospheric mercury exchange in a forest ecosystem with a gradient-based micrometeorology approach. National Atmospheric Deposition Program Annual Fall Meeting, Albany, NY, USA. November 2018.
- 191. Obrist D, Olsen C, Adhikari D, Yang Y. Mercury mobility in tundra soils and pore water. 2018 Conference on Heavy Metals in the Environment. Athens, GA, USA, July 2018.
- Howard D, Richards T, Munger W, Obrist D. Development of a bradient-based approach to investigating gaseous atmospheric mercury exchange in a forest ecosystem.
   33rd Conference on Agricultural and Forest Meteorology/Fourth Conference on Biogeosciences, Boise, Idaho, May 2018.
- Howard D, Agnan Y, Helmig D, Edwards GC, Richter L, Obrist D. Wintertime contributions to annual carbon exchange budgets in a High Arctic tundra ecosystem.
  33rd Conference on Agricultural and Forest Meteorology/Fourth Conference on Biogeosciences, Boise, Idaho, May 2018.
- 188. Adhikari D, Zhao Q, Dunham-Cheatham S, Das K, Chen C, Tfaily M, Kukkadapu R, Thompson A, Obrist D, Hess N, Roden EE, Yang Y. Anaerobic-Aerobic Transition Sequestrates Organic Carbon. Gordon Research Conference Environmental Science, June 2018, Holderness, New Hamphire, USA.
- 187. Yang Y, Roden EE, **Obrist D**, Kersting AB, Gu B. Carbon stability in Fe redox reactions: Coupling geochemistry, microbiology and field monitoring. U.S. Department of Energy

Office of Biological and Environmental Research, 2018 Environmental System Science (ESS),

Potomac, DC, April 2018.

- 186. Toyota K, Ryzhkov A, Dastoor A, Chen J, Stroud CA, Lupu A, Zhang J, Savic-Jovcic V, Zheng Q, Moran MD, Halfacre JF, Netcheva S, Shepson P, Bottenheim J, Steffen A, Moore CW, Obrist D, Theys N, McLinden CA. 3-D modeling of bromine chemistry and the boundary-layer depletion of ozone and mercury across the springtime Arctic: model evaluation using field and satellite data. European Geophysical Union Annual Meeting, Vienna, Austria, April 2018.
- 185 Olson C, **Obrist D**. Hg Storage and Mobility in Tundra Soils of Northern Alaska. American Geophysical Union Fall meeting, New Orleans, LA, December 2017.
- 184 Adhikari D, Zhao Q, Das K, Wang X, Poulson SR, Tang Y, Obrist D, Roden EE, Yang Y. Impact of redox reactions on carbon stability: Reduction, oxidation, and reduction-oxidation transition. American Chemical Society Spring Meeting, New Orleans, New Orleans, LA, December 2017.
- 183. Hedge, C, Agnan Y, Jiskra M, Moore C, Biester H, **Obrist D**. Hg storage and mobility in Arctic tundra ecosystems of northern Alaska. International Conference on Mercury as a Global Pollutant, Providence, RI, July 2017.
- 182. Denzler B, Bogdal C, Henne S, **Obrist D**, Setinbacher M, Hungberbühler K. Inversion approach to validate mercury emissions based on background air monitoring at the high

altitude research station Jungfraujoch (3580 m). International Conference on Mercury as a Global Pollutant, Providence, RI, July 2017.

- 181. Jiskra M, Sonke J, Obrist D, Agnan Y, Hedge C, Moore C, Paxton D, Huber J, Helmig D. A mercury isotope study on terrestrial-atmosphere mercury exchange in the Arctic tundra. International Conference on Mercury as a Global Pollutant, Providence, RI, July 2017.
- 180. **Obrist D**, Agnan Y, Jiskra M, Hedge C. Moore C, Sonke J, Helmig D. A mass balance of atmospheric mercury deposition in the Arctic tundra: gaseous elemental mercury uptake drives a globally-important mercury sink. International Conference on Mercury as a Global Pollutant, Providence, RI, July 2017.
- 179. **Obrist D**, Kirk J, Sunderland E, Jiskra M, Selin N. Plenary Presentation: A review of global environmental mercury processes in response to human and natural perturbations: changes of emissions, climate and land use. International Conference on Mercury as a Global Pollutant, Providence, RI, July 2017.
- 178. Agnan, Y, Alexis MA, Rouelle M, Anquetil C, **Obrist D**, Derenne S. Thawing of Arctic Soils: Control of Trace Element Dynamics by Organic Matter. Goldschmidt Conference, Paris, France, August 2017.
- 177. Obrist D, Howard D, Agnan Y, Yang Y. Investigating greenhouse gas tundra soil fluxes during freeze-thaw cycles under controlled laboratory conditions. Department of Energy Office of Biological and Environmental Research 2017 Environmental System Science (ESS) Principle Investigators meeting. Potomac MD, April 2017.
- 176. Zhao Q, Adhikari D, Dunham-Cheatham SM, Wordofa D, Mejia J, Chen C, Patel A, Poulson S, Tfaily M, Tang Y, Thompson A, Wang X, Kersting AB, Gu B, **Obrist D**, Roden EE, Yang Y. Processes for iron-bound organic carbon in redox reactions: Natural soils and model complexes. Department of Energy Office of Biological and Environmental Research 2017 Environmental System Science (ESS) Principle Investigators meeting. Potomac MD, April 2017.
- 175. Yang Y, Roden EE, Obrist D, Kersting AB, Gu B. Biogeochemical reactions of ironbound organic carbon during the redox processes. Department of Energy Office of Biological and Environmental Research 2017 Environmental System Science (ESS) Principle Investigators meeting. Potomac MD, April 2017.
- 174. Hedge C, **Obrist D**, Agnan Y, Moore C, Biester H, Jiskra M, Helmig D. Soil and plant mercury dynamics in the Arctic tundra. Toolik Field Station All Scientists Meeting, January 2017.
- 173. Howard D, Agnan Y, Harvey A, Yang Y, Obrist D. Investigating greenhouse gas fluxes from tundra soils during freeze and thaw cycles using GC-MS flux chambers. Toolik Field Station All Scientists Meeting, January 2017.
- 172. Adhikari D, Zhao Q, Das K, Xu S, Mejia J, Huang R, Wang X, Poulson SR, Tang Y, Obrist D, Roden EE, Yang YY. Linking Carbon Stability to Iron Redox Reactions. American Chemical Society Spring Conference, San Francisco, CA, April 2017.
- 171. Zhao Q, Adhikari D, Huang R, Patel A, Wang X, Tang Y, **Obrist D**, Roden E, Yang Y.Coupled Dynamics of Iron and Iron-bound Organic Carbon in Forest Soils during Anaerobic Reduction. American Chemical Society Spring Conference, San Francisco, April 2017.

- 170. Dunham-Cheatham S, Zhao Q, **Obrist D**, Yang Y. Biogeochemical controls on the stability of iron-bound soil organic carbon. American Chemical Society Spring Conference, San Francisco, April 2017.
- 169. Obrist D, Agnan Y, Hedge C, Moore C, Helmig D, Hueber J, Paxton D. Two-year record of trace gas (CO2, CH4, O2, and Hg0) concentrations and dynamics in arctic tundra soils of northern Alaska seasonality, non-linear temperature controls, and effects of soil diffusivity American Geophysical Union Fall Meeting in San Francisco, December 2016.
- 168. Khan T, Agnan Y, **Obrist D**, Perlinger J. Improvements in Mercury Atmosphere-Surface Exchange Parameterizations for Incorporation into Chemical Transport Models. American Geophysical Union Fall Meeting in San Francisco, December 2016.
- 167. Jiskra M, Sonke, JE, Obrist D, Agnan Y, Hedge C, Moore C, Colgrove D, Huber J, Helmig D. Vegetation uptake drives the deposition of atmospheric mercury to Arctic tundra soils - Insights from stable mercury isotopes, Swiss Geosciences Meeting, Geneva, Switzerland, November 2016.
- 166 Agnan Y, Crews J, Hedge C, Pearson C, Hoberg J, **Obrist D**. Canopy influence on metal dynamics in snowfall, snowpack, and snowmelt. International Conference on Heavy Metals in the Environment, Ghent, Belgium, September 2016.
- 165 Hedge C, **Obrist D**, Agnan Y, Moore C, Biester H, Jiskra M, Helmig D. Hg and Other Trace Metals in Plants and Soils of the Arctic Tundra. International Conference on Heavy Metals in the Environment, Ghent, Belgium, September 2016.
- 164 Jiskra, M., Sonke, J.E., **Obrist, D.,** Agnan, Y., Hedge, C., Moore, C., Colgrove, D., Huber, J., Helmig, D. Mercury deposition to Arctic soils - Insights from stable mercury isotopes, University of Vienna, Vienna, Austria, Apr 20, 2016 (invited lecture).
- 163. Obrist D, Agnan Y, Zheng W, Bergquist B, Jiskra M, Sonke J., Helmig D. Terrestrial Mercury Biogeochemistry: A Need To Re-assess the Role of Dry Deposition of Elemental Mercury. *Keynote Presentation*, Goldschmidt Conference, Yokohama, 2016.
- 162. Agnan Y., Edwards G., **Obrist D**. Methane emissions throughout the year in arctic tundra, northern Alaska. Goldschmidt Conference, Yokohama, 2016.
- 161. Zhao Q, Adhikari D, Mejia K, Huang R, Patel A, Wang X, Tang Y, Obrist D, Roden E, Yang Y. Coupled Dynamics of Iron and Iron-bound Organic Carbon in Forest Soils during Anaerobic Reduction. Soil Science Society of America Annual Meeting, 2016.
- 160. Zhao Q, Poulson SR, **Obrist D**, Yang Y. Importance of Iron in Stabilization of Organic Carbon with Emphasis on the Influences of Soil Physicochemical Properties. Nevada Water Environment Association Annual Meeting, Sparks, NV, 2016.
- 159. Zhao Q, Adhikari D, Patel A, Mejia J, Huang R, Sumaila S, Dynes JJ, McBeth JM, Poulson S, Tang Y, Obrist D, Roden EE, Yang Y. Biogeochemical Cycles of Iron-Bound Organic Carbon in Forest Soils. DOE ESS-PI Meeting, Potomac, MD, 2016.
- 158. Adhikari D, Zhao Q, Xu S, Mejia J, Huang R, Patel A, Sumaila S, Agnan Y, Hedge C, Dynes JJ, McBeth J, Poulson S, Tang Y, Kersting AB, Gu B, Obrist D, Roden EE, Yang Y. Systematic Investigation of the Biogeochemical Stability of Iron Oxide-Bound Organic Carbon: Linking Redox Cycles and Carbon Persistence. DOE ESS-PI Meeting, Potomac, MD, 2016.
- 157. Moore C, Dastoor A, Steffen A, Nghiem S, Agnan Y, **Obrist D**. Measurements to Refine Global and Regional Scale Atmospheric Transport Models. Abstract A23I-08, American Geophysical Union Fall Meeting in San Francisco, December 2015.

- 156. Agnan Y, Obrist D, Edward G, Moore C, Hedge C, Helmig D, Paxton D, Hueber J. Spatial and Temporal Variability of Methane Mole Fractions and Exchanges in and Between Soil, Snow, and the Atmosphere in a Tundra System in Northern Alaska. Abstract B13D-0648, American Geophysical Union Fall Meeting in San Francisco, December 2015.
- 155. **Obrist D**, Helmig D, Agnan Y, Hedge C, Moore C, Paxton D, Hueber J. Mercury dynamics of an arctic tundra ecosystem in northern Alaska: a mass balance. Abstract B33G-03, American Geophysical Union Fall Meeting in San Francisco, December 2015.
- 154. Khan T, Agnan Y, **Obrist D**, Selin N, Urban N, Wu S, Perlinger J. Preliminary Assessment of Mercury Atmosphere-Surface Exchange Parameterizations for Incorporation into Chemical Transport Models. Abstract B11D-0454, American Geophysical Union Fall Meeting in San Francisco, December 2015.
- 153. Zhao Q, Yang Y, **Obrist D**, Poulson S. Importance of Iron and Soil Physicochemical Properties to Stabilize Organic Carbon in Soils. Abstract B43I-0676, American Geophysical Union Fall Meeting in San Francisco, December 2015.
- 152. Hedge C, **Obrist D**, Agnan Y, Moore C, Biester H, Helmig D. Soil and Plant Mercury Concentrations and Pools in the Arctic Tundra of Northern Alaska. Abstract B13I-04. American Geophysical Union Fall Meeting in San Francisco, December 2015.
- 151. Eagles-Smith C, Marvin-DiPasquale M, Evers D, Eckley C, Wiener J, Fleck J, Ackerman J, Aiken G, Davis J, Drevnick P, Geesey G, Jackson A, Lepak J, Obrist D, Stewart R, Webster J, Weiss-Penzias P, Willacker J. Western North American Mercury Synthesis (WNAMS): A multi-disciplinary tri-national assessment of the climate, landscape, and land-use controls on mercury risk to ecological and human health across western North America. Society of Environmental Toxicology and Chemistry (SETCAC) 36th Annual Meeting, Salt Lake City, November 2015.
- 150. Trustman B, **Obrist D**, Schumer R, Strachan S. Characterizing spatial and temporal variability of snow water equivalent. Tahoe Science Conference, Reno, September 2015.
- 149. Moore, C.W, Obrist D, Steffen A, Staebler RM, Douglas TA, Simpson WR, Peterson P, Nghiem SV. Role of Snow and Ice Surfaces in the Atmospheric Cycling of Mercury in the Arctic. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 148. Hedge C, Obrist D, Kretzschmar R, Wiederhold JG, Biester H, Chow J, Moore C, Agnan Y, Helmig D. Soil and plant mercury concentrations and pools in the Arctic tundra of northern Alaska. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 147. **Obrist D**, Helmig D, Agnan Y, Hueber J, Hedge C, Moore C, Steffen A, Brooks S. Mercury dynamics of an inland tundra ecosystem in northern Alaska: an attempt for a first mass balance. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 146. Zheng W, **Obrist D**, Weis D, Bergquist BA.Mercury isotope compositions in North American forests. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 145. Howard DA, Edwards GC, Moore CW, **Obrist D**. Observation of night time GEM depletion events over an Australian mid-latitude Alpine grassland. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.

- 144. Agnan Y, Moore CW, Edwards GC, LeDantec T, **Obrist D**. A global analysis of surfaces-atmosphere exchange of gaseous elemental mercury (Hg0). International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 143. Amos, HM, Sonke JE, **Obrist D**, Robins N, Hagan N, Horowitz HM, Masin RP, Witt M, Hedgecock I, Corbitt ES, Sunderland EM. Global anthropogenic enrichment of mercury and implications for future environmental concentrations. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 142. Steffen A, Cole A, Dastoor A, Moore C, **Obrist D**. Potential impacts of emissions, increases in temperature and sea ice loss on the mercury cycle in the high Arctic. International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 141. Denzler B, Bogdal C, Henne S, Ubl-Kägi S, Qureshi A, **Obrist D**, Hungerbühler K. Source apportionment of atmospheric mercury based on background air monitoring at the High Altitude Research Station Jungfraujoch (3580 m). International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015.
- 140. **Obrist D**, Hedge C, Agnan Y, Moore C, Helmig D, Hueber J. Comparisons of Terrestrial Mercury (Hg) Accumulation and Dynamics across Temperate Forests and an Arctic Tundra site. AGU-GAC-MAC-CGU Joint Assembly, Montreal, Canada, May 2015.
- 139. Harpold A, **Obrist D**, Calvin W, Schumer R, Gaffney R, Longley P, Trustman B, Crews J, Agnan Y. Seeing the forest for the trees: assessing risks to mountain snowpacks by integrating remote sensing, observations, and models. Nevada NASA EPSCoR and Space Grant Consortium Annual Meeting, Reno, NV. May, 2015.
- 137. Fenstermaker, L., D. Obrist, S. Tyler, E. M. Hausrath, G. Ferrell, I. McCubbin, H. Moosmüller, A. E. Murray, R. Schumer. Building Capacity in Interdisciplinary Snow Sciences for a Changing World. Nevada NASA EPSCoR and Space Grant Consortium Annual Meeting, Las Vegas, NV, Apri/May, 2015.
- 137. Trustman B, **Obrist D**, Schumer R, Strachan S. Characterizing spatial varaibulity of snow water equivalent using pressure sensors. 2015 Western Snow Conference, Grass Valley, CA, April 2015.
- 136. Helmig D, Obrist D, Moore C, VanDam B, Hueber J, Molnar T, Williams M, Kramer L, Doskey P, Fain X. The role of snow cover on surface trace gas exchanges at Toolik Lake, AK; American Geophysical Union Fall Meeting in San Francisco, December 2014.
- 135. Agnan Y, **Obrist D**, Moore C. A comprehensive database of global soil-snowatmosphere flux studies of mercury. American Geophysical Union Fall Meeting, San Francisco; December 2014.
- 134. Perlinger J, Urban N, **Obrist D**, Wu S. The Role of Biogeochemical Cycling of Atmosphere-surface Exchangeable Pollutants (ASEPs) in the Dynamic Coupled Human-Natural ASEP System. American Geophysical Union Fall Meeting, San Francisco; December 2014.
- 133. **Obrist D**, Zielinska B, Perlinger J. Accumulation of polycyclic aromatic hydrocarbons (PAHs) in surface litter and soils in four forests in the United States. American Geophysical Union Fall Meeting, San Francisco; December 2014.
- 132. Obrist D, Moore C, LeDantec T, Agnan Y, Pearson C. Soil mercury sequestration and re-mobilization and relationships to the global cycling of mercury. Soil Science Society of America Annual Meeting, Long Beach, CA; November 2014.

- 131. Théo LeDantec, Agnan Y, **Obrist D**, Moore C. A comprehensive database of global soil-atmosphere flux studies of mercury; Soil Science Society of America Annual Meeting, Long Beach, CA, November 2014.
- 130 Moore C, **Obrist D**, Brooks S, Steffen A. An overview of mercury speciation measurements and analysis at high latitudes. Data collection, analysis, and application of speciated mercury workshop. San Francisco, CA. July 2014.
- 129. **Obrist D.** Terrestrial mercury cycling: sequestration and re-emissions. Seminar; Federal Institute of Technology, Zurich, Switzerland, May 2014.
- 128. Persistent Semi-Volatile Pollutants: A Long-term Problem. **Obrist D.** Seminar; University of Basel, Switzerland. April 2014.
- 127. Trustman B, **Obrist D**, Schumer R. Nutrient and mercury dynamics within the Lake Tahoe basin snowpack. Mountain Observatories Fair and Workshop, Reno, July 2014.
- 127. Zheng W, Bergquist BA, Weis D, **Obrist D**. Mercury isotope compositions in North American forest soils and litters. Goldschmidt Conference, Sacramento, June 2014.
- 126. Moore C, **Obrist D**, Steffen A, Staebler RM, Douglas TA, Nghiem SV. Mercury Depletion, Deposition, and Re-emission in Snowpack over the Arctic Tundra and Ocean. Goldschmidt Conference, Sacramento, June 2014.
- 125. **Obrist D**. Mercury in terrestrial environments: sinks, sources, and impacts for atmospheric loads. National Ecological Observatory network (NEON), Seminar; Boulder, CO, February 2014.
- 124. Pearson C, **Obrist D**, Schumer R. Nutrient and Mercury Concentrations and Loads in Tahoe Basin Snowpack. Fall Meeting, AGU, C12A-07, San Francisco, December 2013.
- 123. Zheng W, **Obrist D**, Bergquist BA. Mercury isotope compositions in North American forest soils and litters. Fall Meeting, AGU, B41C-0415, San Francisco, December 2013.
- 122. Weiss-Penzias P, Eckley C, Parsons M, Morris K, Jaffe D, Gustin M, Steffen S, Mintz R, Rothenberg S, Schmelz D, Perry K, Obrist D, Cole A, Gay D. Spatial and temporal patterns of air concentrations of mercury in Western North America 1998-present. Fall Meeting, AGU, B44B-04, San Francisco, December 2013.
- 121. Obrist D, Perlinger J. Linking atmospheric and terrestrial cycles of Surface-Atmosphere-Exchangeable Pollutants (ASEPS). Department of Civil and Environmental Engineering, Michigan Technological University, Houghton, MI, November 2013.
- 120. **Obrist D.** Sequestration and re-emission of Atmosphere-Surface Exchangeable Pollutants (ASEPs). Community and Partner Workshop: Managing impacts of global transport of atmosphere-surface exchangeable pollutants (ASEPs) in the context of global change, Great Lakes Research Center, Michigan Technological University, Hougthon, MI, November 2013.
- 119. **Obrist D.** Mercury cycling in terrestrial environments an ecosystem perspective. Department of Forest Ecology and Management, Swedish University of Agricultural Sciences, Umeå, Sweden. Seminar, October 2013.
- 118. **Obrist D**. Terrestrial ecosystems and atmospheric mercury loads: Sequestration of past pollution and importance of legacy re-emissions. Department of Chemistry, University College Cork, Cork, Ireland. Seminar, October 2013.
- 117. Tas E. **Obrist D**, Peleg M, Matveev V, Faïn X, Asaf D, Luria M. Measurement-based modelling of bromine-induced oxidation of mercury above the Dead Sea, 14th EuChemMS International Conference on Chemistry and the Environment (ICCE 2013). Barcelona, Spain, June 2013.

- 116. **Obrist D**, Moore, Pearson C, Pierce A, Schumer R, Helmig D, Van Dam B, Faïn X, Steffen A, Staebler R, Nghiem S, Douglas T. 2013. Mercury in alpine and Arctic snow: atmospheric deposition and fate processes. Seminar Graduate Program of Hydrologic Sciences, University of Nevada, Reno, USA. April 2013.
- 115. Zielinska B, **Obrist D**. Polycyclic Aromatic Hydrocarbons (PAHs) in Soil and Litter Samples. 24th Meeting of the International Symposium on Polycyclic Aromatic Compounds (ISPAC 2013), Corvallis, OR, USA, September, 2013.
- 114. Tas E, **Obrist D**, Peleg M, Matveev V, Faïn X, Asaf D, Luria. Measurement-based modelling of bromine-induced oxidation of mercury above the Dead Sea. The Atmospheric Chemistry Gordon Research Conference, Mount Snow Resort, West Dover, VT, USA, July/August 2013.
- 113. Nghiem SV, Shepson PB, Simpson W, Perovich DK, Sturm M, Douglas T, Rigor IG, Clemente-Colón P, Burrows JP, Richter A, Steffen A, Staebler R, Obrist O, Moore C, Bottenheim J, Platt U, Pöhler D, General S, Zielcke K, Fuentes JD, Hall DK, Kaleschke L, Woods J, Hager C, Smith K, Sweet CR, Pratt K, Custard K, Peterson P, Walsh S, Gleason E, Saiet E, Webster M, Lieb-Lappen R, Linder C, Neumann G. Science Progress from the BRomine, Ozone, and Mercury EXperiment (BROMEX); Davos Atmosphere and Cryosphere Assembly 2013 Air, Ice & Process Interactions, July 8-12, 2013, Davos, Switzerland.
- 112. Nghiem SV, Shepson PB, Simpson W, Perovich DK, Sturm M, Douglas T, Rigor IG, Clemente-Colón P, Burrows JP, Richter A, Steffen A, Staebler R, Obrist D, Moore C, Bottenheim J, Platt U, Pöhler D, General S, Zielcke J, Fuentes JD, Hall DK, Kaleschke L, Woods J, Hager C, Smith J, Sweet CR, Pratt K, Custard K, Peterson P, Walsh S, Gleason E, Saiet E, Webster M, Lieb-Lappen R, Linder C, Neumann G, Arctic sea ice reduction and tropospheric chemical processes. The Fourth International Conference on Bioenvironment, Biodiversity and Renewable Energies, BIONATURE, March 2013, Lisbon, Portugal.
- 111. Helmig D, Fain X, Obrist D, Barbero A, Barret M, van Dam B, Dommergue A, Hueber J, Magand O, Mass A, Pirrone N, Savarino J, Seok B, Sprovieri F, Stephens C, Williams M. Vertical gaseous elemental mercury concentration gradients, mercury redox processes, and surface exchanges in alpine and polar snowpacks. International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 110. **Obrist D**, Pokharel AK, Moore CW. Elemental Mercury Depletion in Soils: An Unaccounted Mercury Sink? International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 109. Moore CW, Steffen A, **Obrist D**, Staebler R, Douglas TA, Nghiem SV. Effects of Sea Ice Dynamics on Arctic Atmospheric Mercury Cycling. International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 108. Pierce A, **Obrist D**, Moore C, Moosmüller M. Atmospheric mercury concentration measurements and eddy covariance flux measurements using cavity ring-down spectroscopy. International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 107. Venables DS, Darby SB, Pierce A, Moore CW, Moosmüller H, **Obrist D**. The role of BrO in the oxidation of GEM: A chamber investigation at close-to-representative concentrations. International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013. Accepted.

- 106. Darby SB, Pierce A, Moore CW, Moosmüller H, Venables DS, **Obrist D**. An atmospheric simulation chamber study of the bromine-initiated oxidation of mercury at a range of temperatures. International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 105. Corbitt ES, Jacob DJ, Horowitz HM, **Obrist D**, Sunderland EM. Coupled Atmosphere-Terrestrial Modeling of Global Mercury Cycling. International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 104. Luria M, **Obrist D**, Moore CW, Peleg M, Matveev V. Is Nitrate radical a major oxidant of elemental mercury in the atmosphere? International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 2013.
- 103. Pearson C, **Obrist D**, Schumer R. Nitrogen and Phosphorus Concentrations and Loads within Lake Tahoe Snowpack. University Council on Water Resources 2013 Annual Conference, Lake Tahoe, June 2013.
- 102. Obrist D, Moore CW, Douglas TA, Steffen A; Staebler RM; Pearson C. Concentrations of total and dissolved Hg in snow and vapor deposition collected during atmospheric mercury depletion events (AMDEs) in Barrow, Alaska during the BROMEX campaign. Fall Meeting, AGU, Abstract A31D-0059, San Francisco, December 2012.
- 101. Moore CW, Steffen A, **Obrist D**, Staebler RM. Influence of Sea Ice Dynamics on Atmospheric Mercury and Ozone Concentrations and Fluxes during the BROMEX Campaign. Fall Meeting, AGU, Abstract A31D-0065, San Francisco, December 2012.
- 100. Pearson C, **Obrist D**, Schumer R. Quantifying Nutrient and Mercury Concentrations and Loads in Lake Tahoe Snowpack. Fall Meeting, AGU, Abstract B23H-0540, San Francisco, December 2012.
- 99. Luria M. **Obrist D**, Peleg M, Matveev V, Moore C, Tas E. Is nitrate radical a major oxidant of elemental mercury in the atmosphere? Fall Meeting, AGU, Abstract A13D-0253, San Francisco, December 2012.
- 98. Pearson C, **Obrist D**, Schumer R. Quantifying Nutrient and Mercury Concentrations and Loads in Tahoe Snowpack. Water Summit 2012, Milwaukee, September 2012.
- 97. Zhang Y, **Obrist D**, Zielinska B, Gertler AW. Emissions of Carbon Species, Organic Polar Compounds, Potassium, and Mercury from Controlled Biomass Burning. Air Quality Management at Urban, Regional, and Global Scales; 4th International Symposium and IUAPPA Regional Conference, Istanbul, Turkey, September 2012.
- 96. Hararuk O, **Obrist D**, Luo Y. Modeling the sensitivity of soil mercury storage to climate-induced changes in soil carbon pools. 97th Annual Ecological Society of America Meeting, Portland, Oregon, USA, August, 2012.
- 95. **Obrist D**, Terrestrial Mercury Surface Reservoirs: Magnitude, Spatial Patterns, Fate, and Re-emission Potential to the Atmosphere. 1<sup>st</sup> conference on Atmospheric Biogeosciences, American Meteorological Society, Boston, May/June 2012.
- 94. Zhang Y, **Obrist D**, Zielinska B, Gertler A. Smoke emissions from prescribed burning in the Lake Tahoe Basin (Nevada/California). Tahoe Science Conference, Incline Village, CA, May 2012.
- 93. VanDam B, Helmig D, Burkhart J, Oltmans S, Fain X, Obrist D. Observations of springtime surface O<sub>3</sub> and GEM depletion at Toolik Lake, AK. National Ocean & Atmospheric Administration, Earth System Research Laboratory Global Monitoring Annual Conference, Boulder, CO, May 2012,

- 92. Y. Zhang, **D. Obrist**, B. Zielinksa, A. Gertler. Emissions of carbon species, organic polar compounds, potassium, and mercury from prescribed burning activities. 2012 Tahoe Science Conference, Incline Village, CA, May, 2012.
- 91. A. Pierce, **D. Obrist**, H. Moosmüller, and C. Moore. Cavity ring-down spectroscopy (CRDS) system for measuring atmospheric mercury using differential absorption. European Geophysical Union Annual Meeting, Abstract EGU2012-11454ys, Vienna, Austria. April 2012.
- 90. Y. Zhang, **D. Obrist**, B. Zielinska, and A. Gertler. Emissions of carbon species, organic polar compounds, potassium, and mercury from prescribed burning activities. European Geophysical Union Annual Meeting, Abstract EGU2012-12008ys, Vienna, Austria. April 2012.
- 89. E. Tas, **D. Obrist**, C. Moore, M. Peleg, and M. Luria. Bromine-induced atmospheric mercury depletion events (AMDEs) at the Dead Sea: magnitude, frequency, spatial extent, and modeled reaction pathways. European Geophysical Union Annual Meeting, Abstract EGU2012-12475, Vienna, Austria. April 2012.
- 88. **D. Obrist**, D.W. Johnson, S.E. Lindberg, and Y. Luo. Mercury Accumulation in Terrestrial Carbon Reservoirs: Magnitude, Spatial Patterns, Fate upon C losses, and Implications of Global Change. European Geophysical Union Annual Meeting, Abstract EGU2012-11087, Vienna, Austria. April 2012.
- 87. C. Moore, A. Steffen, **D. Obrist**, R. Staebler, T. Douglas, and S. Nghiem. Mercury Surface-Atmosphere Flux and Speciation Measurements in Barrow, Alaska, USA during the BROMEX campaign. European Geophysical Union Annual Meeting, Abstract EGU2012-12603ys, Vienna, Austria. April 2012.
- 86. Meinert M, **Obrist D**. DRI Mercury Research to Benefit WCSD Students. Washoe County School District Employee Newsletter. February 27, 2012.
- 85. **Obrist D**. Mercury in Sierra Nevada Forests. Blodgett Forest Research Workshop, Georgetown, CA, January 2012.
- 84. Pokharel A, **Obrist D**. Behavior and transport of mercury in soil profiles. Fall Meeting, AGU, Abstract B33H-0578, San Francisco, December 2011.
- 83. Luria M, Tas E., **Obrist D**, Marveev V., Peleg M. Air chemistry over the Dead Sea: Observations and model simulations. Fall Meeting, AGU, Abstract A41A-0048, San Francisco, December, 2011.
- 82. Hararuk O, **Obrist D**, Luo Y. Temperature and precipitation effect on the top soil mercury stocks: a sensitivity analysis. 96th Annual Ecological Society of America Meeting, Austin, Texas, USA, August, 2011.
- 81. **Obrist, D,** Air Above Dead Sea Contains Very High Levels of Oxidized Mercury. EPA Mercury Coordination Group (MCG), July 2011.
- 80. **Obrist D**, Tas E, Peleg M, Matveev V, Faïn X, Asaf D, Luria M. Measurement-based modeling of reactive bromine species over the Dead Sea: Measurements and Modeling of Atmospheric Mercury Depletion Events at the Dead Sea, Israel. International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.
- 79. Obrist D, Johnson DW, Lindberg SW, Luo Y, Hararuk O, Bracho R, Battles JJ, Dail DB, Edmonds RL, Monson RK, Ollinger SV, Pallardy SG, Pregitzer KS, Todd DE. (2011) Mercury distribution across 14 U.S. forests: Spatial patterns of total and methylmercury concentrations in biomass, litter, and soils. International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.

- 78. Pierce A, Fain X, **Obrist D**, Hans Moosmüller H. Atmospheric mercury concentration measurements using cavity ring-down spectroscopy. International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 2011.
- 77. **Obrist D**. (2010) Soil-Plant-Atmosphere Interactions of Mercury. Seminar, Harvard University, Atmospheric Chemistry Seminar Series, December 2010.
- 76. Pierce A, Faïn X, **Obrist D**, Moomüller H. Atmospheric mercury concentration measurements using cavity ring-down spectroscopy. Fall Meeting, AGU, Abstract A41A-0047, San Francisco, December 2010.
- 75. **Obrist D.** Mercury research at DRI: Measurements from -1,400 to +11,000 feet elevation. Invited presentation, Nevada System of Higher Education Board of Regents Meeting, Las Vegas, December 2010.
- 74. **Obrist D,** Faïn X, Hallar GA, McCubbin I. Mercury at Storm Peak Laboratory at 3220 m. Invited presentation, Kick-off Meeting of the Global Mercury Observation System (GMOS), Consiglio Nazionale delle Ricerche, Rome, November 2010.
- 73. **Obrist D,** Gertler A, Zielinska B. Particulate emissions from biomass burning: contributions from residential wood combustion, forest fires, and prescribed fires. Lake Tahoe Environmental Research Center Symposium on Forest Management Decision Support Tools. November, 2010.
- 72. Faïn X, **Obrist D**, Pierce A, Barth C, Gustin MS, Boyle DP. Whole-watershed mercury balance in a Sierra Nevada ecosystem. 2010 Annual Scientific Symposium of the National Atmospheric Deposition Program, October, 2010.
- 71. **Obrist D**. Spatial distribution of mercury across U.S. forests: Spatial relationships to atmospheric pollution and ecological processes. Invited Seminar, Graduate Program of Environmental Sciences, University of Nevada, Reno, October, 2010.
- 70. **Obrist D,** Johnson D, Lindberg S, Luo Y, Hararuk O, Bracho R, Battles J, Dail B, Edmonds B, Monson R, Ollinger S, Pallardy S, Pregitzer K, Todd D. Total mercury and methyl-mercury concentrations and pools across 14 U.S. forest sites: Factors that determine mercury loads in remote terrestrial ecosystems. 2010 Annual Scientific Symposium of the National Atmospheric Deposition Program, October, 2010.
- 69. **Obrist D,** Luo Y, Johnson D, Lindberg S. Effects of global change on the atmospheric mercury burden and mercury sequestration through changes in ecosystem carbon pools. EPA STAR Program "Consequences of Global Change for Air Quality" Progress and Review Meeting, Research Triangle Park, North Carolina, October, 2010.
- 68. **Obrist D,** Hallar AG, Faïn X, McCubbin. Atmospheric mercury patterns observed at a high elevation (3220 m a.s.l.) research station, Storm Peak Laboratory, in the Rocky Mountains, USA. Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, Switzerland, June 2010.
- 67. McCubbin I, Hallar AG., Lowenthal D. Borys R, **Obrist D**. Overview of Storm Peak Laboratory. Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, Switzerland, June, 2010.
- 66. **Obrist D**, Peleg M, Fain X, Matveev V, Tas E, Asaf D, Luria M. Efficient Bromine-Induced Mercury Oxidation Observed Under Temperate Conditions at the Dead Sea. Goldschmidt 2010: Earth, Energy, and the Environment, Knoxville, Tennessee, June, 2010.
- 65. **Obrist D.** Atmospheric Mercury: from -400 m to +3200 m elevation. Swiss Federal Institute of Technology, Department of Chemistry and Applied Biosciences, Zurich, June, 2010.

- 64. Faïn X, Helmig D, Honrath R, Van Dam B, Hueber J, **Obrist D**. Investigation of airsnow exchanges of mercury: proof of concept for automated gradient sampling of interstitial air at the Summit FLUX facility. State of the Arctic Conference, Miami, Florida, March, 2010.
- 63. Luria M, **Obrist D**. Mercury chemistry in the air over the Dead Sea. Kaplan Memorial Symposium on Biogeochemistry at the Dead Sea, Institute of Earth Sciences, Hebrew University, Jerusalem. January, 2010.
- 62. **Obrist D,** Peleg M, Matveev V, Luria M. Extensive halogen-induced mercury oxidations in the Dead Sea Basin. American Geophysical Union Fall Meeting. Fall Meet Suppl. Abstract A21B-0141, San Francisco, December, 2009.
- 61. Pokharel AK, **Obrist D**. Assessing the fate of litter mercury during decomposition under controlled laboratory conditions. American Geophysical Union Fall Meeting. Fall Meet Suppl. Abstract A51G-0201, San Francisco, December, 2009.
- 60. Fain X, **Obrist D**, Barth C, Pierce A, Gustin M, Boyle D. Do seasonal snowpacks enhance or decrease mercury contamination of high elevation ecosystems? American Geophysical Union Fall Meeting. Fall Meet Suppl. Abstract A51G-0203, San Francisco, December, 2009.
- 59. **Obrist D**. Interactions of atmospheric mercury with terrestrial ecosystems: uptake, storage, and emissions. Invited Seminar, Université de Québéc à Montréal, Canada, October, 2009.
- 58. **Obrist D,** Fain X, Pokharel A, Berger C. The fate of mercury in soils and litter during carbon decomposition: relationships between Hg<sup>0</sup> and CO<sub>2</sub> emissions in the laboratory and field and a litter mass balance study. Poser Presentation, 9th International Conference on Mercury as a Global Pollutant (9th ICMGP), Guiyang city, China, June, 2009.
- 57. **Obrist D**, Johnson DW, Lindberg S, Luo Y. Effects of global change on the terrestrial mercury fluxes and mercury sequestration through changes in ecosystem carbon pools. Oral Presentation, 9th International Conference on Mercury as a Global Pollutant (9th ICMGP), Guiyang city, China, June, 2009.
- 56. Fain X, **Obrist D**, Hallar G, McCubbin I. Speciated mercury measured at a high elevation research station, Colorado: in situ conversion and transport from the upper troposphere. Oral Presentation, 9th International Conference on Mercury as a Global Pollutant (9th ICMGP), Guiyang city, China, June, 2009.
- 55. Moosmüller H, Fain X, **Obrist D**. Cavity Ring-Down Spectroscopy for Measurement of Gaseous Elemental Mercury Concentrations and Fluxes. Oral Presentation, 9th International Conference on Mercury as a Global Pollutant (9th ICMGP), Guiyang city, China, June, 2009.
- 54. **Obrist D**, Johnson DW, Lindberg S, Luo Y. Mercury in terrestrial biomass and soils and factors determining atmospheric mercury sequestration. AGU 89(53), Fall Meet Suppl Abstract B42A-03.
- 53. Moosmüller H, Arnott WP, Chen, L-WA, **Obrist D**, Chakrabarty RK, Wold CE, Hao WM, Kreidenweis SM. Particle emissions from flaming and smoldering laboratory combustion of wildland fuels. NASA Fire Science Workshop, Adelphi, MD, February, 2008.
- 52. Berger C, Faïn X, **Obrist D**. Soil mercury and CO<sub>2</sub> emissions and their relationship under controlled laboratory conditions: Effects of oxygen depletion and soil sterilization. AGU 89(53), Fall Meet Suppl Abstract B43B-0435, December, 2008.

- 51. Faïn X, **Obrist D**, Hallar G, McCubbin I, Rahn T. Speciated mercury measured at a high elevation research station, Colorado: in situ conversion and long range transport. Eos Trans AGU 89(53), Fall Meet Suppl Abstract A53D-0323A, December, 2008.
- 50. Hallar AG, **Obrist D**, McCubbin IB, Faïn X, Rahn T (2008). Chemical and Aerosol Signatures of Biomass Burning via Long Range Transport observed at Storm Peak Laboratory. Eos Trans AGU 89(53), Fall Meet Suppl Abstract A21B-0137.
- 49. **Obrist D,** Fritsche J, Fain X, Moosmüller H. Ecosystem-level mercury exchange: Why is it important? Uncertainties? Hg sequestration in plant/soils and impacts on atmosphere, results from year-long MBR measurements/comparisons, and development of a real-time sensor for eddy covariance measurements. Invited presentation, NSF Workshop on reducing the uncertainty in measurements of atmospheric Hg. Seattle, WA, October, 2008.
- 48. **Obrist D,** Alewell C, Mc Cubbin I, Fain X, Gustin M, Fritsche J, Hallar G, Johnson DW, Lindberg S, Luo Y, Luria M, Moosmüller H. Interactions of atmospheric mercury with terrestrial ecosystems: uptake, storage, and emissions, University of New Hampshire, Climate Change Research Center and NOAA AIRMAP Cooperative Institute for the Study of Earth, Oceans, and Space. Invited Seminar, October, 2008.
- 47. Mack L, **Daniel Obrist**, Hans Moosmüller, Kristin Lewis, Patrick Arnott, Gavin McMeeking, Ezra Levin, Sonia Kreidenweis, Cyle Wold, Wei Min Hao, Jeffrey Collett, Jr., and William Malm. Optical closure experiments for biomass smoke aerosols. Submitted Platform presentation, American Association for Aerosol Research, 27th Annual Conference, American Aerosol AAAR, Orlando, FL, October, 2008.
- 46. Moosmüller H., **Obrist D**, Arnott W, Mack L, Kreidenweis S. Cavity ring down and cavity enhanced detection measurements of extinction from smoke generated through laboratory combustion of wildland fires. Abstract presented at the AMWA Moab conference, April/May, 2008.
- 45. **Obrist D**, Luo Y, Johnson D, Lindberg S. Mercury sequestration in vegetation and soils in US forests and consequences for atmospheric mercury levels. Swiss Soil Monitoring Network (NABO), Federal Office for the Environment, Department of the Environment, Transport, Energy, and Communications, Switzerland, June, 2008.
- 44. **Obrist D,** Fain X, Johnson D, Lindberg S, Luo Y. Mercury sequestration in vegetation and soils and consequences for atmospheric mercury levels. USDA Air Pollution Workshop and Symposium, Raleigh, NC, April, 2008.
- 43. **Obrist D,** Jasoni R, Arnone JA. Comparison of nighttime water vapor and CO<sub>2</sub> fluxes measured by eddy covariance and by absolute concentration changes of 222Rn, CO<sub>2</sub>, and water vapor in the nocturnal boundary layer. Seminar "Understanding near-surface environmental processes;" Nevada Water Resources Association, Las Vegas, NV, April, 2008.
- 42. Moosmüller H, Mack L, **Obrist D**, Arnott WP, Kreidenweis SM. Cavity Ring Down and Cavity Enhanced Detection Measurements of Extinction from Smoke Generated through Laboratory Combustion of Wildland Fuels. Conference Aerosol and Atmospheric Optics: Visual Air Quality and Radiation, Moab, Utah, April/May, 2008.
- 41. Hallar AG, **Obrist D**, McCubbin I, Rahn TA. Research in Transport of Asian Pollution at Storm Peak Laboratory, Empa, Swiss Federal Institute for Materials Testing and Research, Lab 134, Dubendorf, Switzerland, August, 2008.
- 40. Hallar AG, **Obrist D**, McCubbin I, Rahn TA. Research in Transport of Asian Pollution at Storm Peak Laboratory, Paul Scherrer Institut (PSI), Labor für Atmosphärenchemie, Switzerland, August, 2008.

- 39. Hallar AG, **Obrist D**, McCubbin I, Rahn TA. Research in Transport of Asian Pollution at Storm Peak Laboratory, Department of Chemistry, University of Copenhagen, Denmark, August, 2008.
- 38. Ian B. McCubbin IB, Hallar AG, Obrist D, Lowenthal D, Wiedinmyer C, Rahn TA, Mazzoleni C. Storm Peak Laboratory Investigates Air Quality from Regional and Long Range Sources. Poster Presentation, American Meteorological Society, 13th Conference on Mountain Meteorology, Whistler, BC, Canada, August, 2008.
- 37. Hallar, AG, **Obrist D**, McCubbin IB. Storm Peak Laboratory's Research of Long Range Transport and Outreach Activities, Presented at NASA Goddard Institute of Space Technology, New York, New York, October, 2007.
- 36. Hallar, AG, **Obrist D**, McCubbin IB. Storm Peak Laboratory's Research of Long Range Transport and Outreach Activities, Presented at Department of Energy Headquarters to Program Managers for Atmospheric Science Program and Atmospheric Radiation Measurement Program, October, 2007.
- 35. Hallar GA, **Obrist D**, McCubbin I, Rahn T. Measurements of atmospheric mercury at Storm Peak Laboratory in the central Rocky Mountains: Evidence for local/ regional emissions and influence of long-range transport from Asia. Title, Eos Trans. AGU, 88(52), Fall Meet. San Francisco, December, 2007.
- 34. Lindberg SE, **Obrist D**. Mercury deposition almost two decades later does it matter yet? National Atmospheric Deposition Program (NADP) Scientific Symposium in Boulder, CO, September, 2007.
- **33**. **Obrist D**, Jasoni R, Arnone JA. Application of a <sup>222</sup>Rn/H<sub>2</sub>O method to measure nighttime evapotranspiration in arid ecosystems to complement and scale-up conventional measurement methods. NSF EPSCoR RING-TRUE III Project meeting: Scaling Environmental Processes in Heterogeneous Arid Soils (SEPHAS), Las Vegas, NV, September, 2007.
- 32. Mack L, **Obrist D**, Moosmüller H, Arnott P, McMeeking G, Kreidenweis S, Wold C, Hao W, Collett Jr. J, and Malm W. Experimental and theoretical closure experiments for biomass smokes using extinction cells, photoacoustics, and nephelometry. American Association for Aerosol Research, 26th Annual Conference, September, 2007, Reno, NV.
- 31. **Obrist D,** Hallar AG, McCubbin I. Mercury monitoring at Storm Peak Laboratory in Colorado to determine regional and Asian long-range transport contributions to atmospheric mercury loads. International Air Quality Conference, September, 2007, Arlington, VA.
- 30. Obrist D, Johnson DW, Lindberg SE. Effects of global change on the atmospheric mercury burden and mercury sequestration through changes in ecosystem carbon pools. Consequences of Global Change for Air Quality Progress Review; US EPA National Center for Environ-mental Research, February, 2007, Raleigh, NC.
- 29. McMeeking, G. R., A. Sullivan, S. M. Kreidenweis, J. L. Collett, Jr., T. W. Kirchstetter, M. Lunden, L.-W. A. Chen, **D. Obrist**, H. Moosmüller, J. C. Chow, C. E. Wold, W. M. Hao, D. E. Day, and W. C. Malm. A Comparison of Thermal-Optical Carbon Measurement Methods for Aerosols Emitted by a Series of Controlled Biomass Burning Experiments. American Association for Aerosol Research, 26th Annual Conference, September, 2007, Reno, NV.

- Li, W., J. F. Collins, T. D. Durbin, T. Huai, A. Ayala, G. Full, C. Mazzoleni, N. J. Nussbaum, D. Obrist, D. Zhu, H. D. Kuhns, and H. Moosmüller. Detection of Gasoline Vehicles with Gross PM Emissions. 2007 SAE World Congress, Detroit, MI, April 16-19, 2007.
- 27. Collins, J. F., W. Lei, T. D. Durbin, T. Huai, A. Ayala, G. Full, C. Mazzoleni, N. J. Nussbaum, D. Obrist, D. Zhu, H. D. Kuhns, and H. Moosmüller. Detection of High PM Emitters. Smog Check Technology Forum and Roundtable Discussion of the South Coast Air Quality Management District, Diamond Bar, CA, March 21, 2007.
- 26. Huai, T,Collins JF, Ayala A, Durbin TD, Lei W, Full G, Mazzoleni C, Nussbaum NJ, **Obrist D**, Zhu D, Kuhns HD, Moosmüller H. Comparison of Remote Sensing Devices with Gravimetric Measurements of Light-Duty Gasoline PM Emissions. 17th CRC On-Road Vehicle Emissions Workshop, March, 2007, San Diego, CA.
- 25. Moosmüller H, Arnott WP, Chen L-W, Chakrabarty RK, **Obrist D**, Lewis K. Emissions from Laboratory Combustion of Wildland Fuels: Aerosol Optical Properties During Flaming and Smoldering Combustion Phases. Aerosol Workshop on Climate Prediction Uncertainty, July, 2006, Santa Fe, NM, USA.
- 24. **Obrist D,** Moosmüller H, Wold C, Lincoln E.N., Freeborn P, Hao W.-M., Kreidenweis S. Speciated mercury emissions from laboratory combustion of wildland fuel. Tahoe Science Symposium, October, 2006, Incline Village, NV, USA.
- 23. **Obrist D**. Measurement of elemental mercury deposition in terrestrial ecosystems methods, results, and challenges. American Chemical Society, 61st Northwest Regional Meeting, June, 2006, Reno, NV, USA.
- 22. Moosmüller H, **Obrist D**. Development of a real-time cavity ring down laser absorption spectroscopy (CRLAS) sensor to measure atmospheric mercury concentrations and fluxes. American Chemical Society, 61st Northwest Regional Meeting, June, 2006, Reno, NV, USA.
- 21. **Obrist D,** Moosmüller H. Development and application of micrometeorological methods and sensors to measure gaseous Hg exchange. Science Seminar Series, Division of Atmospheric Sciences, Desert Research Institute, Reno, NV, USA.
- 20. **Obrist D,** Fritsche J, Marsik FJ, Alewell C. Direct measurements of elemental mercury deposition in terrestrial ecosystems. 8th International Conference on Mercury as a Global Pollutant. August, 2006, Madison, WI, USA.
- 19. Gustin MS, Marsik FJ, **Obrist D**. Air-surface exchange of mercury in terrestrial ecosystems. 8th International Conference on Mercury as a Global Pollutant. August, 2006, Madison, WI, USA.
- 18. Stamenkovic J, Gustin MS, **Obrist D**. Environmental controls on mercury flux from ecosystem components at different temporal scales. 8th International Conference on Mercury as a Global Pollutant. August, 2006, Madison, WI, USA.
- 17. Fritsche J, **Obrist D**, Alewell C. Effects of microbiological activity on Hg<sup>0</sup> emission in uncontaminated terrestrial soils. 8th International Conference on Mercury as a Global Pollutant. August, 2006, Madison, WI, USA.
- 16. **Obrist D,** Conen F, Vogt R, Siegwoelf R, Alewell C. Quantification of net Hg<sup>0</sup> exchange in a subalpine grassland using micrometeorological methods. 3<sup>rd</sup> Swiss Geoscience Meeting, November, 2005, Zürich, Switzerland.
- Fritsche J, Obrist D, Alewell C. Effects of microbiological activity on Hg<sup>0</sup> emission in uncontaminated terrestrial soils. 3<sup>rd</sup> Swiss Geoscience Meeting, November, 2005, Zürich, Switzerland.

- 14. **Obrist D**. Measuring gaseous Hg<sup>0</sup> exchange between soils, plants, and the atmosphere Methods and Challenges. Invited Seminar: Ruprecht-Karls-University, Heidelberg, Institute of Applied Environmental Geochemistry, February, 2005, Heidelberg, Germany.
- 13. Obrist D, Conen F., Vogt R. Quantification of gaseous Hg<sup>0</sup> emissions using micrometeoro-logical methods. Symposium: Biosphere-Atmosphere Exchange Research in Switzerland, Swiss Academy of Sciences, August, 2004, Sarnen, Switzerland.
- 12. **Obrist D,** Gustin MS, Arnone JA, Johnson DW, Schorran DE, Verburg PS. Large annual Hg emissions over tallgrass prairie grasslands indicate vegetated terrestrial ecosystems to be sources of Hg to the atmosphere. RMZ Materials and Geoenvironment: Mercury as a Global Pollutant, 51.3, pp. 1688 1690.
- 11. **Obrist D,** Gustin MS, Arnone JA, Schorran DE, Verburg PSJ, Johnson DW. Hg exchange between grassland mesocosms and the atmosphere large net Hg emissions over tallgrass prairie. 7th International Conference on Mercury as a Global Pollutant, Ljubljana, Slovenia, June, 2004.
- 10. Gustin MS, Zehner R, Stamenkovic J, **Obrist D**. Experimental examination of the influence of precipitation and moisture content on mercury emissions from soils. 7th International Conference on Mercury as a Global Pollutant, Ljubljana, Slovenia, June, 2004.
- 9. **Obrist D,** Gustin MS, Arnone JA, Schorran DE, Verburg PSJ, Johnson DW. Large annual Hg emissions over Tallgrass Prairie grasslands indicate higher natural loading of Hg to the atmosphere than previously estimated. First Swiss Geosciences Meeting, Basel, Switzerland, November, 2003.
- 8. **Obrist D,** Gustin MS, Arnone JA, Schorran DE, Verburg PSJ, Johnson DW (2003). Vegetated terrestrial ecosystems are large sources of Hg to the atmosphere. American Geophysical Union Fall Meeting, Eos Trans. AGU, 84(46).
- 7. **Obrist D**, Arnone JA. Effects of wildfire-induced changes in plant community composition on ecosystem CO<sub>2</sub> and water vapor fluxes in the Great Basin. The Ecological Society of America, 87th Annual Meeting Tucson, AZ, 2002.
- 6. Verburg PS, Arnone JA, Evans D, LeRoux-Swarthout D, **Obrist D**, Johnson DW, Luo Y, Coleman JS. The potential of short-rotation cropping systems to sequester C. The Ecological Society of America, 87th Annual Meeting, Tucson, AZ, 2002.
- 5. Prater MR, **Obrist D**, Arnone JA, DeLucia EH. Post-fire effects on ecosystem gas exchange patterns in northern Great Basin communities. The Ecological Society of America, 87th Annual Meeting, Tucson, AZ, 2002.
- 4. Su B, Hui P, **Obrist D**, Arnone JA, Johnson D, Evans RD, Luo Y (2002). Canopy radiation- and water-use efficiencies of cheatgrass as affected by pulse and gradual N fertilization. The Ecological Society of America, 87th Annual Meeting, Tucson, AZ, 2002.
- 3. **Obrist D,** Arnone JA. A large daylight geodesic dome for quantification of wholeecosystem carbon dioxide and water vapor fluxes. American Geophysical Union Fall Meeting, Eos. Trans. AGU, 82(47), Abstract B42A-0107, 2001.
- 2. **Obrist D,** Arnone JA. Responses of creosote bush (*Larrea tridentata*) to patches of water and nitrogen under different atmospheric CO<sub>2</sub> concentrations. The Ecological Society of America, 85th Annual Meeting Snowbird, UT, 2000.

1. **Obrist D**, Arnone JA. Responses of two dominant Mojave Desert shrubs to patches of water and nitrogen. Great Basin Biological Research Conference Reno, NV, 1999.