

Curriculum Vita

Greg Michalski

Residence: 216 N 4th St., Lafayette, IN. 47901

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Education

1998	B.S. Environmental Chemistry, University of California, San Diego
1998-1999	Teaching Assistant, Department of Chemistry and Biochemistry University of California, San Diego
2001	M.S. Chemistry, University of California, San Diego
2003	Ph.D., Chemistry, University of California, San Diego

Positions held

2005- Present	Assistant Professor, Purdue University
2003-2005	Post Doctoral Research Chemist, University of California, San Diego
1998-2003	Research/Teaching assistant, University of California, San Diego
1998-1999	Teaching assistant, University of California, San Diego

Research Interests

Stable isotope geochemistry, Physical Chemistry of isotope fractionations, Paleoclimatology, Isotopes in Atmospheric Chemistry, Evolution of Planetary Atmospheres, Global Nitrogen, Sulfur and Carbon Cycling, Desert Paleosols as Paleoclimate Proxies,.

Publications

Michalski, G., J. G. Bockheim, C. Kendall, and M. Thiemens Isotopic Composition of Antarctic Dry Valley Nitrate: Implications for NO_y Sources and Cycling in Antarctica, *Geophysical Research Letters*, **32**, 2005. Art. No. L13817

Jost, R., G. Michalski, and M. Thiemens Comparison of rovibronic density of asymmetric versus symmetric NO₂ isotopologues at dissociation threshold: Broken symmetry effects, *Journal of Chemical Physics*, **123**, (2005)

Michalski, G., Jost, R., and Thiemens, M. "Dissociation Energy of 6 NO₂ Isotopologues using Jet-Cooled Laser Induced Fluorescence Spectra" *Journal of Chemical Physics*, **121**, 7153-7161, 2004.

Michalski, G., Bohlke, J.K., Thiemens, M. Long Term Atmospheric Deposition as the Source of Nitrate and Other Salts in the Atacama Desert, Chile: New Evidence

- from Mass-Independent Oxygen Isotopic Compositions, *Geochimica et Cosmochimica Acta.*, **68**, 4023-4038, 2004
- Michalski, G., Meixner, T., Fenn, M., Hernandez, L., Thiemens, M., Tracing Atmospheric Nitrate Deposition in a Complex Semiarid Ecosystem using $\Delta^{17}\text{O}$, *Environmental Science and Technology*, **38**, 2175-2181, 2004
- Michalski, G., Scott, Z, Kabling, M, and Thiemens, M. First Measurements and Modeling of $\Delta^{17}\text{O}$ in Atmospheric Nitrate. *Geophysical Research Letters*. **30**,10L.1029/2003GL017015, 2003
- Michalski, G., J. Savarino, J. K. Böhlke, and M. Thiemens, Determination of the total oxygen isotopic composition of nitrate and the calibration of a $\Delta^{17}\text{O}$ nitrate reference material, *Analytical Chemistry*, **74**, 4989-4993, 2002.
- Chang, C.E., Silva S.R., Kendall, K., Michalski, G., Casciotti, K.L., Wankel, S. Preparation and analysis of nitrogen-bearing compounds in water for stable isotope ratio measurement, Chapter 15 in *Handbook of Stable Isotope Analytical Techniques*, de Groot, P.A., Ed. 2004
- Bao, H., G. M. Michalski, and M. H. Thiemens, Sulfate oxygen-17 anomalies in desert varnishes, *Geochim.Cosmochim.Acta*, **65**, 2029-2036, 2001.
- Michalski, G. and M.Thiemens, Using $\Delta^{17}\text{O}$ as a conserved tracer of atmospheric nitrate (abstract), EOS, Trans., Am.Geophys.Union, 82, 2001.
- Michalski, G. M. and M. Thiemens, Mass-independent Fractionation in Nitrate Aerosols, *EOS, Trans., Am.Geophys.Union*, 81, 120, 2000.
- Doctoral Dissertation: University of California, San Diego, Department of Chemistry and Biochemistry**
- Isotopic Studies of Nitrate and Nitrogen Dioxide: Atmospheric and Biosphere N Cycling.*
- Invited Talks**
- Stable Isotope Constraints on N Deposition and Cycling in Lake Tahoe*, American Geophysical Union, 2004
- Nitrate $\Delta^{17}\text{O}$: Insights into the onset of hyperaridity in the Atacama Desert*, American Chemical Society, 2004,
- Measurements and Modeling of $\Delta^{17}\text{O}$ Variations in Atmospheric Nitrate*, American Geophysical Union, 2002

Conference Session Chair

Mass Independent Isotope Fractionations: New Frontiers in Isotope Biogeochemistry
American Geophysical Union, 2002. Session Organizer and Chair.

Honors

National Science Foundation Doctoral Enhancement Award, 2002

Teaching Interests

Chemistry, Geochemistry, Physical Chemistry, Biogeochemical cycles, Paleontology,
Isotope Geochemistry, Environmental Chemistry

Field Research Experience

R/V Atlantis, Woods Hole and Scripps Institute of Oceanography, Methane hydrate
research, Oregon coast, 1998.

R/V New Horizon, CalCOFI research leg, southern California Pacific bight; nutrient,
chlorophyll and salinity sampling, aerosol collection. 1999

Mojave Desert/ Death Valley, California. Soil and rock varnish collections, collaboration
with Prof. Huming Bao, Louisiana State University. 2000

McMurdo Dry Valleys, Victoria Land Antarctica. Soil survey. Collaboration with Prof.
Dave Marchant, Boston University and Prof. Huming Bao, LSU. 2002

Atacama Desert, Chile. Soil and salt collection. Collaboration with Prof. Jason Rech,
Miami University, Ohio. 2004

Lake Tahoe, California. Monthly water collection and analysis of isotopes in dissolved
nutrients. Collaboration with the Tahoe Research Group, University of California,
Davis., 2004

Undergraduate Research Mentoring

2000-2004 Summer Training Academy for Research in the Sciences (STARS).
<http://ogsr.ucsd.edu/stars/> One on one research mentoring with minority and female
science undergraduates interested in attending graduate school. One to two students each
summer.

2000-2004 Undergraduate Research, single quarter research for chemistry undergrads.
One on one mentoring and guidance in formal laboratory research 1-2 students per year.

2002-2004 California Alliance for Minority Participation in Science, Engineering and Mathematics Program (CAMP) One on one research mentoring with minority and female science undergraduates interested in attending graduate school. One student each summer.