

Megan Louise Melamed, Ph.D.

megan@igacproject.org
303.895.8273

MISSION STATEMENT	Using demonstrated excellence in scientific research coupled with international and policy experience to provide the knowledge required to respond to global environmental change and achieve a sustainable planet.
EXPERIENCE	<p>Executive Officer (2011 - Present) International Global Atmospheric Chemistry (IGAC) Project <i>University of Colorado, Boulder, CO</i></p> <ul style="list-style-type: none">• Leads and manages the IGAC International Project Office.• Works with an international scientific steering committee to determine the organizations priorities in coordinating and facilitating atmospheric chemistry research towards a sustainable world.• Engages the international atmospheric chemistry community to implement the priorities of the organization.• Provides scientific expertise by leading or contributing to major IGAC activities.• Successfully manages a \$900K grant from NSF, NOAA, and NASA that funds the IGAC International Project Office and also provides travel support to young and developing country scientists to attend workshops and conferences. <p>American Association for the Advancement of Science Policy Fellow (2009 - 2010) <i>U.S. Environmental Protection Agency, Washington, D.C.</i></p> <ul style="list-style-type: none">• Significantly contributed to an agency Report to Congress on black carbon and short-lived climate forcers.• Synthesized and analyzed literature on climate change and air quality to identify research needs of both the science and policy communities.• Engaged international science and policy communities in an initiative to bring transparency and accessibility to air pollution and greenhouse gases emissions data.• Briefed the Under Secretary of State for Diplomacy and Global Affairs on climate change in the Arctic. <p>National Science Foundation International Research Fellow (2007 - 2009) <i>Universidad Nacional Autónoma de México, Mexico City, Mexico</i></p> <ul style="list-style-type: none">• Identified key factors contributing to air quality issues in a developing megacity.• Using limited resources, successfully designed and deployed scientific instruments for permanent measurements of air pollutants in Mexico City.• Demonstrated ability to overcome language and cultural barriers in order to collaborate with colleagues, mentor graduate students, and communicate scientific results.• <i>Selected Scholar</i> for the Dissertation Initiative for the Advancement of Climate Change Research Symposium (DISCCRS) IV.
EDUCATION	<p>University of Colorado (2006) <i>Doctorate of Philosophy in Environmental Engineering, Advisor: Dr. Susan Solomon</i></p> <p>Colby College (2000) <i>Bachelor of Arts in Chemistry and Spanish, Cum Laude</i></p>
LEADERSHIP	<p>Scientific and Local Community Involvement</p> <ul style="list-style-type: none">• <i>Volunteer</i> at Denver Green School, Denver, CO (2012-Present)• <i>Volunteer</i> for Conservación Patagonica, Patagonia, Chile (2010)• <i>Member</i> of American Meteorological Society, American Geophysical (2008 - Present) Union, American and Association for the Advancement of Science• <i>Peer reviewer</i> for international scientific journals and grant programs (2006 - Present)
LANGUAGES	Fluent in English and Spanish

SELECTED PUBLICATIONS

- Abbatt, J., C. George, **M. Melamed**, P. Monks, S. Pandis, S., and Rudich, Y., (2013) New Directions: Fundamentals of atmospheric chemistry: Keeping a three-legged stool balanced. *Atmospheric Environment*, <http://dx.doi.org/10.1016/j.atmosenv.2013.10.025>.
- Zhu, T., **M.L. Melamed**, D. Parrish, M. Gauss, L. Gallardo Klenner, M. Lawrence, A. Konare, and C. Lioussse), (2012) WMO/IGAC Impacts of Megacities on Air Pollution and Climate, ISBN: 978-0-9882867-0-2, 309 pp.
- IGBP/IGAC (2012). Time To Act: The Opportunity to Simultaneously Mitigate Air Pollution and Climate Change. International Geosphere-Biosphere Programme (IGBP) and International Global Atmospheric Chemistry (IGAC) Project, 6pp.
- Frost, G.J., S.R. Falk, C. Granier, T. Keating, J.F. Lamarque, **Melamed, M.L.**, P. Middleton, G. Petron, S.J. Smith (2012), New Directions: Toward a Community Emissions Approach. *Atmospheric Environment*, doi: 10.1016/j.atmosenv.2012.01.055
- **Melamed, M.L.**, R. Basaldud, R. Steinbrecher, S. Emis, L.G. Ruíz-Suárez, and M. Grutter (2009), Detection of pollution transport events southeast of Mexico City using ground-based visible spectroscopy measurements of nitrogen dioxide. *Atmos. Chem. and Phys.*, 9, 4827-4840
- **Melamed, M.L.**, A.O. Langford, J. S. Daniel, R. W. Portmann, H. L. Miller, C. S. Eubank, R. Schofield, J. Holloway, and S. Solomon (2008), Sulfur dioxide emission flux measurements from point sources using airborne near ultraviolet spectroscopy during the New England Air Quality Study 2004, *J. Geophys. Res.*, 113, D02305, doi:10.1029/2007JD008923
- **Melamed, M.L.**, S. Solomon, J.S. Daniel, A.O. Langford, R.W. Portmann, T.B. Ryerson, D.K. Nicks Jr., and S.A. McKeen (2003), Measuring reactive nitrogen emissions from point sources using visible spectroscopy from aircraft. *J. Environ. Monit.*, 5(1), 29-34, doi: 10.1039/b204220g

SELECTED PRESENTATIONS

- **Invited** Analytical Chemistry, University of Colorado, Boulder, CO. *The Impact of Megacities on Air Pollution and Climate*. March 2013.
- **Invited** Center for Environmental Research, Education and Outreach, Washington State University, Pullman, WA. *Atmospheric Chemistry in Megacities*. November 2011
- World Climate Research Program Conference, Denver, CO. *Tackling the Air Pollution and Climate Change Challenge*. October 2011
- **Invited** Centro Nacional de Investigación y Capacitación Ambiental, Instituto Nacional de Ecología, Mexico City, Mexico. *El Cambio Climático: Qué Significa para la Contaminación del Aire?* November, 2009
- **Invited** Casa de la Universidad de California, University of California, Mexico City, Mexico. *An overview of air pollution in the Mexico City metropolitan area*. June, 2009
- **Invited** School of Engineering and Applied Sciences, Harvard University, Cambridge, MA. *A more comprehensive view of air pollution in the Mexico City metropolitan area using ground-based visible spectroscopy measurements of NO₂*. January 2009
- **Invited** ACCESS IX Colloquium; Big Sky, MT. *The differential optical absorption spectroscopy (DOAS) method: An overview and its application in urban air pollution studies*. August 2007