

CURRICULUM VITAE: Mike Bergin

Michael H. Bergin

Professor

Civil and Environmental Engineering and

Duke University

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I. Earned Degrees

PhD. Civil and Environmental Engineering

Carnegie Mellon University, received June 1995

Advisor: Dr. Cliff Davidson

Thesis Title: Measurement and Modeling of the Fluxes
of Chemical Species to the Greenland Ice Sheet

M.S. in Mechanical Engineering (M.S.M.E.)

University of Minnesota, Particle Technology Lab (PTL), received June 1991

Advisor: Dr. David Pui

Thesis Title: Laboratory and Field Measurements of the
Fractional Efficiency of Industrial Dust Collectors

B.S. in Mechanical Engineering (B.S.M.E.)

University of Minnesota, received June 1987

II. Employment

Professor (01/01/15-present)

Duke University, School of Civil and Environmental Engineering, Durham, NC

Professor (02/18/10-01/31/14)

Georgia Institute of Technology, School of Civil and Environmental Engineering and School of Earth and Atmospheric Sciences, Atlanta, GA

Associate Professor (8/04-02/18/10)

Georgia Institute of Technology, School of Civil and Environmental Engineering and School of Earth and Atmospheric Sciences, Atlanta, GA

Assistant Professor (1/99-8/04)

Georgia Institute of Technology, School of Civil and Environmental Engineering and School of Earth and Atmospheric Sciences, Atlanta, GA

Studying formation, transport, deposition and fate of atmospheric aerosols with emphasize on aerosol properties related to climate change, as well as teaching courses related to environmental engineering and the atmospheric sciences

Research Scientist (7/97-1/99)

University of Colorado Cooperative Inst. for Research in Environmental Sciences (CIRES), Boulder, CO

Studied relationship between aerosols and climate change with a focus on measurement and modeling of aerosol radiative properties as well as paleoclimate studies using ice core chemistry

Research Collaborator (7/95 – present)

Brookhaven National Laboratory, Environmental Chemistry Division, Upton, NY

Collaborating with researchers at Brookhaven National Laboratory relating to aerosols and climate change

DOE Global Change Distinguished Postdoctoral Fellow (7/95-7/97)

NOAA/Brookhaven National Laboratory, Boulder, CO

Researched relationship between aerosols and climate change, as well as conducted laboratory studies related to aerosol microphysical properties

Research Assistant/Teaching Assistant (9/91-7/95)

Carnegie Mellon University, Pittsburgh, PA

Conducted research involving transport, formation, and deposition of chemical species in the Arctic

Graduate Co-op Research Engineer (7/90-8/91)

IBM Corporation, Rochester, MN

Conducted research concerning generation and measurement of particles in disk drives as well as developed techniques to measure impurities in liquids

Teaching Assistant (3/90-6/90)

University of Minnesota, PTL, Minneapolis, MN

Graded and supervised the Junior Mechanical Engineering Laboratory

Mombusho (Japan Ministry of Education) Scholar (10/88-3/90)

Kyoto University, Kyoto, Japan

Studied the sizing of soot particles by laser heating as a graduate student in the Department of Mechanical Engineering

Research Assistant (6/87-10/88)

University of Minnesota, PTL, Minneapolis, MN

Designed laboratory and field tests to determine dust collector filtration efficiencies

Undergraduate Research Assistant (3/87-6/87)

University of Minnesota, PTL, Minneapolis, MN

Researched filter fractional efficiency measurement techniques

Engineering Intern (6/85-3/87)

Fluoroware, Inc., Chaska, MN

Tested semiconductor handling equipment physical properties and conducted research on particle generation and measurement in clean rooms

III. Teaching

A. Individual Student Advising

Postdoctoral Researchers

1. Dr. Christian Carrico (Postdoctoral Research Scientist) : Sept. 1999 –Dec. 2001; Radiative forcing of climate by aerosols. Currently a Research Scientist with a joint appointment at Colorado State University and the National Park Service.
2. Dr. Jaidevi Jeyaraman (Postdoctoral Scientist): June 2012 – Present; Light absorbing aerosols and their impact on climate as well as the influence of particulate matter on human health.

Graduate Students

PhD Students Graduated

1. Jin Xu (CEE; Received PhD 05/03): Jan. 1999 - May 2003; Impacts of aerosols on climate and crops in China. Currently an Air Quality Engineer at the California Air Resources Board (CARB).
2. Roby Greenwald (CEE; Received PhD 06/03): Sept. 1999 - June 2003; Influence of aerosols on photosynthetic production by plants, and size-resolved measurements of water insoluble aerosol particles. Currently an Assistant Research Professor at the Emory University Rollins School of Public Health.
3. Jeral Estupinan (EAS; Received PhD 06/06): Jan. 1999- July 2006; Influence of aerosols on ultraviolet radiation. Science and Operations Officer for the National Weather Service.
4. Gayle Willis (CEE; Received PhD 07/07): June 01-July 07; Air quality in the Pearl river delta region of China and organic and elemental carbon in Greenland snow and air. Currently a Research Scientist at the Environmental Protection Agency.
5. Boris Galvis (CEE; Received PhD 06/13): Aug. 2008 – June 2013; Influence of railyard emissions on urban air quality. Professor at Universidad de la Salle, Bogota, Columbia.

PhD Students in progress

1. Karoline Johnson (CEE): August 2013 - current: Development and application of low cost air quality sensors
2. Heidi Vreeland (CEE): December 2013-present: Particulate oxygen species impact on human health

MS Students Graduated

1. Jin Xu (CEE; Received MS 05/01): Aerosol radiative forcing over China. Currently an Air Quality Engineer at the California Air Resources Board (CARB).
2. Roby Greenwald (CEE; Received MS 05/01): Development of a novel technique to measure water insoluble atmospheric aerosol. Currently an Assistant Research Professor at the Emory University Rollins School of Public Health.
3. Karari Hanks (EAS; Received MS 06/03): Deposition of organic aerosols to Summit, Greenland. Currently a middle school teacher.
4. Gayle Willis (CEE; Received MS 05/03): Particulate matter in the PRD region of China. Currently a Research Scientist at the Environmental Protection Agency.
5. Stephanie Kwan (CEE; received MS 07/07): Cleaning up the air in Shanghai. Currently a Climate Change Officer at Sindicatum Carbon Capital
6. Mark Papier (EAS; received MS 06/08): Real-time measurements of on-road concentrations of fine particulate matter. Currently a Meteorologist at The Weather Channel.
7. Colin Boswell (CEE; Received MS 06/10): Measuring in-vehicle exposure to air pollutants in Atlanta
8. Eva Land (CEE; Received MS 06/10): Influence of heterogeneous surface chemistry on ambient air quality.
9. Kyle Manning (CEE; Received MS 07/11): Aerosol Commuter Exposure (ACE) Study in Atlanta
10. Brandon Strellis (CEE; Received MS 06/13); Radiative forcing by light absorbing aerosols over Greenland.
11. Chris Forehand (CEE): January, 2012 – August 2014; Human exposure to on-road pollutant emissions

12. Michael McKenzie (CEE): January 2013- Dec. 2015; The influence of reactive oxidation species in particulate matter on human health.
13. Jason Hu (CEE): August 2013 – May 2015; The influence of light absorbing particles on the melting of the Greenland Ice Sheet.
14. Karoline Johnson (CEE): August 2013 – May 2015; Low-cost sensors for air quality measurements.
15. Heidi Vreeland (CEE): August 2013 – May 2015; Influence of aerosol chemical composition on toxicity.

MS Students in Progress

1. Currently none.

Undergraduate Students

1. Alan Guo (ECE undergraduate student): Nov. 2015-present, Low cost sensors
2. Jaya Pokuri (BME undergraduate student): Nov. 2015-present, Low cost sensors
3. Lucy Zhang (ECE undergraduate student): Nov. 2015-present, Low cost sensors
4. Melissa French (BME undergraduate student): Nov. 2015-present, Low cost sensors
5. Josh Drawbaugh (BME undergraduate student): Jan. 2016-present, Low cost sensors
6. Vera Xu (ECE undergraduate student): Jan. 2016-present, Low cost sensors
7. Serena Xu (ECE undergraduate student): Jan. 2016-present, Low cost sensors
8. Morgan Ringel (ECE undergraduate student): Jan. 2016-present, Low cost sensors
9. Francesca Metcalf (CEE undergraduate student): August 2014-Dec. 2014, Low cost sensors
10. Heidi Vreeland (CEE undergraduate student): August 2013-Dec. 2013, Analysis of organic carbon PM
11. Jean Mullaney (CEE undergraduate student): June 13-August 13; Air quality sensor evaluation
12. Jason Hu (CEE undergraduate student): January 2013-June 2013; Mobile air quality sensors
13. Elizabeth Kornegay (CEE undergraduate student): January 2013-June 2013; Mobile air quality sensors
14. John-Paul Vigil (CEE undergraduate student): January 2012-June 2013; Particulate Carbon Analysis
15. Jamie VanTassell (CEE undergraduate student): June – August, 2012; Black carbon light absorption
16. Chris Forehand (CEE undergraduate student): August 2011-January 2012; Water soluble carbon
17. Michael McKenzie (CEE undergraduate student): August 2011-January 2013; Rail yard pollutant emissions
18. Kevin Olson (CEE undergraduate student): August 2011-May 2012; Light absorbing aerosol measurement
19. Katie Winder (CEE undergraduate student): August 2008-Jan. 2009; Surface heterogeneous reactions
20. Kyle Manning (CEE undergraduate student): August 2008-Jan. 2009; Measuring ambient soot
21. Mario Ramirez (CEE undergraduate student): January 2008-June 2008; Indoor air quality
22. Nicole Sullivan (CEE undergraduate student): January 2008-June 2008; Soot in rivers

B. Teaching Activities

Courses

- CEE 690: Air Pollution Engineering (Fall 15, Fall 16)
 CEE 692: International Applications of Environmental Field Methods (Spring 16)
 CEE 2300: Env. Eng. Principles (Fall 07, Spring 09, Spring 11, Spring 12, Spring 13)
 CEE 6319: Environmental Laboratory (Spring 03, Spring 06)
 EAS 4803/8803: Experimental Methods in Air Quality (Spring 04, Spring 05, Spring 08, Spring 10, Spring 12)
 CEE 4803: Environmental Eng. Principles (Fall 02, Spring 03, Summer 03, Fall 03, Spring 05, Spring 06, Fall 07)
 EAS 6111: The Earth System (Fall 01)
 CEE 4330: Air Pollution Engineering (Fall 00 - Fall 14)

EAS 4610 / EAS8803: Earth System Modeling (Spring 00, Spring 01, Spring 02)
 CEE 8095: Environmental Engineering Seminar (Fall 99-Fall 11)
 CEE 6791/ EAS 6790: Air Pollution Physics and Chemistry (Fall 99)
 CEE 6391: Advanced Topics in Air Pollution (Fall 99, Spring 00, Fall 00, Spring 01, Fall 01, Spring 02)

Curriculum Development

CEE 692: International Applications of Environmental Field Methods, Developed and taught course
 CEE 2300: Environmental Engineering Principles- Co-developed and taught course
 EAS 4803/8803: Experimental Methods in Air Quality- Co-developed and taught new course
 CEE 4803: Engineering and the Environment – Co-developed and taught new course
 CEE 4330: Air Pollution Engineering – Developed and taught new undergraduate course
 EAS 6111: The Earth System – Completely revised existing graduate course and taught new version

Other Teaching Activities

European Research Course on Atmospheres (ERCA): Developed a series of graduate level lectures related to the influence of atmospheric aerosols on the radiation balance of the Earth which are given each year over a several day period in Grenoble, France. The lectures are part of a month-long course that features world-leading experts giving seminars related to the atmospheric sciences to graduate students from throughout Europe.

Alpine Summer School; Climate, Aerosols and the Cryosphere: Co-organized (with Paolo Laj, and Christina Facchini) the course including the agenda, speakers, and activities. Also gave lectures on the influence of black carbon on the radiation balance of the Arctic and climate.

IV. Scholarly Accomplishments

A. Book Chapters and Other Publications

1. C.M. Carmagnola, F. Domine, M. Dumont, P. Wright, M. Bergin, J. Dibb, L. Arnaud, G. Picard, N. Champollion, S. Morin, Ricerche sulla neve in Groenlandia: misure e risultati della campagna alla base Summit, Nimbus (Journal of the Italian Meteorological Society), Vol. 63-64, 6-14, 2012.
2. Bergin, M.H., Aerosol Radiative Properties and Their Impacts, in *From Weather Forecasting to Exploring the Solar System* (Ed. C. Boutron), EDP Sciences, France, 51-65, 2000.
3. Bergin, M.H., Radiative Forcing by Anthropogenic Aerosols in China: Sources and Impacts, in *Urbanization, Energy, and Clean Air*, National Academies Press, 155-170, 2004.

B. Refereed Publications (Google h-index = 38, total citations = 4290)

1. Vreeland, H., Bergin, M.H., Russell, A.G., Schauer, J.J., Marshall, J., Akihiro, F., Jain, G., Karthik, S., Villalobos, A., Tripathi, S.N., Chemical characterization and toxicity of particulate matter from roadside trash combustion in urban India, *Env. Sci. Technol.*, in review, 2016.
2. Johnson, K.K., Bergin, M.H., Russell, A.G., Hagler, G.S.W., Using low-cost sensors to measure ambient particulate matter concentrations and on-road emissions factors, *Atmos. Meas. Techniq.*, in review, 2016.
3. Strellis, B.M., Bergin, M.H., Dibb, J.E., Sokolik, I., Sheridan, P., Ogren, J.A., Wright, P., Carmagnola, C., Hu, J., Domine, F., Direct aerosol radiative forcing over central Greenland: The influences of light-absorbing aerosols and snow albedo variability, *Geophys. Res. Lett.*, in review, 2016.
4. Lal, R., Nagpure, A., Luo, L., Tripathi, S.N., Ramaswami, A., Bergin, M.H., Russell, A., Municipal solid waste burning: Discoloring the Taj Mahal and human health impacts in Agra, *Env. Res. Lett.*, in press, 2016.

5. Jai Devi, J., Bergin, M.H., McKenzie, M., Schauer, J.J., Weber, R.J., The contributions of particulate brown carbon to light absorption in the rural and urban SE US: A volatility based approach, *Atmos. Env.*, in review, 2016.
6. Polashenski, C.M., Dibb, J.E., Flanner, M.G., Chen, J.Y., Courville, Z.R., Lai, A.M., Schauer, J.J., Shafer, M., Bergin, M.H., Neither dust nor black carbon causing apparent albedo decline in Greenland's dry snow zone: implications for MODIS C5 surface reflectance, *Geophys. Res. Lett.*, 42, 21, 9319-9327, 2015.
7. Galvis, B., Bergin, M.H., Boylan, J., Huang, Y., Bergin, M., Russell, A.G., Air quality impacts and health-benefit valuation of low-emission technology for rail yard locomotives in Atlanta Georgia, *Sci. Tot. Env.*, 533, 156-164.
8. Utall et al., International arctic systems for observing the Atmosphere (IASOA): An international polar year legacy consortium, *Bull. Am. Met. Soc.*, 2015.
9. Shamjad, P.M., Tripathi, S.N., Pathak, R., Hallquist, M., Arola, A., Bergin, M.H., Contribution of brown carbon to direct radiative forcing over the Indo-Gangetic plain, *Env. Sci. Technol.*, 49, 17, 10474-10481, 2015.
10. Olson, M.R., Garcia, M.V., Robinson, M.A., Rooy, P.V., Diitenberger, M.A., Bergin, M.H., Schauer, J.J., Investigation of black and brown carbon multiple wavelength dependent light absorption from biomass and fossil fuel combustion source emissions, *J. Geophys. Res.*, 10.1002/2014JD022970, 2015.
11. Guo, H., Xu, L., Bougiatitoli, A., Cerrully, K.M., Capps, S.L., Hite, J.R., Carlton, A.G., Lee, S.H., Bergin, M.M., Ng, S.L., Nenes, A., Weber, R.J., Fine-particle water and pH in the southeastern United States, *Atmos. Chem. Phys.*, 15, 5211-5228, 2015.
12. Liu, J., Scheuer, E., Dibb, J.E., Diskin, G.S., Ziemba, L.D., Thornhill, K.L., Andersen, B.E., Wisthaler, A., Mikoviny, T., Devi, J.J., Bergin, M.H., Perring, A.E., Markovic, M.Z., Schwarz, J.P., Campuzano-Jost, P., Day, D.A., Jiminez, J.L., Weber, R.J., Brown carbon aerosol in the north American continental troposphere: sources, abundance and radiative forcing, *Atmos. Chem. Phys. Disc.*, 15, 5959-6007, 2015.
13. Jayapalan, A.R., Lee, B.Y., Land, E., Bergin, M., Kurtis, K.E., Photocatalytic efficiency of cement-based materials: Demonstration of proposed test method, *ACI Materials Journal*, 112, 2, 219-228, 2015.
14. Villalobos, A.M., Amonov, M.O., Shafer, M.M., JaeDevi, J., Gupta, T., Tripathi, S.N., Rana, K.S., Mckenzie, M., Bergin, M.H., Schauer, J.J., Source apportionment of carbonaceous fine particulate matter (PM_{2.5}) in two contrasting cities across the Indo-Gangetic Plain, *Atmos. Poll. Res.*, 6, 398-405, 2015.
15. Bergin, M.H., Tripathi, S.N., JaiDevi, J., Gupta, T., Mckenzie, M., Rana, K.S., Shafer, M.M., Villalobos, A.M., Schauer, J.J., The discoloration of the Taj Mahal due to particulate carbon and dust deposition, *Env. Sci. Tech.*, 49, 2, 808-812, 2014.
16. Sarnat, J.A., Golan, R., Greenwald, R., Raysoni, A.U., Kewada, P., Winqvist, A., Sarnat, S.E., Flanders, W.D., Mirabelli, M.C., Zora, J.E., Bergin, M.H., Yip, F., Exposure to traffic pollution, acute inflammation and autonomous response in a panel, *Env. Res.*, 133, 66-76., 2014.
17. Lee, B.Y., Jayapalan, A.R., Bergin, M.H., Kurtis, K.E., Photocatalytic cement exposed to nitrogen oxides: Effect of oxidation and binding, *Cem. and Conc. Res.*, 60, 30-36, 2014.
18. Wright, P., Bergin, M., Dibb, J.E., Lefer, B., Domine, F., Carman, T., Carmagnola, C., Dumont, M., Schaaf, C., Wang, Z., Courville, Z., Comparing MODIS daily snow albedo to spectral albedo field measurements in Central Greenland, *Remote Sens. Environ.*, 140, 118-129, 2014.
19. Westafer, R.S., Levitan, G., Hess, D.W., Bergin, M.H., Hunt, W.D., Detection of ppb ozone using a dispersive surface acoustic wave reflective delay line with integrated reference signal, *Sens. Actuat. B*, 192, 406-413, 2014.
20. Liu, J., Scheuer, E., Dibb, J.E., Ziemba, L.D., Thornhill, K.L., Andersen, B.E., Wisthaler, A., Milkoviny, T., Jai Devi, J., Bergin, M.H., Weber, R.J., Brown carbon in the continental free troposphere, *Geophys. Res. Lett.*, DOI: 10.1002/2013GL058976, 2014.
21. Greenwald, R., Bergin, M.H., Yip, F., Boehmer, T., Kewada, P., Shafer, M.M., Schauer, J.J., Sarnat, J.A., On-roadway in-cabin exposure to particulate matter: measurement results using both continuous and time-integrated sampling approaches, *Aerosol Sci. Tech.*, 48, 6, 664-675, 2014.

22. Balachandran, S., Pachon, J.E., Lee, S., Oakes, M., Rastogi, N., Shi, W., Tagaris, E., Yan, B., Davis, A., Zhang, X., Weber, R.J., Mulholland, J., Bergin, M., Zheng, M., Russell, A.G., Particulate and gas sampling of prescribed fires in south Georgia, USA. *Atmos. Environ.*, 81, 125-135, 2013.
23. Liu, J., Bergin, M., Guo, H., King, L., Kotra, N., Edgerton, E., Weber, R.J., Size-resolved measurements of brown carbon and estimates of their contribution to ambient fine particle light absorption based on water and methanol abstracts, *Atmos. Chem. Phys. Disc.*, 13(7), 18233-18276, 2013.
24. Galvis, B., Bergin, M., Russell, A.G., Fuel-based fine particulate and black carbon emissions factors from a railyard area in Atlanta, *J. Air and Waste Manag. Assoc.*, 63(6), 648-658, 2013.
25. Carmagnola, C.M., Domine, F., Dumont, M., Wright, P., Strellis, B., Bergin, M., Dibb, J., Picard, G., Morin, S., Snow spectral albedo at Summit, Greenland: Comparison between in situ measurements and numerical simulations using measured physical and chemical properties of the snowpack, *Cryosphere*, 7(4), 1139-1160, 2013.
26. Deleon-Rodriguez, N., Lathem, T., Rodriguez, L.M., Adersen, B.E., Beyersdorf, A.J., Ziemba, L.D., Bergin, M., Nenes, N., Kontantinidis, K.T., The microbiome of the upper troposphere: Species composition and prevalence, effects of tropical storms, and atmospheric implications, *Proc. Nat. Acad. Sci.*, pnas.1212089110, 2013.
27. Von Schneidmesser, E., Schauer, J.J., Shafer, M., Bergin, M.H., Measurement of loss rates of organic compounds in snow using in-situ experiments and isotopically labeled compounds, *Polar Research*, 31, 2012.
28. Cheng, Y., He, K.B., Zheng, M., Duan, F.K., Du, Z.Y., Ma, Y.L., Tan, J.H., Yang, F.M., Liu, J.M., Zhang, X.L., Weber, R.J., Bergin, M.H., Russell, A.G., Mass absorption efficiency of elemental carbon and water soluble organic carbon in Beijing, China, *Atmos. Chem. Phys.*, 11, 11497-11510, 2011.
29. Zheng, M., Wang, F., Hagler, G.S.W., Hou, X.M., Bergin, M., Cheng, Y.A., Salmon, L.G., Schauer, J.J., Louie, P.K.K., Zeng, L.M., Zhang, Y.H., Sources of Excess Urban Carbonaceous Aerosol in the Pearl River Delta Region of China, *Atmos. Environ.*, 45, 5, 1175-1182, 2011.
30. Kragie, S.X., Ryan, P.B., Bergin, M.H., Wang, S., Airborne Trace Metals From Coal Combustion in Beijing, *Air. Qual and Atmos. Health*, DOI: 10.1007/s11869-011-0157-0, 2011.
31. Marcq, S., Laj, P., Roger, J.C., Villani, P., Sellegri, K., Bonasoni, P., Marinoni, A., Cristofanelli, P., Verza, G.P., Bergin, M., Aerosol Optical Properties and Radiative Forcing in the High Himalaya Based on Measurements at the Nepal Climate Observatory-Pyramid site (5079 m a.s.l.), *Atmos. Chem Phys.*, 10, 13, 5859-5872, 2010.
32. von Schneidmesser, E., Schauer, J.J., Hagler, G.S.W., Bergin, M.H., Concentrations and sources of carbonaceous aerosol in the atmosphere of Summit, Greenland, *Atmos. Environ.*, 43, 27, 4155-4162, 2009.
33. Ruhl, L., Vengosh, A., Dwyer, G.S., Hsu-Kim, H., Deonarine, A., Bergin, M., Kravchenko, J., A survey of the potential environmental and health impacts in the immediate vicinity of the coal ash spill in Kingston, Tennessee, *Environ. Sci. Technol.*, 43, 27, 6326-6333, 2009.
34. Hennigan, C.J., Bergin, M.H., Russell, A.G., Nenes, A., Weber, R.J., Gas/particle partitioning of water-soluble organic aerosol in Atlanta, *Atmos. Chem. Phys.*, 3613-3628, 2009
35. Hennigan, C.J., Bergin, M.H., Weber, R.J., Correlations between water-soluble organic aerosol and water vapor: A synergistic effect from biogenic emissions?, *Environ. Sci. Technol.*, 42, 24, 2008.
36. von Schneidmesser, E., Schauer, J.J., Shafer, M.M., Hagler, G.S.W., Bergin, M.H., A method for the analysis of ultra-trace levels of semi-volatile and non-volatile organic compounds in snow and application to a Greenland snow pit, *Polar Sci.*, 151-156, 2008.
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38. Anderson, C., Dibb, J.E., Griffin, R.J., Bergin, M.H., Simultaneous measurements of particulate and gas-phase water soluble organic carbon concentrations at remote and urban-influenced locations, *Geophys. Res. Lett.*, 35, L13706, 2008.
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41. Hagler, G.S.W., Bergin M.H., Smith, E., Dibb, J.E., A summer time series of particulate carbon in the air and snow at Summit, Greenland, *J. Geophys. Res.*, 112, D21309, 2007.
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51. Greenwald, R., Bergin, M.H., Xu, J., Cohan, D., Hoogenboom, G., Chameides, W.L., The influence of aerosols on crop production: A study using the CERES crop model, *Ag. Systems*, 89, 390-413, 2006.
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55. Xu, J., Bergin, M.H., Greenwald, R., Schauer, J.J., Shafer, M., Jaffrezo, J.L., Aymoz, G., Aerosol chemical, physical, and radiative properties near a desert source region of northwest China during Ace-Asia, *J. Geophys. Res.*, 109, D19SO3, 2004.
56. Carrico, C.M., Bergin, M.H., Shrestha, A.B., Dibb, J.E., Gomes, L., Harris, J.M., The importance of carbon and desert dust to seasonal aerosol properties in the Nepal Himalaya, *Atmos. Environ.*, (37), 2811-2824, 2003.
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C. Presentations

Recent Invited Seminars/Lectures

1. Duke University, Duke-IITGN-RTI Collaborations, 06/16/16 (presentation)
2. State Department, Health Impact on Air Pollution Analytic Exchange, 05/11/16 (presentation)
3. North Carolina State University, Civil Engineering Department, 02/19/16 (presentation)
4. Duke Global Health Institute, Duke University, 02/16 (presentation)
5. IIT Gandhinagar, Duke-RTI-USAID Meeting, Gandhinagar, India, 01/07/16 (presentation)
6. Tehran University, Departmental Seminar, Tehran, Iran, 01/15 (presentation)
7. 3rd Iranian National Conference on Air and Noise Pollution Management (AQM2015), Tehran, Iran, 01/15 (presentation)
8. Universite Joseph Fourier, European Research Course on Atmospheres (ERCA), Grenoble, France, 01/15 (graduate course lectures)
9. Universidad Mayor de San Andres, Departmental Seminar, Lapaz, Bolivia, 03/15 (presentation).
10. Appalachian State University, Chemistry Department, Seminar 04/15 (presentation)
11. US EPA, Lunch Time Seminar, RTP, NC, 04/15 (presentation)
12. Scientific Advisory Panel of the Climate and Clean Air Coalition (CCAC) to Reduce Short-Lived Climate Pollutants, Geneva, Switzerland, 05/15 (presentation)
13. Universidad Mayor de San Andres, Latin American Aerosol Measurement School, La Paz, Bolivia, 06/15 (presentation)

14. University of North Carolina at Chapel Hill, Air Quality Seminar speaker, Chapel Hill, N.C., 09/11/15 (presentation)
15. Tsinghua University, Duke-Tsinghua Collaboration Day, Beijing, China, 10/13/15 (presentation)
16. US National Academy of Sciences-Les Treilles Foundation, Workshop on Climate Change, Nice, France, 10/17/15 (presentation)
17. NSF-USAID Workshop, INDO-US Collaborative Workshop on Air-Water-Climate Connections, Kanpur, India, 10/25/15 (presentation)
18. EPA National Ambient Air Quality Conference, Atlanta, GA, 08/11/14 (presentation)
19. EPA, Next Generation Air Monitoring Workshop, RTP, NC, 06/09/14 (presentation)
20. EPA Region 4, Next Generation Air Monitoring Workshop (NGAM), 03/13 (presentation)
21. Duke University, WISeNet Seminar, 03/13 (presentation)
22. Moscow Academy of Sciences, Moscow, Black Carbon Workshop, 10/16, 2012 (presentation)
23. Indian Institute of Technology, Kanpur, India, Civil and Environmental Engineering Department, 02/12 (departmental seminar).
24. Alpine Summer School, Valsavaranche, Italy, 06/12 (tutorial lectures)
25. Sustainable Cities Workshop, Estes Park, Colorado, 08/12 (presentation)
26. EPA Next Generation Air Monitoring Workshop, RTP, NC, 11/12 (presentation)
27. Kuwait University, Kuwait City, Kuwait, 01/12 (departmental seminar)
28. Indian Institute of Technology, Kanpur, Civil Engineering Department, Seminar 02/12 (departmental seminar)
29. Appalachian State University, Chemistry Department, Seminar 04/11 (presentation)
30. Indian Institute of Technology, Kanpur, Civil Engineering Department, Seminar 03/11 (presentation)
31. Duke University, Center of Environmental Implications of Nanotechnology Seminar, 03/09 (presentation)
32. Yale University, Department of Chemical Engineering Seminar Series, 04/09 (presentation)
33. Fine Particulate Matter in Mega-Regions: Impacts and Sources, Singapore, 05/08 (presentation)
34. Measuring Particulate Matter and its Impacts, Symposium on Air Quality, Bogota, Columbia, 10/07 (presentation)
35. Air Quality and the Asian Monsoon, National Academy of Sciences Frontiers of Science Symposium, Irvine, CA, 1/07 (presentation)
36. Virginia Tech, Civil and Env. Engineering, Blacksburg, VA, 10/05 (presentation)
37. Strategic Approaches to Air Quality Management in China, Joint US and China EPA Meeting, Beijing, China, 10/05 (presentation)
38. University of New Hampshire, Env. Science Seminar Series, Durham, NH, 03/04 (presentation)
39. Auburn University, School of Forestry and Wildlife Sciences, Auburn, Alabama, 03/04 (presentation)
40. Shanghai Environmental Monitoring Center, Shanghai, China, 06/04 (presentation)
41. Emory University, Department of Environmental Studies, Atlanta, GA ,04/03 (presentation)
42. Universite Joseph Fourier, European Research Course on Atmospheres (ERCA), Grenoble, France, 01/03 (several graduate course lectures)
43. University of Hawaii, Air Pollution as a Climate Forcing: A Workshop, Honolulu, Hawaii, 04/02 (presentation)
44. Universite Joseph Fourier, European Research Course on Atmospheres (ERCA), Grenoble, France, 01/02 (several graduate course lectures)
45. International Global Atmospheric Chemistry Program, IGAC, Stockholm, 01/02 (presentation)
46. Hong Kong Environmental Protection Division, EPD, Hong Kong, 12/01 (presentation)
47. Hong Kong Air and Waste Management Association , AWMA, Hong Kong, 12/01 (presentation)
48. Civic Exchange of Hong Kong, Hong Kong, 9/01 (presentation)
49. China-MAP Science Team Meeting, Guangzhou, China, 09/01 (presentation)
50. Beijing University, Beijing China, 5/01 (presentation)
51. Universite Joseph Fourier, European Research Course on Atmospheres (ERCA), Grenoble, France, 1/01 (several graduate course lectures)
52. Carleton College, Department of Chemistry, Northfield, MN, 5/00 (departmental seminar)

53. Clemson University, Department of Environmental Engineering and Science, 3/00 (departmental seminar)
54. EPA Atlanta SuperSite data analysis workshop, 3/00 (presentation)
55. Universite Joseph Fourier, European Research Course on Atmospheres (ERCA), Grenoble, France, 1/99 (several graduate course lectures)
56. Beijing Environmental Protection Bureau (EPB), Beijing, China, 6/99 (seminar)
57. University of New Hampshire, Institute for the Study of Earth, Oceans and Space, Durham, NH, 3/98 (departmental seminar and graduate course lectures)
58. Colorado State University, Department of Atmospheric Sciences, Fort Collins, CO, 2/98 (departmental seminar)
59. Georgia Institute of Technology, Department of Earth and Atmospheric Sciences, Atlanta, GA, 1/98 (departmental seminar)
60. University of Chicago, Department of Geophysical Sciences, Chicago, IL, 1/98 (departmental seminar)
61. Princeton University, Department of Chemical Engineering, Princeton, NJ, 12/97 (graduate course lecture)
62. NOAA Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ, 12/97 (departmental seminar)
63. Illinois Institute of Technology, Department of Chemical and Environmental Engineering, Chicago, IL, 11/97 (departmental seminar)
64. Brookhaven National Laboratory, Environmental Chemistry Division, Long Island, NY, 10/97 (departmental seminar)

Conference Proceedings/Presentations

1. Johnson, K., Bergin, M.H., Russell, A.G., Moutinho, J.L., Sarnat, J., Liang, D., Greenwald, R., Abrams, J., Golan, R., Air Quality Sensors Applications for Emissions Factors and Health Studies, American Association of Aerosol Research (AAAR) Annual Meeting, Mpls., MN, 10/12/15 (Abstract and presentation by K. Johnson)
2. Vreeland, H., Bergin, M.H., Russell, A.G., Schauer, J.J., Marshall, J., Akihiro, F., Jain, G., Karthik, S., Villalobos, A., Tripathi, S.N., Chemical characterization and toxicity of particulate matter from roadside trash combustion in urban India, American Association of Aerosol Research (AAAR) Annual Meeting, Mpls., MN, 10/12/15 (Abstract and presentation by H. Vreeland)
3. Deleon-Rodriguez, N., Bougiatioti, A., Mathew, N., Negro-Marty, A., Purdue, S., Waters, S., Bergin, M.H., Konstantinidis, K., Hygroscopicity and Cloud Condensation Nuclei Activity of Bacterial Cells, American Association of Aerosol Research (AAAR) Annual Meeting, Mpls., MN, 10/12/15 (Abstract and presentation by N. Deleon-Rodriguez)
4. Negro-Marty, A., Deleon-Rodriguez, N., Waters, S., Ziemba, L., Andersen, B., Bergin, M.H., Konstantinidis, K., Nenes, A., The Effect of the Atlanta Urban Meteorological Variability in the Abundance and Behavior of Bioaerosols: A Fluorescence and Molecular Biology Approach, American Association of Aerosol Research (AAAR) Annual Meeting, Mpls., MN, 10/12/15 (Abstract and presentation by A. Negro-Marty)
5. Ogren, J.A., Schmeisser, L., Sharma, S., Asmi, E., Bergin, M.H., Jefferson, A., Andrews, E., Tunved, P., Backman, J., Starkweather, S., Climatology and characteristics of in-situ aerosol optical properties in the Arctic, American Geophysical Fall Meeting, San Francisco, 10/15/15 (Abstract and presentation by J.A. Ogren)
6. Ward, J., Flanner, M.J., Bergin, M.H., Courville, J., Dibb, J.E., Polashenski, C., Soja, A., Strellis, B., Modeling Greenland's climate response to the presence of biomass burning aerosols in the atmosphere and snow, American Geophysical Fall Meeting, San Francisco, 10/16/15 (Abstract and poster by J. Ward)
7. Polashenski, C.M., Dibb, J.E., Flanner, M.G., Chen, J.Y., Courville, Z.R., Lai, A.M., Schauer, J.J., Shafer, M., Bergin, M.H., Neither dust nor black carbon causing apparent albedo decline in Greenland's dry snow zone: implications for MODIS C5 surface reflectance, American Geophysical Fall Meeting, San Francisco, 10/16/15 (Abstract and presentation by C.M. Polashenski)

8. Hagler, G., Brantley, H., Galvis, B., Herndon, S., Russell, A.G., Bergin, M.H., Massoli, P., Fortner, E., Franklin, J., Xu, L., Ng, N.G., Atlanta rail yard study (ARYS): Evaluation of local-scale air pollution trends and emissions quantification using stationary and mobile monitoring strategies, *AAAR 23rd Annual Conference*, October, 2014 (Abstract and presentation by G. Hagler).
9. N. Deleon-Rodriguez, A. Bougiatioti, N. Mathew, A. Negron-Marty, M.H. Bergin, K. Konstantinidis, A. Nenes, Hydrophilicity and CCN activity of atmospheric bacteria isolates and implications for cloud formation, *AAAR 23rd Annual Conference*, October, 2014 (Abstract and presentation by N. Deleon-Rodriguez).
10. Johnson, K., M.H. Bergin, A.G. Russell, G. Hagler, Measuring PM and related air pollutants using low-cost sensors, *AAAR 23rd Annual Conference*, October, 2014 (Abstract and presentation by K. Johnson).
11. Guo, H., L. Xu, K. Cerully, A. Bougiatioti, S. Capps, A. Carlton, S. Lee, N. L. Ng, M.H. Bergin, A. Nenes, R. Weber, Particle water and pH in the Southeastern US, *AAAR 23rd Annual Conference*, October, 2014 (Abstract and presentation by H. Guo).
12. Weber, R.J., J. Liu, J.E. Dibb, E.M. Scheuer, B.E. Anderson, L.D. Ziemba, K.L. Thornhill, M.H. Bergin, H. Forrister, A. Nenes, Brown carbon in the continental troposphere: sources, evolution and radiative impacts, *AGU Annual Fall Meeting*, San Francisco, December, 2014 (Abstract and presentation by R.J. Weber).
13. Courville, Z., C. Polashenski, F. Domine, M.H. Bergin, J. Chen, L. Farnsworth, C. Stwertka, M.C. Stewart, J.E. Dibb, AGE 2014: Grain size variability across the Sunlight Absorption on the Greenland ice sheet Experiment (SAGE) traverse route, *AGU Annual Fall Meeting*, San Francisco, December, 2014 (Abstract and presentation by Z. Courville).
14. Hu, J., M.H. Bergin, J.E. Dibb, P.J. Sheridan, J.A. Ogren, Annual Patterns and Sources of Light-Absorbing Aerosols over Central Greenland, *AGU Annual Fall Meeting*, San Francisco, December, 2014 (Abstract and poster by J. Hu).
15. Johnson, K., Bergin, M., Russell, A., Hagler, G., Low cost sensors for PM and related air pollutants in the US and India, *EPA Next Generation Air Monitoring Workshop*, RTP, NC, 06/14 (Poster presentation by K. Johnson).
16. Guo, H., Lu, X., Cerully, K., Bougiatioti, A., Nguyen, T.K., Petters, M., Suda, S., Baumann, K., Edgerton, E., Carlton, A., Lee, S., Capps, S., Ng, S., Bergin, M.H., Nenes, A., Weber, R., Predicting particle water and pH in the southeast by ISOROPIA: Results from SOAS and beyond, *NSF SOAS Workshop*, Boulder, CO, April, 2014 (Poster presentation by H. Guo).
17. Schauer, J.J., Bergin, M.H., Development of a quantitative accounting framework for black carbon and brown carbon from emissions inventories to impacts, *EPA Star Grant Workshop*, Ann Arbor, Michigan, March, 2014 (Presentation by J. Schauer).
18. Galvis, B., Russell, A.G., Bergin, M.H., Fuel-based fine particulate and black carbon emissions factors from a railyard area in Atlanta, *American Association of Aerosol Research (AAAR) Annual Conference*, Portland, Oregon, October, 2013. (Abstract and presentation by B. Galvis).
19. Deleon-Rodriguez, N., Lathem, T., Anderson, B., Beyersdorf, A., Ziemba, L., Bergin, M.H., Nenes, A., Konstantinidis, K., Interactions of airborne microbial communities with clouds: A perspective from metagenomic analysis, *American Association of Aerosol Research (AAAR) Annual Conference*, Portland, Oregon, October, 2013. (Abstract and presentation by N. Deleon-Rodriguez).
20. Jai Devi, J., Bergin, M.H., Tripathi, S.N., Gupta, T., McKenzie, M., Shafer, M., Schauer, J.J., Rana, K.S., The color of aerosol deposition and the browning of the Taj Mahal, *American Association of Aerosol Research (AAAR) Annual Conference*, Portland, Oregon, October, 2013. (Abstract and presentation by J. Jai Devi).
21. Greenwald, R., Bergin, M.H., Sarnat, J., Identifying and characterizing short-lived air pollution events from time-series analysis of continuously-measured parameters – association with oxidative stress health outcomes, *Joint meeting of the International Society of Exposure Science and International Society of Environmental Epidemiology*, Basel, Switzerland, August, 2013 (Abstract and presentation by R. Greenwald).

22. Greenwald, R., Li, W., Flanders, W.D., Kewada, P., Bergin, M., Sarnat, J., Acute Lipid Peroxidation in Breath and Traffic Pollution among a Panel of Commuters in Atlanta, *Epidemiology*, 23 (5S), 06, 2012 (Abstract and presentation by R. Greenwald).
23. DeLeon-Rodriguez, N., L. M. Rodriguez-R, T. Lathem, B. E. Anderson, A. J. Beyersdorf, L. D. Ziemba, M. Bergin, A. Nenes, and K. T. Konstantinidis. The effect of hurricanes on the composition of airborne microbial communities. *In the 14th International Symposium on Microbial Ecology, ISME-14*. August 19-24, 2012. Copenhagen, Denmark (Abstract and presentation by N. DeLeon-Rodriguez).
24. DeLeon-Rodriguez, N., L. M. Rodriguez-R, T. Lathem, B. E. Anderson, A. J. Beyersdorf, L. D. Ziemba, M. Bergin, A. Nenes, and K. T. Konstantinidis, The microbiome of the upper troposphere: Species, composition, and prevalence, effects of tropical storms, and atmospheric implications, *AGU Fall meeting*, San Francisco, 12/12 (Abstract and presentation by N. DeLeon-Rodriguez).
25. Liu, J., Bergin, M., Weber, R.J., MOUDI size-resolved measurements of elemental and brown carbon and their contributions to light absorption based on Mie Theory Calculations, *American Association of Aerosol Research (AAAR) Annual Meeting*, Minneapolis, MN, October 2012, (Abstract and presentation by J. Liu).
26. M. Dumont, C.M. Carmagnola, F. Domine, P. Wright, M. Bergin, J. Dibb, L. Arnaud, G. Picard, N. Champollion, S. Morin, Modeled and measured spectral albedo of surface snow over central Greenland , *EGU*, Vienna, April 2012.
27. C.M. Carmagnola, F. Domine, M. Dumont, P. Wright, M. Bergin, J. Dibb, L. Arnaud, G. Picard, N. Champollion, S. Morin, Linking snow physical and chemical properties with surface albedo over central Greenland, *IPY*, Montreal, April 2012.
28. Bergin, M.H, Dibb, J.E., Strellis, B., Sokolik, I., Domine, F., Sheridan, P.J., Ogren, J.A., Direct radiative forcing over central Greenland: Estimates based on measurements during the Spring/Summer 2011, *International Polar Year Conference (IPY)*, Montreal, April, 2012.
29. Strellis, B., Bergin, M.H., Sokolik, I.N., Dibb, J.E., Sheridan, P.J., Ogren, J.A., The influence of light absorbing aerosols on the radiation balance over central Greenland, *American Geophysical Union Fall Meeting* , San Francisco, Dec., 2011 (Abstract and presentation by B. Strellis).
30. Wright, P., Bergin, M.H., Dibb, J.E., Domine, F., Carmagnola, C., Courville, Z., Sokolik, I., Lefer, B.L., Understanding the factors that control snow albedo over central Greenland, *American Geophysical Union Fall Meeting* , San Francisco, Dec., 2011 (Abstract and presentation by P. Wright).
31. Galvis, B., Bergin, M.H., Russell, A.G., Fuel based Black Carbon Emission Factor from Atlanta Rail Yard, *American Association of Aerosol Research (AAAR) Annual Meeting*, Orlando, Florida, Oct., 2011 (Abstract and presentation B. Galvis).
32. Wright, P., Carmagnola, C., Domine, F., Dibb, J.E., Bergin, M.H., Spectral albedo and snow specific surface area at Summit, Greenland 2011, *3rd workshop on Air-Ice Chemical Interactions (AICI)*, Columbia University, New York, NY, June, 2011 (Abstract and poster by P. Wright).
33. Greenwald, R., Sarnat, J., Bergin, M.H., Fuyuen, Y., Changes in airway oxidative status following exposure to traffic pollution, *International Society for Environmental Epidemiology (ISEE)*, September, 2011 (Abstract and presentation by R. Greenwald).
34. Sarnat, J.A., Greenwald, R., Sarnat, S.E., Kewada, P., Yip, F., Boehmer, T.K., Bergin, M.H., In-vehicle pollutant exposure and acute cardiorespiratory response in a cohort of healthy and asthmatic car commuters, *International Society for Environmental Epidemiology (ISEE)*, September, 2011 (Abstract and presentation by R. Greenwald).
35. Sarnat, J., Greenwald, R., Yip, F., Bergin, M., Kewada, P., gooch, J., Boswell, C., Boehmer, T., In-vehicle Correlations Among Particle Number, Organic and Inorganic Species for a Cohort of Car Commuters in Atlanta, *Joint Conference of International-Society-of-Exposure-Science/International-Society-for-Environmental-Epidemiology*, Seoul, Korea, August, 2010 (Abstract and Presentation by J. Sarnat).
36. Bergin, M.H., Hagler, G.S.W, Dibb, J.E., von Schneidmesser, E., Schauer, J.J., Steffen, K., Organic (OC) and Elemental (EC) Carbon in Central Greenland Air and Snow: Towards a Better Understanding of Sources, Source Regions and Radiative Forcing, *State of the Arctic Meeting*, Miami, FL, March, 2010 (Abstract and presentation by M. Bergin).

37. Hennigan, C.J., Bergin, M.H., Dibb, J.E., Nenes, A., Russell, A.G., Weber, R.J., Evidence for secondary organic aerosol formation involving liquid-phase partitioning of haze particles in summertime Atlanta, American Geophysical Union Meeting, San Francisco, December, 2008 (Abstract and presentation by C. Hennigan).
38. Anderson, C.H., J. E. Dibb, R. J. Griffin, G.S. Hagler, and M.H. Bergin, Water-soluble organic carbon over the Greenland Ice Sheet, *Geological Society*, Northeast section meeting, Durham, NH, 2007 (Abstract and presentation by C. Anderson).
39. Anderson, C.H.; Dibb, J.E.; Griffin, R.J.; Hagler, G.S.W; Bergin, M.H. Water-soluble organic carbon measurements at Summit, Greenland, *European Geophysical Union Meeting*, Vienna, Austria. April 18, 2007 (Abstract and presentation by C. Anderson).
40. Hagler, G.S.W., M.H. Bergin, E. Smith, J.E. Dibb, C. Anderson, R. Griffin, J.J. Schauer, M.M. Shafer, E. von Schneidmesser, E. Steig. Measurement of atmospheric and snow-phase carbonaceous particulates and gases on the Greenland Ice Sheet. *European Geophysical Union Meeting*, Vienna, Austria. April 18, 2007 (Abstract and presentation by G. Hagler).
41. Hagler, G.W., Bergin, M.H., Smith, E., Greenwald, R., Schauer, J.J., Particulate carbon in the air and snow on the Greenland Ice Sheet, *American Association of Aerosol Research (AAAR) Annual Meeting*, St. Paul MN, Sept., 2006 (Abstract and presentation by G. Hagler).
42. Shafer, M., von Scheidmesser, E., Overdier, J., Schauer, J.J., Hagler, G.W., Bergin, M.H., A detailed snow core record of recent atmospheric deposition of trace metals to central (Summit) Greenland, *American Association of Aerosol Research (AAAR) Annual Meeting*, St. Paul MN, Sept., 2006 (Abstract and poster by M. Shafer).
43. Karpowicz, B.M., Sokolik, I.N., Greenwald, R.J., Peltier, R., Weber, R.J., Bergin, M.H., Photopolarimetric measurements in the Atlanta Metropolitan area, and their potential for improving characterization of absorbing aerosols, *AMS meeting*, Atlanta, GA, January 2006 (abstract and poster by B. Karpowicz).
44. Estupinan, J.G., Bergin, M.H., Retrieval of Aerosol Optical Depths, Angstrom Exponent and Single Scattering Albedo during the 1999 Atlanta Supersite Experiment, Atlanta, GA, January 2006 (abstract and poster by J. Estupinan).
45. Bergin, M., Nenes, T., Weber, R., Aerosols-Instrument Development, *AMS Meeting*, Atlanta, GA, January 2006 (abstract and poster).
46. Estupinan, J.G., Koval, J., Peters, C., Bergin, M., A New Synthetic Current UV Index is Developed to Provide UV Index Values at Locations Without UV Measurements, *AMS Meeting*, Savannah, GA, June 20-24, 2005 (abstract and poster).
47. Streets, D., Yu, C., Bergin, M.H., Wang, X., Carmichael, G., Industrial Air Pollution in the Pearl River Delta, *IGAC Asian Mega-Cities Workshop*, Christchurch, NZ, September, 2004 (abstract and oral presentation by D. Streets).
48. Hagler, G.W., Bergin, M.H., Zheng, M., Salmon, L.G., Yu, J.Z., Wan, E., Kiang, C.S., Zhang, Y.H., Tang, X., Schauer, J.J., PM_{2.5} mass and chemical composition across the Pearl River Delta of China, *American Association of Aerosol Research (AAAR) Annual Meeting*, Atlanta, GA, October, 2004 (abstract and oral presentation by G. Hagler).
49. Greenwald, R., Bergin, M.H., Hagler, G.W., Weber, R., Size-resolved measurement of water-insoluble aerosol in near real-time in urban Atlanta, *American Association of Aerosol Research (AAAR) Annual Meeting*, Atlanta, GA, October, 2004 (abstract and poster presentation by R. Greenwald).
50. Bergin, M.H., Salmon, L.G., Willis, G.S., Yu, J.Z., Zhang, Y., Zeng, L., Tang, X., Schauer, J.J., Kiang, C.S., Measurement of PM_{2.5} Mass and Chemical Composition at Several Locations in the Pearl River Delta, *3rd Annual Asian Aerosol Conference*, Hong Kong, January, 2004 (abstract and oral presentation by M.H. Bergin).
51. Zheng, M., Bergin, M.H., Schauer, J.J., Willis, G., Zhang, Y., Yu, J., Tang, X., Sources and Characteristics of Organic Carbon and Fine Particulate Matter in Pearl River Delta, *3rd Annual Asian Aerosol Conference*, Hong Kong, January, 2004 (abstract and oral presentation by M. Zheng).

52. Greenwald, R., Bergin, M.H., Jaffrezo, J.L., Bescombes, Water insoluble aerosol concentrations in alpine France, *American Association of Aerosol Research (AAAR) Annual Meeting*, Anaheim, California, 2003 (Abstract and oral presentation by R. Greenwald).
53. Greenwald, R., Bergin, M.H., Jaffrezo, J.L., Bescombes, Real time measurement of water insoluble aerosol in the Chamonix and Maurienne alpine valleys of France, *European Aerosol Conference*, Madrid, Spain, August, 2003 (abstract and oral presentation by R. Greenwald).
54. Bergin, M.H., The influence of aerosols on plant growth, *Air Pollution as a Climate Forcing: A Workshop*, Honolulu, Hawaii, May, 2002 (abstract and presentation by M.H. Bergin).
55. Bergin, M.H., Urbanization and regional chemistry, influence of aerosols on plants, *IGAC Workshop*, Stockholm, Sweden, January, 2002 (abstract and presentation by M.H. Bergin).
56. Xu, J., Bergin, M.H., Greenwald, R., Schauer, J., Jaffrezo, J.L., Aymoz, G., Direct aerosol radiative forcing based on chemical, physical, and radiative properties in Yulin, China during ACE-Asia, *American Association of Aerosol Research Annual Meeting*, Charlotte, NC, Oct. 2002 (abstract and oral presentation by J. Xu).
57. Baumann, K., Ift, F., Zhao, J.Z., Bergin, M.H., Russell, A.G., Chameides, W.L., Measurements of trace gases and PM_{2.5} mass and composition near the ground and at 254 m agl during TexAQS 2000 and comparison with other regions, *American Meteorological Society Meeting*, Orlando, FL, Jan. 2002 (abstract and presentation by K. Baumann).
58. Russell, P.B., Schmid, B., Bergstrom, R.W., Redeman, J., Livingston, J.M., Holben, B., Nakajima, T., Pilweskie, P., Flatau, P.J., Vogelmann, A., Bergin, M., Hsu, N.C., Seinfeld, J., Hegg, D., Quinn, P., Overview of ACE-Asia spring 2001 investigations on aerosol-radiation interactions, *American Meteorological Society Meeting*, Orlando, FL, Jan. 2002 (abstract and presentation by P.B. Russell).
59. Russell, P.B., Valero, F.P.J., Flatau, P.J., Bergin, M., Holben, B., Nakajima, T., Pilewskie, P., Bergstrom, R.W., Schmid, B., Redemann, J., Livingston, J., Vogelmann, A., Wang, J., Seinfeld, J., Hsu, N.C., Hegg, D., Overview of ACE-Asia spring 2001 investigations on aerosol radiative effects and related aerosol properties, *AGU Fall Meeting*, San Francisco, Dec. 2001 (abstract and presentation by P.B. Russell).
60. Bergin, M.H., Xu, J., Carrico, C.M., Schauer, J., Aerosol chemical, Physical, and radiative properties in Yulin, China: Preliminary ACEASIA measurements, *ACEASIA Science Team Meeting*, Pasadena, CA, Nov, 2001 (poster and presentation by M.H. Bergin).
61. Bergin, M.H., Xu, J., Fang, C., Zeng, L., Yu, T., Cass, G.R., Salmon, L.G., Kiang, C.S., Chameides, W.L., The influence of aerosols on visibility in Beijing, *American Association of Aerosol Research (AAAR) Annual Meeting*, Portland, Oregon, 2001 (presentation by M. Bergin).
62. Baumann, K., Bergin, M.H., Xu, J., Jing, J.Z., Ift, F., Tang, X., Fine Particle (PM_{2.5}) Composition Measurements in the Yangtze Delta Region, *American Association of Aerosol Research (AAAR) Annual Meeting*, Portland, Oregon, 2001 (abstract and poster presentation by K. Baumann).
63. Greenwald, R., Bergin, M.H., Xu, J., Chameides, W.L., The influence of aerosols on crop production, *American Association of Aerosol Research (AAAR) Annual Meeting*, Portland, Oregon, 2001 (abstract and oral presentation by M. Bergin).
64. Bergin, M.H., Greenwald, R., Xu, J., Berta, Y., Chameides, W.L. Influence of aerosol dry deposition on photosynthetically active radiation available to plants: A case study in the Yangtze delta, *American Association of Aerosol Research (AAAR) Annual Meeting*, Portland, Oregon, 2001 (abstract and poster by M.H. Bergin).
65. Carrico, C.M., Greenwald, R., Bergin, M.H., A New Technique for Real-Time Measurement of Water Insoluble Aerosol Size Distribution, *Association of Aerosol Research (AAAR) Annual Meeting*, Portland, Oregon, 2001 (abstract and oral presentation by M.H. Bergin).
66. Bergin, M.H., Xu, J., Kiang, C.S., Chameides, W.L., Influence of aerosols on climate and crop production in China, *Pearl River Delta Science Team Meeting*, Guanzhou, China, Sept. 2001 (presentation by M.H. Bergin).
67. Bergin, M.H., Xu, J., Yu, X., Liu, G., Kiang, C.S., Chameides, W.L., Aerosol properties and impacts in the Yangtze delta Region of China, *CHINAMAP Science Team Meeting*, Hong Kong, Sept. 2001 (presentation by M.H. Bergin).

68. Estupinan, J.G., Bergin, M.H., Slusser, J., Meltzer, R.S., Measurements of aerosol optical depths in the UV-A: A comparison between a USDA Yankee Environmental Systems UV-Multifilter Rotating Shadowband Radiometer and an EPA Brewer spectrophotometer, *SPIE 46th Annual Meeting*, San Diego, July 2001 (extended abstract and oral presentation by J. Estupinan).
69. Carrico, C.M., Gomes, L., Bergin, M.H., Shrestha, A.B., Dibb, J.E., Analysis of trace species composition in relation to aerosol chemical and physical properties in the Nepal Himalaya, *European Aerosol Conference*, Leipzig, Germany, Sept. 2001 (abstract and oral presentation by C. Carrico).
70. Baumann, K., Ift, F., Zhao, J., Bergin, M.H., Russell, A.G., Measurement of trace gases and PM_{2.5} mass and composition near the ground and at 254 m agl during TexAQS2000, *American Meteorological Association Fourth Conference on Atmospheric Chemistry*, Norfolk, VA, May 2002 (abstract and oral presentation by K. Baumann).
71. Bergin, M.H., Xu, J., Carrico, C.M., Edgerton, E., Baumann, K., Maring, H., Measurement of aerosol radiative properties during the Atlanta SuperSite study, *AGU Fall Meeting*, San Francisco, Dec. 2000 (abstract and invited presentation by M. Bergin).
72. Hering, S., Solomon, P., Edgerton, E., Baumann, K., Bergin, M.H., Dasgupta, S., Ten Brink, H., Ondov, J., Turpin, B., Weber, R., Hourly chemical composition profiles for fine particulate matter during the Atlanta SuperSite study, August, 1999, *AGU Fall Meeting*, San Francisco, Dec. 2000 (abstract and invited presentation by S. Hering).
73. Ift, F., Baumann, K., Chameides, W.L., DiPasquale, D.D., Weber, R.J., Zhao, J., Baxter, C., Bergin, M.H., Edgerton, E.S., Discrete measurements of PM_{2.5} mass and composition by use of the three-channel denuder particle composition monitor, *AGU Fall Meeting*, San Francisco, Dec. 2000 (abstract and poster presentation by F. Ift).
74. Xu, J., Bergin, M.H., Yu, X., Liu, G., Measurement of aerosol chemical and radiative properties as well as photosynthetically active radiation in the Yangtze delta region of China, *American Association of Aerosol Research*, 2000 Annual Conference, St. Louis, MO, Oct., 2000 (Abstract and invited presentation by Jin Xu).
75. Carrico, C.M., Bergin, M.H., Shrestha, A., Aerosol properties relevant to regional climate change in Nepal, *American Association of Aerosol Research*, 2000 Annual Conference, St. Louis, MO, Oct., 2000 (Abstract and presentation by C. Carrico).
76. Greenwald, R., Bergin, M.H., Chameides, W.L, Influence of aerosols on plant photosynthesis, 2000 Annual Conference, St. Louis, MO, Oct., 2000 (Abstract and poster presentation by R. Greenwald).
77. Carrico, C.M, Bergin, M.H., Shrestha, A., Annual variability of aerosol chemical, physical and radiative properties in Nepal, *Spring AGU Western Pacific Geophysics Meeting*, Tokyo, Japan, June, 2000 (Abstract and poster presentation by C. Carrico).
78. Bergin, M.H., J. Xu, C. Fang, L. Zeng, Y. Tong, C.S. Kiang, G. Cass, W.L. Chameides, Measurement of aerosol light scattering and absorption coefficient in Beijing during June, 1999, *Spring AGU Western Pacific Geophysics Meeting*, Tokyo, Japan, June, 2000 (Abstract and invited presentation by M. Bergin).
79. Bergin, M.H., Yu, X., Liu, G., Impact of aerosols on climate and crops in the Yangtze delta region of China, *Spring AGU Western Pacific Geophysics Meeting*, Tokyo, Japan, June, 2000 (Abstract and invited presentation by M. Bergin).
80. Schwartz, S. E., Ogren J. A., and Bergin M. H. Aerosol optical properties and direct shortwave radiative forcing: Dependence on size and composition. International Union of Geodesy and Geophysics--International Association of Meteorology and Atmospheric Sciences Symposium on Radiative Properties and Remote Sensing of Aerosols, IUGG 22nd General Assembly, Birmingham, England, 18 - 30 July, 1999. (abstract and presentation by S.E. Schwartz).
81. Bergin, M.H., J.A. Ogren, N. Laulainen, D.S. Bigelow, J.R. Slusser, Comparison of aerosol radiative properties measured at the surface and over the entire atmospheric column with surface irradiance measurements at Bondville, Illinois, American Association of Aerosol Research, Tacoma, WA, 1999 (abstract and poster presentation by M.H. Bergin).
82. Bergin, M.H., Ogren, J.A., Sheridan, P.J., Aerosol Radiative Properties Measured at a Location in the Southern Great Plains of the U.S., *American Association of Aerosol Research*, Cincinnati, Spring, 1998 (abstract and oral presentation).

83. Kato, S., Bergin, M.H., Laulainen, N., Ferrare, R., Turner, D., Michalsky, J., Charlock, T.P., Clothiaux, E.E., Mace, G.P., Ackerman, T.P., A comparison of aerosol optical thickness derived from ground based and airborne instruments, Ninth Annual DOE ARM Science Team Meeting, San Antonio, March 22-25, 1998 (abstract and presentation by S. Kato).
84. Sheridan, P.J., Bergin, M.H., Ogren, J.A., Spatial and Temporal Variability of Aerosol Single-Scattering Albedo, *American Geophysical Union Fall Meeting*, 1997 (abstract and oral presentation by P.J. Sheridan).
85. Bergin, M.H., McInnes, L.M., Ogren, J.A., Schwartz, S.E., Contribution of Carbonaceous Aerosol to Light Scattering and Hygroscopic Growth in Polluted Continental Air Measured at Sable Island, Nova Scotia, *American Geophysical Union Fall Meeting*, 1997 (abstract and poster presentation by M.H. Bergin).
86. Meyerson, E., Bergin, M.H., Mayewski, P., Pittawala, I., Dibb, J.E., Whitlow, S., Kreutz, K., Twickler, M., A South Pole Based Investigation of ENSO: Comparison of Instrumental and Ice Core Chemistry Time Series, *American Geophysical Union Fall Meeting*, 1997 (abstract and presentation by E. Meyerson).
87. Halthore, R.N., Nemesure, S.N., Schwartz, S.E., Michalsky, J.J., Anderson, G.P., Bergin, M.H., Comparison of Model Estimated and Measured Total Surface Irradiance Under Cloud-Free Conditions: A Closure Experiment, *American Geophysical Union Fall Meeting*, 1997 (abstract and presentation by R.N. Halthore).
88. Bergin, M.H., Meyerson, E.A., Dibb, J.E., Mayewski, P.A., Comparison of Aerosol Light Scattering Properties Measured at the Surface and Ice Core /Snow Pit Chemistry at the South Pole from 1980 to 1994, *American Association of Aerosol Research*, Denver, Fall, 1997 (abstract and oral presentation).
89. Bergin, M.H., McInnes, L.M., Ogren, J.A., Differences in Hygroscopic Growth Between Marine and Anthropogenic Aerosols, *AWMA Conference on Visual Air Quality*, Bartlett, NH, Sept. 1997 (abstract and oral presentation).
90. Bergin, M.H., Ogren, J.A., Halthore, R.N., Schwartz, S.E., Estimating Aerosol Optical Depth Using Ground Based Nephelometer Measurements at the Southern Great Plains (SGP) Atmospheric Radiation Measurement (ARM) Site, *American Geophysical Union Fall Meeting*, 1996 (abstract and oral presentation).
91. Bergin, M.H., Halthore, R.S., Schwartz, S.E., Ogren J.A., McGraw, R., Nemesure, S., Comparison of Aerosol Column Properties Based on Nephelometer and Sun Photometer Measurements, *Atmospheric Radiation Measurement (ARM) Aerosol Workshop*, Oak Ridge, TN, Nov., 1996 (Oral presentation by R.S. Halthore).
92. Zufall, M.J., Davidson, C.I., Bergin, M.H., A Model for the Hygroscopic Growth and Dry Deposition of Atmospheric Particles to Water Surfaces: A Non-Equilibrium Approach, *American Association of Aerosol Research*, Orlando, Fall, 1996, (abstract and oral presentation by M.J. Zufall).
93. Bergin, M.H., Ogren, J.A., McInnes, L.M., Schwartz, S.E., Influence of Evaporation on the Measurement of Light Scattering by Ammonium Nitrate Aerosol in a Heated Nephelometer, Annual Meeting of the *American Association of Aerosol Research*, Orlando, Fall, 1996 (abstract and oral presentation).
94. Bergin, M.H., Ogren, J.A., Halthore, R., Nemesure, S., Schwartz, S.E., Estimating Aerosol Optical Depth Based on Nephelometer Measurements at the SGP ARM Site, *Atmospheric Radiation Measurement (ARM) Annual Meeting*, San Antonio, TX, March, 1996 (poster and oral pres.).
95. Bergin, M.H., Ogren, J.A., Schwartz, S.E., Measurement of the Light Scattering Coefficient of Volatile Aerosols: Sampling Losses due to Evaporation, *NOAA Annual Meeting*, Boulder, CO, 1996 (oral presentation).
96. Bergin, M.H., Pandis, S.N., Davidson, C.I., Russell, A.G., Kuhns, H.D., Modeling of the Processing and Removal of Trace Gas and Aerosol Species by Arctic Radiation Fogs, Annual Meeting of the *American Association of Aerosol Research*, Pittsburgh, Fall, 1995 (abstract and oral presentation).
97. Bergin, M.H., Pandis S.N., Davidson, C.I., Modeling of the Deposition of Aerosols and Gases During Fog, *Gordon Research Conference*, Newport, R.I., June, 1995 (poster).

98. Bergin, M.H., Davidson, C.I., Pandis, S.N., Kuhns, H.D., Jaffrezo, J.L., Dibb J.E., Measurement and Modeling of the Deposition of Major Anions and Cations at Summit, Greenland, *Greenland Ice Sheet Project 2 (GISP2) Annual Meeting*, Washington, D.C., Fall, 1994 (oral presentation).
99. Bergin, M.H., Davidson, C.I., Kuhns, H.D., Jaffrezo, J.L., Dibb, J.E., Hillamo, R., Makela, T., Maenhaut, W., The Contributions of Wet, Fog, and Dry Deposition to the Summer Flux of Major Anions and Cations at Summit, Greenland, Annual Meeting of the *American Association of Aerosol Research*, Los Angeles, Fall, 1994 (abstract and oral presentation).
100. Kuhns, H.D., Davidson, C.I., Bergin, M.H., Dibb, J.E., Jaffrezo, J.L., Bales, R., Losleben, M., Vapor-Ice Partitioning of Chloride and Nitrate at Summit, Greenland, Annual Meeting of the *American Association of Aerosol Research*, Los Angeles, Fall, 1994 (abstract and oral presentation by H.D. Kuhns).
101. Kuhns, H.D., Davidson, C.I., Bergin, M.H., Dibb, J.E., Jaffrezo, J.L., Bales, R., Losleben, M., Vapor-Ice Partitioning of Chloride and Nitrate at Summit, Greenland, Annual Meeting of the *American Association of Aerosol Research*, Los Angeles, Fall, 1994 (abstract and oral presentation by H.D. Kuhns).
102. Bergin, M.H., Jaffrezo, J.L., Davidson, C.I., Caldow, R., Dibb, J.E., Fluxes of Chemical Species to the Greenland Ice Sheet at Summit by Fog and Dry Deposition, *American Association of Aerosol Research*, Chicago, Illinois, Fall, 1993 (abstract and oral presentation).
103. Kuhns, H.D., Jaffrezo, J.L., Davidson, C.I., Bergin, M.H., Major Ionic Concentrations in Surface Snow at Summit, Greenland, *American Association of Aerosol Research*, Chicago, Illinois, Fall, 1993 (abstract and poster).
104. Bergin, M.H., Davidson, C.I., Kuhns, H.K., Jaffrezo, J.L., Dibb, J.E., Measurement and Modeling of Chemical Fluxes to the Greenland Ice Sheet, *American Geophysical Union Fall Meeting*, 1993 (abstract and poster).
105. Dibb, J.E., Talbot, R.W., Whitlow, S.I., Bergin, M.H., Jaffrezo, J.L., Soluble Gaseous Acids at Summit, Greenland with Ionic Composition of Summer Snow, *American Geophysical Union Fall Meeting*, 1993 (abstract and poster).
106. Bergin, M.H., Davidson, C.I., Kuhns, H.K., Jaffrezo, J.L., Dibb, J.E., The Air/Snow Exchange of Aerosol Chemical Species at Summit, Greenland, *Greenland Ice Sheet Project 2 (GISP2) Annual Meeting*, San Francisco, Fall, 1993 (oral presentation).
107. Bergin, M.H., Jaffrezo, J.L., Davidson, C.I., Mosley-Thompson, E., Size Distributions of Insoluble Particles in Fresh Snow and Snowpits from Greenland, *American Association of Aerosol Research*, San Francisco, California, 1992 (abstract and oral presentation).
108. Bergin, M.H., Davidson, C.I., Jaffrezo, J.L., Dibb, J.E., The Deposition of Aerosols with Fog at Summit, Greenland, *Greenland Ice Sheet Project 2 (GISP2) Annual Meeting*, Seattle, Washington, Fall, 1992 (oral presentation).
109. Bergin, M.H., Ikegami, M., Soot Particle Laser Induced Oxidation with Regards to Particle Sizing, *Second International Congress on Optical Particle Sizing*, Tempe, Arizona, 1990 (abstract and poster).

D. Other Scholarly Accomplishments

Technical Disclosures/Patents

1. Bergin, M.H., Koka, R.V., Pederson, P.D., Method of Sampling and Collecting Particulate Contaminants in Drives by Using a High Flow-Through Sampling/Collecting/Counting System, *IBM Technical Disclosure Bulletin*, Vol. 34, No. 7A, Dec., 1991.

V. Service

A. Professional Contributions

1. *Alpine Summer School 2012: Climate, Aerosols and the Cryosphere*, Organizing Committee and Course Director. Involved in program development and speaker selection (along with Paolo Laj and Cristina Facchini).
2. *American Association of Aerosol Research (AAAR) Annual 2004 Conference Tutorial Chair*. Organized a series of 16 tutorials on various aspects of aerosol science for annual conference.
3. *American Association of Aerosol Research (AAAR) Special Symposium on Aerosols in China*. With \$5,000 grant funded by the AAAR, organized a special symposium (along with Glen Cass from EAS) dedicated to bringing together researchers from China and the aerosol research committee to understand current issues related to air pollution in China.
4. *American Association of Aerosol Research (AAAR) Board of Directors*. This elected position involves activities related to all aspects of running the AAAR organization.
5. *International Global Atmospheric Chemistry (IGAC) Program working group member*. Working group is charged with determining important scientific questions in atmospheric chemistry that need to be addressed over the next decade.
6. *6th International Aerosol Conference (IAC) 2001 Planning Committee*. Involved in soliciting speakers on specific topics and coordinating plenary lectures.
7. *AAAR Special Symposium on Particulate Matter 2003 Planning Committee*. Working on conference agenda.
8. *Editor of AAAR Newsletter 'Particulars'*. In charge of organizing and editing monthly issues related to AAAR.
9. *AAAR 1999 Aerosol Working Group Chair*. Coordinator for conference sessions and reviewer for abstracts related to atmospheric aerosols for the 1999 annual AAAR conference.
10. *AAAR 1996 Student Assistance Chair*. Coordinated students to assist in the conference sessions at the 1996 annual meeting.

B. Campus Contributions

Graduate Student Committees

Michael Olson (UW Madison, PhD, thesis committee)
 Xin Xi (EAS PhD, thesis committee)
 Marcus Trail (CEE, PhD, thesis committee)
 Weichun Hsieh (EAS PhD, thesis committee)
 Sara Lance (EAS PhD, thesis committee)
 Qing Yang (EAS PhD, thesis committee)
 Lalit Bohra (ME PhD thesis committee)
 Helena Kim (CEE PhD thesis committee)
 DoHyong Kim (CEE PhD thesis committee)
 Jason Ritchie (EAS PhD thesis committee)
 Yan Huang (EAS PhD thesis committee)
 Amir Hakami (CEE PhD thesis committee)
 Alison Steiner (EAS PhD thesis committee)
 Sangil Lee (CEE MS, PhD committee)
 Stephanie Chow (EAS, qualifying exam committee)
 Ping Jing (EAS, PhD thesis committee)
 James Boylan (CEE, PhD thesis committee)
 Jae-Yong Ryu (CEE PhD thesis committee)
 Alberto Mendoza (CEE PhD thesis committee)
 Andre Butler (CEE PhD, thesis committee)
 Jinlong Li (EAS PhD thesis committee)
 Hongbin Yu (EAS PhD thesis committee)
 Greg Schulz (EAS qualifying exam committee)

Yan Huang (EAS qualifying exam committee, PhD thesis committee)
 Dan Cohan (EAS qualifying exam committee)
 Jeral Estupinan (EAS PhD qualifying exam committee)
 Jillian Nimblet (EAS PhD qualifying exam committee)
 Rochelle Williams (EAS PhD qualifying exam committee)

School Committees

PhD Qualifying Exam Committee (CEE)
 Social Committee (EAS)
 Chair Search Committee (CEE)
 Faculty Search Committee (CEE)
 Educational Initiatives Committee (CEE)
 Awards Committee (EAS)
 Graduate Program Committee (EAS)
 Information Systems Committee (CEE)

C. Other Contributions

Review Activities

Journal of Aerosol Science and Technology, Atmospheric Environment, Global Biogeochemical Cycles, Journal of Geophysical Research, Geophysical Research Letters, Annals of Glaciology, Journal of Physical Chemistry, Alliance for Global Sustainability, NOAA Climate and Global Change Proposals, NASA Proposals, National Science Foundation Proposals, Department of Energy Proposals, Environmental Protection Agency Proposals

VI. Grants and Contracts

Past Grants

1. Center for Disease Control: ACE-Measuring in-vehicle human exposure to particulate matter (J. Sarnet PI, M. Bergin Co-I). 3/1/11-9/1/11 (\$22,000).
2. Toto Corporation: NO_x and VOC reduction in ambient air by TiO₂ impregnated surfaces (M. Bergin and G. Huey). 08/01/08-06/01/10. (\$50,000).
3. Center for Disease Control (CDC): Examining in-vehicle exposure to gaseous and particulate pollutants (M. Bergin and R. Guensler). 11/01/08 - 11/01/10. (\$113,000).
4. NSF Office of Polar Programs (OPP): Particulate carbon in the air and snow at Summit, Greenland (M.H. Bergin PI in collaborative effort between U. Wisc.-Madison, U. New. Hamp.). 09/06/2004-09/05/2008. (\$792,000).
5. NASA Code Y Suborbital Program: UAV Systems Analysis for Earth Observations (P.I. J. Curry, co-I's M. Bergin, G. Chimonas, D. Cunnold, E. Johnson, R.Loewy, D. Schrage). 02/15/05 - 02/14/08 (\$600,000).
6. NSF Atmospheric Chemistry Program (ACP): Characterization of the Physical and Chemical Characteristics of Water Insoluble Atmospheric Aerosol (M.H. Bergin PI). 09/01/01– 02/28/06 (\$273,658).
7. State of Georgia: Fall Line Air Quality Study (FAQS) (A.G. Russell and W.L. Chameides PI's, M.H. Bergin Co-I). 06/01/00 – 06/01/04 (\$2,225,000).
8. China Light and Power / Hong Kong Civic Exchange: Pilot Study on the Use of Atmospheric Measurements to Manage Air Quality in Hong Kong and the Pearl River Delta (W.L. Chameides and M.H. Bergin PI's). 01/01/02 – 05/01/04 (\$467,812).

9. Hong Kong Environmental Protection Bureau: Cooperative Research/Training Travel Grant (M.H. Bergin PI). 01/01/02-01/01/03 (\$6,000).
10. NSF Atmospheric Chemistry Program (ACP)/University of Illinois at Urbana-Champaign subcontract to Georgia Tech: Optical Aerosol Properties over the Asian Pacific Ocean (M.H. Bergin PI). 09/01/00-08/31/03 (\$118,000).
11. NSF Atmospheric Chemistry Program (ACP): Measurement of Aerosol Chemical, Physical, and Radiative Properties Related to Climate at a Rural Location in China (M.H. Bergin PI). 04/01/01-03/31/03 (\$82,383).
12. EPA: Southern Oxidant Study Research Program at Georgia Tech. (A.G. Russell PI, M.H. Bergin Co-I). 09/01/01-09/01/02 (\$270,000).
13. EPA: Southern Oxidant's Study: Chemical and Meteorological Measurements Program (W.L. Chameides and C.S. Kiang PI's, M.H. Bergin Co-I). 06/01/99 – 06/01/00 (\$30,000 to M.H. Bergin).
14. NSF Atmospheric Chemistry Program (ACP): Measurement of Aerosol Chemical and Radiative Properties in Nepal (M.H. Bergin PI). 11/01/98 – 10/31/00 (\$87,266).
15. Georgia Department of Natural Resources Environmental Protection Division: Characterizing rail yard emissions of fine particulate matter (M. Bergin and A. Russell PI's). 11/01/09 – 11/1/2013. (\$200,000).
16. Smithsonian Institute: Atmospheric Haze: Adverse Impacts on Glaciers and Cultural Heritage in India (M. Bergin, PI). 11/01/09 - 11/01/13 (\$25,000).
17. National Science Foundation: Collaborative Research: Direct radiative forcing over central Greenland; Assessment of the coupled effect of light absorbing aerosols and snow albedo variability (M. Bergin PI, I Sokolik Co-I). 6/2010 – 10/13 (\$210,000).
18. NSF OPP: Alpine Summer School; The Cryosphere, Aerosols and Climate (M.H. Bergin, PI). 06/12-12/13 (\$20,000).
19. NSF PIRE: Low Carbon and Sustainable Cities (A.G. Russell PI, M.H. Bergin Co-PI). 10/12-10/16 (\$787,185).
20. EPA: The Emory/Georgia Tech Collaborative: Multi-Scale Assessment of Health Effects of Air Pollution Mixtures (A. Russell and P. Tolbert PI's). 1/1/2011-1/1/2016 (\$7,799,799).

Current Grants

1. EPA. Black Carbon's Role in Global to Local Scale Climate and Air Quality (J. Schauer and M. Bergin PI's). 06/01/2011-10/31/2015 (\$224,695).
2. NSF OPP. Collaborative Research: Spatial variability of surface albedo and light absorbing chemical species in Greenland (M.H. Bergin PI). 06/01/2012-09/01/2015 (\$230,000).
3. Lord Foundation of North Carolina. Environmental Field methods in Developing Countries; An International Hands-On Experience for Undergraduate Students (M. Bergin PI). 08/01/2015-08/01/2016 (\$10,000).
4. Underwriters Laboratory (UL). The Combined Influence of Outdoor and Indoor Pollutants on Acute Respiratory Response of School Children in China (M. Bergin PI, J. Zhang Co-PI, J. Schauer Co-PI). 08/01/15-12/31/2017 (\$1,176, 612).

Pending Grants

1. U.S. State Department. Enhancing Iran-US Scientific Collaborative Links by Improving Air Quality in Tehran (M. Bergin PI). 08/01/2015-01/31/2017 (\$99,540).
2. United States-India Science and Technology Endowment Fund (USISTEF). An Accurate, Wireless Low-Cost Fine Particulate Matter (PM) Sensor: Providing Data to Empower Individuals and Communities to Improve Health (M. Bergin PI). 01/01/2016-01/01/2018 (\$400,000).

VII. Honors and Awards

1. Visiting Professor, University Josef Fourier, Grenoble France (June-July, 2012)

2. Environmental Engineering Outstanding Professor Award, Georgia Tech Association of Environmental Engineering Students (2011)
3. National Academy of Sciences, *Kavli Fellow*, Indo-US Frontiers of Science (2007/2009)
4. Georgia Tech School of Civil and Environmental Engineering *Outstanding Teacher Award* (2003).
5. *American Association of Aerosol Research (AAAR) Board of Directors* (2000). Elected to this position by the members of AAAR (which number ~ 1000).
6. National Academy of Sciences, *Kavli Fellow*, Chinese-American Frontiers of Science (1999)
7. *Presidential Early Career Award for Scientists and Engineers, PECASE* (1998). This is the highest honor bestowed by the U.S. government on a young professional at the outset of their career.
8. *JGR-Atmospheres 1997 Editors' Citation for Excellence in Refereeing* (1997). Awarded for excellence in reviewing articles related to the atmosphere by the American Geophysical Union (AGU).
9. *Association of Environmental Engineering and Science Professors (AEESP) Parsons Award for Outstanding Doctoral Thesis* (1995). Cash award for the outstanding doctoral thesis of 1995.
10. *DOE Global Change Distinguished Postdoctoral Fellowship* (1995). A two year fellowship which was served jointly at NOAA in Boulder, Colorado and Brookhaven National Laboratory in Upton, New York.
11. *Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS III)/Gordon Research Conference* (1995). Travel grant awarded to attend both conferences.
12. *Carnegie Mellon University Graduate Student Teaching Award* (1994). Awarded for excellence in teaching by a graduate student.
13. *Mombusho (Japan Ministry of Education) Scholarship* (1989). Full scholarship awarded for one and a half years of study at Kyoto University, Kyoto, Japan.