**ROBERT J. GRIFFIN**

**PEER-REVIEWED PUBLICATIONS IN PRINT/PRESS**

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**COMMENTS IN PRINT**

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**PAPERS IN REVISION**

L. Dong, C. Li, N.P. Sanchez, A.K. Gluszek, R.J. Griffin, and F.K. Tittel, Small, low power consumption methane sensor based on a CW room temperature interband cascade laser emitting at 3.3 μm, *Appl. Phys. Lett.*, due December 2015.

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**PAPERS IN REVIEW**

M.D. Dawson, J. Xu, R.J. Griffin, and D. Dabdub, Development of aroCACM/MPMPO 1.0: An improved model to simulate secondary organic aerosol from aromatic precursors in regional models, *Geosci. Model Develop.,* submitted October 2015.

K. Sun, L. Tao, D.J. Miller, D. Pan, L.M. Golston, M.A. Zondlo, R.J. Griffin, H.W. Wallace, Y.J. Leong, M.M. Yang, Y. Zhang, D.L. Mauzerall, and T. Zhu, Vehicle emissions as an important urban ammonia source in the United States and China, *Geophys. Res. Lett.*, submitted November 2015.

**PAPERS IN PREPARATION (full draft in existence)**

Y.J. Leong, N.P. Sanchez, H.W. Wallace, B.K. Karakurt Cevik, C.S. Hernandez, Y. Han, J.H. Flynn, B. Lefer, and R.J. Griffin, Overview of surface measurements and spatial characterization of submicron particulate matter during the DISCOVER-AQ 2013 campaign in Houston, TX, to be submitted to *Atmos. Chem. Phys.*, expected submission November 2015.

**PAPERS IN CONFERENCE PROCEEDINGS**

W. Ren, W. Jiang, N.P. Sanchez, P. Patimisco, V. Spagnolo, C. Zah, F. Xie, L.C. Hughes, R.J. Griffin, and F.K. Tittel, Quantum cascade laser-based sensor for hydrogen peroxide detection, *Proc. Photonics West – Intl. Soc. for Opt. Photonics,* 2014.

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**PEER-REVIEWED RESEARCH REPORTS**

B.C. Sive, D. Shively, B. Pape, K. Carpenter, R. Griffin, R.N. Mower, R. Russo, E. Scheuer, Y. Zhou, and O. Wingenter, Spatial variation of volatile organic compounds associated with snowmobile emissions in Yellowstone National Park, submitted to the National Park Service, United States Department of the Interior, 2003.

J.F. Pankow, W.E. Asher, R.J. Griffin, and J.H. Seinfeld, A study of the secondary organic aerosol formation potentials of important compounds in the atmosphere, submitted to the Coordinating Research Council, Project A-41, 2003.

**INVITED PRESENTATIONS**

Mechanisms controlling HONO mixing ratios in the urban Texas atmosphere, Berkeley Atmospheric Sciences Research Center, University of California – Berkeley, Berkeley, CA, October 2015.

Measurements and modeling of $NO_3$-BVOC reactions in Houston, Workshop on $NO_3$-BVOC Reactions, Goergia Institute of Technology, Atlanta, GA, June 2015. (keynote)

Houston Aerosol Characterization and Health Experiment (HACHE), Health: Global Lens, Local Focus Conference, Houston, TX, May 2015.

Particulate matter research at Rice, Texas Air Quality Symposium, Austin, TX, April 2015.

New spectroscopic techniques for trace gas measurements, Technology Collaboration Center of Houston Air Quality Technologies Event, Houston, TX, March 2015.

Insight into the chemistry associated with PM in Houston from recent field campaigns, Houston Regional Monitoring Technical Advising Committee, LaPorte, TX, March 2014.

Houston Aerosol Characterization and Health Experiment (HACHE), University of Texas at Houston, School of Public Health, Houston, TX, January 2014.

Houston Aerosol Characterization and Health Experiment (HACHE), Houston Regional Air Quality Planning Advisory Committee Meeting, Houston, TX, January 2014.

Characterization of primary and secondary particulate matter during DISCOVER-AQ, NASA Air Quality Applied Sciences Team (AQAST) Semi-Annual Meeting, Houston, TX, January 2014.

Chemical characterization of submicron aerosol emissions in the greater Houston area using an aerosol mass spectrometer on a mobile platform, American Chemical Society Southwestern Regional Meeting, Waco, TX, November 2013 (presented by H.W. Wallace).

Highly time resolved characterization of chemical and physical processes affecting air quality in major metropolitan areas of Texas, National Academy of Science Workshop on Air Quality in Mega-cities, Irvine, CA, September 2013.

Recent advances in our understanding of particulate matter in Houston, TX, Nankai University, College of Environmental Science and Engineering, Tianjin, China, July 2012.

Recent research results, Texas Commission on Environmental Quality, Air Quality Planning and Implementation Division, Austin, TX, June 2012.

Monitoring of atmospheric ammonia in Houston using a CW-QCL spectroscopic technique, University of Houston, Department of Earth and Atmospheric Sciences (Air Quality in Texas: A Tribute to Daewon Byun), Houston, TX, April 2011.

Characterization of organic aerosol in New England, Texas A&M University – Galveston, Department of Marine Science, Galveston, TX, March 2011.

Heterogeneous processes involving atmospheric organic particulate matter and nitric acid, University of California Riverside, Department of Chemical and Environmental Engineering, Riverside, CA, June 2010.

Mechanisms of particle formation from BVOCs, Gordon Research Conference on Biogenic Hydrocarbons in the Atmosphere, Les Diablerets, Switzerland, May 2010.

Particulate matter in Houston, Texas A&M University, Center for Atmospheric Chemistry and the Environment (Texas Air Quality Symposium), College Station, TX, April 2010.

Modeling of secondary organic aerosol from first principles: How much does water

matter?, Columbia University, Department of Chemical Engineering, New York, NY, March 2010.

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Introduction to atmospheric particulate matter, Baylor College of Medicine (Environmental Health Panel), Houston, TX, October 2009.

The link between air and water pollution in Houston, Rice University, Shell Center for Sustainability (Houston Water Conference), Houston, TX, October 2009.

Atmospheric aerosols and their role in Houston air quality, American Meteorology Society, Houston Section, February 2009.

Cl-aromatic reactions as a source of secondary organic aerosol in the atmosphere, University of Houston, Department of Earth and Atmospheric Sciences, February 2009.

Interactions of nitrogen-containing acids and primary organic aerosol in an urban atmosphere, Texas A&M, University Department of Atmospheric Sciences, February 2009.

The role of organic aerosol in air quality, Rice University, Shell Center for Sustainability (Houston Air Conference), Houston, TX, October 2008.

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Potential heterogeneous aerosol processes in Houston: Results from TRAMP 2006, University of Göteborg, Department of Chemistry, Göteborg, Sweden, May 2008.

Potential heterogeneous aerosol processes in Houston: Results from TRAMP 2006, Rice University, Department of Civil and Environmental Engineering, Houston, TX, January 2008.

Development and applications of CACM/MPMPO, Aerodyne Research, Inc., Aerosol and Cloud Chemistry Group, Billerica, MA, January 2008.

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Secondary aerosol formation from chlorine-initiated oxidation of aromatic compounds, Pacific Northwest National Laboratory, Atmospheric Science and Global Change Division, Richland, WA, July 2007.

Chemical character of organic aerosol in the Northeastern United States, Aerosols – Properties, Processes, Climate, Heraklion, Greece, April 2007.

Laboratory studies of secondary aerosol formation from chlorine-initiated oxidation of volatile organic compounds, University of Wisconsin at Madison, Department of Civil and Environmental Engineering, Madison, WI, March 2007.

Development and applications of CACM/MPMPO, International Conference on Atmospheric Chemical Mechanisms, Davis, CA, December 2006.

Chemical and optical characterization of summer atmospheric aerosol in and near the Gulf of Maine, Massachusetts Institute of Technology Atmospheric Sciences, Cambridge, MA, May 2006.

Atmospheric nitrogen oxides during New England summer: An indication of halogen chemistry in the troposphere, Bowdoin College, Departments of Chemistry and Environmental Sciences, Brunswick, ME, March 2006.

The role of organic species in ice nucleation, Forum on Organics in the Atmosphere, Alpe d'Huez, France, January 2006. (discussion leader)

Characterization of New England air quality using modeling tools, University of New Hampshire, Environmental Research Group, Durham, NH, September 2005.

Characterization of atmospheric aerosol in New Hampshire, Carnegie Mellon University, Department of Civil and Environmental Engineering, Pittsburgh, PA, April 2005.

Characterization of atmospheric aerosol in New Hampshire, University of New Hampshire, Department of Earth Sciences, Durham, NH, March 2005.

Field measurements of atmospheric organic aerosol, Assumption College, Department of Natural Sciences, Worcester, MA, March 2005.

Simulation of organic aerosol concentrations in emissions-based three-dimensional atmospheric models, EMEP Workshop on Particulate Matter Measurement and Modeling, New Orleans, LA, April 2004.

Modeling oxidant contributions to secondary organic aerosol formation, Harvard University, Department of Earth and Atmospheric Sciences, Cambridge, MA, October 2003.

Modeling the formation of secondary organic aerosol in coastal areas, University of New Hampshire, Department of Chemistry, Durham, NH, March 2003.

Modeling the formation of secondary organic aerosol in coastal areas: The role of the sea salt organic layer, University of North Carolina at Chapel Hill, Department of Environmental Science and Engineering, Chapel Hill, NC, October 2002.

Prediction of secondary organic aerosol in atmospheric models, National Oceanic and Atmospheric Administration, Aeronomy Laboratory, Boulder, CO, June 2002.

Prediction of secondary organic aerosol in atmospheric models, Johns Hopkins University, Department of Geography and Environmental Engineering, Baltimore, MD, May 2002.

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Prediction of secondary organic aerosol in atmospheric models, Amherst College, Department of Chemistry, Amherst, MA, April 2002.

Prediction of secondary organic aerosol in atmospheric models, Vanderbilt University, Department of Chemical Engineering, Nashville, TN, February 2002.

Prediction of secondary organic aerosol in atmospheric models, University of New Hampshire, Institute for the Study of Earth, Oceans, and Space, Durham, NH, February 2002.

Implications for new findings in atmospheric chemistry: The effects of diesel engine emissions, Duke University, Center for Environmental Solutions, Durham, NC, May 2001.

Thermodynamic simulation of organic aerosol in Los Angeles, United States Environmental Protection Agency, National Exposure Research Laboratory, Research Triangle Park, NC, November 2000.

The solution of the advection equation in three-dimensional air quality models, Duke University, Department of Civil and Environmental Engineering, Durham, NC, October 2000.

Aerosol formation from atmospheric organic oxidation, Duke University, Pratt School of Engineering and Nicholas School of the Environment, Durham, NC, September 2000.

Military effects on the environment, California Institute of Technology, Environmental Quality Laboratory Seminar Series, Pasadena, CA, June 2000.

Secondary organic aerosol formation from the atmospheric oxidation of organics, Brookhaven National Laboratory, Division of Environmental Chemistry, Upton, NY, April 2000.

Secondary organic aerosol formation from the atmospheric oxidation of organics, Duke University, Department of Civil and Environmental Engineering, Durham, NC, April 2000.

An overview of the importance of organic species in atmospheric aerosols, University of California Irvine, Department of Mechanical and Aerospace Engineering, Irvine, CA, March 2000.

Secondary organic aerosol formation from the atmospheric oxidation of organics, University of California San Diego, Department of Chemistry and Biochemistry, San Diego, CA, March 2000.

Secondary organic aerosol formation from the atmospheric oxidation of organics, University of Massachusetts at Amherst, Department of Chemical Engineering, Amherst, MA, February 2000.

Killer trees?, California Institute of Technology, Environmental Quality Laboratory Seminar Series, Pasadena, CA, September 1998.

Aerosol formation from the oxidation of organics in the atmosphere, Jet Propulsion Laboratory, Atmospheric Chemistry Seminar Series, Pasadena, CA, September 1998.

**CONTRIBUTED PRESENTATIONS**

(Presenting author in bold, underlined author indicates member of my research group)

**A. Bui**, Y.J. Leong, N. Sanchez, H.W. Wallace, and R. Griffin, Distribution, influential factors, and sources of aerosol liquid water during the DISCOVER-AQ 2013 campaign in Houston, TX, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015. (poster)

**M. Dawson,** J. Xu, R. Griffin, and D. Dabdub, Dynamics of aromatic-derived SOA in the South Coast Air Basin of California, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015.

**C. Hernandez**, Y.J. Leong, and R. Griffin, Analysis of particle number concentrations in Houston, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015. (poster)

**B. Karakurt Cevik**, Y.J. Leong, C. Hernandez, and R. Griffin, Characterization of ambient aerosol concentration, composition, and aging during the Southern Oxidant and Aerosol Study, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015. (poster)

**Y.J. Leong**, N. Sanchez, H.W. Wallace, B. Karakurt Cevik, J. Flynn, Y. Han, P. Massoli, C. Floerchinger, E. Fortner, S. Herndon, B. Lefer, and R. Griffin, Overview of surface

measurements of submicron particulate matter in the greater Houston area during the DISCOVER-AQ 2013 field campaign, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015.

**N. Sanchez**, Y.J. Leong, H.W. Wallace, B. Karakurt Cevik, J. Flynn, B. Lefer, and R. Griffin, Understanding the character and dynamics of organic aerosol in the Houston area using multi-way factor analysis, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015.

**B. Schulze**, H.W. Wallace, and R. Griffin, Modeling nitrate radical oxidation of biogenic volatile organic compounds above and below the canopy during CABINEX 2009, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015. (poster)

**H.W. Wallace**, Y.J. Leong, N. Sanchez, B. Schulze, J. Flynn, B. Lefer, and R. Griffin, Houston Aerosol Characterization and Health Experiment: A two-year health impacts survey of chemically resolved, non-refractory $PM_1$ in the Houston, TX metropolitan area, *American Association for Aerosol Research Annual Meeting*, Minneapolis, MN, October 2015. (poster)

**B. Czader**, D. Cohan, N. Sanchez, F. Tittel, and R. Griffin, Mapping the saptial distribution of methane in Houston, Texas, *Community Modeling and Analysis System Conference*, Chapel Hill, NC, October 2015.

Y.J. Leong, N.P. Sanchez**,** H.W. Wallace IV, A.T Bui, C.S. Hernandez, B. Karakurt Cevik, J.H. Flynn, B. Lefer, and **R.J. Griffin**, Overview of surface $PM_1$ measurements during DISCOVER-AQ Houston 2013, *Atmospheric Chemistry Gordon Research Conference*, Waterville Valley, NH, August 2015.

**R.J. Griffin** and B.L. Lefer, Surface data analyses for Houston during DISCOVER-AQ 2013, *Texas Commission on Environmental Quality Air Quality Research Program Workshop*, Austin, TX, June 2015.

**L. Judd, Y. Han**, B. Lefer, and R. Griffin, Photochemical modeling of ozone production during DISCOVER-AQ Texas, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**B. Karakurt Cevik**, Y.J. Leong, C. Hernandez, R. Griffin, and D. Collins, Characterization of ambient aerosol concentration, composition, and aging during the Southern Oxidant and Aerosol Study, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**Y.J. Leong, N.P. Sanchez,** H.W. Wallace IV, B. Karakurt Cevik, A. Bui, Y. Han, J.H. Flynn, B. Lefer, R.W. Talbot, P.L. Laine, X. Lan, D. Anderson, and R.J. Griffin, Overview of surface measurements of PM during the DISCOVER-AQ 2013 campaign in Houston, TX, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**Y.J. Leong,** A.P. Rutter, H.Y. Wong, C.V. Gutierrez, M. Junaid, E. Scheuer, L. Gong, R. Lewicki, J.E. Dibb, F.K. Tittel, and R.J. Griffin, Impact of environmental variables on the reduction of $HNO_3$ by proxies for VOCs emitted by motor vehicles, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster).

**N.P. Sanchez**, Y. Cao, M. Jahjah, W. Jiang, W. Ren, S.C. Herndon, R.J. Griffin, and F.K. Tittel, Detection of atmospheric hydrogen peroxide, methane and nitrous oxide by mid-infrared laser spectroscopy, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**B.C. Schulze,** H.W. Wallace IV, and R.J. Griffin, Modeling nitrate radical oxidation of BVOCs above and below the forest canopy during CABINEX 2009, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**H.W. Wallace IV**, K.M. Osiecki, J.H. Flynn, B. Lefer, S. Alvarez, B.C. Schulze, Y.J. Leong, N.P. Sanchez, M. Brewer, R.T. Kimbro, J.T. Denney, and R.J. Griffin, Houston Aerosol Characterization and Health Experiment: A two-year health impacts survey of chemically resolved, non-refractory $PM_1$ in the Houston, TX metropolitan area, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**H.W. Wallace IV,** Y.J. Leong, B.C. Schulze, B. Karakurt Cevik, J.H. Flynn, D. Anderson, M. Camp, B.L. Lefer, and R.J. Griffin, Characterization of nocturnal aerosol formation in Houston during DISCOVER-AQ, *Texas Air Quality Symposium*, Austin, TX, April 2015. (poster)

**B. Lefer**, J. Flynn, L. Judd, X. Ren, M. Estes, and R. Griffin, The spatial and temporal variability of ozone in the Houston metropolitan area during DISCOVER-AQ and its relation to meteorological conditions, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2014.

**P. Louchouarn**, R. Griffin, M. Norwood, A. Sterne, and B. Karakurt Cevik, Signatures of biomass burning aerosols during a smoke plume event from a saltmarsh wildfire in South Texas, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2014. (poster)

**R. Sheesley**, T. Barrett, S. Yoon, A. Clark, L. Hildebrandt-Ruiz, R. Griffin, B. Karakurt Cevik, R. Long, R. Duvall, and S. Usenko, Spatial trends in surface-based carbonaceous aerosol, including organic, water-soluble, and elemental carbon, during DISCOVER-AQ in Houston, TX, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2014. (poster)

H.W. Wallace, Y.J. Leong, B.K. Cevik, M.G. Camp, J.H. Flynn, B.L. Lefer, and **R.J. Griffin**, Characterization of nocturnal aerosol formation in Houston during DISCOVER-AQ, *American Association for Aerosol Research Annual Meeting*, Orlando, FL, October 2014.

R. Ferrare, J. Crawford, R. Griffin, C.Hostetler, B. Anderson, B. Holben, R. Hoff, A. Beyersdorf, and L. Ziemba, DISCOVER-AQ investigation of aerosol impacts on air quality over Houston, *American Association for Aerosol Research Annual Meeting*, Orlando, FL, October 2014.

H.W. Wallace, Y.J. Leong, B.K. Cevik, M.G. Camp, J.H. Flynn, B.L. Lefer, and **R.J. Griffin**, Characterization of nocturnal aerosol formation in Houston during DISCOVER-AQ, *International Global Atmospheric Chemistry Quadrennial Meeting*, Natal, Brazil, September 2014. (poster)

**Y.J. Leong**, A.P. Rutter, C.V. Gutierrez, H.Y. Wong, M. Junaid, E. Scheuer, J.E. Dibb, and R.J. Griffin, The impact of environmental variables on the reduction of $HNO_3$ by volatile organic compounds emitted by motor vehicles, *American Chemical Society Annual Meeting*, San Francisco, CA, August 2014.

**H.W. Wallace**, Y.J. Leong, B. Lefer, B.K. Cevik, J.H. Flynn, R.W. Talbot, P.L. Laine, B.C. Sive, X. Lan, D. Anderson, Y. Zhou, M. Camp, and R.J. Griffin, Characterization of aerosol organic nitrate in the outflow from Houston, TX, during the DISCOVER-AQ campaign, *American Chemical Society Annual Meeting*, San Francisco, CA, August 2014.

**F.K. Tittel**, W. Ren, N.P. Sanchez, W. Jiang, P. Patimisco, V. Spangolo, and R.J. Griffin, Mid-infrared semi-conductor laser-based trace gas sensor technologies: Recent advances and applications, *FLAIR – Field Laser Applications in Industry and Research*, Pratolino, Italy, May 2014.

**N. Sanchez**, M. Jahjah, W. Jiang, W. Ren, P. Patimisco, V. Spagnolo, S. Herndon, R.J. Griffin, and F.K. Tittel, Atmospheric $CH_4$ and $N_2O$ measurements near greater Houston area landfills using a QCL-based QEPAS sensor system during DISCOVER-AQ 2013, *AQAST Semi-Annual Meeting,* Houston, TX, January 2014. (poster)

Y.J. Leong, **H.W. Wallace**, B. Lefer, B.K. Cevik, J.H. Flynn, R.W. Talbot, P.L. Laine, B.C. Sive, X. Lan, D. Anderson, Y. Zhou, M. Camp, and R.J. Griffin, Chemical characterization of submicron aerosol emissions in the greater Houston area using an aerosol mass spectrometer on a mobile platform, *AQAST Semi-Annual Meeting,* Houston, TX, January 2014. (poster)

**J. Xu,** Y. Liu, S. Nakao, D.R. Cocker III, and R.J. Griffin**,** Simulation of SOA formation and composition from oxidation of toluene and m-xylene in chamber experiments, *AQAST Semi-Annual Meeting,* Houston, TX, January 2014. (poster)

**B.K. Cevik**, Y.J. Leong, C. Hernandez, R.J. Griffin, Characterization of ambient aerosols during the Southern Oxidant and Aerosol Study (SOAS) in Centreville, AL, with a high-resolution time-of-flight aerosol mass spectrometer, *American Geophysical Union Winter Meeting,* San Francisco, CA, December 2013. (poster)

**Y.J. Leong**, H.W. Wallace, B. Lefer, B.K. Cevik, J.H. Flynn, R.W. Talbot, P.L. Laine, B.C. Sive, X. Lan, D. Anderson, Y. Zhou, M. Camp, R.J. Griffin, Chemical characterization of submicron aerosol emissions in the greater Houston area using an aerosol mass spectrometer on a mobile platform, *American Geophysical Union Winter Meeting,* San Francisco, CA, December 2013. (poster)

**J. Xu,** Y. Liu, S. Nakao, D.R. Cocker III, and R.J. Griffin**,** Simulation of SOA formation and composition from oxidation of toluene and m-xylene in chamber experiments, *American Geophysical Union Winter Meeting,* San Francisco, CA, December 2013. (poster)

D. Collins, **N. Taylor**, J. Matus, C. Antonietti, C. Spencer, R. Griffin, Y.J. Leong, B.K. Cevik, Measurement of the sensitivity of biogenic SOA formation under ambient conditions to anthropogenic factors using a new captive aerosol growth and evolution chamber system during the Southern Oxidant and Aerosol Study, *American Association for Aerosol Research Annual Conference,* Portland, OR, October 2013. (poster)

**S. Kim**, A.B. Guenther, T. Karl, B.L. Lefer, J.H. Flynn, R.J. Griffin, and A.P. Rutter, Sub-urban OH response to isoprene chemistry: A case study in the Dallas Fort-Worth area, *American Geophysical Union Winter Meeting,* San Francisco, CA, December 2012. (poster)

**A.P. Rutter**, Q. Malloy, E. Scheuer, C. Gutierrez, M. Calzada, J.E. Dibb, and R.J. Griffin, The reduction of $HNO_3$ to HONO by volatile organic compounds associated with rush hour traffic, *American Geophysical Union Winter Meeting,* San Francisco, CA, December 2012. (poster)

**L. Gong**, R. Lewicki, R.J. Griffin, A. Rutter, F.K. Tittel, B.L. Lefer, J.H. Flynn, J.E. Dibb, and E. Scheuer, Gas-particle partitioning of ammonia in the Fort Worth, TX area, *American Association for Aerosol Research Annual Conference,* Minneapolis, MN, October 2012. (poster)

**B. Karakurt Cevik,** L. Gong, R. Lewicki, R.J. Griffin, A. Rutter, F.K. Tittel, B.L. Lefer, J.H. Flynn, J.E. Dibb, and E. Scheuer, Comparison of estimates of airmass aging using particle and other measurements near Fort Worth, TX, *American Association for Aerosol Research Annual Conference,* Minneapolis, MN, October 2012.

**Y.J. Leong**, C. Gutierrez, R.J. Griffin, and B.L. Lefer, Measurement of aerosol number concentrations in Houston, TX, *American Association for Aerosol Research Annual Conference,* Minneapolis, MN, October 2012. (poster)

**A. P. Rutter**, B. Karakurt Cevik**,** K.M. Shakya, L. Gong, C. Gutierrez, M. Calzada, S. Kim, R.J. Griffin, J.H. Flynn, and B.L. Lefer, Source apportionment of organic aerosols and VOCs near Fort Worth, TX, *American Association for Aerosol Research Annual Conference,* Minneapolis, MN, October 2012.

**L. Gong**, R. Lewicki, R.J. Griffin, J.H. Flynn, B.L. Lefer, and F.K. Tittel, Atmospheric ammonia measurements in Houston, TX and their implications for particulate matter formation, *American Association for Aerosol Research Annual Conference,* Orlando, FL, October 2011.

**Y. Liu**, S. Nakao, P. Tang, D. Cocker, and R.J. Griffin, Computational simulation of secondary organic aerosol from toluene oxidation, *American Association for Aerosol Research Annual Conference,* Orlando, FL, October 2011. (poster)

**K.M. Shakya**, P. Louchouarn, and R.J. Griffin, Lignin-derived phenols in Houston aerosols: Implications for natural background sources, *American Association for Aerosol Research Annual Conference,* Orlando, FL, October 2011. (poster)

**Rutter, A. P.**; Shakya, K.M., Lehr, R.M., Parman, A.M., Schauer, J. J., Griffin, R.J., Oxidation of gaseous elemental mercury in simulated urban smog, *International Conference on Mercury as a Global Pollutant*, Halifax, NS, Canada, July 2011. (poster)

**L. Gong**, R. Lewicki, R.J. Griffin, J.H. Flynn, B.L. Lefer, and F.K. Tittel, Atmospheric ammonia measurements in Houston, TX using an external cavity-quantum cascade laser-based sensor, *American Geophysical Union Fall Meeting*, San Francisco, CA, December 2010 (poster).

**K.M. Shakya**, P.F. Place, Jr., R.J. Griffin, A.P. Ouimette, and R. Talbot, Characterization of stable carbon and nitrogen isotopes in aerosols at a semi-rural New England location: Temporal variations and implications for sources, *American Geophysical Union Fall Meeting*, San Francisco, CA, December 2010 (poster).

**K.M. Shakya**, P.F. Place, Jr., L.D. Ziemba, and R.J. Griffin, Seasonal characterization of atmospheric organic aerosols at a rural location in New Hampshire**,** *American Association for Aerosol Research Annual Conference,* Portland, OR, October 2010 (poster).

**Q.J.G. Malloy**, R.J. Griffin, and J.E. Dibb, Formation of HONO via heterogeneous reaction of nitric acid and primary organic aerosol, *American Association for Aerosol Research Annual Conference,* Portland, OR, October 2010.

**W.L. Chang**, R.J. Griffin, and D. Dabdub, Phase partitioning preference for secondary organic aerosol in an urban atmosphere, *American Association for Aerosol Research Annual Conference,* Portland, OR, October 2010.

**Q.J.G. Malloy**, R.J. Griffin, and J.E. Dibb, Formation of HONO via heterogeneous reaction of nitric acid and primary organic aerosol, *International Aerosol Conference,* Helsinki, Finland, August 2010 (poster).

**K.M. Shakya**, A.P. Rutter, R.M. Lehr, A.M. Parman, J.J. Schauer, and R.J. Griffin, Net oxidation rates of gaseous elemental mercury in simulated urban smog, *American Geophysical Union Fall Meeting*, San Francisco, CA, December 2009. (poster)

**O. Klemm**, L.D. Ziemba, B.C. Sive, R.J. Griffin, and R.W. Talbot, Highly time-resolved observation of a particle growth event, *European Aerosol Conference*, Karlsruhe, Germany, November 2009. (poster)

**C.E. Jordan**, P. Ziemann, R. Griffin, Y. Lim, R. Atkinson, and J. Arey, Modeling SOA formation from OH reactions with $C_8$ - $C_{17}$ *n*-alkanes, *American Association for Aerosol Research Annual Meeting*, Orlando, FL, October 2008. (poster)

**P. Place**, L.D. Ziemba, and R.J. Griffin, Observations of nucleation-mode particle events and size distributions at a rural New England site, *American Association for Aerosol Research Annual Meeting*, Orlando, FL, October 2008. (poster)

**K.M. Shakya** and R.J. Griffin, Characteristics of carbonaceous aerosols during winter in Kathmandu, Nepal, *American Association for Aerosol Research Annual Meeting*, Orlando, FL, October 2008. (poster)

**L.D. Ziemba,** R. Griffin, J. Dibb, and P. Beckman**,** Summertime aerosol size distributions at Summit, Greenland, *American Association for Aerosol Research Annual Meeting*, Orlando, FL, October 2008. (poster)

**B. Rappenglück** et al., Texas Air Quality Study II Radical and Aerosol Measurement Program, *European Geosciences Union Annual Meeting*, Vienna, Austria, April 2008.

L.D. Ziemba, R.J. Griffin, C.H. Anderson, **J.E. Dibb**, S.I. Whitlow, B. Lefer, J. Flynn, and B. Rappenglück, Interactions of gas-phase nitric/nitrous acids and primary organic aerosol in the atmosphere of Houston, TX, *Workshop on Nitrous Acid: Tropospheric Chemistry, Measurement Techniques and Future Directions*, Wuppertal, Germany, March 2008. (poster)

**J. Stutz** et al., Influence of vertical mixing on the distribution of trace gases during the 2006 TRAMP experiment in Houston, TX, *10th Conference on Atmospheric Chemistry*, *American Meteorological Society*, New Orleans, LA, January 2008.

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**L.D. Ziemba**, R.J. Griffin, J.E. Dibb, C.H. Anderson, S.I. Whitlow, B. Lefer, J. Flynn, and B. Rappenglück, Interactions of gas-phase nitric/nitrous acids and primary organic aerosol in the atmosphere of Houston, TX, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2007. (poster)

J. **Chen** and R.J. Griffin, Simulating secondary organic aerosol formation from cloud processing of organic compounds in CMAQ-MADRID**,** *International Aerosol Modeling Algorithms Conference*, Davis, CA, December 2007.

**S.L. Clegg**, M.J. Kleeman, R.J. Griffin, and J.H. Seinfeld, Effects of uncertainties in the thermodynamic properties of organic aerosol components in an air quality model, *American Association for Aerosol Research Annual Meeting*, Reno, NV, September 2007.

K. **Dzepina** et al., Comparison of several secondary organic aerosol (SOA) models for a Mexico City case study of April 9, 2003, *American Association for Aerosol Research Annual Meeting*, Reno, NV, September 2007. (poster)

L.D. Ziemba, **R.J. Griffin**, C.H. Anderson, J.E. Dibb, S.I. Whitlow, B. Lefer, J. Flynn, and B. Rappenglück, Interaction of gas-phase nitric acid and primary organic aerosol in the atmosphere of Houston, TX, *American Association for Aerosol Research Annual Meeting,* Reno, NV, September 2007.

**G. Hagler**, M.H. Bergin, E. Smith, J.E. Dibb, C. Anderson, R. Griffin, J.J. Schauer, M.M. Shafer, E. von Schneidemesser, and E. Steig, Atmospheric and snow-phase carbonaceous species on the Greenland Ice Sheet, *European Geophysical Union Annual Meeting*, Vienna, Austria, April 2007. (poster)

**L.D. Ziemba**, R.J. Griffin, S.I. Whitlow, and R.W. Talbot, Chemical characterization of the water-soluble fraction of size segregated organic aerosol at two sites in New England, *Northeast Section Geological Society of America Meeting*, Durham, NH, March 2007. (poster)

**C.H. Anderson**, J.E. Dibb, R.J. Griffin, G.S.W. Hagler, and M.H. Bergin, Water-soluble organic carbon measurements at Summit, Greenland, *Northeast Section Geological Society of America Meeting*, Durham, NH, March 2007. (poster)

**X. Cai** and R.J. Griffin, Aerosol formation from the oxidation of aromatic hydrocarbons by chlorine, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2006. (poster)

**J. Chen**, R.J. Griffin, H. Mao, and R. Talbot, Modeling secondary organic aerosol formation through the aqueous-phase processing of organic compounds, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2006. (poster)

**C.E. Jordan**, P.J. Ziemann, R.J. Griffin, Y.-B. Lim, R. Atkinson, and J. Arey, Modeling the transition from predominantly gas- to predominantly aerosol-phase products from OH reactions with the homologous series of $C_{10}$ to $C_{15}$ *n*-alkanes, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2006. (poster)

**A.A.P. Pszenny** et al., Aerosol and inorganic gaseous iodine at Appledore Island, Maine, during summers 2004, 2005, and 2006, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2006.

**Q. Zhang** et al., Organic aerosols in rural and remote atmospheric environments: Insights from aerosol mass spectrometry, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2006.

**L.D. Ziemba**, R.J. Griffin, S.I. Whitlow, and R.W. Talbot, Chemical characterization of the water soluble fraction of size segregated organic aerosol at two sites in New England, *American Geophysical Union Winter Meeting*, San Francisco, CA, December 2006. (poster)

**J. Chen**, R.J. Griffin, H. Mao, and R. Talbot, Modeling secondary organic aerosol formation through the aqueous-phase processing of organic compounds, *International Conference on Atmospheric Chemical Mechanisms,* Davis, CA, December 2006. (poster)

**C.E. Jordan**, P.J. Ziemann, R.J. Griffin, Y.-B. Lim, R. Atkinson, and J. Arey, Modeling the transition from predominantly gas- to predominantly aerosol-phase products from OH reactions with the homologous series of $C_{10}$ to $C_{15}$ *n*-alkanes, *International Conference on Atmospheric Chemical Mechanisms,* Davis, CA, December 2006. (poster)

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The Houston Endowment, *Houston Aerosol Characterization and Health Experiment*, 06/01/13-05/31/17, $1,160,000. (PI, $426,000 CEVE portion of collaborative proposal with University of Houston and other Rice faculty)

The National Science Foundation, *Source Apportionment of Anthropogenic Secondary Organic Aerosol*, 07/01/14-06/30/17, $400,000. (co-PI, $39,156 Rice portion of collaborative proposal with University of Iowa)

The Texas Commission on Environmental Quality, *Analysis of Impacts of Nitrogen Oxides, Volatile Organic Compounds, and Meteorological Variables on Ozone and Ozone Production at Two Key Sites in Houston*, 02/23/15-5/31/16, $136,790. (co-I, $66,931 Rice portion of collaborative proposal with University of Houston)

The Shell Center for Sustainability, *An Observational and Modeling Study of Natural Gas Leakage in Urban Houston*, 04/01/15-03/31/17, $100,000. (PI with other Rice faculty)

MIRTHE NSF Engineering Research Center, *Continued Refinement and Deployment of a Sensor for Atmospheric Hydrogen Peroxide*, 05/01/15-04/30/16, $33,588. (co-PI, MIRTHE administered by Princeton University)