

## **Barbara J. Turpin**

Professor  
Department of Environmental Sciences

**Rutgers University**  
**Department of Environmental Sciences**  
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### **Education**

- 1984            California Institute of Technology  
                  B.S. in Engineering and Applied Science  
                  Academic Focus: Mechanical/Environmental Engineering  
                  Research Focus: Air Pollution
- 1990            OGI School of Science and Engineering  
                  Oregon Health and Science University  
                  Ph.D. in Environmental Science and Engineering

### **Academic Appointments**

- 2005            Promotion to Full Professor with tenure, effective July 2005  
                  Rutgers University, New Brunswick, NJ
- 2002 - 2005    Graduate Program Director, Environmental Sciences (MS and PhD  
                  program, 107 students in 2004)
- 2000-2003     Graduate Program Director, Bioresource Engineering (MS program)
- 2000            Promotion to Associate Professor with tenure, effective July 2000  
                  Rutgers University, New Brunswick, NJ.
- 1994 - 2000    Assistant Professor and Air Quality Specialist  
                  Department of Environmental Sciences and Rutgers Cooperative Extension  
                  Rutgers University, New Brunswick, NJ.
- 1990 - 1994    Postdoctoral Research Associate, Dr. Peter McMurry, Advisor  
                  Particle Technology Laboratory, Department of Mechanical Engineering  
                  University of Minnesota, Minneapolis, MN.
- 1984 - 1990    Doctoral Student and Postdoctoral Associate,  
                  Dr. James Huntzicker, Advisor

Department of Environmental Science and Engineering  
OGI at Oregon Health Sciences University,  
(Formerly Oregon Graduate Center), Beaverton, OR.

- 1984 Summer undergraduate research, Dr. Glen Cass, Advisor  
Department of Environmental Engineering Science  
California Institute of Technology, Pasadena, CA.
- 1983 Summer Undergraduate Research Fellow, Dr. Ned Munger, Advisor  
Public Attitudes Toward Water Reuse in Namibia, Southwest Africa  
Department of Humanities and Social Sciences  
California Institute of Technology, Pasadena, CA.

### **Honors, Appointments and Awards**

- Member, International Commission for Atmospheric Chemistry and Global Pollution, 2010-2014  
Haagen Smit Prize, 2009  
Editorial Advisory Board, *Aerosol Science and Technology*, 2010 – pres.  
Editorial Advisory Board, *Environmental Health Perspectives*, 2009 – pres.  
Editorial Advisory Board, *Environmental Science and Technology*, 2008 – pres.  
Cook College/NJAES Research Excellence Award, Rutgers University, 2004  
Advisory Group Member, IARC Monographs on Air Pollution, WHO, 2004  
Conference Chair for American Association for Aerosol Research National Conference, 2003  
External Advisory Board, AIRES PM Epidemiology Study, 2000-2008  
Merle Adams, Rutgers Cooperative Extension Research Award, 1999  
Board of Directors, American Association of Aerosol Research (AAAR), 1997-2000  
Editorial Advisory Board, *Aerosol Science and Technology*, 1997-2003
- Chair, External Review Team, University of North Carolina, Department of Environmental Sciences and Engineering, External Review, 2010.  
Haagen Smit Prize Committee, 2010  
Invited Expert Panelist, Particulate Matter Peer Review/Authors Workshop, Environmental Protection Agency, Research Triangle Park, NC, June 2008.  
Invited Participant, Electric Power Research Institute Model Development Meeting, EPRI, Palo Alto, CA, May 2008.  
Invited Session Co-Chair, Ambient Air Quality Monitoring and Health Research: Workshop to Discuss Key Issues, Research Triangle Park, NC, April 2008.  
Invited Participant, EPA Workshop to Discuss Policy-Relevant Science to Inform EPA's Integrated Plan for the Review of the Primary PM NAAQS, Research Triangle Park, NC, July 2007.  
Expert Witness for NJ Attorney General, "Identification of Sources Contributing to the Concentration of Atmospheric Fine Particles Measured at Brigantine National Wildlife Refuge in New Jersey," United States et al v. Ohio Edison, US District Court, Southern District of Ohio, Eastern Division, 2003-2005.

Association of Environmental Engineering and Science Professors (AEESP) Plenary Lecturer, American Association for Aerosol Research Annual Conference, Portland, OR, October, 2010.

Plenary Speaker, Particulate Matter: Atmospheric Sciences, Exposure and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, 2003

Workshop Chair, "Chemical Characterization of Atmospheric Organic Aerosols in Support of Health Studies," Electric Power Research Institute, Palo Alto, CA, 1998

Plenary Speaker, Visual Air Quality, Aerosols and Global Radiation Balance, an AWMA Specialty Conference, Bartlet, NH, 1997

Health Effects of Organic Aerosols Workshop, invited participant, Palo Alto, CA, October 2006

Semi-continuous Measurement Technologies in the Context of Health Studies Workshop, at Particulate Matter: Atmospheric Sciences, Exposure and the Fourth Colloquium on PM and Human Health, invited participant, Pittsburgh, PA, 2003

Health Effects Institute Workshop on Air Toxics, invited participant: Baltimore, 2002

DOE Tropospheric Aerosols Program Workshop, invited participant, Brookhaven, 1999

EPA Particulate Matter Research Needs Workshop, invited participant, 1999, 1996

Health Effects Institute Workshop on PM Exposure Assessment, invited participant, National Academy of Sciences, Washington, DC, 1997

NJ DEP National Environmental Performance Partnership Workshop, invited participant, 1996

DOE Research Needs Workshop, invited participant, Boulder, 1993

United States Fencing Team, 1989, 1992, National Champion 1992

## **Major University Committee Assignments and Memberships**

SEBS Appointments and Promotions Committee, 2009-2012

Search Committee member, School of Public Health, 2009-2010

Chair, Environmental Sciences Cluster Hire Faculty Search Committee, 2008-2009

Chair, Dept of Environmental Sciences Curriculum and Education Committee, 2008-2011

SEBS – GSE Faculty Search Committee, 2007-2008

School of Environmental and Biological Sciences Honors Advisory Committee, 2007-2008

Executive Council of the Graduate School of New Brunswick 2007-2008

New Brunswick Faculty Council 2007-2008

Cook College Planning Committee, 2004-2007

Graduate Faculty in Atmospheric Sciences, full member, 2006-

University Senate, 2003-2006

Graduate Program Director, Environmental Sciences, 2002-2005

Chair, Reading Committee for 1 Tenure Candidate, RCE, 2001

Graduate Program Director, Bioresource Engineering, 2000-2003

Chair, Environmental Sciences Search Committee, 2000-2001

Judicial Board, Graduate School-New Brunswick, 2000-2001

Cook College Council Faculty Representative, 1999-2000

Rutgers Cooperative Extension Search Committee, 1999

Environmental Sciences Leadership Input Committee (Dept Chair search), 1998  
Environmental Sciences Dept. External Review Committee, 1997-1998  
Chair, Cook College Affirmative Action Committee, 1997-1998  
Cook College Affirmative Action Committee, Member, 1996-1998  
Environmental Sciences Undergraduate Curriculum Committee, (major revisions) 1996-2000  
Eastern Regional Radon Training Center, Board Member, 1996-2000  
Environmental Sciences Search Committees, 7 faculty lines, 1995-2004  
NIEHS Center of Excellence member, 1995-  
Graduate Faculty in Bioresource Engineering, full member, 1995-2006  
Graduate Faculty in Environmental Sciences, full member, 1994-  
Environmental and Occupational Health Sciences Institute (EOHSI) member, 1994-

### **Memberships in Professional Societies**

American Geophysical Union member (AGU), 2008-  
American Association for Aerosol Research member (AAAR), 1990-  
International Society for Exposure Science member (ISES), 1998-  
American Association for the Advancement of Science member (AAAS), 1998-  
American Association of University Women, 1984-1990; 1997-

### **Peer Review Responsibilities**

Proposal reviewer for:           US National Science Foundation (NSF)  
  US Department of Energy (DOE)  
  US Environmental Protection Agency (EPA)  
  Health Effects Institute (HEI)  
  National Institute of Health (NIH)  
  Swiss National Science Foundation (SNF)  
  NIEHS Center of Excellence, NJ

Journal reviewer for:           Science  
  Nature  
  Environmental Science and Technology  
  Environmental Health Perspectives  
  Journal of Geophysical Research, Atmospheres  
  Atmospheric Environment  
  Journal of Exposure Analysis and Environmental Epidemiology  
  Aerosol Science and Technology  
  Journal of Aerosol Science

## Teaching

107:501	Fundamentals of Atmospheric Sciences; 3 wk Atm Chem Module	2007-2009
117:474	Air Pollution Engineering	Developed; taught in Fall 1995-present
375:524	Source Control of Air Pollution	Taught with 127:474 1995-present
375:203	Physical Princ. of Environ. Science	Co-developed; taught in Spring 1999-present
375:422	Air Sampling and Analysis	Lecture/lab, taught in Spring 1995-1999
117:488	Bioenv. Engineering Senior Design	Advised 1 team/yr 1994-1997

Participant, Bioenvironmental Engineering Undergraduate Curriculum and ABET assessment process for engineering accreditation, an on-going process

## Advising

### *Postdoctoral Research Advisor*

Yong Bin Lim	2008-	
Mark Perri	2007-2009	with Sybil Seitzinger Dr Perri is now an Assist. Prof, Sonoma State Univ.
Qing Yu Meng	2004-2005	Dr. Meng is employed at EPA, North Carolina
Ho-Jin Lim	2001-2005	Dr Lim is now an Assist. Prof, Kyungpook National University, Daegu, Korea
John Offenber	2001-2003	Dreyfus Postdoc with Dr. Steven Eisenreich Dr. Offenber is an EPA Scientist, North Carolina
Jong Hoon Lee	1999-2003	Dr. Lee is a Scientist at the California Air Quality Management District
Wenxuan (William) Cui	1998-1999	

### *PhD Advisor*

Natasha Hodas	student	2008- Atmospheric Sciences
Diana Ortiz	candidate	2007- Environmental Sciences
Yi Tan	candidate	2005- Environmental Sciences, Fate & Effects Opt
Katy Altieri		“Insights into the Molecular Level Composition, Sources and Formation Mechanisms of Dissolved Organic Matter in Aerosols and Precipitation,” PhD Dissertation, Marine Sciences, Rutgers University, 2004-2009. Seitzinger Advisor; Turpin Co-Advisor.
Ann Marie Carlton		“Secondary Organic Aerosol (SOA) Formation Through Cloud Processing: Aqueous Photooxidation of Glyoxal and Methylglyoxal,” PhD Dissertation,

Environmental Sciences, Rutgers University, 2003- 2006.

- Andrea Polidori "Characterizing the Origin and Polarity of Organic Aerosol," PhD Dissertation, Environmental Sciences, Rutgers University, 2001-2005.
- Adam Reff "PM2.5 Exposure Assessment Using FTIR Spectroscopy" PhD Dissertation, Environmental Sciences, Rutgers University, 2000-2005.
- Qing Yu Meng "Mechanistic Investigation of the Relationship of Indoor, Outdoor and Personal PM<sub>2.5</sub>," PhD Dissertation, Environmental Sciences, Rutgers University, 2000-2004. (also awarded MS in Statistics)
- Ho-Jin Lim "Semi-Continuous Aerosol Carbon Measurements: Addressing Atmospheric Processes of Local and Global Concern," PhD Dissertation, Environmental Sciences, Rutgers University, 1996-2001.
- Nares Chuersuwat "New Jersey PM2.5: Issues Pertaining to the Development of Effective Control Strategies," PhD Dissertation, Environmental Sciences, Rutgers University, 1996-2000.
- Tsung Hung Li "Generation, Characterization, Aerosol Partitioning, and Indoor Measurements of Hydrogen Peroxide for Exposure and Toxicological Assessment," PhD Dissertation, Environmental Sciences, Rutgers University, 1995-2000.
- James Blando "Secondary Formation of Organic Particulate Matter in the Smoky Mountains," PhD Dissertation, Environmental Sciences, Rutgers University, 1995- 1999.
- Lisa Zussman "Development of Methods to Examine the Effects of Atmospheric Particulate Matter (PM) on Human Peripheral Blood Leukocytes," PhD Dissertation, Environmental Sciences, Rutgers University, 1994-1999.

***MS Advisor (thesis)***

Anjuli Ramos	Student	2009-	Environmental Sciences
Jeff Kirkland	Student	2008-	Environmental Sciences

Craig Anderson "Assesment of Railway Activity and Train Noise Exposure: A Teaneck, New Jersey Case Study," MS Thesis, Atmospheric Sciences, Rutgers University, 2006-2009.

Yasuko Yoshida "Advanced Trajectory Analysis to Examine the Influence of Sources and

Source Regions on the Regional Mid-Atlantic States Aerosol," MS Thesis, Environmental Sciences, Rutgers University, 1999-2001.

Ann Marie Carlton "Design and Method Development for Size-Segregation and Chemical Analysis of Personal Aerosol Exposures," MS Thesis, Bioresource Engineering, Rutgers University, 1994-1999.

Nares Chuerswan "Aerosol Carbon in New Jersey," MS Thesis, Environmental Sciences, Rutgers University, 1994-1996.

***MS Advisor (coursework)***

Francesco Maimone	graduated	2004-2008	Environmental Sciences
Stan Mak (returning student)	graduated	2007-2008	Environmental Sciences
Dawn Mason	graduated	2001-2003	Bioresource Engineering
Ritu Mody	graduated	1998-2000	Environmental Sciences
Michael Klien	graduated	1996-1999	Environmental Sciences
James DeNoble	graduated	1996-1999	Environmental Sciences
William Bull	graduated	1994-1997	Environmental Sciences
Keith Glynn	graduated	1993-1995	Environmental Sciences

***MS, PhD Committee Member***

numerous students in Rutgers Environmental Science Program and the following from outside:

Mohammed Tawfiq "Development of Laboratory-Scale Burning Facility to Simulate Real-Time Burning of Tropical Biomass Species," Nik Mariam Nik Sulaiman advisor, University of Malaya, Kuala Lumpur, October 2009.

Elizabeth Galarneau "Semivolatile Polycyclic Aromatic Hydrocarbons: Particle/Gas Partitioning Measurements and Models," Miriam Diamond advisor, University of Toronto, Canada, January 2007.

Raphael Tremblay "Organic Speciation of Size-Segregated Atmospheric Particulate Matter," PhD Dissertation, Rod Zika advisor, University of Miami, Coral Gables, Florida, USA, August 2006.

Elizabeth Cunningham "A Study of Nanoparticles: Silica Fume and Woodsmoke," PhD Dissertation, John Todd advisor, University of Tasmania, Hobart, Australia, 2002.

Po-Fu Huang "Single Particle Analysis by Electron Microscopy: Insights Into Atmospheric Transformations," PhD Dissertation, Peter McMurry advisor, Department of Mechanical Engineering, University of Minnesota, Minneapolis, MN, USA 1997.

### ***Undergraduate Research Advisor***

Anjuli Ramos	RISE program	Cloud processing SOA yields	2008
Antonio Riggi	UG research	Operation of upper-air met site	2008-2010
Mary Moore	UG research	In-cloud SOA modeling	2007-2008
Taylor Hayes	UG research	Modeling train noise exposure	2007-2008
Sumantha Prasad	UG research	Meadowlands OC/EC	2007-2008
Craig Matis	UG research	Noise exposure assessment	2006-2007
Mary Moore	UG research	Operation of upper-air met site	2005-2008
Mark Papier	UG research	Operation of upper-air met site	2002-2004
Francesco Maimone	UG research	Organic PM analysis methods	2001-2003
Tracy Shrestha	Project SUPER	ICP/MS analysis of PM	summer 2001
Sandra Lake	Sr. Thesis, Physics	Measurement of organic PM <sub>2.5</sub>	2000-2001
Marta Chicano	Int. Exchange, Spain	RIOPA field work	summer 2000
Andrea Polidori	Sr. Thesis, Int. Exch., Italy	Organic PM fractionation	2000
Adam Reff	Sr. Thesis, Chemistry	FTIR Spectroscopy of PM <sub>2.5</sub>	1999-2000
Zareen Dadwad	Project SUPER	Solubility of PM in lung fluid	1999
Robert Styles	Sr. Thesis, Chemistry	ICP/MS optimization for PM	1998-1999
Steve Locilento	UG research	PM <sub>2.5</sub> sampling issues	1996-97
Luke Oman	UG research	Operation of upper-air met site	1999-2001
David Bowman	UG research	Sampling and FTIR analysis	summer 1996
Luz Bigay	ACS SEED (HS Jr.)	Impactor performance	summer 1995
Amy Roos*	UG Research Oppor.	Sliver film TEM substrate	summer 1992
Kathy Podolske*	Sr. Thesis, ChemEng	Diffusion Separator	1991

\*Mentored under advisor Peter McMurry

### ***Undergraduate Co-op Advisor***

Nancy Hanna	Johnson and Johnson	1998-1999
Keith Glenn	Roy Weston, Inc	1998
Bharvi Patel	Ingersoll Rand	1998
Tom Battagliese	Testo Inc.	1996-1997
Gretchen Zeigler	Merck	1996
Martin Eide	Ethicon	1996
Jennifer Trepkau	Rutgers Environ. Sci.	1995-1996
Max Achtau	Testo Inc.	1995-1996

## **Research Interests**

**Vision:** To improve the scientific understanding needed to predict the concentrations, properties and effects of organic particulate matter on a local and regional scale, and to understand human exposure to airborne particles and particle-phase species.

**Motivation:** Essential for the development of effective climate change mitigation strategies, air



pollution control strategies, and public health protection.

**Methods:** The development of more rapid and more sensitive instrumentation for sampling and analysis of atmospheric organic aerosols; microscopic mixing characteristics of ambient aerosols, secondary formation of organic aerosols; partitioning of organic compounds between gas and particulate phases; exposure assessment; collaborative aerosol health studies.

## **Research Grants and Contracts**

Principal Investigator, EPA Cooperative Agreement, “Refined Exposure Surrogates for Ambient PM in Epidemiology Studies,” 9/1/08 – 8/31/11, with Melissa Lunden and David Rich, \$199,999.

Principal Investigator, EPA-STAR, “Improved Prediction of In-Cloud Biogenic SOA: Experiments and CMAQ Model Revisions,” 11/01/07-10/31/11, \$598,543.

Principal Investigator, NOAA, “Investigating the In-Cloud Formation of Secondary Organic Aerosol,” 07/01/07-06/30/11, \$458,328.

Principal Investigator, NSF, “Investigating the Aqueous-phase Chemistry of In-Cloud Secondary Organic Aerosol Formation,” 10/1/06-9/31/10, \$432,117.

Principal Investigator, US Environmental Protection Agency, “Study of Train Noise in Teaneck, NJ” with co-PI Eric Zwerling, 9/1/05-8/31/09, \$299,907.

Principal Investigator, WRRI, “A Study of Nitrogen Fluxes in an Urban Wetland to Determine Potential Enhancement of Denitrification after Wetland Restoration and Enhancement,” with co-investigators Sybil Seitzinger and Beth Ravit, 3/1/05-2/28/06, \$30,000.

Co-Project Director, Rutgers University Academic Excellence Fund Project, “Triple Quadrupole GC/MS For Analysis of Trace Organics in Environmental Matrixes,” 2005, \$175,000.

Principal Investigator, UMDNJ Subcontract (Meadowlands Commission) “Baseline Assessment of Meadowlands Air Quality: Particulate Matter Measurements,” 2004-2007, \$22,500.

Principal Investigator, UMDNJ Subcontract (US EPA) “Assessment of the contribution to personal exposures of air toxics from mobile sources: Particulate Matter.” 11/1/03-6/30/04, \$15,550 subcontract, USEPA Project PI: Weisel.

Principal Investigator, UMDNJ Subcontract (American Lung Association) “Capsaicin and citric acid cough sensitivity: Generation and characterization of exposures. 7/1/03-6/31/05, \$19,120 subcontract, ALA Project PI: R. Laumbach.

Principal Investigator, US Environmental Protection Agency, “Secondary and Regional Contributions to Organic PM: A Mechanistic Investigation of Organic PM in the Eastern and Southern United States,” 10/1/03-9/30/07, \$446,061, with Co-I Sybil Seitzinger and Ho-Jin Lim.

Principal Investigator, Center for Environmental Indicators, Exposure to Organic and Elemental Carbon, 7/03-6/05, \$7,000.

Co-Investigator, Health Effects Institute, "Role of Irritant Receptors in Cardiovascular Effects of Fine Airborne Particulate Matter," 11/02-10/04, \$50,000, PI: Dr. Christine Nadziejko, NYU.

Principal Investigator, Center for Environmental Indicators, Measurement of Diesel Indicators: Pilot Study, with Co-I John Offenberg, 6/02-5/03, \$5,400.

Principal Investigator, Electric Power Research Institute, "Characterizing Organic Fine Particulate Matter (PM<sub>2.5</sub>) for the Pittsburgh Supersite," 2/02-6/04, \$50,000.

Principal Investigator, DEP/EPA, "Sources of Air Toxics to the Hudson River Harbor Estuary: Analysis of New Jersey's Atmospheric Deposition Network," 3/1/01-2/28/03, \$133,384.

Principal Investigator, Carnegie Mellon University Subcontract (DOE), The Pittsburgh PM Supersite Program: A Multidisciplinary Consortium for Atmospheric Aerosol Research, "Size and Time-Resolved Measurements of the Organic Fraction of PM<sub>2.5</sub>: Toward a Better Understanding of Exposures and Effective Control Strategies," 2/01-1/05, \$322,000.

Principal Investigator, NSF, "Collaborative Research: Submicron Organic Aerosol Measurements During ACE-Asia," 9/00-8/02, \$71,687.

Principal Investigator, NJ Department of Environmental Protection, "Fine Particle Source Apportionment and Data Analysis," 8/99-7/00, \$83,071.

Principal Investigator, Electric Power Research Institute Grant, "Time-Resolved Organic and Elemental Carbon Measurements for the Atlanta Supersite Experiment," 6/99-5/00, \$15,000.

Principal Investigator, Harvard University Subcontract (EPA), "Pollutant Exposure of COPD-Diagnosed Individuals in Los Angeles," 10/98-9/02, \$250,000.

Principal Investigator, Health Effects Institute Grant, "Contributions of Outdoor PM Sources to Indoor Concentrations and Personal Exposures: A Three City Study," 7/98-12/02, \$1,132,206.

Principal Investigator, Electric Power Research Institute Grant, "Organic PM: Insights Gained from SEAVS and Considerations for Future Studies," 1/98-6/99, \$29,977.

Co Investigator, Health Effects Institute Grant, "Role of Peroxides and Macrophages in Fine Particulate Matter Toxicity," with PI Debbie Laskin, 1/98-12/00, \$440,701.

Co-Investigator, Mickey Lealand Urban Air Toxics Center Grant, "Contributions of Outdoor Sources to Indoor Concentrations and Personal Exposures to Air Toxics," with PI Cliff Weisel,

1/98-12/01, \$1,499,034.

Principal Investigator, NIEHS Center of Excellence Exploratory Research Grant, EOHSI, "Development of an Online Flow Cell Fluorescent Spectrometer for the Measurement of Gas and Particle-Phase Peroxides to Examine their Role in Particle-Induced Injury," with PI Brian Buckley and Debbie Laskin, 1997-1998, \$14,950.

Co Investigator, NIEHS Center of Excellence Exploratory Research Grant, EOHSI, "Separation of Aerosol Organics by Functional Group Composition Using Thin Layer Chromatography," with PI Monica Mazurek, 1996-1997, \$12,500.

Principal Investigator, Electric Power Research Institute Grant, "FTIR Microscopy in the SE Aerosol and Visibility Study," Contract #W09116-02, with co-investigator Paul Liroy, 1995-1998, \$182,100.

Principal Investigator, NIEHS Center of Excellence Exploratory Research Grant, EOHSI, "Development of Personal Exposure Monitoring Methods for Organic Aerosols," with co-investigator Paul Liroy, 1995-96, \$12,272.

Principal Investigator, Rutgers Research Council Grant, "Secondary Formation of Organic Aerosol in New Jersey," 1995-96, \$4,000.

Principal Investigator, NSF Exploratory Research Grant, "The Development of Scanning Electron Microscope Techniques to Ascertain the Microscopic Mixing Characteristics of Atmospheric Aerosols," Grant #9217858, 1992-95, \$18,000.

### **Training/Public Service Grants and Contracts**

Principal Investigator, NJ Department of Environmental Protection, "Operation of Rutgers University Photochemical Assessment Monitoring Site," 5/1/05-4/30/10. \$204,484.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/09-6/11, \$62,932.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/09-6/11, \$56,862.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel,"

7/08-6/09, \$37,766.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/08-6/09, \$28,432.

Principal Investigator, City of Vancouver, "Community Noise Measurement and Enforcement for Vancouver, Canada," 4/08 – 6/08, with Co-PI Eric Zwerling, \$22,133.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/07-6/08, \$26,420.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/07-6/08, \$25,635.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/06-6/07, \$26,420.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/06-6/07, \$25,635.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/05-6/06, \$32,150.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/05-6/06, \$22,730.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/04-6/05, \$17,550.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/04-6/05, \$19,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/03-6/04, \$17,550.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/03-6/04, \$19,000.

Principal Investigator, US Environmental Protection Agency Air Pollution Training Institute, "Air Pollution Training Grant," 10/02-9/07, \$232,500.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/02-6/03, \$17,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with Co-I Eric Zwerling, 7/02-6/03, \$18,000.

Principal Investigator, US Environmental Protection Agency Air Pollution Training Institute, "Air Pollution Training Grant," 9/01-8/02, \$31,500.

Principal Investigator, Dreyfus Foundation Postdoctoral Fellowship, with Dr. Eisenreich, 7/01-6/03, \$48,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/01-6/02, \$17,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/01-6/02, \$18,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/00-6/01, \$17,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/00-6/01, \$18,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/99-6/00, \$17,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/99-6/00, \$18,000.

Principal Investigator, US Environmental Protection Agency Air Pollution Training Institute, "Air Pollution Training Grant," 9/98-8/01, \$210,481.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Visible Emission Evaluation and Odor Enforcement Training to NJDEP and CEHA Agency Personnel," 7/98-6/99, \$14,475.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "NJ Noise Enforcement Training and Technical Assistance," with co-investigator Eric Zwerling, 7/98-6/99, \$16,402.

Principal Investigator, City of Anchorage, "Noise Code Enforcement Training," with co-Investigator Eric Zwerling, 1998, \$5999.

Principal Investigator, NJ Department of Environmental Protection, "Rutgers University Photochemical Assessment Monitoring Site," 1997-2005. \$25,000 annually.

Principal Investigator, City of Seattle, "Noise Enforcement Training Course," with co-investigator Eric Zwerling, 1997-1998, \$5,100.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Community Noise Control Certification Training," with co-investigator Eric Zwerling, 7/96-6/98, \$23,227.

Principal Investigator, US Environmental Protection Agency Air Pollution Training Institute, "Air Pollution Training Grant," 9/95-8/98, \$192,406.

Principal Investigator, US Environmental Protection Agency Air Pollution Training Institute, "Air Pollution Training Grant," 1994-95, \$48,000.

Principal Investigator, NJ Department of Environmental Protection Training Grant, "Community Noise Control Certification Training," Contract #EN94-052, with co-investigator Eric Zwerling, 1994-96, \$20,000.

## **Peer Reviewed Journal Publications**

(\*indicates corresponding author; \*\* indicates member of Dr. Turpin's research group)

86. Tan, Y., Carlton, A. G., Seitzinger, S. P., and **Turpin, B. J.\*** (2010) SOA from methylglyoxal in clouds and wet aerosols: Measurement and prediction of key products, *Atmos. Environ.*, in press, doi:10.1016/j.atmosenv.2010.08.045.
85. Perri,\* M. J., Lim, Y. B., Seitzinger, S. P. and **Turpin, B. J.** (2010) Organosulfates from glycolaldehyde in aqueous aerosols and clouds: Laboratory studies, *Atmos. Environ.*, 44, 2658-2664, doi: 10.1016/j.atmosenv.2010.03.031.

84. Tolocka,\* M. P. and **Turpin, B. J.** (2009) Contribution of organosulfur compounds to organic aerosol mass, in preparation.
83. Tan,\*\* Y., Perri, M. J., Seitzinger, S. P., **Turpin,\* B. J.** (2009) Effects of precursor concentration and acidic sulfate in aqueous glyoxal – OH radical oxidation and implications for secondary organic aerosol, *Environ. Sci. Technol.*, doi: 10.1021/es901742f.
82. Meng,\*\* Q. Y., Spector, D., Colome, S., **Turpin,\* B. J.** (2009) Determinants of indoor and personal exposure to PM<sub>2.5</sub> of indoor and outdoor origin during the RIOPA Study, *Atmos. Environ.*, doi:10.1016/j.atmosenv.2009.07.066.
81. Lim,\*\* Y. B., Tan, Y., Perri, M. J., Seitzinger, S. P., **Turpin, B. J.** (2010) Aqueous chemistry and its role in secondary organic aerosol (SOA) formation,” *Atmos. Chem. Phys. Discuss.*, 10, 14161–14207, doi:10.5194/acpd-10-14161-2010.
80. Maimone,\*\* F., **Turpin,\* B. J.**, Solomon, P., Meng, Q. Y., Robinson, A. L., Subramanian, R., Polidori,\*\* A. (2010) Correction methods for organic carbon artifacts when using quartz-fiber filters in large particulate matter monitoring networks: The regression method and other options, *J. Air Waste Manag. Assoc.*, in review.
79. Sunil, V. R., Patel, K. J., Mainelis, G., **Turpin, B. J.**, Ridgely, S., Laumbach, R. J., Kipen, H. M., Nazarenko, Y., Velepparambil, M. Gow, A. J., Laskin, J. D., Laskin,\* D. L. (2009) Pulmonary effects of inhaled diesel exhaust in aged mice, *Toxicol. Appl. Pharmacology*, doi:10.1016/j.taap.2009.08.025.
78. Altieri,\*\* K., **Turpin, B. J.**, Seitzinger, S. P. (2009) The composition of dissolved organic nitrogen in continental precipitation investigated by ultra-high resolution FT-ICR mass spectrometry, *Environ. Sci. Technol.*, 43:6950-6955, doi: 10.1021/es9007849.
77. Altieri,\*\* K. E., **Turpin, B. J.**, Seitzinger, S. P. (2009) Oligomers, organosulfates, and nitrooxy organosulfates in rainwater identified by ultra-high resolution electrospray ionization FT-ICR mass spectrometry, *Atmos. Chem. Phys.*, 9:2533-2542.
76. Perri,\*\* M., Seitzinger, S. P., **Turpin, B. J.** (2009) Secondary organic aerosol production from aqueous photooxidation of glycolaldehyde: Laboratory experiments, *Atmos. Environ.*, 43:1487-1497.
75. Polidori,\*\* A., Kwon, J. M., **Turpin,\* B. J.**, Weisel, C. (2009) Source proximity and residential outdoor PM<sub>2.5</sub>, OC, EC, and PAHs, *J. Exposure Anal. Environ. Epi.*, advance on-line publication, doi:10.1038/jes.2009.39.
74. Polidori,\*\* A., **Turpin,\* B. J.**, Davidson, C. I., Rodenburg, L. A., Maimone,\*\* F. (2008)

Organic PM<sub>2.5</sub>: Fractionation by polarity, FTIR spectroscopy, and OM/OC ratio for the Pittsburgh aerosol, *Aerosol Sci. Technol.*, 42:233-246.

73. Carlton,\* A. G., Turpin, B. J., Altieri, K., Seitzinger, S., Mathur, R., Roselle, S. (2008) CMAQ model performance enhanced when in-cloud secondary organic aerosol is included: Comparisons of organic carbon predictions with measurements, *Environ. Sci. Technol.*, 42:8798-8802.
72. Ervens,\* B., Carlton,\*\* A. G., **Turpin, B. J.**, Altieri, K. E., Kreidenweis, S. M., Feingold, G. (2008) Secondary organic aerosol yields from cloud-processing of isoprene oxidation products, *Geophys. Res. Lett.*, L02816, 10.1029/2007GL031828.
71. Altieri,\* K. E., Seitzinger, S. P., Carlton,\*\* A. G., **Turpin, B. J.**, Klein, G. C., Marshall, A. G. (2008) Oligomers formed through in-cloud methylglyoxal reactions: Chemical composition, properties, and mechanisms investigated by ultra-high resolution FT-ICR Mass Spectrometry, *Atmos. Environ.*, 42:1476-1490.
70. Mochida,\* M., Umemoto, N., Kawamura K., Lim, H. and Turpin, B. J. (2007) Bimodal size distributions of various organic acids and fatty acids in the marine atmosphere: Influence of anthropogenic aerosols, Asian dusts, and sea spray off the coast of East Asia, *J. Geophys. Res.*, 112, D15209, doi:10.1029/2006JD007773.
69. Carlton,\*\* A. C., **Turpin,\* B. J.**, Altieri, K. E., Reff,\*\* A., Seitzinger, S., Lim, H. J., and Ervens, B. (2007) "Atmospheric Oxalic Acid and SOA Production from Glyoxal: Results of Aqueous Photooxidation Experiments," *Atmos. Environ.* 41:7588-7602, doi: 10/1016/j.atmosenv.2007.05034.
68. Meng,\*\* Q. Y., **Turpin,\* B. J.**, Polidori,\*\* A., Lee,\*\* J. H., Weisel, C. P., Morandi, M., Colome, S., Zhang, J. Stock, T., and Winer, A. (2007) "How Does Infiltration Behavior Modify the Composition of Ambient PM<sub>2.5</sub> in Indoor Spaces? An Analysis of RIOPA Data." *Environ. Sci. Technol.* 41:7315-7321.
67. Reff,\*\* A., **Turpin,\* B. J.**, Weisel, C. P., Zhang, J., Morandi, M., Stock, T., Colome, S., Winer, A. (2007) "A Functional Group Characterization of Organic PM<sub>2.5</sub> Exposure: Results from the RIOPA Study." *Atmos. Environ.*, 41:4585-4598, 10.1016/j.atmosenv.2007.03.054.
66. Sunil, V. R., Laumbach, R., Patel, K. J., **Turpin, B. J.**, Lim,\*\* H. J., Kipen, H. M., Laskin, J. D., and Laskin,\* D. L. (2007) "Pulmonary Effects of Inhaled Limonene Ozone Reaction Products in Elderly Rats," *Toxicol. Appl. Pharmacology*, 222:211-220, doi:10.1016/j.taap.2007.05.003.
65. Carlton,\*\* A. G., **Turpin,\* B. J.**, Lim, H. J., Altieri, K. E., and Seitzinger, S. (2006) "Link



Between Isoprene and SOA: Pyruvic Acid Oxidation Yields Low Volatility Organic Acids in Clouds.” *Geophys. Res. Lett.*, 33, L06822, doi:10.1029/2005GL025374.

64. Altieri, K. E., Carlton,\*\* A. G., Lim,\*\* H. J., **Turpin, B. J.**, Seitzinger,\* S. (2006) “Evidence for oligomer formation in clouds: Reactions of isoprene oxidation products.” *Environ. Sci. Technol.*, 40:4956-4960, 10.1021/es052170n.
63. Liu, W., Zhang,\* J. Kwon, J., Weisel, C., Zhang, L., Korn, L., **Turpin, B.J.**, Morandi, M., Stock, T., Colome, S. (2006) “Concentrations and source characteristics of airborne carbonyls measured outside urban residences.” *J. Air Waste Manag. Assoc.*, 56: 1196-1204.
62. Kwon, J., Weisel,\* C.P., **Turpin, B.J.**, Zhang, J., Korn, L.R., Morandi, M., Stock, T., Colome, S. (2006) “Source proximity and outdoor residential VOC concentrations: Results from the RIOPA Study.” *Environ. Sci. Technol.* 40: 4074-4082.
61. Polidori,\*\* A., **Turpin,\* B.J.**, Meng,\*\* Q.Y., Lee,\*\* J.H., Weisel, C., Morandi, M., Colome, S., Stock, T., Winer, A., Zhang, J., Kwon, J., Alimokhtari, S., Shendell, D., Jones, J., Farrar, C., Maberti, S. (2006) Fine organic particulate matter dominates indoor-generated PM<sub>2.5</sub> in RIOPA homes.” *J. Exposure Anal. Environ. Epi.* 16:321-331, doi: 10.1038/sj.jea.7500476.
60. Polidori,\*\* A., **Turpin,\* B.J.**, Lim,\*\* H.J., Cabada, J.C., Subramanian, R., Robinson, A.L., and Pandis, S.N. (2006) “Local and regional secondary organic aerosol: Insights from a year of semi-continuous measurements at Pittsburgh.” *Aerosol Sci. Technol.* 40:861-872.
59. Pang,\* Y., **Turpin, B.J.** and Gundel, L.A. (2006) “On the importance of organic oxygen for understanding organic aerosol particles.” *Aerosol Sci. Technol.* 40, 128-133.
58. Weitkamp, E.A., Lipsky, E.M., Pancreas, P., Ondov, J., Polidori,\*\* A., **Turpin, B.J.**, Robinson,\* A.L. (2005) “Fine particle emission profile for a large coke production facility based on highly time resolved fence line measurements.” *Atmos. Environ.* 39:6719-6733.
57. Liu, W., Zhang,\* J., Zhang, L., **Turpin, B.**, Weisel, C., Morandi, M., Stock, T., Colome, S., Korn, L. (2006) “Estimating contributions of indoor and outdoor sources to indoor carbonyl concentrations in three urban areas of the United States.” *Atmospheric Environ.*, 40:2202-2214.
56. Chuersuwan,\*\* N., Lee,\*\* J. H. and **Turpin,\* B. J.** (2008) “Local and regional contributions to PM<sub>2.5</sub>: An analysis of hourly New Jersey data.” *J Air and Waste Manag. Assoc.* in preparation

55. Liu, W., Zhang\*, J., Korn, L., Zhang, L., Weisel, C.P., **Turpin, B.J.**, Morandi, M.T., Stock, T.S., and Colome, S. (2007) "Predicting personal exposure to airborne carbonyls using residential measurements and time/activity data" *Atmos. Environ.*, doi:10.1016/j.atmosenv.2006.05.089.
54. Lim,\*\* H.J., Carlton,\*\* A.G., **Turpin,\* B.J.** (2005) "Isoprene forms secondary organic aerosols through cloud processing: Model simulations," *Environ. Sci. Technol.*, 39:4441-4446.
53. Meng,\*\* Q.Y., **Turpin, B.J.\*** Polidori,\*\* A., Lee,\*\* J.H., Weisel, C., Morandi, M., Colome, S., Stock, T., Winer, A., Zhang, J.J. (2005) "PM<sub>2.5</sub> of ambient origin: Estimates and exposure errors relevant to PM epidemiology," *Environ. Sci. Technol.*, 39:5105-5112.
52. Dachs,\* J, Duarte, C.M, del Vento, S., Calleja, M.L., **Turpin, B.J.**, Polidori,\*\* A., Herndl, G. and Agusti, S. (2005) "High atmospheric-ocean exchanges of organic carbon in the NE subtropical Atlantic," *Geophys. Res. Letters*, 32 (21): Art. No. L21807.
51. Geyh,\* A, Chillrud, S., Williams, D. L., Herbstman, J., Symons, J. M., Rees, K., Ross, J., Kim, S. R., Lim, H. J., **Turpin, B.J.**, Breyse, P. (2005) "Assessing truck driver exposure at the World Trade Center disaster site: Personal and area monitoring for particulate matter and volatile organic compounds during October 2001 and April 2002." *J. Occup. Environ. Hygiene*, 2:179-193.
50. Landrigan,\* P.J., Lioy, P.J., and Thurston, G., Berkowitz, G., Chen, L.C., Chillrud, S.N., Gavett, S.H., Georgopoulos, P.G., Geyh, A.S., Levin, S., Perera, F., Rappaport, S.M., and Small, Becker, M., Breyse, P.N., Cohen, B., Costa, M., Efstathiou, C., Eisenreich, S., Foley, G., Frank, R., McGee, J.K., Groopman, J.D., Herbert, R., Herbstman, J., Jayjock, E., Kendall, M., Lederman, S.A., Lim,\*\* H.J., Lippmann, M., Maciejczyk, P., Millette, J., Miretzky, A., Offenberg, J.H., Ozkaynak, H.A., Pleil, J.D., Pozzi, F., Quan, C., Reibman, J., Ross, J., Samet, J.M., Santella, R.M., Schwab, M., Shade, P., Sobo, M., Stenchikov, G., Sun, Q., Morel-Symons, J., **Turpin, B.J.**, Vyas, V., Wang, S.W., Weisel, C.P., Williams, D'A.L., Wolff, M.S., Yiin, L.M., Zhong, M., Gallo, M.A. (2004) "Health and environmental consequences of the World Trade Center Disaster" *Environ. Health Perspectives*, 112:731-739.
49. Millet, D.B., Donahue, N.M, Pandis, S.N., Polidori,\*\* A., Stanier, C.O., **Turpin, B.J.**, and Goldstein,\* A.H. (2005) "Atmospheric volatile organic compound measurements during the Pittsburgh Air Quality Study: Results, interpretation, and quantification of primary and secondary contributions" *J. Geophys. Res.* 110(D07S07) doi:10.1029/2004JD004601.
48. Meng,\*\* Q. Y., **Turpin,\* B. J.**, Korn, L., Weisel, C., Morandi, M., Colome, S., Zhang, J., Stock, T., Spector, D., Winer, A., Zhang, L., Lee,\*\* J. H., Giovenetti,\*\* R., Cui,\*\* W.,

- Kwon, J., Alimokhtari, S., Shendell, D., Jones, J., Farrar, C. and Maberti, S. (2005) "Influence of Outdoor Sources on Indoor and Personal Fine Particle Concentrations: Analysis of RIOPA Data" *J. Exposure Anal. Environ. Epi.*, 15:17-28.
47. Reff,\*\* A., **Turpin,\* B. J.**, Porcja,\*\* R., Giovenetti,\*\* R., Cui,\*\* W., Weisel, C., Zhang, J., Kwon, J., Alimokhtari, S., Morandi, M., Stock, T., Maberti, S., Colome, S., Winer, A., Shendell, D., Jones, J., Farrar, C. (2005) "Functional Group Characterization of Indoor, Outdoor, and Personal PM<sub>2.5</sub>: Results from RIOPA" *Indoor Air*, 15:53-61.
46. Simoneit, B.R.T., Kobayashi, M., Mochida, M., Kawamura, K., Lee, M., Lim,\*\* H.J., **Turpin, B.J.**, and Yuichi Komazaki, Y. (2004) "Composition and major sources of organic compounds of aerosol particulate matter sampled during the ACE-Asia campaign," *J. Geophys. Research*, 109(D19S10) doi:10.1029/2004JD004598.
45. Lee,\*\* J.H., Gigliotti, C.L., Offenberg,\*\* J.H., Eisenreich, S.J., and **Turpin,\* B.J.** (2004) "Sources of polycyclic aromatic hydrocarbons to the Hudson River Airshed." *Atmos. Environ.* 38:5971-5981.
44. Offenberg,\*\* J.H., Naumova, Y.Y., Eisenreich, S.J., **Turpin, B.J.**, Morandi, M.T., Stock, T., Colome, S.D., Winer, A.M., and Weisel, C.P. (2004) "Chlordanes in the indoor and outdoor air of three cities in the U.S." *Environ. Sci. Technol.* 38:2760-2768.
43. Weisel,\* C. P., Zhang, J., **Turpin, B. J.**, Morandi, M. T., Colome, S., Stock, T. H., Spector, D. M., Korn, L., Winer, A., Alimokhtari, S., Kwon, J., Mohan, K., Harrington, R., Giovanetti,\*\* R., Cui,\*\* W., Afshar, M., Maberti, S., Shendell, D. (2004) "The Relationships of Indoor, Outdoor and Personal Air (RIOPA) Study: Study Design, Methods, and Quality Assurance/Control Results" *J. Exposure Anal. Environ. Epi.*, 2004: 15 (2): 123-137.
42. Cabada, J. C., Pandis,\* S. N., Subramanian, R., Robinson, A. L., Polidori,\*\* A. and **Turpin, B. J.** (2004) "Estimating the secondary organic aerosol contribution to PM<sub>2.5</sub> using the EC tracer method." *Aerosol Sci. Technol.* 38(S1):140-155.
41. Mochida,\* M., Kawamura, K., Umemoto, N., Kobayashi, M., Matsunaga, S., Lim,\*\* H.J., **Turpin, B.J.**, Bates, T.S., and Simoneit, B.R.T. (2003) "Spatial distributions of oxygenated organic compounds (dicarboxylic acids, fatty acids, and levoglucosan) in marine aerosols over the western Pacific and off the coast of East Asia: Continental outflow of organic aerosols during the ACE-Asia campaign" *J. Geophys. Res.* 108(D23), 8638, doi:10.1029/2002JD003249.
40. Maria, S.F., Russell,\* L.M., **Turpin, B.J.**, Porcja,\*\* R.J., Campos, T.L., and Weber, R.J., and Huebert, B.J., (2003) "Source signatures of carbon monoxide and organic functional groups in Asian Pacific Regional Aerosol Characterization Experiment (ACE-Asia) submicron aerosol types" *J. Geophys. Res.*, 108(D23), 8637, doi:10.1029/2003JD003703.

39. Mader, B.T., Schauer, J.J., Seinfeld, J.H., Flagan, R.C., Yu, J.Z., Yang, H., Lim, H.J., **Turpin, B.J.**, Deminter, J.T., Heidemann, G., Bae, M.S., Quinn, P., Bates, T., Eatough, D.J., Huebert, B.J., Bertram, T., Howell, S. (2003) "Sampling Methods Used for the Collection of Particle-Phase Organic and Elemental Carbon during ACE-Asia," *Atmos. Environ.* 37, 1435-1449.
38. Lim,\*\* H.-J., **Turpin,\* B. J.**, Russell, L.M., and Bates, T.S. (2003) "Organic and elemental carbon measurements during ACE-Asia suggest a longer atmospheric lifetime for elemental carbon," *Environ. Sci. Technol.*, 37:3055-3061.
37. Schauer,\* J. J., Mader, B. T., Deminter, J. T., Heidemann, G., Bae, M. S., Seinfeld, J. H., Flagan, R. C., Cary, R. A., Smith, D., Huebert, B. J., Bertram, T., Howell, S., Quinn, P., Bates, T., **Turpin, B.**, Lim,\*\* H. J., Yu, J. and Yang, C. H. (2003) "ACE-Asia Intercomparison of a Thermal-Optical Method for the Determination of Particle-Phase Organic and Elemental Carbon," *J. Geophys. Res.* 37:993-1001.
36. Naumova, Y. Y., Offenberg,\*\* J. H., Eisenreich,\* S. J., Polidori,\*\* A., Meng,\*\* Q.Y., **Turpin, B. J.**, Weisel, C. P., Morandi, M. T., Colome, S. D., Stock, T. H., Winer, A. M., Alimokhtari, S., Kwon, J., Maberti, S., Shendell, D., and Jones, J., Farrar, C. (2003) "Gas-Particle Distribution of Polycyclic Aromatic Hydrocarbons in Coupled Outdoor/Indoor Atmospheres," *Atmos. Environ.* 37:703-719.
35. Weber,\* R., Orsini, D. St. John, Bergin, M., Kiang, C. S., Chang, M., Carrico, K., Lee, Y.N., Dasgupta, P., Slanina, J., **Turpin, B.**, Edgerton, E., Hering, S., Allen, G., Solomon, P., Chameides, W. (2003) "Short Term Temporal Variation in PM<sub>2.5</sub> Mass and Chemical Composition During the Atlanta Supersite, 1999," *J. Air Waste Manag. Assoc.* 53:84-91.
34. Lim,\*\* H. –J., **Turpin,\* B. J.**, Edgerton, E., Hering, S. V., Allen, G., Maring, H. and Solomon, P. (2003) "Semicontinuous Aerosol Carbon Measurements: Comparison of Atlanta Supersite Measurements" *J. Geophys. Res.* 108(D7), 8419, doi:10.1029/2001JD001214.
33. Solomon,\* P. A., Chameides, W., Weber, R., Middlebrook, A., Kiang, C.S., Russell, T., Butler, A., **Turpin, B.**, Mikel, D., Scheffé, R., Cowling, E., Edgerton, E., St. John, J., Jansen, John, McMurry, P., Hering, S., Bahadori, T. (2003) "Overview of the 1999 Atlanta Supersites Project" *J. Geophys. Res.* Special Issue for the Atlanta Supersites Project,108(D7), doi:10.1029/2001JD001458.
32. Lee,\*\* J. H., Yoshida,\*\* Y., **Turpin,\* B. J.**, Hopke, P. K., Poirot, R. L., Liroy, P. J., and Oxley, J. C. (2002) "Identification of Sources Contributing to the Mid-Atlantic Regional Aerosol," *J. Air Waste Manag. Assoc.* 52:1186-1205.
31. Naumova, Y. Y., Totten, L. A., Eisenreich\*, S. J., **Turpin, B. J.**, Colome, S., Morandi, M.,

- Weisel, C., Stock, T., Winer, A., Alimokhtari, S., Kwon, J., Maberti, S., Shendell, D., and Wall, S. (2002) "Polycyclic Aromatic Hydrocarbons in the Indoor and Outdoor Air of Three Cities in the U.S.: Results from the RIOPA Study" *Environ. Sci. Technol.*, 36:2552-2559.
30. Lim,\*\* H. J. and **Turpin,\* B. J.** (2002) "Origins of Primary and Secondary Organic Aerosol in Atlanta: Results of Time-Resolved Measurements During the Atlanta Supersite Experiment," *Environ. Sci. Technol.* 36: 4489-4496.
29. Li,\*\* T.-H., **Turpin, B. J.**, Shields, H. C., and Weschler\*, C. J. (2002) "Indoor Hydrogen Peroxide Derived from Ozone/d-Limonene Reactions" *Environ. Sci. Technol.*, 36:3295-3302.
28. Lioy,\* P. J., Weisel, C., Millette, J., Eisenreich, S., Vallero, D., Offenberg, J., Buckley, B., **Turpin, B.**, Zhong, M., Cohen, M. D., Prophete, C., Yang, I., Stiles, R., Chee, G., Johnson, W., Porcja,\*\* R., Alimokhtari, S., Weschler, C., Chen, L. C. (2002) "Characterization of the Dust/Smoke Aerosol that Settled East of the World Trade Center (WTC) in Lower Manhattan after the Collapse of the WTC September 11, 2001" *Environ. Health Perspectives* 110: 703-714.
27. Maria, S. F., Russell,\* L. M., **Turpin, B. J.**, Porcja,\*\* R. J. (2002) "FTIR Measurements of Functional Groups and Organic Mass in Aerosol Samples over the Caribbean" *Atmos. Environ.* 36/33: 5185-5196.
26. Brunciak, P. A., Dachs, J., Franz, T. P., Gigliotti, C. L., Nelson, E. D., **Turpin, B. J.**, and Eisenreich,\* S. J. (2001) "Polychlorinated Biphenyls and Particulate Organic/Elemental Carbon in the Atmosphere of Chesapeake Bay, USA" *Atmos. Environ.* 35:5663-5677.
25. Morio, L. A., Hooper, K. A., Brittingham, J., Li,\*\* T.-H., Gordon, R. E., **Turpin, B. J.**, and Laskin,\* D. L. (2001) "Tissue Injury Following Inhalation of Fine Particulate Matter and Hydrogen Peroxide is Associated with Altered Production of Inflammatory Mediators and Antioxidants by Alveolar Macrophages" *Tox. Appl. Pharmacology.* 177, 188-199.
24. Vasconcelos, L. A. de P., Macias, E. S., McMurry, P. H., **Turpin, B. J.** and White,\* W. H. (2001) "A closure study of extinction apportionment by multiple regression," *Atmos. Environ.* 35:151-158.
23. Blando,\*\* J. D., Porcja,\*\* R. J. and **Turpin,\* B. J.** (2001) "Issues in the Quantitation of Functional Groups by FTIR Spectroscopic Analysis of Impactor-Collected Aerosol Samples," *Aerosol Sci. Technol.* 35: 899-908.
22. **Turpin,\* B. J.** and Lim,\*\* H. J. (2001) "Species Contributions to PM<sub>2.5</sub> Mass Concentrations: Revisiting Common Assumptions For Estimating Organic Mass," *Aerosol Sci. Technol.* 35:602-610.

21. **Turpin\*, B. J.**, Saxena, P. and Andrews, E. (2000) "Measuring and Simulating Particulate Organics in the Atmosphere: Problems and Prospects," *Atmos. Environ.* 34:2983-3013.
20. Chuersuwan,\*\* N. and **Turpin\*, B. J.** (2000) "Evaluation of Time Resolved PM2.5 Data in Urban/Suburban Areas of New Jersey," *J. Air Waste Manag. Assoc.* 50:1780-1789.
19. Blando,\*\* J. D. and **Turpin\*, B. J.** (2000) "Secondary Organic Aerosol Formation in Cloud and Fog Droplets: A Literature Evaluation of Plausibility," *Atmos. Environ.* 34:1623-1632.
18. Li,\*\* T. -H., Hooper, K., Fisher, E., Buckley, B., and **Turpin\*, B. J.** (2000) "An aerosol generation and exposure system to examine the effects of water soluble gases on particle-induced toxicity," *Inhalation Tox.* 12:563-576.
17. **Turpin\*, B. J.** (1999) "Options for Characterizing Organic Particulate Matter," feature article, *Environ. Sci. Technol.* 33:76A-79A.
16. Carlton,\*\* A. G., Johnson, W., Simick, M., Buckley, B., Eisenreich, S. and **Turpin\*, B. J.** (1999) "Microanalysis Methods for Characterization of Personal Aerosol Exposures" *Aerosol Sci. Technol.*, 31:66-80.
15. Blando,\*\* J., Porcja,\*\* R. J., Li,\*\* T.-H., Bowman, D., Lioy, P. J. and **Turpin\*, B. J.** (1998) "Secondary Formation and the Smoky Mountain Organic Aerosol: An Examination of Aerosol Polarity and Functional Group Composition During SEAVS" *Environ. Sci. Technol.* 32:604-613.
14. **Turpin\*, B. J.**, Saxena, P., Allen, G., Koutrakis, P., McMurry, P. H. and Hildemann, L. (1996) "Characterization of the Southwestern Desert Aerosol, Meadview, AZ" *J. Air Waste Assoc.* 47:344-356.
13. Huang, P. -F. and **Turpin\*, B. J.** (1996) "Reduction of Sampling and Analytical Errors for Electron Microscopic Analysis of Atmospheric Aerosols," *Atmos. Environ.* 30:4107-4113.
12. **Turpin\*, B. J.**, and Huntzicker, J. J. (1995) "Identification of Secondary Organic Aerosol Episodes and Quantitation of Primary and Secondary Organic Aerosol Concentrations During SCAQS" *Atmos. Environ.* 29:3527-3544.
11. McMurry\*, P. H., Huang, P. -F., Litchy, M., Cai, X., **Turpin, B. J.**, Dick, W. D. and Hanson, A. (1995) "Elemental composition and morphology of individual particles separated by size and hygroscopicity with the TDMA" *Atmos. Environ.* 30:101-108.
10. **Turpin, B. J.**, Hering, S.V. and Huntzicker\*, J. J. (1994) "Investigation of Organic Aerosol Sampling Artifacts in the Los Angeles Basin" *Atmos. Environ.* 28:3061-3071.

9. Huang, P. -F., **Turpin, B. J.**, Pihho, M. J., Kittelson, D. B. and McMurry\*, P. H. (1994) "Effects of Water Condensation/Evaporation on Diesel Chain Agglomerate Morphology" *J. Aerosol Sci.* 25:447-459.
8. Zhang, X. -Q., **Turpin, B. J.**, McMurry\*, P. H., Hering, S. V., and Stolzenburg, M. R. (1994) "Mie Theory Evaluation of Species Contributions to Wintertime Visibility Reduction in Grand Canyon" *J. Air Waste Manag.* 44:153-162.
7. Stein, S. W., **Turpin, B. J.**, Cai, X., Huang, P. -F. and McMurry\*, P. H. (1994) "Measurement of Relative Humidity-Dependent Bounce and Density for Atmospheric Particles Using the DMA-Impactor Technique," *Atmos. Environ.* 28:1739-1746.
6. **Turpin, B. J.**, Podolske, K., Gomes, M. S. P., McMurry\*, P. H., Liu, S. P. and Eisenreich, S. (1993). "Design and Evaluation of a Novel Diffusion Separator for Measuring Gas/Particle Distributions of Semivolatile Organic Compounds" *Environ. Sci. Technol.* 27:2441-2449.
5. **Turpin, B. J.**, Huntzicker\*, J. J., Larson, S. M., and Cass, G. R. (1991) "Los Angeles Mid-Day Particulate Carbon: Primary and Secondary Aerosol" *Environ. Sci. Technol.* 25:1788-1793.
4. **Turpin, B. J.**, and Huntzicker\*, J. J. (1991). "Secondary Formation of Organic Aerosol in the Los Angeles Basin: A Descriptive Analysis of Organic and Elemental Carbon Concentrations," *Atmos. Environ.* 25A:207-215.
3. **Turpin, B. J.**, Cary, R. A., and Huntzicker\*, J. J. (1990). "An *In Situ*, Time-Resolved Analyzer for Aerosol Organic and Elemental Carbon," *Aerosol Sci. Technol.* 12:161-171.
2. **Turpin, B. J.**, Huntzicker\*, J. J., and Adams, K. M. (1990). "Intercomparison of Photoacoustic and Thermal-Optical Methods for the Measurement of Atmospheric Elemental Carbon," *Atmos. Environ.* 24A:1831-1835.
1. Hering\*, S. V., Appel, B. R., Cheng, W., Salaymeh, F., Cadle, S. H., Mulawa, P. A., Cahill, T. A., Eldred, R. A., Surovik, M., Fitz, D., Howes, F. E., Knapp, K. T., Stockburger, L., **Turpin, B. J.**, Huntzicker, J. J., Zhang, X. -Q., and McMurry, P. H. (1990) "Comparison of Sampling Methods for Carbonaceous Aerosols in Ambient Air," *Aerosol Sci. Technol.* 12:200-213.

### **Peer-Reviewed Fact Sheets for Rutgers Cooperative Extension**

(Research-based information for the public, local officials, local industry)

3. Zwerling\*, E. M., Pinto, D. M., Hanna, P., Lepis, J. M., and **Turpin, B. J.** (1997) "Local Noise Enforcement Options and Model Noise Ordinance: With Pre-Approved Language

for the State of New Jersey," Rutgers Publication #E215.

2. **Turpin\*, B. J.** and Battagliese,\*\* T. (1997; rev. 1998) "Compliance Assurance Monitoring (CAM)," Rutgers Fact Sheet #FS874.
1. **Turpin\*, B. J.,** Ahtau,\*\* M., Szulecki,\*\* S., Zussman,\*\* L., and Motherwell,\*\* B. (1996) "The Clean Air Act and New Jersey," Rutgers Fact Sheet #F864.

## Other Publications

12. Szulecki, S, Zwerling, E., Anderson, C., **Turpin, B.** (2010) "Modeling with CadnaA to Estimate the Probability of Awakening Associated with Train Horns," *Proc. 2010 National Conference on Noise Control Engineering*, Baltimore, MD, April 2010.
11. **Turpin,\* B. J.** (2007) "Characterizing Exposures to Atmospheric Carcinogens," Contribution to an International Agency for Research on Cancer (IARC) Scientific Publication.
10. **Turpin,\* B.J.,** Weisel, C., Morandi, M., Colome, S., Stock, T., Eisenreich, S., and Buckley, B. (2007) "Relationships of Indoor, Outdoor and Personal Air (RIOPA): Part II. Analyses of Concentrations of Particulate Matter Species," Health Effects Institute Report 130 Part II, August 2007, available at [www.healtheffects.org](http://www.healtheffects.org).
9. Weisel,\* C.P., Zhang, J.J., **Turpin, B.J.,** Morandi, M.T., Colome, S., Stock, T.H., and Spektor, D.M. (2005) "Relationships of Indoor, Outdoor, and Personal Air (RIOPA): Part I. Collection Methods and Descriptive Analyses," Health Effects Institute Report 130, Part I, November 2005, available at [www.healtheffects.org](http://www.healtheffects.org).
8. Laskin,\* D. L., Morio, L., Hooper, K., Li,\*\* T.-H., Buckley, B. and **Turpin, B. J.** "Peroxides and Macrophages in Toxicity of Fine Particulate Matter," Health Effects Institute Report 117, December 2003, available at [www.healtheffects.org](http://www.healtheffects.org).
7. **Turpin,\* B. J.,** Saxena, P., Koutrakis, P. (1997) "Measuring and Simulating Particulate Organics in the Atmosphere: Problems and Prospects," *Proc. 1997 Air Waste Manag. Assoc. Int. Specialty Conference on Visual Air Quality, Aerosols and Global Radiation Balance*, Bartlet, NH, September 1997.
6. **Turpin,\* B. J.,** Blando,\*\* J. D. and Carlton,\*\* A. G. (1997) "Use of Direct Fourier Transform Infrared (FTIR) Spectroscopy Coupled with Solvent Rinses for Assessment of Organic Aerosol Polarity, Composition, and Size Distribution," *Proc. 1997 Air Waste Manag. Assoc. Int. Specialty Conference on Visual Air Quality, Aerosols and Global Radiation Balance*, Bartlet, NH, September 1997.



5. Zwerling,\* E. M. and **Turpin, B. J.** (1996) "Community noise enforcement: reviving a moribund program or developing one anew" *Proc. 1996 National Conference on Noise Control Engineering*, Bellevue, WA, September 1996.
4. **Turpin, B. J.**, Huang, P. -F., Roos, A. and McMurry,\* P. H. (1993) "Elemental Analysis of Single Atmospheric Particles Influencing Visibility at The Grand Canyon." *Proc. 51st Annual Meeting of the Microscopy Society of America*. (G. W. Bailey and C. L. Rieder, eds.) San Francisco Press, San Francisco, pp. 1124-1125.
3. **Turpin, B. J.** and Huntzicker,\* J. J. "Secondary Formation of Organic Aerosol in the Los Angeles Basin: Investigation of the Diurnal Variations of Organic and Elemental Carbon" *Proc. AWMA Annual Meeting*, Anaheim, CA, June 1989, paper 89-153.3.
2. Adams, K. M., **Turpin, B. J.**, and Huntzicker,\* J. J. "Intercomparison of Two Methods for the Measurement of Atmospheric Elemental Carbon," *Proceedings AWMA Annual Meeting, Anaheim, California*, June 1989.
1. **Turpin, B. J.** (1984). "Cross-Cultural Attitudes Toward the Use of Reclaimed Water in SWA-Namibia," *Munger Africana Library Notes* 72:5-12.

## Book Chapters

1. Wittig, B., Robinson, A., Polidori,\*\* A., Lim,\*\* H. J., **Turpin, B. J.**, and Harrison, D. (2008). Sunset Labs in-situ instrument for the semi-continuous measurement of particulate organic carbon and elemental carbon. In *Compendium of Methods of Air Sampling and Analysis*.
2. Watson, J, **Turpin, B. J.**, and Chow, J. (2001) "The Measurement Process: Precision, Accuracy, and Validity," Chapter 11, *Air Sampling Instruments*, B. Cohen, Ed., ACGIH.
3. **Turpin, B. J.** and Schauer, J. (2004) Composition and Concentration of Organics in Sources and in the Ambient Atmosphere. Contributing text for the 2004 Air Quality Criteria for Particulate Matter.
4. **Turpin, B. J.**, Liu, S. P., McMurry, P. H. and Eisenreich, S. J. "Definitive Measurement of Semivolatile PAHs With a Diffusion Separator: Design and Investigation of Sampling Artifacts in Filter-Adsorbent Samplers" in *Gas and Particle Phase Partition Measurements of Atmospheric Organic Compounds*, Gordon and Breach Science Publishers, 1999.
5. Hering, S. V. and **Turpin, B. J.** "Section I: Introduction," in "Chapter 3: Physics and Chemistry of Particulate Matter" in *EPA Criteria Document for Particulate Matter*, EPA/600/P-95/001aF, 1996.

## Invited Plenary Lectures

- Turpin, B. J. Association of Environmental Engineering and Science Professors (AEESP) (Invited) Plenary Lecturer for the AAAR meeting in Portland, OR, October, 2010.
- Turpin, B.J., Invited lecture, "Enhancing the Prognostic Capability of Global Aerosol Models: Atmospheric Aqueous Chemistry and Its Role in Secondary Organic Aerosol (SOA) Formation," International Global Atmospheric Chemistry conference in Halifax, Nova Scotia, 11-16 July, 2010.
- Turpin, B.J. Invited keynote lecture, "Secondary organic aerosol formation through reactions in atmospheric waters," Berkeley Atmospheric Sciences Symposium, February 2010.
- Turpin, B. J. "In-cloud SOA formation from water-soluble products of biogenic emissions" *Plenary Lecture*, Presented at the Gordon Research Conference on Biogenic Hydrocarbons and the Atmosphere, Ventura, CA, Feb 2007.
- Turpin, B. J. "In-cloud formation of secondary organic aerosol" *Plenary Lecture*, Presented at the Gordon Research Conference on Atmospheric Chemistry, Big Sky, MT, Sept 2005.
- Turpin, B. J. "When and where are people exposed to PM?" *Plenary Lecture*, Presented at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Turpin, B. J. "Linking sources to indoor and personal exposure (RIOPA Study)," *Plenary Lecture*, Presented at the Annual Conference of the Health Effects Institute, Seattle, WA, April 2002.
- Turpin, B. J., Saxena, P. and Koutrakis, P. "Measuring and simulating particulate organics in the atmosphere: problems and prospects," *Plenary Lecture*, Presented at the Air and Waste Management Association International Specialty Conference on Visual Air Quality, Aerosols and Global Radiation Balance, Bartlet, NH, September 1997.
- Turpin, B. J. "Characterizing personal exposures to fine particulate matter and their relationships to indoor and outdoor concentrations," *Plenary Seminar*, Presented at the American Society of Heating, Refrigeration and Air Conditioning Engineers Annual Meeting, Boston, MA, June 1997.

## Invited Lectures and Seminars

- Turpin, B.J. "Secondary Organic Aerosol Formation Through Aqueous Photochemistry in Clouds, Fogs and Aerosols," Invited Seminar, Department of Chemistry, University of Wisconsin, Madison, Wisconsin, May 2009.
- Turpin, B.J. "Secondary Organic Aerosol Formation Through Aqueous Photochemistry," Invited Seminar, Department of Chemistry, Arizona State University, Tempe, AZ, February 2009.
- Turpin, B.J. "Secondary Organic Aerosol Formation Through Cloud Processing," Invited Seminar, Department of Mechanical Engineering, University of Minnesota, Minneapolis, MN, October 2008.
- Turpin, B.J. "Prediction of In-Cloud SOA Production: Problems and Prospects," Invited Talk, Model Development Meeting, Electric Power Research Institute, Palo Alto, CA, May

- 2008.
- Turpin, B.J., Seitzinger, S., Carlton, A.G. "Improved Prediction of In-Cloud Biogenic SOA: Experiments and CMAQ Model Refinements," Presented at Sources and Atmospheric Formation of Organic Particulate Matter Grants Kick-Off Meeting, Environmental Protection Agency, Research Triangle Park, NC, May 2008.
- Turpin, B. J. "Secondary Organic Aerosol Formation Through Cloud Processing of Isoprene Oxidation Products," *Invited Seminar*, Dept. of Chemical Engineering, Columbia University, NY, Jan 2008.
- Turpin, B. J. "Secondary and Regional Contributions to Organic PM: A Mechanistic Investigation of Organic PM in the Eastern and Southeastern United States," Presented at the "Atmospheric Science Progress Review Meeting," US Environmental Protection Agency, Research Triangle Park, NC, June 2007.
- Turpin, B. J. "Atmospheric processes from regional to personal scales dictate exposure to particulate air pollution," *Invited Seminar*, Environment Canada, Toronto, Canada, January 2007.
- Turpin, B. J. "Health effects of organic aerosols: Exposure issues and measurement approaches," *Invited Talk*, Presented at the Health Effects of Organic Aerosols Workshop, Palo Alto, CA, Oct 2006.
- Turpin, B. J. "Contributions of Atmospheric Pollutants to Indoor Air Quality," *Invited Testimony*, Presented at the NJ Clean Air Council Annual Public Hearing: Indoor Air Quality, Setting an Agenda for a Cleaner Future, Trenton, NJ, April 2006.
- Turpin, B. J. "Characterizing exposures to atmospheric pollutants," *Invited Talk*, Presented at International Agency for Research on Cancer (IARC), as part of a monograph planning meeting, December 2004.
- Turpin, B. J. "Secondary and regional contributions to organic PM: A mechanistic investigation of organic PM in the Eastern and Southeastern US," *Research Update*, US Environmental Protection Agency, Research Triangle Park, NC, June 2004.
- Turpin, B. J. *Invited Testimony*, Presented at the NJ Clean Air Council Annual Public Hearing: Fine Particulate Matter in the Atmosphere: Health Impacts in New Jersey and Need for Control Measures, Trenton, NJ, April 2004.
- Turpin, B. J. "Organic aerosol measurement: Problems and prospects," *Workshop Speaker*, Mid-Atlantic Regional Air Management Association (MARAMA) meeting, Cape May, NJ, October, 2003.
- Turpin, B. J. "Semi-continuous methods for measuring PM," *Workshop Panelist*, Presented at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Turpin, B. J., Eisenreich, S. J., Lee, \*\* J. H. and Gigliotti, C. L. "Sources of Air Toxics to the Hudson River Harbor Estuary: Analyses of the New Jersey Atmospheric Deposition Network," *Seminar*, NJ Department of Environmental Protection, Trenton, NJ, January 2003.
- Turpin, B. J. "Fine particle processes: Regional and personal effects," *Seminar*, Department of Environmental Medicine, New York University, Tuxedo, NY, September 2000.
- Turpin, B. J. "Organic speciation for source apportionment and SIP development," NESCAUM Monitoring and Assessment Committee Meeting, Glens Falls, NY, June 2000.

- Turpin, B. J. “Application of new source apportionment tools to NJ Atmospheric Deposition Network data,” Project Update for DEP Commissioner Shinn, Trenton, NJ, June 2000.
- Turpin, B. J. “Air Pollution Exposure and Effects: Global Implications,” *Panelist*, Presented at Environmental Health in the Twenty-first Century: Opportunities and Challenges, EOHSI, Piscataway, NJ, January 2000.
- Turpin, B. J. “Measurement of organic aerosol,” *Seminar*, University of Delaware Department of Mechanical Engineering, November 1997.
- Turpin, B. J. *Invited Testimony*, Presented at the NJ Clean Air Council Annual Public Hearing: Proposed Fine Particulate Matter Health Standard, Trenton, NJ, April 1997.
- Turpin, B. J. “Organic Aerosols: Personal Monitoring and Characterization,” *Plenary Lecture*, Presented at the Tenth Anniversary Symposium of the Exposure Measurement and Assessment Division, EOHSI, Rutgers University and UMDNJ, December 1995.
- Turpin, B. J. “The Other Side of the Canyon” *Seminar*, Environmental Sciences Graduate Student Seminar Series, Rutgers University, November 1995.
- Turpin, B. J., Blando,\*\* J. D., Chuersuwan,\*\* N., Zussman,\*\* L., Grover,\*\* A. M., Li,\*\* T. -H. and Porcja,\*\* R. “Atmospheric Aerosol Characterization, Exposure and Health Research,” *Seminar*, EOHSI Graduate Student Seminar Series, Rutgers University/UMDNJ, November 1995.
- Turpin, B. J. “Techniques for Investigating Atmospheric Transformations Affecting Particulate Pollutants,” *Seminar*, Rutgers Cooperative Extension, Rutgers University, New Brunswick, NJ, April 1994.
- Turpin, B. J. “Techniques for Investigating Atmospheric Transformations Affecting Particulate Pollutants,” *Seminar*, Atmospheric Sciences, Colorado State University, Fort Collins, CO, March 1994.
- Turpin, B. J. “Techniques for Investigating Atmospheric Transformations Affecting Particulate Pollutants,” Department of Mechanical Engineering, University of Illinois, Chicago, IL, March 1994.
- Turpin, B. J. “The Study of Atmospheric Transformations Affecting Particulate Pollutants,” *Seminar*, University of California, Santa Barbara, CA, October 1993.
- Turpin, B. J. “The Study of Atmospheric Transformations Affecting Particulate Pollutants,” *Seminar*, Battelle: Pacific Northwest Laboratories, Richland, WA, February 1993.
- Turpin, B. J. “Techniques for Investigating Atmospheric Transformations Affecting Particulate Pollutants,” *Seminar*, Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, PA, January 1993.
- Turpin, B. J. “Secondary Formation of Organic Aerosol: Investigation of the Diurnal Variations of Organic and Elemental Carbon,” *Seminar*, Department of Civil Engineering, University of California, Berkeley, CA, April 1992.
- Turpin, B. J. “Secondary Formation of Organic Aerosol: Investigation of the Diurnal Variations of Organic and Elemental Carbon,” *Seminar*, Department of Civil Engineering, Clarkson University, Potsdam, NY, March 1992.
- Turpin, B. J. “Secondary Formation of Organic Aerosol: Investigation of the Diurnal Variations of Organic and Elemental Carbon,” *Seminar*, Department of Mining and Civil Engineering, New Mexico Institute of Technology, Socorro, NM, May 1991.

### **Selected Conference Presentations (2002-2010)**

- Baxter, L, Barzyk, T., Burke, J, Turpin, BJ, Rich, D, Lunden, M, Hodas, N, Özkaynak, H, “Comparison of exposures estimated using ambient PM<sub>2.5</sub> concentrations with those estimated by the Stochastic Human Exposure and Dose Simulation Model (SHEDS) for two New Jersey cohorts,” Platform presentation, International Society for Environmental Epidemiology, Seoul, South Korea, August 2010.
- Rich, DQ, Turpin, BJ, Lunden, M, Özkaynak, H, Baxter, L, Hodas, N, Barzyk, T, Burke, J, Ohman-Strickland, P, “Refined Exposure Surrogates for Ambient PM in Epidemiology: Accounting for Temporal/Spatial Variations in Infiltration,” Platform presentation, International Society for Environmental Epidemiology, Seoul, South Korea, August 2010.
- Altieri, KE, Hastings, M, Peters, A, Seitzinger, S, Sigman, D, **Turpin, B**, “The Composition of Organic Nitrogen in Rainwater,” poster presentation, NOAA Climate and Global Change Post-Doctoral Fellows Summer Institute, Steamboat Springs, CO, July 2010.
- Özkaynak, H, Sarnat, SE, Sarnat, JA, Sheppard, L, Sampson, P, **Turpin, BJ**, Rich, D, “Overview of USEPA/NERL Cooperative Agreement Research Program on Air Pollution Exposure and Health,” platform presentation, AAAR Specialty Conference – Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, San Diego, CA, March 2010.
- Hodas, N, Lunden, M, Rich, D, Özkaynak, H, **Turpin, BJ**, “The Importance of Species-Specific Size Distributions in the Development of Refined Surrogates for Exposure to PM<sub>2.5</sub> of Outdoor Origin,” poster presentation, AAAR Specialty Conference – Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, San Diego, CA, March 2010.
- Turpin, BJ**, Lunden, M, Hodas, N, Rich, D, Kamat, L, Ozkaynak, H, Barzyk, T, Burke, J, Baxter, L, Ohman-Strickland, P, “Refined Exposure Surrogates for Ambient PM in Epidemiology Studies: Accounting for Temporal/Spatial Variations in Infiltration,” Platform presentation at the International Society of Exposure Science Annual Conference, Minneapolis, MN, November 2009.
- Barzyk, TM, Burke, J, Baxter, L, Özkaynak, H, **Turpin, BJ**, Lunden, MM, Rich, DQ, Kamat, K, Hodas, N, “Modeled Estimates of Human Exposure to PM<sub>2.5</sub> with an Emphasis on Time-Activity Patterns and Air Exchange Rates,” Platform presentation at the International Society of Exposure Science Annual Conference, Minneapolis, MN, November 2009.
- Lim, YB, Tan, Y, Perri, M, Altieri, K, Seitzinger, S, **Turpin, BJ**, “Chemical Mechanisms in Aerosol Water and Their Role in Secondary Organic Aerosol (SOA) Formation,” Platform presentation at the American Association for Aerosol Research Annual Conference, Minneapolis, MN, November 2009.
- Tan, Y., Seitzinger, S., **Turpin, BJ**, “Organic Acid Products of Aqueous Methylglyoxal Oxidation and Implications to Secondary Organic Aerosol Formation,” Poster presentation at the American Association for Aerosol Research Annual Conference, Minneapolis, MN, November 2009.

- Ortiz-Montalvo, D., Perri, M, Ramos-Busot, A., **Turpin, BJ**, “Evaluating In-Cloud Secondary Organic Aerosol Formation by Simulating Cloud Droplet Evaporation,” Poster presentation at the American Association for Aerosol Research Annual Conference, Minneapolis, MN, November 2009.
- Tolocka, MP, **Turpin, BJ**, “Contribution of Organosulfur Compounds to Organic Aerosol Mass,” Poster presentation at the American Association for Aerosol Research Annual Conference, Minneapolis, MN, November 2009.
- Ozkaynak, H., Sarnat, SE, Sheppard, L, **Turpin, BJ**, “Overview of USEPA/NERL Cooperative Agreement Research Program on Air Pollution Exposure and Health, Poster Presentation at the International Society of Environmental Epidemiology Annual Conference, Dublin, Ireland, August 2009.
- Lim, YB, Tan, Y, Perri, M, Altieri, K, **Turpin, BJ**, “Secondary Organic Aerosol Formation Through Reactions in Atmospheric Waters,” Platform presentation at the Goldschmidt Conference, Davos, Switzerland, June 2009.
- Rich, DQ., Kipen, HM, Zhang, JJ, Kamat, L, **Turpin, BJ**, Wilson, AC, Kostis, JB, “Triggering of Transmural Infarction, But Not Non-Transmural Infarction By Ambient Fine Particles and Fine Particle Species,” Poster presentation at the American Thoracic Society Conference, San Diego, May 2009.
- Altieri, K. AGU, San Francisco, December 2008.
- Perri, M, Ortiz, D, Seitzinger, S, Turpin, BJ, “Secondary Organic Aerosol Production from Aqueous Photooxidation of Glycolaldehyde – Laboratory Studies,” Platform presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, December 2008.
- Turpin, B. J.**, “Cloud Processing,” Invited platform presentation at The Atmospheric Chemical Mechanisms Conference, Davis, CA, December 2008.
- Ramos, A., **Turpin, BJ**, Tan, Y, Ortiz, D, “Secondary Organic Aerosol Formation from Aqueous Glyoxal Oxidation Products,” Poster presentation at the Annual Biomedical Research Conference for Minority Students (ABRCMS), Orlando, Florida, November 2008.
- Turpin, BJ**, Carlton, AG, Ervens, B, Altieri, KE, Perri, MJ, Tan, Y, Moore, M, Seitzinger, S, “Problems and Prospects for Predicting SOA Production Through Cloud Processing,” Poster presentation at the Annual Meeting of the American Association for Aerosol Research, Orlando, FL, October 2008.
- Tan, Y., Perri, M, Carlton, A, Seitzinger, S, **Turpin, BJ**, “In-Cloud SOA Formation: Effects of Acidic Sulfate and Precursor Concentration on Organic Acid Yields,” Platform presentation at the Annual Meeting of the American Association for Aerosol Research, Orlando, FL, October 2008.
- Meng, Q. Pinto, J, Lau G, **Turpin B**, Suh H, Wheeler A, “Exposures of a Panel of Senior Citizens with COPD to Multiple Air Pollutants in Los Angeles,” Poster presentation at the International Society for Environmental Epidemiology and International Society of Exposure Analysis, Pasadena, CA, October 2008.
- Ramos, A., **Turpin, BJ**, Tan, Y, Ortiz D, “Secondary Organic Aerosol Formation from Aqueous Glyoxal Oxidation Products,” Poster and Platform presentations, Research In Science and Engineering (RISE) Undergraduate Summer Research Program, Rutgers University, July and August 2008.
- Altieri, KE., Perri, MJ, **Turpin, BJ**, Seitzinger, SP, “In-cloud photochemistry produces complex

- DOM,” Platform presentation at the American Geophysical Union/American Society of Limnology and Oceanography, Ocean Sciences Meeting, Orlando, FL, January 2008.
- Ervens, B, Carlton, AG, **Turpin, BJ**, Altieri, KE, Kreidenweis, SM, Feingold, G, “SOA Formation by Chemical Processes in Cloud Droplets,” Platform presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, December 2007.
- Altieri, KE, Seitzinger, SP, Carlton, AG, **Turpin, BJ**, Klein, GC, Marshall, AG, “Chemical Characterization of Secondary Organic Aerosol Formed Through Cloud Processing of Methylglyoxal,” Poster presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, December 2007.
- Perri, M, Seitzinger, S, Tan, Y, **Turpin, BJ**, “SOA Production from Cloud Processing of Glycolaldehyde,” Platform presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, December 2007.
- Turpin, BJ**, Meng, QY, Polidori, A, Reff, A, Naumova, Y, Weisel, C, Zhang, J, Morandi, M, Stock, T, Colome, S., Winer, A, “Exposure to Ambient Fine Particulate Matter (PM<sub>2.5</sub>): Insights Relevant to PM Epidemiology,” Platform presentation at the International Society of Exposure Assessment Annual Conference, Durham, NJ, October 2007.
- Anderson, CB, Maimone, F., **Turpin BJ**, Zwierling, E, “Time-Activity Characterization for a Train Noise Exposure Assessment Study: Teaneck, NJ,” Poster presentation at the International Society of Exposure Assessment Annual Conference, Durham, NJ, October 2007.
- Altieri, K, Carlton, AG, Tan, Y, Seitzinger, S, **Turpin, BJ**, “Secondary Organic Aerosol Formation through Cloud Processing: Acids and Oligomers from Aqueous Methylglyoxal Photooxidation,” Platform presentation at the American Association for Aerosol Research Annual Conference, Reno, NV, September 2007.
- Laskin, DL, Laumbach, R, Sunil, V, **Turpin, BJ** and Mainelis, G. “Design and Characterization of a Small Engine Diesel Exhaust Animal Exposure System for Studies to Assess Mechanisms Underlying Particulate Matter-induced Toxicity in the Elderly,” Poster presentation at the Health Effects Annual Conference, April 2007.
- Ervens, B, Carlton, AM, **Turpin, BJ**, Kreidenweis, S, and Feingold, G. “Isoprene as SOA precursor: Aerosol mass formation by processes in haze particles and clouds,” Poster presentation at the American Geophysical Union Conference, San Francisco, CA, December 2006.
- Maimone, F, **Turpin, BJ**, Robinson, A, “The Solomon method of organic artifact estimation: A quantitative assessment of assumptions and method performance,” Platform presentation at the International Aerosol Conference, St. Paul, MN, September 2006.
- Reff, A, **Turpin, BJ**, Weisel, CP, Zhang, J, Morandi, M, Stock, T, Colome, S, Winer, A, “PM<sub>2.5</sub> exposures chemically characterized by functional group: RIOPA study results,” Poster presentation at the International Aerosol Conference, St. Paul, MN, September 2006.
- Polidori, A, **Turpin, BJ**, Naumova, Y, Eisenreich, S, Meng, QY, Cui, W, Giovanetti, R, Kwon, J, Weisel, C, “Effects of source proximity on residential outdoor concentrations of PM<sub>2.5</sub> and its carbonaceous components,” Platform presentation at the International Aerosol Conference, St. Paul, MN, September 2006.
- Carlton, AG, Altieri, K, Seitzinger, S, **Turpin, BJ**, Lim, HJ, “Secondary organic aerosol formation through cloud processing: Kinetics and products of aqueous-phase

- glyoxal/methylglyoxal and hydroxyl radical reactions,” Platform presentation at the International Aerosol Conference, St. Paul, MN, September 2006.
- Carlton, A.G., Turpin, B.J., Altieri, K., Seitzinger, S., “SOA production from isoprene: Aqueous-phase mechanisms,” Platform presentation at the American Association for Aerosol Science Annual Conference, Austin, TX, October 2005.
- Altieri, K. E., Carlton, A. G., **Turpin, B. J.**, Seitzinger, S., “Oligomers in cloud processing: Reactions of isoprene oxidation products,” Poster presentation, American Association for Aerosol Research, Austin, TX, October 2005.
- Carlton, A. G., Lim, H. J., Altieri, K., Seitzinger, S., **Turpin, B. J.**, “Secondary organic aerosol potential from isoprene: Aqueous-phase mechanisms,” Platform presentation, Atmospheric Chemistry Colloquium for Emerging Senior Scientists, Yellowstone National Park, September 2005.
- Carlton, A. G., Lim, H. J., Altieri, K., Seitzinger, S., **Turpin, B. J.**, “Secondary organic aerosol potential from isoprene: Aqueous-phase mechanisms,” Gordon Research Conference on Atmospheric Chemistry, Big Sky, MT, September 2005.
- Altieri, K. E., Carlton, A. G., **Turpin, B. J.**, Seitzinger, S., “Oligomers in cloud processing: Reactions of isoprene oxidation products,” Platform and poster presentation, Surface Ocean Lower Atmosphere Study (SOLACE) Meeting, August 2005, Corsica, France.
- Polidori, A., **Turpin, B.J.**, Meng, QY, Naumova, Y, Reff, A, Eisenreich, SJ, Weisel, C, Zhang, JJ, Morandi, M, Stock, T, Colome, S, Winer, A, Spektor, D, Lee, JH, “Organics dominate indoor-generated PM<sub>2.5</sub> in RIOPA homes,” Platform presentation at the International Society of Exposure Analysis Annual Conference, Philadelphia, PA, October 2004. Lim, HJ, **Turpin, B.J.**, Carlton, AC, “Isoprene and in-cloud formation of secondary organic aerosol,” Platform presentation at the American Association for Aerosol Research Annual Conference, Atlanta, GA, October 2004.
- Turpin, B.J.**, Weisel, C, Morandi, M, Colome, S, Stock, T, Eisenreich, SJ, Buckley, B, “Contributions of outdoor PM sources to indoor concentrations and personal exposures: Analysis of RIOPA PM species concentrations,” Poster presentation at the Annual Conference of the Health Effects Institute, Boston, MA, May 2004.
- Turpin, B.J.**, Meng, \*\* QY, Lau, \*\* G, Polidori, \*\* A, Reff, \*\* A, Porcja, \*\* R, Naumova, Y, Offenberger, \*\* J, Eisenreich, S, Weisel, C, Suh, H, Morandi, M, Stock, T, Colome, S, Winer, A, “Speciated PM<sub>2.5</sub> exposures provide insights into PM epidemiology and public health protection,” Presented at the American Association for Aerosol Research Annual Conference, Anaheim, CA, October 2003.
- Maria, SE, Russell, LM, **Turpin, B.J.**, Porcja, \*\* RJ, Weber, RJ, Huebert, BJ, “Source signatures of carbon monoxide and organic functional groups in ACE-Asia submicron aerosol types,” Presented at the American Association for Aerosol Research Annual Conference, Anaheim, CA, October 2003.
- Turpin, B.J.**, Meng, \*\* QY, Naumova, Y, Reff, \*\* A, Polidori, \*\* A, Porcja, \*\* RJ, Lee, \*\* JH, Weisel, CP, Korn, L, Eisenreich, S, Buckley, B, Morandi, MT, Stock, TH, Colome, S, Winer, A, Spektor, DM, “Composition and origin of fine particulate matter exposures: Insights from the RIOPA study,” Poster presentation at the Health Effects Institute Annual Conference, Boulder, CO, May 2003.
- Cabada, JC, Pandis, SN, Wittig, B, Robinson, AL, Subramanian, R, Polidori, \*\* A, **Turpin, B.J.**,



- “Secondary organic aerosol contribution to carbonaceous PM<sub>2.5</sub> concentrations in Pittsburgh,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Offenberg, \*\* JH, Naumova, Y, Eisenreich, SJ, **Turpin, BJ**, Weisel, CP, Morandi, M, Stock, T, Colome, S, Winer, A, “Chlordanes in the indoor and outdoor air of three US cities,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Polidori, \*\* A, **Turpin, BJ**, Lake, \*\* S, Giovannetti, \*\* R, Weisel, C, Morandi, M, Colome, S, Stock, T, Winer, A, Kwon, JM, Alimokhtari, S, Shendell, D, Jones, J, Farrar, C, Maberti, S, “Indoor and outdoor organic PM<sub>2.5</sub>: Analysis of RIOPA data,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Lau, \*\* G, **Turpin, BJ**, Wheeler, A, Suh H, Colome, S, Spektor, D, “Assessing human exposures of COPD-diagnosed individuals to particulate matter in Los Angeles County,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Meng, \*\* QY, **Turpin, BJ**, Polidori, \*\* A, Buckley, B, Weisel, C, Morandi, M, Colome, S, Stock, T, Winer, A, Lee, \*\* JH, Giovanetti, \*\* R, Cui, \*\* W, Kwon, JM, Alimokhtari, S, Shendell, D, Jones, J, Farrar, C, Maberti, S, “Analysis of indoor, outdoor and personal PM<sub>2.5</sub> species to assess the sources of exposure: Results from RIOPA,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Reff, \*\* A, **Turpin, BJ**, Porcja, \*\* R, Lee, \*\* JH, Cui, \*\* W, Maberti, S, Kwon, JM, Alimokhtari, S, Shendell, D, Jones, J, Farrar, C, Weisel, C, Morandi, M, Colome, S, Stock, T, Winer, A, “Mechanistic analysis of FTIR spectra from outdoor, indoor, and personal PM<sub>2.5</sub> samples collected during RIOPA,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Weitkamp, EA, Lipsky, E., Robinson, A, Anderson, N, Leifeste, H, Subramanian, R, Cabada, J, Khlystov, A, Stanier, C, Lucas, L, Takahama, S, Wittig, B, Davidson, C, Pandis, S, Polidori, \*\* A, Lim, \*\* HJ, **Turpin, BJ**, Pancras, P, Ondov, J, “Fenceline sampling adjacent to a large coke production facility in Pittsburgh, PA,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Lipsky, EM, Robinson, A, Anderson, N, Leifeste, H, Subramanian, R, Cabada, J, Rees, S, Khlystov, A, Stanier, C, Lucas, L, Takahama, S, Wittig, B, Davidson, C, Pandis, S, Polidori, \*\* A, Lim, \*\* HJ, **Turpin, BJ**, “In-use vehicle emissions source characterization study: Squirrel Hill Tunnel, Pittsburgh PA,” Poster presentation at Particulate Matter: Atmospheric Sciences, Exposure, and the Fourth Colloquium on PM and Human Health, Pittsburgh, PA, April 2003.
- Lim, \*\* HJ, **Turpin, BJ** “Automated, time-resolved submicron organic and elemental carbon measurements on the Ron Brown during ACE-Asia,” Presented at the American Association for Aerosol Research Annual Conference, Charlotte, NC, October 2002.
- Offenberg, \*\* JH, Polidori, \*\* A, Porcja, \*\* R, **Turpin, BJ**, “Functional group composition by size

- and polarity in Pittsburgh, PA and insights into aerosol processing,” Presented at the American Association for Aerosol Research Annual Conference, Charlotte, NC, October 2002.
- Weber, RJ, Orsini, D, Ma, Y, Bergin, M, **Turpin, BJ**, Slanina, S, “The nature of transient PM2.5 events in Atlanta and Houston,” Presented at the American Association for Aerosol Research Annual Conference, Charlotte, NC, October 2002.
- Polidori,\*\* A, **Turpin, BJ**, Lim,\*\* HJ, Robinson, A, Subramanian, R, Cabada, JC, “Semi-continuous organic particulate matter measurements during Pittsburgh Air Quality Study (PAQS),” Poster presentation at the American Association for Aerosol Research Annual Conference, Charlotte, NC, October 2002.
- Maria, SF, Russell, LM, **Turpin, BJ**, Porcja,\*\* RJ, Huebert, BJ, “Organic compound mass measurements from FTIR spectroscopy,” Presented at the American Association for Aerosol Research Annual Conference, Charlotte, NC, October 2002.
- Subramanian, R., Robinson, AL, Cabada, JC, Pandis, SN, Wittig, B, Polidori,\*\* A, **Turpin, BJ**, Hering, SV, Modey, WK, Eatough, DJ, “Intercomparison of ambient carbonaceous aerosol samplers used during the Pittsburgh Air Quality Study,” Poster presentation at the American Association for Aerosol Research Annual Conference, Charlotte, NC, October 2002.
- Meng,\*\* QY, **Turpin, BJ**, Korn, L, Lee,\*\* JH, Giovanetti,\*\* R, Kwon, JM, Alimokhtari, S, Weisel, CP, Shendell, D, Jones, J, Winer, A, Colome, S, Maberti, S, Stock, T, Morandi, M, Spektor, D, “Influence of outdoor sources on indoor and personal fine particle concentrations: Analyses of RIOPA data,” Poster presentation at the International Society of Exposure Analysis (ISEA) and International Society for Environmental Epidemiology (ISEE) Conference, Vancouver, BC, August 2002.
- Turpin, BJ**, Meng,\*\* QY, Korn, L, Zhang, JJ, Weisel, CP, Morandi, MT, Colome, S, Stock, TH, Spektor, D, Winer, AM, Kwon, JM, Alimokhtari, S, Shendell, D, Jones, J, Maberti, S, Giovanetti,\*\* R, Lee,\*\* JH, “Contributions of outdoor PM2.5 sources on indoor concentrations and personal exposures: Results from RIOPA,” Poster presentation at the Health Effects Institute Annual Conference, Seattle, WA, April 2002.

## **Outreach and Public Service**

Presentation of EPA Air Pollution Training Institute short courses for federal, state and local air pollution practitioners. Presentation of NJ state certification and recertification courses for Visual Emissions, Odor Control and Community Noise Enforcement. Approximately 2500 individuals have been trained over the last 5 years.

Operation of the Rutgers Noise Technical Assistance Center, which conducts training, lends noise monitoring equipment and provides technical support to communities, County Environmental Health Agents, other enforcement personnel and the Department of Environmental Protection. Over 2,000 enforcement officers have been trained over the last 5 years.

Operation of the NJ DEP-Rutgers Photochemical Assessment Monitoring Station, providing

upper air meteorological data, ozone and ozone precursor concentrations for use in forecasting, air pollution management planning, and education.