

American Association for Aerosol Research (AAAR) Conference History

2010

AAAR International Specialty Conference

“Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes”

March 22-26, 2010

Sheraton San Diego Hotel & Marina – San Diego, CA

Chairs: Paul A. Solomon & Maria Costantini

Plenaries

- Quantifying Source Impacts on Particulate Matter and Health Outcomes: Some Problems, Some Advances, A Ways Left To Go – *Armistead G. Russell*
- Progress in Methods for More Precise Characterization of Exposure: Are We on Track for More-Refined Air Quality Standards/Policies? – *Jeffrey R. Brook*
- Toxicological Measurement Methods, Models and Approaches – *Flemming R. Cassee*
- Evaluating the Effectiveness of Air Quality Interventions – *Annemoon van Erp*
- NARSTO Multipollutant Assessment: Accountability in a Multipollutant Air Quality Management Framework – *Kenneth L. Demerjian*
- What Have We Learned from Intervention Studies: The London Experience – *Frank Kelly*
- The Indirect and Direct Use of Life Expectancy in Accountability Analyses – *C. Arden Pope III*
- Confounding in Short-Term and Long-Term Studies – *Bert Brunekreef*
- Methods for Detecting Confounders and Effect Modifiers to the Air Pollution Mortality Association Using Cohort Studies – *Richard T. Burnett*
- Measurement Error in Air Pollution and Health – *Lianne Sheppard*
- Asthma and Diabetes as Risk Factors for Enhanced Susceptibility to Air Pollution – *Mark Utell*
- Cardiovascular Disease as a Risk Factor for Enhanced Susceptibility to Air Pollutants – *Robert B. Devlin*
- Susceptibility of Populations – *Marie O’Neill*
- Genetic and Epigenetic Susceptibility to Air Pollution – *Carrie Breton*
- New Developments in Aerosol Dosimetry – *Robert Phalen*
- Using Intake Fraction to Determine Source to Dose Relationships – *Deborah H. Bennett*
- The Fate of Inhaled Particles in the Lung – A Model – *Peter Gehr*
- Consideration of Dose in Epidemiologic Studies – *Daniel Krewski*
- Mobile Source Emission Reductions for Meeting Environmental Goals – *Alberto Ayala*
- Understanding Exposure to Sources – *Michael Brauer*
- Pollutants and Sources Associated with Health Effects: What Have We Learned from Experimental Exposures? – *Joe L. Mauderly*
- Pollutants and Sources Associated with Health Effects: What Have We Learned from Epidemiological Studies? – *Jonathan M. Samet*
- Mechanisms of Cardiometabolic Disease: Insights from Current and Emerging Surrogate Markers – *Sanjay Rajagopalan*
- Toxicological Relationships between Source, Chemistry and Health Effects of Particles – *M. Ian Gilmore*
- Neurotoxic Effects of Air Pollution – *Michael T. Kleinman*
- Atmospheric Physical and Chemical Processing of Aerosols – *Spyros N. Pandis*
- The Transport and Transformation Processes of Air Pollutants: From Source to Receptor – *Tong Zhu*

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- Spatial and Temporal Variation in Air Pollutant Concentrations: Implications for Exposure Assessment in Health Studies – *Helen H. Suh*
- Toward a Time-Geography of Exposure: Novel Technologies and Emerging Trends – *Michael Jerrett*
- An Academic Perspective on Regulatory and Policy for PM – *Morton Lippmann*
- Setting National Ambient Air Quality Standards: Role of Judgment versus Science – *Roger O. McClellan*
- Regulatory and Policy Implications – An EU Viewpoint – *Martin Williams*
- Regulatory and Policy Implications of the Air Pollution to Health Research Paradigm: A US EPA Perspective – *Bryan J. Hubbell*

2009

AAAR 28th Annual Conference

October 26-30, 2009

Hyatt Regency Hotel – Minneapolis, MN

Chair: CY Wu

Tutorials

- Introduction to Aerosol Mechanics I – *Richard C. Flagan*
- Mineral Dust Aerosol: Properties, Lifecycle and Impacts – *Irina N. Sokolik*
- Analytical Methods for Assessing Bioaerosol Exposures – *Tiina Reponen*
- Secondary Aerosol Formation – *Paul J. Ziemann*
- Introduction to Aerosol Mechanics II – *Richard C. Flagan*
- Methods for Semicontinuous Measurement of Particle and Gas Chemical Composition – *Rodney J. Weber*
- Aerosol Thermodynamics – *Athanasios Nenes*
- New Particle Formation in the Atmosphere – *Peter H. McMurry*
- Chemical Transport Modeling of Aerosols – *Peter J. Adams*
- Introduction and Use of Web-Based Resources for Aerosol Calculations – *Scot T. Martin*
- Ice Nucleation by Atmospheric Aerosols – *Paul J. Dermott*
- Numerical Modeling of Multiphase Flows – *Sean C. Garrick*
- Aerosol Dry Deposition from the Ambient Atmosphere – *Cliff I. Davidson*
- The Effect of Ocean Biogeochemistry on Aerosol, Clouds and Climate – *Nicholas Meskhidze*
- More than the Sum of the Parts: Satellite Aerosol Remote Sensing and its Relationship to Suborbital Measurements and Models – *Ralph A. Kahn*
- Source Apportionment/Source Characterization Techniques – *Mike P. Hannigan*

Plenaries

- Reactions at Interfaces in the Atmosphere: A New Dimension in Aerosol Research? – *Barbara J. Finlayson-Pitts*
- Aerosol Science and Technology Enabling a Potpourri of Energy Applications – *Pratim Biswas*
- Respiratory Dose Assessment of Inhaled Particles: Continuing Progress – *Chong Kim*
- Nanoparticles and Particle Number Emissions from Engines – *David Kittleson*

Special Symposia

- Aerosol Drug Delivery – Convener: *Warren Finlay*

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- Atmospheric Aerosol Nucleation and Growth: Molecular Clusters to Nanoparticles to Climate – Conveners: *Shanhu Lee & Robert McGraw*
- Biodefense – Conveners: *Joe Wander & Ed Stuebing*
- Fundamentals and Applications of Electrospray — Convener: *Weiwei Deng*
- Nanomaterials for Energy Applications — Conveners: *Junhong Chen, Mark T. Swihart & Richard L. Axelbaum*
- Recent Advances in Biomass Burning Emission Measurement and Modeling – Conveners: *Antony Chen & Hans Moosmüller*

2008

AAAR 27th Annual Conference

October 20-24, 2008

Rosen Single Creek – Orlando, FL

Chair: William W. Nazaroff

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Bioaerosol Sampling and Analyses for Biodefense – *Tiina Reponen & Jana S. Kesavan*
- Nanoparticle Synthesis – *Mark T. Swihart*
- Conceptual Framework and Application of Receptor Models — *Philip K. Hopke*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Numerical Modeling of Multiphase Flows – *Sean C. Garrick*
- Nanoparticle Applications in Energy Technology – *Uwe R. Kortshagen*
- Aerosol Nucleation: Bridging Subnanoscale Processes to Global-Scale Climate Change – *Fangqun Yu*
- Atmospheric-Surface Exchange: Dry Deposition and Resuspension – *Cliff I. Davidson*
- Secondary Aerosol Formation – *Paul Ziemann*
- Challenges to Ensuring the Safety of Emerging Nanomaterials – *Andrew D. Maynard*
- Aerosol-Cloud Interactions: The Elusive Component of Climate Change – *Athanasios Nenes*
- Human Aerosol Exposure: Toward a Mechanistic Understanding – *William W. Nazaroff*
- Methods for the Semicontinuous Measurement of Particle and Gas Chemical Composition – *Rodney J. Weber*
- Aerosol Filtration for Fine and Nano Particles – *Da-Ren Chen*
- From Emission to Direct Forcing: Single Source Contributions to Climate Change – *Tami C. Bond*

Plenaries

- Aerosols, Health and Climate – *Kirk R. Smith*
- From Molecules to Nanodroplets: Nucleation, Growth and Structure – *Barbara E. Wyslouzil*
- Physical, Chemical and Toxicological Characteristics of PM from Mobile Sources – *Constantinos Sioutas*
- Particles, Drops and Crystals: Recent Advances in Understanding Aerosol-Cloud Interactions – *Sonia M. Kreidenweis*

Special Symposia

- Frontiers in Megacity Aerosol Research – Conveners: *L.C. Marr & M. Bergin*
- Applications of the Electrospray – Conveners: *W. Deng*

American Association for Aerosol Research (AAAR) Conference History

- Particulate Matter and Mobile Sources – Conveners: *A. Ayala, A. Vette & J. Herner*

2007

AAAR 26th Annual Conference

September 24-28, 2007

Grand Sierra Resort – Reno, NV

Chair: Jay R. Turner

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Aerosol-Cloud Interactions: The Elusive Component of Climate Change – *Athanasios Nenes*
- Nanoparticles and Nanotubes: Synthesis and Applications – *Richard Axelbaum*
- Human Aerosol Exposure: Toward a Mechanistic Understanding – *William W Nazaroff*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Numerical Methods for Treating Internal Mixing of Aerosols and the Resulting Radiative Effects – *Mark Jacobson*
- Understanding Proper Data Analysis of Differential Mobility Analyzer Measurements – *Mark Stolzenburg*
- Inhalation Toxicology of Nanomaterials – *Vicki Grassian*
- PM Research to Operations: Exploring PM Research Contributions to Policy Relevant Air Quality Management Applications – *Richard Scheffe*
- Secondary Aerosol Formation – *Paul Ziemann*
- Light Scattering by Particles: An Intuitive Description for Aerosol Scientists – *Chris Sorensen & Matthew Berg*
- Methodologies for Assessing Bioaerosol Exposure – *Tiina Reponen*
- Receptor-Oriented Source Apportionment: Do you have a robust solution? – *Shelly Eberly* (cancelled)
- Organic Aerosols and the Volatility Basis Set: Experimental and Modeling Applications – *Neil Donahue*
- Aerosol Optics Measurements and Survey of the Current State of the Science – *Pat Arnott*
- Introduction to Aerosol Technology for Drug Delivery – *Reinhard Vehring*

Plenaries

- Single Particle Analysis all the Way up to the Stratosphere – *Daniel M. Murphy*
- Inhaled Insulin and the Marvelous New Innovations in Aerosol Medicines – *John S. Patton*
- The Devil is in the Details: On the Role of Molecular Structure in Secondary Organic Aerosol Chemistry – *Paul J. Ziemann*
- CNN: Clusters, Nucleation and Nanoparticles: Connecting the Dots – *M. Samy El-Shall*

Special Symposia

- Aerosols, Clouds and Climate – Conveners: *Sonia Kreidenweis & Athanasios Nenes*
- Innovation in Medicinal Particle and Aerosol Science – Conveners: *Warren Finlay & Richard Vehring*
- Advances in Instrumentation for Organic Aerosols: Development, Application and use in Model Evaluation – Conveners: *Allen Goldstein, Jose-Luis Jimenez & Andrey Khlystov*

American Association for Aerosol Research (AAAR) Conference History

2006

7th International Aerosol Conference & AAAR 25th Annual Conference
September 10-15, 2006

Crowne Plaza St. Paul Riverfront – St. Paul, MN

Chairs: David Pui & Gilmore Sem (general); Pratim Biswas & Da-Ren Chen (technical program)

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Aerosol Thermodynamics – *Athanasios Nenes*
- Air Pollution Exposure Assessment: Implications for Particulate Matter Epidemiology – *Jeremy A. Sarnat*
- Aerosol Characterization using Plasma Spectrochemistry – *Martin M. Shafer*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Atmospheric Nucleation – *Markku Kulmala*
- Human Aerosol Exposure: Toward a Mechanistic Understanding – *William W Nazaroff*
- Basics of Light Absorbing Carbon – *Tami C. Bond*
- Aerosol Sampling and Transport – *John E. Brockmann*
- Measurements of Aerosol Radiative Properties – *John A. Ogren*
- Biokinetics and Toxicology of Nanoparticles – *Günter Oberdörster*
- Secondary Aerosol Formation – *Paul J. Ziemann*
- Preparation of Nanoparticles and Nanostructured Powders by Spray Method for their Applications in Nanotechnology – *Kikuo Okuyama*
- Aerosol Technology for Drug Delivery – *Warren Finlay*
- Instrumentation and Theory of Cloud Condensation Nuclei Measurements – *Athanasios Nenes*
- Making use of Satellite-Derived Aerosol Amounts, Distributions and Properties – *Ralph Kahn*

Plenaries

- Assembling Materials and Devices from Nanoscale Building Blocks – *Richard W. Siegel*
- Indoor Aerosols: Do we Need More Data or More Science? – *Lidia Morawska*
- Reinventing the Wheel: New Vistas for Aerosol Measurement – *Richard C. Flagan*
- Health Effects of Ambient Particulate Matter – *Bert Brunekreef*
- Primary Versus Secondary and Biogenic Versus Anthropogenic Organic Aerosol: Grand Challenges in Atmospheric Aerosol Research – *Urs Baltensperger*

Special Symposia

- Third Symposium on the History of Aerosol Science – Organized by *David S. Ensor*
- Noninvasive Scattering Techniques for Nanoaerosol Characterization: Neutrons, X-Rays and Light – Organized by *Barbara Wyslouzil & Chris Sorensen*
- Nanoparticle Dosimetry, Toxicology and Cellular Interactions (jointly with ISAM) – Organized by *Chong S. Kim, Wolfgang Kreyling & Marianne Geiser*
- Nanomaterials and Occupational Health – Organized by *Mark D. Hoover, Andrew Maynard & Chuen-Jinn Tsai*
- Industry Forum on Nanoparticle Science and Technology – Organized by *Sheldon Davis & Pratim Biswas*
- Computer Software for Aerosol Research and Education – Organized by *Chang-Yu Wu & Kikuo*

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Okuyama

- Aerosol and Bioterrorism Defense – Organized by *Sergey Grinshpun & Ed Stuebing*

2005

AAAR 24th Annual Conference

October 17-21, 2005

Hilton Austin – Austin, TX

Chair: Spyros Pandis

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Nucleation of Particles from the Gas Phase – *Steven L. Girshick*
- Health Effects Associated with Exposure to Particulate Matter – *Robert Devlin*
- Secondary Aerosol Formation – *Paul J. Ziemann*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Aerosols and Clouds: Can We Quantify the Effect of Aerosols on Climate Change? – *Joyce E. Penner*
- Introduction to Aerosol Technology for Pulmonary Drug Delivery – *Reinhard Vehring*
- Ambient PM-2.5 Measurement and Characterization – *Jay R. Turner*
- Introduction to Source-Oriented Aerosol Modeling – *Michael J. Kleeman*
- Nanoparticle Measurements – *Richard C. Flagan*
- Assessing Bioaerosol Exposures and their Impacts – *Janet M. Macher*
- Photochemistry of Atmospheric Particles and Aqueous Drops – *Cort Anastasio*
- How to make Advanced Factor Analysis Models Work for You – *Philip K. Hopke*
- Light Scattering by Particles: An Intuitive Description for Aerosol Scientists – *Chris Sorensen*
- Biological Aerosol Measurement and Detection – *Jim Ho*
- Particle Mass Spectrometry – *Murray Johnston*

Plenaries

- What Satellites Contribute to the Global Aerosol Picture – *Ralph Kahn*
- The Health Effects of Ambient Particulate Matter: What we Know in 2005 and Where We Need To Go in the Future – *Dan Costa*
- From Ancient Artwork to Modern Functional Aerosol-Made Materials – *Sotiris E. Pratsinis*
- What are We Learning from Field Measurements with Aerosol Mass Spectrometry? – *Jose-Luis Jimenez*

Special Symposia

- Aerosols In-Cabin and in Other Micro-Environments – Organized by *Antonio Miguel*
- Aviation Emissions: APEX and Related Studies – Organized by *Chowen C. Wey, Philip D. Whitefield & Andreas Petzold*
- Combining Multiple Data Sources and Models to Create an Accurate, Global-Scale Aerosol Picture – Organized by *Ralph Kahn, Sonia Kreidenweis, John Seinfeld*
- International Consortium for Atmospheric Research on Transport and Transformation (ICARTT) Study – Organized by *Ann Middlebrook & Robert Griffin*
- Joint AAAR-ISAM Symposium on Delivery and Biological Effects of Inhaled Particles – Organized by *Ron Wolff & Warren Finlay*

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2005

AAAR International Specialty Conference

“Particulate Matter Supersites Program and Related Studies”

February 7-11, 2005

Sheraton Atlanta Hotel – Atlanta, GA

Chair: Paul A. Solomon

Plenaries

- The Reduction of Fine Particle Pollution: A Critical Element of the United States Clean Air Strategy – *Jeffrey R. Holmstead*
- Particulate Matter: A Brief History of Nearly Everything – *John Bachmann*
- Understanding the Health Effects of PM: Are We There Yet? – *Daniel Greenbaum*
- Global Climate Change: Aerosols and Their Linkages – *Jeffrey S. Gaffney*
- The U.S. EPA Supersites Program: Elucidating Spatial Variability in Particulate Matter Size and Composition – *Jay Turner*
- Atmospheric Processes and Reduction of PM_{2.5} Concentrations – *Spyros Pandis*
- Comparison of PM Mass and Chemical Species Measurement Technologies: Implications for Networking Monitoring – *Kenneth L. Demerjian*
- New Possibilities for Aerosol Measurements and Source Apportionment – *John Watson*

2004

AAAR 23rd Annual Conference

October 4-8, 2004

Hyatt Regency Atlanta – Atlanta, GA

Chair: Sheryl Ehrman

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- PM-2.5 Measurement and Characterization – *Jay R. Turner*
- Understanding and Predicting the Gas/Particle Partitioning of Organic Compounds using Elementary Theoretical Concepts – *James Pankow* (cancelled)
- Aerosols and Climate Change – *Stephen E. Schwartz*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Semicontinuous Measurement of Aerosol Chemical Composition – *Rodney Weber*
- Secondary Organic Aerosol Formation – *Richard Kamens*
- Bioaerosols: Extending Non-Culture Based Methods for Characterizing Microorganisms and Primary Biological Materials in Air – *Mark Hernandez*
- Aerosol Mass Spectrometry, Part 1: Laser Ablation Techniques – *Daniel J. Cziczo*
- Heterogeneous Chemistry – *Michael Mozurkewich*
- Inside Out: Factors Affecting the Indoor Concentration of Outdoor Aerosols – *Melissa Lunden*
- Particles from Engines: Formation and Measurement – *David Kittelson*
- Aerosol Mass Spectrometry, Part 2: Thermal Desorption Techniques – *Jose-Luis Jimenez*
- Respiratory Dose Assessment of Inhaled Particles in the Human Lungs – *Chong Kim*
- Regional Modeling of Aerosols – *Betty K. Pun*

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- Aerosol in Nanotechnology – *Richard C. Flagan*

Plenaries

- Recent Aspects of Inhaled Particles Dosimetry – *Wolfgang Kreyling*
- Particulate Matter Modeling and Reconciling PM Source Apportionment Methods – *Armistead Russell*
- Studying the Reactivity of Nanoaerosols – *Michael Zachariah*
- Characterization of Atmospheric Aerosols: Yesterday and Today – *Susanne Hering*

Special Symposia

- Microdosimetry & Targeting of Inhaled Particles and Drug Aerosols – Organized by *Chong Kim & James Blanchard*
- Aerosols and Climate Change/Indirect Effects, Cloud Droplet Interactions – Organized by *Tymon Zielinski*
- Characterization and Health Effects of Ambient Southeastern US Aerosol I – Organized by *Eladio M. Knipping*
- Heterogeneous & Multiphase Chemistry I – Organized by *Cort Anastasio & Paul Maker*

2003

AAAR 22nd Annual Conference

October 20-24, 2003

Hilton Anaheim Hotel – Anaheim, CA

Chair: Barbara Turpin

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Particle Control Techniques – *David Leith*
- Aerosol Nucleation – *Barbara Wyslouzil*
- Bioaerosols: Extending Non-Culture Based Methods for Characterizing Microorganisms and Primary Biological Materials in Air – *Mark Hernandez*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Indoor Aerosols – *William W Nazaroff*
- An Intuitive Approach to Light Scattering from Single Particles and Aggregates – *Chris Sorensen*
- Filter-Based Aerosol Sampling and Analysis – *Judith Chow*
- Particle Transport Modeling – *Daniel J. Rader*
- Analytical Methods for Source Apportionment – *James J. Schauer*
- Secondary Aerosol Formation – *Paul J. Ziemann*
- Aerosols and the Respiratory Tract: A Primer – *Maura J. Sheehan*
- Modeling Atmospheric Aerosols – *Spyros Pandis*
- Chemical Mass Balance Receptor Modeling – *John G. Watson*
- Photochemistry of Atmospheric Particles and Aqueous Drops – *Cort Anastasio*
- Physiological Responses to Inhaled Particles – *Owen R. Moss*

Plenaries

- Observations of New Particle Formation and Growth Rates in the Atmosphere – *Peter H. McMurry*

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- Emissions-to-Intake Relationships for Air Pollution Sources – *William W Nazaroff*
- Electro Spray Wings for Molecular Elephants – *John Fenn*
- Understanding the Health Effects of Air Pollution: An Epidemiologist's Quagmire – *Paige E. Tolbert*

Special Symposia

- Chemical and Biological Agent Detection – Organized by *David Ferguson*
- California Regional Particulate Air Quality Study (CRPAQS) – Organized by *Michael J. Kleeman*
- Heterogeneous Aerosol Chemistry – Organized by *James N. Smith*

2003

AAAR International Specialty Conference

“Particulate Matter: Atmospheric Sciences, Exposure and the Fourth Colloquium on PM and Human Health”

March 31 – April 4, 2003

Hilton Pittsburgh – Pittsburgh, PA

Chairs: Cliff I. Davidson, Robert Phalen & Paul Solomon

Plenaries

- What are the Policy Perspectives Linking PM Emissions, the Atmosphere and Effects? – *John Vandenberg*
- What are the Physical and Chemical Characteristics of PM? What Health Effects are Associated with Specific Characteristics? – *Morton Lippmann*
- What are the Sources of Precursor Gases and PM that are Potentially Causing Health Effects? – *Philip Hopke*
- When and Where are People Exposed to PM? – *Linda Sheldon*
- Who are the Susceptible Subgroups Affected by PM? What Host Characteristics Underlie Their Susceptibilities? – *Dan Costa*
- What Relations Exist Between PM and Human Welfare? – *Ellis Cowling*
- What Relations Exist Between the PM Problem, Other Air Quality Problems and Issues Such As Energy Use and Economic Development? – *Harry ten Brink*
- How Can We Evaluate Our Progress in Reducing PM Health and Welfare Effects? How Can We Incorporate This Information in Refining Strategies for Reducing Exposure? – *Kenneth Demerjian*

Workshops

- The NARSTO North American PM Assessment – *James Vickery, Marjorie Shepherd & William Wilson*
- Epidemiology: Short-Term and Long-Term Health Effects – *George Thurston & Doug Dockery*
- Ambient Air Pollution Concentrators and Dose-Response Data – *Terry Gordon & Frances Silverman*
- Time-Integrated Sampling and Analysis of PM for Composition (Including Semi-Volatile Species) – *John Watson, R.K.M. Jayanty & Jay Turner*
- Emissions: Measurement, Characterization and Modeling – *Tom Pierce & Brent Bailey*
- Dosimetry and Exposure Issues for Health Effects Applications – *Beverly Cohen & W. Michael Foster*
- Semi-Continuous Methods for Measuring PM – *Susanne Hering, Rodney Weber & Shelly Eberly*
- Toxicology: Metals, Mixtures and New Models – *Gunter Oberdorster, Robert Devlin, Kevin Dreher & Kevin Driscoll*
- Regional, Seasonal and Temporal Factors in Health Effects – *Fred Lipfert & Suresh Moolgavkar*

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- Measurement of Particle Size (Ultrafine, Fine and Coarse) – *Richard Flagan & Fatima Andrade*
- Air Quality Modeling – *Christian Seigneur & Robin Dennis*
- Integrating Epidemiology, Toxicology and Human Clinical Studies – *Mark Utell & Jane Koenig*
- Receptor Modeling and Source Apportionment – *Jamie Schauer & Gary Norris*
- Susceptibility, Genetics and Biological Indicators – *George Leikauf & Andrew Ghio*
- Personal, Indoor and Outdoor Exposures: Measurements and Modeling – *Michael Kleinman & John Godleski*

2002

AAAR 21st Annual Conference

October 7-11, 2002

Adam's Mark Hotel – Charlotte, NC

Chair: Chong S. Kim

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Hygroscopic and Cloud Forming Properties of Aerosols – *Don R. Collins*
- Nanoaerosol Toys: New Tools to Extend Particle Measurement Capabilities to 1 nm and Below – *Juan Fernandez de la Mora*
- Introduction to Air Pollution Epidemiology for Aerosol Scientists – *Lucas M. Neas*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Aerosol Products from Satellites Observations – Past, Present and Future – *Ralph Kahn*
- Aerosol Nanoparticle Technology – *Richard C. Flagan*
- Aerosols and the Respiratory Tract: A Primer – *Maura J. Sheehan*
- Tools for Measurement and Characterization of PM_{2.5} – *Sonia M. Kreidenweis*
- Understanding and Predicting the Gas/Particle Partitioning of Organic Compounds using Elementary Theoretical Concepts – *James F. Pankow*
- Measurements of Aerosol Radioactive Properties – *John A. Ogren*
- Bioterrorists Know Microbiology; Shouldn't You? A Review for Aerosol Scientists – *Janet M. Macher*
- Aerosol Sampling and Transport – *John E. Brockmann*
- Heterogeneous Aerosol Chemistry: Reaction with Aerosol Particles – *Laura T. Iraci*
- Aerosol Mass Spectrometry: Instruments and Applications – *Jose-Luis Jimenez*
- Aerosol Deposition and Drug Delivery – *Yung Sung Cheng*

Plenaries

- Dust and Particle Air Pollution Resulting from the World Trade Center Disaster – *George D. Thurston*
- Semivolatile and Nonvolatile Organic Species in the Atmospheric Aerosol: New Insights into an Old Problem – *Hans Puxbaum*
- Health Effects of PM: What We Know and What We Think We Know. Is it Enough? – *Robert Devlin*
- Wide-Range Particle Spectrometer – *Benjamin Y. H. Liu*

Special Symposia

- Sampling, Analysis and Health Effects of WTC Aerosols – Organized by *Beverly Cohen*
- Results from Particulate Matter Supersite Programs – Organized by *Charlie Stainer*

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- Emissions, Formations and Measurements of Semivolatile Organic Compounds – Organized by *Donald Dabdub*

2002

6th International Aerosol Conference (IARA & CAART)

September 8-13, 2002

Taipei International Convention Center – Taipei, Taiwan

Chairs: Chuen-Jinn Tsai (general); Chiu-sen Wang (technical)

Tutorials

- Aerosol Measurements – *Judy C. Chow*
- Bioaerosols and Public Health – *Janet Macher*
- Aerosol Synthesis of Nanoparticles and Nanoparticle Devices from Vapor Phase Precursors – *Richard Flagan*
- Characteristics of Ambient PM_{2.5}: Data and Interpretation – *Cliff I. Davidson*
- Aerosol Deposition and Drug Delivery – *Yung Sung Cheng*
- Catalytic Properties of Nanoscale Aerosols – *Gerhard Kasper*
- Receptor Modeling for Fine Mode Particles – *Joachim Heyder*
- Preparation of Nanoparticles by Spray Methods in Nanotechnology – *Kikuo Okuyama*
- Field Sampling Study for Fine Particle and Visibility – *K.C. Moon*
- Respiratory Dose Assessment of Inhaled Particle in Health and Disease – *Chong S. Kim*
- Instrumentation for Nanoparticle Generation and Measurement – *David Y.H. Pui*

Plenaries

- Nanoparticles in the Gas Phase as Building Blocks for Electrical Devices – *Heinz Fissan*
- Aerosols and Climate – *John H. Seinfeld*
- Health Effects of Ambient Air Particles – *Morton Lippmann*
- Particle Deposition and Reentrainment – *Hiroaki Masuda*

2001

AAAR 20th Annual Conference

October 15-19, 2001

DoubleTree Hotel Lloyd Center – Portland, OR

Chair: Yung Sung Cheng

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Photochemistry of Atmospheric Particles and Aqueous Drops – *Cort Anastasio*
- Aerosols and the Respiratory Tract: A Primer – *Maura J. Sheehan*
- Nanoparticles as Building Blocks for Structured Materials and Electronic Devices – *Heinz Fissan*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Organic Aerosol: Analysis, Source Markers and Source/Receptor Reconciliation – *Wolfgang F. Rogge*
- Sampling of Aerosol from Aircraft – *James C. Wilson*
- Light Scattering from Single Particles and Aggregates: An Intuitive Approach – *Chris Sorensen*
- Indoor Aerosols – *William W Nazaroff*

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- Introduction to Visibility Concepts – *William C. Malm*
- Modeling of Airflow and Particle Deposition in the Respiratory Tract – *Julia S. Kimbell*
- Sampling and Characterization of Particles from Diesel Engines – *David Kittelson*
- The Evaluation and Calibration of Aerosol Samplers – *Walter John*
- Modeling of Atmospheric Aerosol Processes – *Spyros Pandis*
- Analysis of Bioaerosols: Non-Culture Based Methods for Characterizing Microorganisms in Aerosols – *Mark Hernandez*
- Detecting Perceptions of Aerosols in Society, Art, Literature and Film – *Peter Brimblecombe*

Plenaries

- Atmospheric Aerosol Science for Public Policy: The NARSTO PM Assessment – *James Vickery*
- The Art of Aerosol – *Peter Brimblecombe*
- Science is not Enough – *Eric G. Daxon*
- Pharmaceutical Aerosols: The Revolution Continues – *Andrew Clark*

Special Symposia

- Direct Effects of Aerosols on the Ecosystem – Organized by *James Schauer*
- NIST Centennial Symposium: “Aerosol and Particle Metrology and Calibration” – Organized by *George Mulholland*
- Aerosol in China Symposium – Organized by *Mike Bergin*
- Ultrafine Particles in the Atmosphere – Organized by *Ann Dillner*

2000

AAAR 19th Annual Conference

November 6-10, 2000

Adam’s Mark Hotel – St. Louis, MO

Chair: Sonia Kreidenweis

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Plasma-Generated Aerosols – *Steven L. Girshick*
- Pulmonary Biology for Aerosol Scientists: Understanding Health Effects – *Bernard J. Greenspan*
- Methods for Measurement of PM-2.5 – *Peter Koutrakis*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Particle Transport Modeling for the Semiconductor Industry – *Daniel J. Rader*
- Properties, Respiratory Tract Deposition and Biological Effects of Ultrafine Particles – *Beverly S. Cohen*
- Semi-Continuous Monitoring of Aerosol Chemical Composition – *Susanne V. Hering*
- Personal Exposure Assessment for Non-Occupational Aerosol – *Charles Rodes*
- Nucleation Phenomena – *Gerald Wilemski*
- Ambient Particulate Matter and Health: From the Source to the Receptor to You – *Michael T. Kleinman*
- Nanoparticle Characterization – *Richard C. Flagan*
- Bioaerosols and Public Health – *Janet M. Macher*
- Receptor Modeling for Fine Mode Particles – *Philip K. Hopke*

American Association for Aerosol Research (AAAR) Conference History

- Respiratory Deposition of Inhaled Particles in Health and Disease – *Chong S. Kim*
- Real-Time Mass Spectrometry Techniques for Individual Particle Analysis – *Kimberly A. Prather*

Plenaries

- Particulate Air Pollution and Health: Setting a National Research Agenda – *Jonathan Samet*
- Aerosol Reaction Engineering: Measuring and Modeling the Performance of Combustion-Synthesized Nanoparticle Reactors – *Daniel E. Rosner*
- Aerosol Measurements by Spaceborne Lidar: The Next Generation of Remote Sensors – *M. Patrick McCormick*
- History of Biowarfare: US Response and Preparedness – *Edward W. Stuebing*

Special Symposia

- Aerosols in Semiconductor Manufacturing: From Materials Processing to Microcontamination – Organized by *Sheryl Ehrman*
- Dynamics and Effects of Organic Aerosols in the Atmosphere – Organized by *Barbara Turpin*
- Respiratory Dose Estimation of Inhaled Particles: Advances in Experiment and Theoretical Model – Organized by *Chong S. Kim*

1999

AAAR 18th Annual Conference

October 11-15, 1999

Sheraton Tacoma Hotel – Tacoma, WA

Chair: Anthony S. Wexler

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Pharmaceutical Aerosols: Their Generation, Characterization and Delivery – *Andrew Clark*
- Bioaerosol Analysis: Non-Culture-Based Methods for Characterizing Microorganisms in Aerosols – *Mark Hernandez*
- Raman Spectroscopy – *Gustav Schweiger*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Respiratory Deposition and Clearance of Therapeutic Aerosols – *William Bennett*
- Particles in Indoor Air – *William W Nazaroff*
- Single Particle Mass Spectrometry – *Murray Johnston*
- Aerosol Sampling and Transport – *John E. Brockmann*
- Health Effects of Nonoccupational Exposures to Aerosols – *Morton Lippmann*
- Remote Sensing of Aerosols and their Radiative Forcing of Climate – *Yoram Kaufman*
- Experimental Techniques and Modeling in Heterogeneous Atmospheric Chemistry Studies – *Paul Davidovits*
- Aerosol Charging – *Andreas Schmidt-Ott*
- Computational Fluid Dynamics and Aerosol Respiratory Deposition – *Julia S. Kimbell*
- Sampling and Characterization of Particles from Engines – *David Kittelson*
- Aerosol-Cloud Interactions – *Chris J. Walcek*

American Association for Aerosol Research (AAAR) Conference History

Plenaries

- Aerosol Synthesis of Metal Nanocrystals and their Self-Assembly into Electronic Nanostructures – *Ronald Andres*
- Aerosols and Climate: An Overview of Recent and Planned Field Experiments – *Timothy S. Bates*
- Heterogeneous and Multiphase Chemical Processes in the Atmosphere – *A. R. Ravishankara*
- Physiological Considerations for Inhaled Particles – *Robert F. Phalen*

Special Symposia

- Nanophase Titania (TiO₂) – Organized by *Guixiang Yang*
- Semiconductor/Microcontamination – Organized by *Sheryl Ehrman*
- Aerosol Characterization Experiments – Organized by *Herman Sievering*
- Health Related Pharmaceutical Aerosols – Organized by *Simon Rothenberg*
- The First Coordinated Health and Aerosol Characterization Supersite Experiment – Organized by *Tina Bahadori*

1998

5th International Aerosol Conference

September 12-18, 1998

Edinburgh Conference Centre, Heriot-Watt University – Edinburgh, Scotland

Chairs: Alan Cussens (chairman); Don Clark (programme)

Tutorials

- Introduction to Aerosol Mechanics I and II – *William C. Hinds*
- Instrumentation for Aerosol Analysis – *David Y. H. Pui*
- Air Quality – *Roy Harrison*
- Pharmaceutical Aerosols – *David Ganderton*
- Synthesis of Nano-Particles – *Heinz Fissan*
- Describing Aerosols in Global Atmospheric Models – *Frank Raes & Julian Wilson*
- Strategies for Environmental Bioaerosol Measurement – *Jim Ho*
- Chemistry of the Atmosphere – *Peter Brimblecombe*
- Aerosol Sampling – *David Mark*
- Electrical and Optical Traps for Single Airborne Particles – *E. James Davis*
- The Mechanisms of Indoor Air Pollution – *Miriam Byrne*
- Aerosol Nucleation – *Paul E. Wagner*
- Particle Characterisation by Light Scattering – *Alan Jones*
- Introduction to Electrospray Techniques – *Jan Marijnissen*
- Filtration – *Richard Brown*

Plenaries

- The Role of Aerosol in Cloud Physics – *Sir John Mason*
- Biological Aerosols in the Atmosphere – *Ruprecht Jaenicke*
- The Health Effects of Urban Particulate Air Pollution – *Anthony Seaton*
- Advances in Aerosol Sampling Science and its Practical Applications – *Jim Vincent*
- Atmospheric Aerosol Characterisation – *Richard Flagan*

American Association for Aerosol Research (AAAR) Conference History

Symposium

- Aerosols for Nanostructured Materials and Devices – joint ESF-NSF symposium

1998

AAAR 17th Annual Conference

June 22-26, 1998

Omni Netherland Plaza – Cincinnati, OH

Chair: Ronald K. Wolff

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Optical Probes: Elastic and Inelastic Scattering – *E. James Davis*
- Chemical Characterization of Organic Particulate Matter – *Wolfgang F. Rogge*
- Biologically Derived Airborne Contaminants: Assessment and Control – *Janet M. Macher*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Turbulence Flow Modeling Including Wall and Particle Effects – *Yassin A. Hassan*
- Urban- and Regional-Scale Modeling of Aerosol Dynamics – *Armistead G. Russell*
- Ultrafine Particles and Human Health – *Beverly S. Cohen*
- Pulmonary Biology for Aerosol Scientists: Understanding Health Effects – *Bernard J. Greenspan*
- Nanoparticle Synthesis, Characterization and Processing – *Richard C. Flagan*
- Gas/Particle Partitioning of Organic Compounds – *James F. Pankow*
- Pharmaceutical Inhalation Aerosol Technology – *Anthony J. Hickey*
- Design of Exposure Measurements for Aerosol Epidemiology – *William E. Wilson*
- Measuring PM_{2.5}: Methods and Uncertainties – *Susanne V. Hering*
- Heterogeneous Atmospheric Chemistry: Reactions with Aerosol Particles – *Ann M. Middlebrook*
- Occupational Aerosol Exposure: Measurement of Fibers and other Toxic Materials – *Paul A. Baron*

Plenaries

- Particulate Matter Issues: Looking Back and Possible Paths Forward – *Roger O. McLellan*
- Overview of Plausibility of Particle-Induced Health Effects – *Joe L. Mauderly*
- On-Line Single Particle Analysis – *Anthony S. Wexler*
- A New Era of Remotely Sensed Aerosol Properties – *Phillip A. Durkee*

1997

AAAR 16th Annual Conference

October 13-17, 1997

Renaissance Denver Hotel – Denver, CO

Chair: Christopher M. Sorensen

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Sampling Health-Related Aerosols – *James Vincent*
- Aerosol Formation by Condensation – *Charles F. Clement*
- Combustion Aerosols: Formation, Emissions and Control – *Pratim Biswas*
- Introduction to Aerosol Mechanics II – *William C. Hinds*

American Association for Aerosol Research (AAAR) Conference History

- Health Effects of Inhaled Fibers: What we Know and What Aerosol Research is Needed to Impact Future Progress – *Owen Moss*
- Modeling Environmental Emissions – *Glen R. Cass*
- Aerosol Thermodynamics – *Anthony S. Wexler*
- Aerosol Sampling and Transport – *John Brockmann*
- Pharmaceutical Aerosol Delivery to the Respiratory Tract – *David Velasquez*
- Heterogeneous Atmospheric Chemistry: Reactions on Particles – *David R. Hanson*
- Laser Induced Fluorescence Spectroscopy for the Study of Combustion Processes – *John Daily*
- Aerosol Laboratory Facilities and Experimental Methods – *Walter John*
- Particles in Indoor Air – *William W Nazaroff*
- Turbulent Aerosols: Simulation and Analysis – *Lance R. Collins*
- Advanced Ceramic Materials Synthesis – *Alan W. Weimer*

Plenaries

- Microdroplet Laser Resonance Spectroscopy – *Anthony J. Campillo*
- Differential Mobility Analysis – Chances and Limitations in the Nanometer Size Range – *Heinz Fissan*
- Grains of Salts: Influence of Anthropogenic Aerosols on Climate – *Stephen E. Schwartz*
- On the Health Effects of Particulate Air Pollution – *Robert F. Phalen*

1996

AAAR 15th Annual Conference

October 14-18, 1996

Orlando Hyatt – Orlando, FL

Chair: Pratim Biswas

Tutorials

- Design of Exposure Measurements for Aerosol Epidemiology – *William E. Wilson*
- Stratospheric Aerosols – *Rudolf Pueschel*
- An Introduction to Aerosol Mechanics – I – *William C. Hinds*
- Ultrafine Aerosol Measurement – *Peter McMurry*
- Respiratory Tract Dosimetry – *David Swift*
- Sampling Aerosols from Aircraft – *Chuck Wilson*
- An Introduction to Aerosol Mechanics – II *William C. Hinds*
- Nucleation of Droplets from the Vapor – *David Oxtoby*
- Pharmaceutical Aerosols: Their Generation, Delivery and Characterization – *Andrew Clark*
- Cloud and Fog Sampling – *Jeffrey Collett*
- Light Scattering from Aerosol Particles – *E. James Davies*
- Materials Synthesis - *Toivo Kudas*
- Bioaerosol Particles: Physical and Microbiological Aspects – *Sergey Grinshpun*
- Atmospheric Aerosols and Environmental Optics – *Kirk A. Fuller*
- The Dynamics and Transport of Small Particles – *Martin Maxey*
- Chemical Characterization of Aerosol Particles – *Murray V. Johnston*

Plenaries

- Aerosol Technology: Pushing the Frontiers – *SK Friedlander*

American Association for Aerosol Research (AAAR) Conference History

- CFCs, Volcanoes and Ozone: Trends and Variability – *Susan Solomon*
- High Temperature Particle Formation Processes for Producing Fine Nonoxide Ceramic Powders – *AW Weimer*
- Bioaerosol Sampling: Recent Developments and Present Challenges – *K. Willeke*

Special Symposia

- Aerosol Science and Dosimetry Issues for Inhaled Pharmaceuticals
- History of Aerosol Instrumentation
- Developing a Research Program: Tips on Funding, Supervising and Conducting Research in Aerosol Science

1995

AAAR 14th Annual Conference

October 9-13, 1995

Westin William Penn Hotel – Pittsburgh, PA

Chairs: Cliff I. Davidson & Ted Russell

Tutorials

- Introduction to Aerosol Mechanics – *Paul Baron*
- Design of Exposure Measurements for Aerosol Epidemiology – *William E. Wilson*
- Characterization of Particulate Matter using Scanning Electron Microscopy Techniques – *Gary S. Casuccio*
- Modeling of Aerosol and Cloud Microphysical Process – *Sonia Kreidenweis & Graham Feingold*
- Electro spray Fundamentals and Applications – *Juan de la Mora & Alessandro Gomez*
- Elastic Light Scattering – *Christopher M. Sorensen*
- Bioaerosols: Sampling, Generation and Analysis – *Lisa Brosseau & Nicole Vars*
- Chemical Characterization of Organic Aerosols – *Monica A. Mazurek*
- Aerosol Instrumentation – An Introduction to Direct Reading Instruments – *David Y. H. Pui*
- Spray Technology – *Adel Mansour*
- Aerosol Sampling and Transport – *John Brockmann*
- Pharmaceutical Aerosol – *Andrew R. Clark*
- Combustion Aerosols: Measurements, Methods and Formation Mechanisms – *Esko Kauppinen*
- Materials Processing with Supercritical Fluids – *Pablo G. Debenedetti*
- Aerosol Filtration: Fundamentals and Performance Data – *Kenneth L. Rubow*
- Computational Modeling of Airflow and Deposition in the Respiratory System – *Jeffrey Hammersley*
- Size Selective Sampling for Atmospheric Aerosols – *Susanne V. Hering*
- Manufacture of Materials by Aerosol Processes – *Sotiris Pratsinis*

Plenaries

- Aerosols and Climate – *John H. Seinfeld*
- Soot Aerosol: Morphology, Optical Properties and Chemical Development – *Richard A. Dobbins*
- Airborne Particulate Matter and Health Risks – *Roger O. McClellan*
- Aerosols in Analytical Chemistry: Ignorance is not Always Bliss – *Ross C. Willoughby*

American Association for Aerosol Research (AAAR) Conference History

Symposia

- Metalworking Fluid Aerosols – Organized by *Tai Chan*
- Regulating Particulate Matter: An update – Organized by *Lester Lave*
- History of Aerosol Instrumentation – Organized by *Gil Sem*
- New Approaches to Particle Mass Concentration Measurements – Organized by *Hermann Gerber*

1994

4th International Aerosol Conference & AAAR 13th Annual Conference

August 29 - September 2, 1994

University of California at Los Angeles – Los Angeles, CA

Chairs: John H. Seinfeld (general); Richard C. Flagan (technical program)

Tutorials

- An Introduction to Aerosol Mechanics I – *William C. Hinds*
- Acidic Aerosols – *Petros Koutrakis*
- An Introduction to Receptor Modeling – *Phillip K. Hopke*
- Light Scattering from Aerosol Particles – *E. James Davis*
- Particle Nucleation, Growth & Evaporation – *P. E. Wagner*
- An Introduction to Aerosol Mechanics II – *William C. Hinds*
- PAHs and Combustion Particles – *Heinz Burtscher*
- Indoor Air Quality – *Russell Wiener*
- Atmospheric Optics and Visibility – *Christine Sloane*
- Ultrafine Aerosol Particle Inception and Growth – *William H. Marlow*
- Aerosol Sampling: Fundamentals and Practice – *James Vincent*
- Aerosols and Climate Change – *Joyce E. Penner*
- Respiratory Tract Aerosol Dosimetry I – *David J. Velasquez*
- Electrospays with Applications in Aerosol Technology and Material Synthesis – *J. C. Marijnissen*
- Aerosol Instrumentation – *David Y. H. Pui*
- Thermodynamics of Atmospheric Aerosols – *Anthony Wexler*
- Respiratory Tract Aerosol Dosimetry II – *Owen R. Moss*
- Particle Generation and Behavior in Thin Film Preparation Processes – *Kikuo Okuyama*

Plenaries

- Biomedical Aerosol Research – *Joachim Heyder*
- Volcanic Aerosol and its Effect on Global Environment – *Yosunobu Iwasaka*
- Frontiers in Aerosol Measurement – *Peter H. McMurry*

1993

AAAR 12th Annual Conference

October 11-15, 1993

Hyatt Regency Oak Brook Hotel – Oak Brook, IL

Chairs: Philip K. Hopke (general); Keng H. Leong (technical program)

Tutorials

- An Introduction to Aerosol Mechanics I – *William C. Hinds*

American Association for Aerosol Research (AAAR) Conference History

- Aerosol Inhalation Toxicology – *Michael T. Kleinman*
- Characterization of Particles: Microanalysis – *Eric B. Steel*
- Sampling of Organic Aerosols I: Sampler Biases and Artifacts – *Lynn M. Hildemann*
- An Introduction to Aerosol Mechanics II – *William C. Hinds*
- Use of Aerosols in Pulmonary Medicine – *Timothy R. Gerrity*
- Particle and Fluid Diagnostics by Light Scattering – *Barton Dahneke*
- Sampling of Organic Aerosols II: Adsorption & Volatilization Artifacts – *Stephen R. McDow*
- Meteorological Models to Estimate Aerosol Transport and Dispersion – *Roger A. Pielke*
- Biological Aerosols – *Janet M. Macher*
- High-Resolution, Real-Time Particle Aerodynamic Sizing – *Paul Baron*
- Aerosol Generation and Calibration – *George Mulholland*
- Aerosol Sampling and Transport – *John Brockmann*
- Aerosol Filtration: Fundamentals and Performance Data – *Kenneth L. Rubow*
- Inertial Impactors: Real and Virtual – *Virgil A. Marple*
- Standardization in the Field of Aerosol Measurement – *Jolyon P. Mitchell*

Plenaries

- Atmospheric Aerosols and Climate – *Robert J. Charlson*
- Chemical and Physical Characterization of a Microdroplet from the Nonlinear Optical Spectra – *Richard K. Chang*
- Medical Aerosol Inhalers: Past, Present and Future – *Andrew R. Clark*
- Gas/Particle Partitioning in the Urban Environment, in Roadway Tunnels and in Gambling Parlors – *James F. Pankow*

1992

AAAR 11th Annual Conference

October 12-16, 1992

Cathedral Hill Hotel – San Francisco, CA

Chairs: Susanne V. Hering & Walter John (general); Simon L. Goren (technical program)

Tutorials

- Introduction to Aerosol Mechanics I – *William C. Hinds*
- Pulmonary Deposition of Aerosols – *David J. Velasquez*
- Light Scattering from Aerosol Particles – *E. James Davis*
- Development and Applications of Numerical Methods of Heterogeneous Reactions at the Gas Surface Interface – *Michael E. Coltrin*
- Introduction to Aerosol Mechanics II – *William C. Hinds*
- Material Processing in the Lung – *Owen R. Moss*
- In-situ Optical Particle Sizing Techniques – *Christopher M. Sorensen*
- Thermodynamics of Atmospheric Aerosols – *Anthony Wexler*
- Aerosol Sampling Instruments – *Otto G. Raabe*
- Aerosol Particle Inception – *William H. Marlow*
- Atmospheric Visibility – *Christine S. Sloane*
- Particle Generation and Transport in Microelectronics Processing Equipment – *Jin Jwang Wu*
- Submicron Aerosol Size Distribution Measurements – *Peter H. McMurry*

American Association for Aerosol Research (AAAR) Conference History

- Bioaerosols: Risk, Evaluation, Control – *Harriet A. Burge*
- Global Aerosol Modeling – *Joyce E. Penner*
- Materials Manufacture by Aerosol Processes – *Sotiris Pratsinis*

Plenaries

- Transport and Dispersion of Particles in Turbulent Flows – *Clayton Crowe*
- Research on Interstellar Dusts – *Alexander Tielens*
- The Character and Origin of Atmospheric Carbon Particles – *Glen Cass*

1991

AAAR 10th Annual Conference

October 7-11, 1991

Grand Traverse Resort – Traverse City, MI

Chairs: Tai L. Chan (general); Christine S. Sloane (technical program)

Tutorials

- Introduction to Aerosol Mechanics I & II – *William C. Hinds*
- Aerosol Modeling I & II – *Fred Gelbard*
- Size Selective Samplers and Inertial Impactors – *Walter John*
- Indoor Air Quality – *William W Nazaroff*
- Aerosol Filtration: Fundamentals and Filter Performance Data – *Kenneth L. Rubow*
- Aerosol Generators and Particle Standards – *George W. Mulholland*
- Fractal Analysis of Aggregates – *Alan J. Hurd*
- Aerosol Issues in Hazardous Waste Incineration – *Thomas W. Peterson*
- Aerosols in the Pharmaceutical Industry – *Ronald K. Wolff*
- Aerosol Sizing and Counting Instruments: A Practical Introduction – *Susanne V. Hering*
- Source Apportionment I: Multivariate Statistical Methods – *Phillip K. Hopke*
- Aerosol and Microelectronics – *Benjamin Y.H. Liu*
- Numerical Modeling of Particle Transport in Turbulent Flow – *Thomas H. Kuehn*
- Sampling and Measurement of Diesel Aerosols – *David B. Kittelson*
- Aerosol Measurement with In Situ Instrumentation – *Daniel J. Rader*
- Source Apportionment II: Chemical Balance – *John G. Watson*
- Aerosols and Vapor-Grown Fiber Technology – *Gary G. Tibbetts*
- Statistical Design of Experiments – *Thomas J. Lorenzen*
- Issues in Data Reduction – *Pentti Paatero*

Plenaries

- Aerosol Processes in Materials Science – *Michael Frenklach*
- Chemistry of the Aqueous Atmospheric Aerosol – *Peter Brimblecombe*
- Microbial Aerosols in Buildings: Current thoughts on their Assessment & Significance – *Brian Flannigan*
- Fast Screening Techniques for the Chemical Characterization of Toxicologically Relevant Air Constituents – *Reinhard Niessner*

American Association for Aerosol Research (AAAR) Conference History

1990

3rd International Aerosol Conference (joint IARA & JAAST)

September 24-27, 1990

Kyoto International Conference Hall – Kyoto, Japan

Chair: S. Masuda (general); Kanji Takahashi (secretary); H. Emi & Y. Kousaka (technical committee)

Plenaries

- Recent Advances in Aerosol Engineering – *S.K. Friedlander*
- Aerosols and Microelectronics – *B.Y.H. Liu*
- Aerosols and Climate – *O. Preining*

1990

AAAR 9th Annual Conference

June 18-22, 1990

Wyndham Franklin Hotel – Philadelphia, PA

Chairs: Earl O. Knutson (general); David Y.H. Pui, John Seinfeld & Christine Sloane (co-chairs, technical program)

Tutorials

- Introduction to Aerosol Science and Technology I – *Parker C. Reist*
- Fibrous Aerosols – *Kvetoslav R. Spurny*
- Materials Synthesis using Aerosol Reactors – *Richard C. Flagan*
- Aerosol Photoemission – *Andreas Schmidt-Ott*
- Introduction to Aerosol Science and Technology II – *Parker C. Reist*
- Advanced Methods for Radon Daughter Size Measurements – *Philip K. Hopke*
- Critical Powder Characteristics for the Advanced Ceramics Industry – *Gary L. Messing*
- Automation of Scanning Electron Microscopy for Particles – *Gary S. Casuccio*
- Aerosol Filtration Characteristics of Fibrous and Membrane Filters – *Kenneth L. Rubow*
- Sampling of Industrial Aerosols – *James H. Vincent*
- Pharmaceutical Aerosols – *Ronald K. Wolff*
- Dry Deposition: Modeling and Measurement – *Cliff I. Davidson*
- Aerosol Sizing Instruments: A Practical Introduction – *Susanne V. Hering*
- Properties and Assessment of Bioaerosols in Indoor Air – *Jerry J. Tulis*
- Fundamentals of Atomization and Sprays – *Norman Chigier*
- Mathematical Modeling and Control of Atmospheric Aerosols – *Glen R. Cass*

Plenaries

- Aerosol Science: Applications and Opportunities in Industries – *Reg Davies*
- Aerosol Aspects of Pharmaceuticals – *David L. Swift*
- Assessment of Risk Associated with Exposure to Aerosols in the Workplace – *James Vincent*
- Experiments on Individual Dynamical Processes in Aerosols and Present Theoretical Interpretations – *Paul E. Wagner*

Workshops

- Material Synthesis using Aerosols – Chairs: *S. Pratsinis, R. Flagan & M. Roco*

American Association for Aerosol Research (AAAR) Conference History

- Performance Standards for Particle Size-Selective Samplers – Chair: *J. Vincent*
- Issues in Data Inversion – Chair: *P.H. McMurry*
- Performance Standards for Particle Size-Selective Samplers – Chair: *S. Soderholm & T. Ogden*

1989

AAAR 8th Annual Conference

October 9-13, 1989

John Ascuaga's Nugget Hotel & Casino – Reno, NV

Chairs: George M. Hidy (general); Peter McMurry & David Y.H. Pui (technical program)

Tutorials

- Aerosol Modeling I & II – *Fred Gelbard*
- An Introduction to Aerosol Mechanics I & II – *William C. Hinds*
- Aerosol Clouds and Precipitation – *John Hallett*
- Transport and Deposition of Aerosol Particles – *David Y.H. Pui*
- Light Scattering by Particles – *Craig F. Bohren*
- Aerosol Modeling I & II – *Fred Gelbard*
- An Introduction to Aerosol Mechanics I & II – *William C. Hinds*
- Source Apportionment by Receptor Modeling – *John G. Watson*
- In Situ Optical Techniques for Particle Measurements – *Robert Santoro*
- Intermediate Forces for Cluster and Particle Kinetics – *William H. Marlow*
- High T Superconductivity and Particle Technology – *David T. Shaw*
- Atmospheric Visibility – *Christine Sloane*
- Methods of Single Particle Identification – *Timothy B. Vander Wood*
- Fractal Analysis of Aerosols – *Dale W. Schaefer*
- Inversion of Aerosol Size Distribution Data – *J. Kenneth Wofenbarger & John H. Seinfeld*
- Indoor Air Quality – *William W Nazaroff*
- Instrumentation for Microcontamination Measurement – *David Y.H. Pui*

Plenaries

- Powder and Particle Characteristics that Optimize Processing and Properties of Advanced Ceramics – *F. F. Lange*
- Radon Daughter Aerosols: Lung Dosimetry and Cancer Risk – *Naomi Harley*
- Aerosols, Cloud Physics and Radiation – *Sean Twomey*
- An Overview of Defect Requirements for Semiconductors – *Avtar S. Oberai*

1988

AAAR 7th Annual Conference

October 10-14, 1988

Omni Europa Hotel – Chapel Hill, NC

Chairs: David S. Ensor (general); David Leith (technical program); Peter McMurry (co-chair)

Tutorials (information missing)

American Association for Aerosol Research (AAAR) Conference History

Plenaries

- Physical, Chemical and Biological Properties of Fibrous Aerosols – *K. R. Spurny*
- Particulate Problems that must be Solved for Cost-Effective Microelectronic Manufacture in the 1990s – *G. B. Larrabee*
- Problem Solving through Individual Particle Analysis – *T. B. Vander Wood*
- Fractal Analysis of Pyrogenic Materials – *D. Schaefer*

1987

AAAR 6th Annual Conference

September 14-17, 1987

University of Washington – Seattle, WA

Chairs: Michael J. Pilat (general); E. James Davis (technical program)

Tutorials

- Aerosol Modeling on a Personal Computer – *Fred Gelbard*
- Aerosol Sampling and Transport – *David Y.H. Pui*
- The Effects of Enhaled Toxicants on Structure and Function of the Respiratory System – *Joe L. Mauderly*
- An Introduction to Aerosol Mechanics – *William C. Hinds*
- Photon correlation Spectroscopy and its Application to Aerosol Systems – *Chris M. Sorensen*
- Aerosol Filtration Characteristics of Fibrous and Membrane Filters – *Kenneth L. Rubow*
- Indoor Air Pollution: A Public Health Perspective – *John D. Spengler*
- Recent Development in the Theory and Design of Inertial Impactors – *Virgil A. Marple*
- An Introduction to Fractals, with Applications to Colloid Synthesis – *Dale W. Schaefer*
- Microcontamination: Sources, Transport and Measurement – *Douglas W. Cooper*
- Aerosol Sampling with Size Selection: PM-10, Inspirable, Thoracic and Respirable sampling – *Walter John*
- Fundamentals of Light Scattering from Small Particles – *Peter Barber*
- Materials Synthesis using Aerosol Reactors – *Richard C. Flagan*
- Particle Measurement Methods for Semiconductor Clean Rooms – *R.P. Donovan*
- Aerosol Technology for Inhalation Studies – *Yung-Sung Cheng*
- Operation and Applications of Microparticle Balance – *E. James Davis*

Plenaries

- Chemical Reactions in Aerosols: A Novel Approach to Preparation of Well Defined Colloids – *Egon Matijevic*
- Laser Trapping and Manipulation of Small Dielectric Particles and Aerosols – *Arthur Ashkin*

1986

2nd International Aerosol Conference & AAAR 5th Annual Conference

September 22-26, 1986

Venue (information missing) – Berlin, Germany

Chairs: Gerhard Israel (general); Heinz Fissan (technical program)

Tutorials (information missing)

American Association for Aerosol Research (AAAR) Conference History

Plenary

- Smoluchowski and His Contribution to Aerosol Physics – *Othmar Preining*

1985

AAAR 4th Annual Conference

November 18-22, 1985

Marriott Hotel – Albuquerque, NM

Chairs: Roger O. McClellan (general); Hsu-Chi Yeh & George Newton (technical program)

Tutorials

- Aerosol Sampling and Transport Efficiencies – *Peter H. McMurry*
- Clean Room Monitoring Methods and Instruments – *Alvin Liberman*
- Aerosol Sampling for Inhalation Hazard Evaluation – *Morton Lippmann*
- Indoor Air Pollution – *John D. Spengler*
- Inertial Impactor Fundamentals – *Virgil Marple*
- Aerosol Filtration by Fibrous and Membrane Filters – *Benjamin Y.H. Liu*
- Aerosol Systems for Inhalation Studies – *Yung-Sung Cheng*
- Radon Daughter Aerosols—Properties and Measurement Methods – *Earl O. Knutson*
- Light Scattering I and II – *Peter W. Barber*
- The Effects of Inhaled Toxicants on Structure and Function of the Respiratory System – *Joe L. Mauderly*
- Particle Technology for Ultraclean Gases – *Gerhard Kasper*

Plenaries

- The Spectroscopy of Single Aerosol Particles – *Stephen Arnold*
- Nuclear Winter: Smoke, Dust and Climatic Change – *Richard P. Turco*
- Formation of Particulate Mutagens from Atmospheric Reactions of Gas Phase Polycyclic Aromatic Hydrocarbons – *James N. Pitts*
- Role of Science in Establishing Standards for Ambient Air Pollutants – *Morton Lippmann*

1984

1st International Aerosol Conference & AAAR 3rd Annual Conference

September 17-21, 1984

Amfac Hotel – Minneapolis, MN

Chairs: Benjamin Y.H. Liu & Heinz Fissan (general); Virgil A. Marple (technical program)

Tutorials

- Aerosol Sampling for Inhalation Hazard Evaluations – *Morton Lippman, Paul J. Lioy & Beverly Cohen*
- Applied Receptor Modeling – *John A Cooper*
- Light Scattering I and II – *Peter Barber*
- Optical Particle Counter – *J. Gebhart*
- Fibrous Aerosols – *K. Spurney*

American Association for Aerosol Research (AAAR) Conference History

Plenaries

- A Rational Basis for National Ambient Air Standards for Particulate Matter – *James P. Lodge*
- Aerosol Characterization – A System Analytical Approach; Aerosols of the Atmosphere – *Othmar Preining*
- Wall Flows in a Cyclone Separator; Details of Internal Phenomena – *William E. Ranz*
- Recent Advances in Experimental Studies of Particle Deposition – *J. Heyder*
- On the Sampling of High Temperature Aerosols – *H. Fissan & H. Bartz*
- Transport Mechanics of Nonspherical Aerosol Particles; Past, Present and Future Research – *Isaiah Gallily*

Workshop

- Aerosols and Industry – National Science Foundation

1983

AAAR 2nd Annual Conference

April 18-22, 1983

University of Maryland – College Park, MD

Chairs: James W. Gentry (general); Edward Stuebing (technical program)

Short Courses

- Light Scattering by Aerosols – *Milton Kerker, Thomas S. Clarkson, Peter Barber & George Kattawar*
- Aerosol Dynamics – *Peter McMurry & Dr. Roberts*
- Aerosol Sampling for Inhalation Hazard Evaluations – *Morton Lippman, Paul J. Lioy & Beverly Cohen*

Tutorials (information missing)

Plenaries

- Aerosol Capture in granular beds in the impaction-dominated regime – *T. D'Ottavio & S. Goren*
- Some new aspects of aerosol growth processes – *J.R. Brock*
- Mathematical modeling of aerosol dynamics – *J.H. Seinfeld*
- Transport phenomena with single aerosol particles – *E.J. Davis*
- Small clusters: Aerosol precursors – *A.W. Castleman, Jr. & R.G. Keese*
- Formation and transport of sulfate aerosol in the atmosphere – *E.W. Wilson*

1982

AAAR 1st Annual Conference

February 17-29, 1982

Miramar-Sheraton Hotel – Santa Monica, CA

Hosted by the National Center for Intermedia Transport Research; University of California, Los Angeles

Chairs: Sheldon K. Friedlander (general); David T. Shaw (technical program)

Tutorials (information missing)

Plenaries

- Principles of Aerosol Reactor Design – *Sheldon K. Friedlander*

American Association for Aerosol Research (AAAR) Conference History

- Recent Advances and Optical Scattering by Spherical and Non-Spherical Particles – *Milton Kerker & Peter Barber*
- Combustion Generated Aerosols – *Adel F. Sarofim & Richard C. Flagan*
- Advances in Air Filtration – *Benjamin Y.H. Liu & K.L. Rubow*
- Photo-Induced Nucleation – *Joseph L. Katz, T. McLaughlin & F.C. Wen*
- Aerosol Size Distributions and Their Interpretation – *K.T. Whitby*

*Compilation initiated by B.J. Turpin & S. Ehrman; Augmented and updated by W. Nazaroff (09/07; 10/08; 3/10)
with input from C. Sorensen, P. Keady, S. Hering, G. Sem & H. Fissan*