

## Aerosol Technology Hinds

Over half of the products of the chemical and process industries are sold in a particulate form. The range of such products is vast: from agrochemicals to pigments, from detergents to foods, from plastics to pharmaceuticals. However, surveys of the performance of processes designed to produce particulate products have consistently shown inadequate design and poor reliability. 'Particle technology' is a new subject facing new challenges. Chemical and process engineering is becoming less concerned with the design of plants to produce generic simple chemicals (which are often single phase fluids) and is now more concerned with speciality 'effect' chemicals which may often be in particulate form. Chemical and process engineers are also being recruited in increasing numbers into areas outside their traditional fields, such as the food industry, pharmaceuticals and the manufacture of a wide variety of consumer products. This book has been written to meet their needs. It provides comprehensive coverage of the technology of particulate solids, in a form which is both accessible and concise enough to be useful to engineering and science students in the final year of an undergraduate degree, and at Master's level. Although it was written with students of chemical engineering in mind, it will also be of use and interest to students of other disciplines. It comprises an account of the fundamentals of the subject, illustrated by worked examples, and followed by a wide range of selected applications.

Biological warfare agent (BWA) detectors are designed to provide alerts to military personnel of the presence of dangerous biological agents. Detecting such agents promptly makes it possible to minimize contamination and personnel exposure and initiate early treatment. It is also important, though, that detectors not raise an alarm when the situation does not warrant it. The question considered in this book is whether Agent-Containing Particles per Liter of Air (ACPLA) is an appropriate unit of measure for use in the evaluation of aerosol detectors and whether a better, alternative measure can be developed. The book finds that ACPLA alone cannot determine whether a health threat exists. In order to be useful and comparable across all biological agents and detection systems, measurements must ultimately be related to health hazard. A Framework for Assessing the Health Hazard Posed by Bioaerosols outlines the possibility of a more complex, but more useful measurement framework that makes it possible to evaluate relative hazard by including agent identity and activity, particle size, and infectious dose.

Since 1982, Aerosol Technology has been the number one text of choice among students and professionals who need to acquire a thorough working knowledge of modern aerosol theory and applications. While the fundamentals of aerosol science and technology have changed little over the years, the latter has changed substantially since the second edition was published. The third edition reflects the considerable advances that have been made over the past several decades of aerosol-related application areas. The latest edition has updated examples, sections, and practice problems designed to help readers gain mastery over the material. The book also includes new content exploring recent advances in areas of aerosol technology such as nanoparticles, health effects of atmospheric aerosols, modern instruments, remote sensing, and low-cost sensors. Also included is an electronic component including web-based MS Excel templates or R module/packages that provides students and professionals in the application of this material to real problems. Also included is a solutions manual providing answers to all the problems at the end of the chapters and worked out solutions to some of the problems.

A Silent Spring for oceans, written by "the Rachel Carson of the fish world" (The New York Times) Who can forget the sense of wonder with which they discovered the creatures of the deep? In this vibrant hymn to the sea, Callum Roberts—one of the world's foremost conservation biologists—leads readers on a fascinating tour of mankind's relationship to the

sea, from the earliest traces of water on earth to the oceans as we know them today. In the process, Roberts looks at how the taming of the oceans has shaped human civilization and affected marine life. We have always been fish eaters, from the dawn of civilization, but in the last twenty years we have transformed the oceans beyond recognition. Putting our exploitation of the seas into historical context, Roberts offers a devastating account of the impact of modern fishing techniques, pollution, and climate change, and reveals what it would take to steer the right course while there is still time. Like *Four Fish* and *The Omnivore's Dilemma*, *The Ocean of Life* takes a long view to tell a story in which each one of us has a role to play. This comprehensive handbook provides up-to-date knowledge and practical advice from established authorities in aerosol science. It covers the principles and practices of bioaerosol sampling, descriptions and comparisons of bioaerosol samplers, calibration methods, and assay techniques, with an emphasis on practicalities, such as which sampler to use and where it should be placed. The text also offers critiques concerning handling the samples to provide representative and meaningful assays for their viability, infectivity, and allergenicity. A wide range of microbes-viz., viruses, bacteria, fungi and pollens, and their fragments-are considered from such perspectives. *Bioaerosols Handbook* is divided into four parts, providing a wide-ranging reference work, as well as a practical guide on how best to sample and assay bioaerosols using current technology.

"*Methods in Pulmonary Research*" presents a comprehensive review of methods used to study physiology and the cell biology of the lung. The book covers the entire range of techniques from those that require cell cultures to those using in vivo experimental models. Up-to-date techniques such as intravital microscopy are presented. Yet standard methods such as classical short circuit techniques used to study tracheal transport are fully covered. This book will be extremely useful for all who work in pulmonary research, yet need a practical guide to incorporate other established methods into their research programs. Thus the book will prove to be a valuable resource for cell biologists who wish to use organs in their research programs as well biological scientists who are moving their research programs into more cell related phenomena.

Aerosols influence many areas of our daily life. They are at the core of environmental problems such as global warming, photochemical smog and poor air quality. They can also have diverse effects on human health, where exposure occurs in both outdoor and indoor environments. However, aerosols can have beneficial effects too; the delivery of drugs to the lungs, the delivery of fuels for combustion and the production of nanomaterials all rely on aerosols. Advances in particle measurement technologies have made it possible to take advantage of rapid changes in both particle size and concentration. Likewise, aerosols can now be produced in a controlled fashion. Reviewing many technological applications together with the current scientific status of aerosol modelling and measurements, this book includes:

- Satellite aerosol remote sensing
- The effects of aerosols on climate change
- Air pollution and health
- Pharmaceutical aerosols and pulmonary drug delivery
- Bioaerosols and hospital infections
- Particle emissions from vehicles
- The safety of emerging nanomaterials
- Radioactive aerosols: tracers of atmospheric processes

With the importance of this topic brought to the public's attention after the eruption of the Icelandic volcano Eyjafjallajökull, this book provides a timely, concise and accessible overview of the many facets of aerosol science.

*Fibrous Filter Media* comprehensively covers the types, manufacture, applications, performance, and modeling of fibrous filter media. Part I introduces the principles of gas and liquid filtration, while Part II presents an overview of the types of fibrous filters, including details of fiber types, fabric construction, and applications. Part III covers a variety of filtration applications in which fibrous assemblies are used, with examples ranging from filtration for improving air

quality, to medical filters, to industrial waste-water filtration. Finally, Part III covers the properties and performance of fibrous filters, including chapters on filter performance and simulation. With its expert editors and international team of contributors, this important book provides information on fibrous filters relevant to fiber and textile scientists, and is also ideal for academics and industry professionals working in the field of filtration. Dr. Philip Brown is Sweetenburg Professor of polymer and textile engineering at Clemson University, USA. Dr. Christopher Cox is Professor of mathematical sciences at Clemson University, USA. Systematic and comprehensive coverage of the trends and new technologies being developed in the field of fibrous filter media Focused on the needs of the textiles and filtration industries, with a clear emphasis on applied technology Contains contributions from an international team of authors edited by an expert in the field

A 25-year tradition of excellence is extended in the Fourth Edition of this highly regarded text. In clear, authoritative language, the authors discuss the philosophy and procedures for the design of air pollution control systems. Their objective is twofold: to present detailed information on air pollution and its control, and to provide formal design training for engineering students. New to this edition is a comprehensive chapter on carbon dioxide control, perhaps the most critical emerging issue in the field. Emphasis is on methods to reduce carbon dioxide emissions and the technologies for carbon capture and sequestration. An expanded discussion of control technologies for coal-fired power plants includes details on the capture of NO<sub>x</sub> and mercury emissions. All chapters have been revised to reflect the most recent information on U.S. air quality trends and standards. Moreover, where available, equations for equipment cost estimation have been updated to the present time. Abundant illustrations clarify the concepts presented, while numerous examples and end-of-chapter problems reinforce the design principles and provide opportunities for students to enhance their problem-solving skills.

Aerosol Measurement: Principles, Techniques, and Applications Third Edition is the most detailed treatment available of the latest aerosol measurement methods. Drawing on the know-how of numerous expert contributors; it provides a solid grasp of measurement fundamentals and practices a wide variety of aerosol applications. This new edition is updated to address new and developing applications of aerosol measurement, including applications in environmental health, atmospheric science, climate change, air pollution, public health, nanotechnology, particle and powder technology, pharmaceutical research and development, clean room technology (integrated circuit manufacture), and nuclear waste management.

"The combination of scientific and institutional integrity represented by this book is unusual. It should be a model for future endeavors to help quantify environmental risk as a basis for good decisionmaking."--William D.

Ruckelshaus, from the foreword. This volume, prepared under the auspices of

the Health Effects Institute, an independent research organization created and funded jointly by the Environmental Protection Agency and the automobile industry, brings together experts on atmospheric exposure and on the biological effects of toxic substances to examine what is known--and not known--about the human health risks of automotive emissions.

Human beings need to breathe oxygen diluted in certain quantity of inert gas for living. In the atmosphere, there is a gas mixture of, mainly, oxygen and nitrogen, in appropriate proportions. However, the air also contains other gases, vapours and aerosols that humans incorporate when breathing and whose composition and concentration vary spatially. Some of these are physiologically inert. Air pollution has become a problem of major concern in the last few decades as it has caused negative effects on human health, nature and properties. This book presents the results of research studies carried out by international researchers in seventeen chapters which can be grouped into two main sections: a) air quality monitoring and b) air quality assessment and management, and serves as a source of material for all those involved in the field, whether as a student, scientific researcher, industrialist, consultant, or government agency with responsibility in this area.

Soldiers deployed during the 1991 Persian Gulf War were exposed to high concentrations of particulate matter (PM) and other airborne pollutants. Their exposures were largely the result of daily windblown dust, dust storms, and smoke from oil fires. On returning from deployment, many veterans complained of persistent respiratory symptoms. With the renewed activity in the Middle East over the last few years, deployed military personnel are again exposed to dust storms and daily windblown dust in addition to other types of PM, such as diesel exhaust and particles from open-pit burning. On the basis of the high concentrations observed and concerns about the potential health effects, DOD designed and implemented a study to characterize and quantify the PM in the ambient environment at 15 sites in the Middle East. The endeavor is known as the DOD Enhanced Particulate Matter Surveillance Program (EPMSP). The U.S. Army asked the National Research Council to review the EPMSP report. In response, the present evaluation considers the potential acute and chronic health implications on the basis of information presented in the report. It also considers epidemiologic and health-surveillance data collected by the USACHPPM, to assess potential health implications for deployed personnel, and recommends methods for reducing or characterizing health risks.

Air pollution is recognized as one of the leading contributors to the global environmental burden of disease, even in countries with relatively low concentrations of air pollution. *Air Pollution: Health and Environmental Impacts* examines the effect of this complex problem on human health and the environment in different settings around the world. I

As more attention is dedicated to understanding the occupational health risks associated with the industrial manufacture and use of nanotechnology, Aerosols

Handbook: Measurement, Dosimetry, and Health Effects is a timely presentation of time-tested research in the field of aerosol science. The book covers a multitude of topics in indoor, outdoor,

A bioaerosol is a colloidal suspension of liquid droplets or solid particles in air whose components contain or have attached to them one or more microorganisms. Bioaerosols are an exciting and vital object of study because the attached microbes play a critical role in human, animal and environmental health. In an era of genetically engineered microorganisms and the application of biopesticides, bioaerosols are increasingly an environmental problem, both indoors and outdoors, and can affect entire ecosystems. Atmospheric Microbial Aerosols examines naturally occurring bioaerosols, as well as bioaerosols generated by human activity. Included in this volume is a complete array of topics concerned with outdoor microbial bioaerosols ranging from the physical and chemical to the meteorological and microbial. It will be of great interest as a starting point for researchers interested in outdoor microbial bioaerosols as well as for those interested in atmospheric dispersion models, new equipment, and government regulations.

Data suggest that exposure to secondhand smoke can result in heart disease in nonsmoking adults. Recently, progress has been made in reducing involuntary exposure to secondhand smoke through legislation banning smoking in workplaces, restaurants, and other public places. The effect of legislation to ban smoking and its effects on the cardiovascular health of nonsmoking adults, however, remains a question. Secondhand Smoke Exposure and Cardiovascular Effects reviews available scientific literature to assess the relationship between secondhand smoke exposure and acute coronary events. The authors, experts in secondhand smoke exposure and toxicology, clinical cardiology, epidemiology, and statistics, find that there is about a 25 to 30 percent increase in the risk of coronary heart disease from exposure to secondhand smoke. Their findings agree with the 2006 Surgeon General's Report conclusion that there are increased risks of coronary heart disease morbidity and mortality among men and women exposed to secondhand smoke. However, the authors note that the evidence for determining the magnitude of the relationship between chronic secondhand smoke exposure and coronary heart disease is not very strong. Public health professionals will rely upon Secondhand Smoke Exposure and Cardiovascular Effects for its survey of critical epidemiological studies on the effects of smoking bans and evidence of links between secondhand smoke exposure and cardiovascular events, as well as its findings and recommendations.

This book provides answers to the following problems: how to identify the most probable critical failures; how to describe and use data-concerning materials that are either heterogeneous, time-variant, or space-variant; how to quantify the reliability and lifetime of a system; how to use feedback information to actualize reliability results; and how to optimize an inspection politic or a maintenance

strategy. Numerous authors from public research centers and firms propose a synthesis of methods, both new and well-known, and offer numerous examples concerning dams, geotechnical study, and structures from nuclear and civil engineering.

Thoroughly restructured and updated with new findings and new features The Second Edition of this internationally acclaimed text presents the latest developments in atmospheric science. It continues to be the premier text for both a rigorous and a complete treatment of the chemistry of the atmosphere, covering such pivotal topics as:

- \* Chemistry of the stratosphere and troposphere
- \* Formation, growth, dynamics, and properties of aerosols
- \* Meteorology of air pollution
- \* Transport, diffusion, and removal of species in the atmosphere
- \* Formation and chemistry of clouds
- \* Interaction of atmospheric chemistry and climate
- \* Radiative and climatic effects of gases and particles
- \* Formulation of mathematical chemical/transport models of the atmosphere

All chapters develop results based on fundamental principles, enabling the reader to build a solid understanding of the science underlying atmospheric processes. Among the new material are three new chapters: Atmospheric Radiation and Photochemistry, General Circulation of the Atmosphere, and Global Cycles. In addition, the chapters Stratospheric Chemistry, Tropospheric Chemistry, and Organic Atmospheric Aerosols have been rewritten to reflect the latest findings. Readers familiar with the First Edition will discover a text with new structures and new features that greatly aid learning. Many examples are set off in the text to help readers work through the application of concepts. Advanced material has been moved to appendices. Finally, many new problems, coded by degree of difficulty, have been added. A solutions manual is available. Thoroughly updated and restructured, the Second Edition of Atmospheric Chemistry and Physics is an ideal textbook for upper-level undergraduate and graduate students, as well as a reference for researchers in environmental engineering, meteorology, chemistry, and the atmospheric sciences. Click here to Download the Solutions Manual for Academic Adopters: <http://www.wiley.com/WileyCDA/Section/id-292291.html>

This book provides a comprehensive account of the important field of aerosol sampling as it is applied to the measurement of aerosols that are ubiquitous in occupational and living environments, both indoor and outdoor. It is written in four parts: Part A contains 9 chapters that describe the current knowledge of the physical science that underpins the process of aerosol sampling. Part B contains 4 chapters, which present the basis of standards for aerosols, including the link with human exposure by inhalation. Part C contains 7 chapters that cover the development of practical aerosol sampling instrumentation, and how technical designs and methods have evolved over the years in order that aerosol sampling may be carried out in a manner matching the health-related and other criteria that have been proposed as parts of standards. Finally Part D contains 6 chapters that describe how a wide range of aerosol sampling instruments have performed when they have been applied in the field in both occupational and ambient

atmospheric environments, including how different instruments, nominally intended to measure the same aerosol fraction, compare when used side-by-side in the real world. The book draws together all that is known about aerosol sampling, for the benefit of researchers and practitioners in occupational and environmental health and all other fields of science and engineering where aerosols are of interest.

Featuring the latest research findings and applications, this expert guide covers the fundamentals and advanced principles of aerosol technology, and provides useful problem-solving techniques in air pollution, public health, and industrial hygiene. This

Written by leading experts in optical radar, or lidar, this book brings all the recent practices up-to-date. With a Foreword by one of the founding fathers in the area. Its broad cross-disciplinary scope should appeal to scientists ranging from the view of optical sciences to environmental engineers. Optical remote sensing has matured to become a lead method for cross-disciplinary research. This new multi-authored book reviews the state-of-the-art in a readable monograph. This significantly updated and expanded new edition presents the scientific foundations of inhalation research essential to the design and conduct of toxicologic studies. It incorporates the major advances that have been made in the field, including recent advances in biology and the rapidly increasing global concerns and studies on particulate air pollution. The Second Edition was motivated by: new developments in the ultrafine particle health effects and concentrated aerosol research advances in understanding postnatal lung growth and the deposition and clearance of inhaled particles new techniques in toxicity testing the explosion of knowledge in the genetic and molecular realms the introduction of a large number of transgenic animal models updated ethical guidelines for animal testing the emergence of aerosol medicine the growing threat of aerosol-related terrorism increased appreciation of nonpulmonary effects of inhaled substances use of medical scanning techniques to study respiratory tract structure the introduction of new inhalation exposure systems the emergence of aerosol concentrators for use in air pollution studies

The National Institute of Allergy and Infectious Diseases (NIAID) gives the highest priority to developing countermeasures against bioterrorism agents that are highly infective when dispersed in aerosol form. Developing drugs to prevent or treat illnesses caused by bioterrorism agents requires testing their effectiveness in animals since human clinical trials would be unethical. At the request of NIAID, the National Academies conducted a study to examine how such testing could be improved. *Overcoming Challenges to Develop Countermeasures Against Aerosolized Bioterrorism Agents* provides recommendations to researchers on selecting the kinds of animal models, aerosol generators, and bioterrorism agent doses that would produce conditions that most closely mimic the disease process in humans. It also urges researchers to fully document experimental parameters in the literature so that studies can be reproduced and compared. The book recommends that all unclassified data on bioterrorism agent studies--including unclassified, unpublished data from U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)--be published in the open literature. The book also calls on the U.S. Food and Drug Administration to improve the process by which bioterrorism countermeasures are approved based on the results of animal studies.

A rigorous and thorough analysis of the production of air pollutants and their control, this text is geared toward chemical and environmental engineering students. Topics include combustion, principles of aerosol behavior, theories of the removal of particulate and gaseous pollutants from effluent streams, and air pollution control strategies. 1988 edition. Reprint of the Prentice-

Hall, Inc., Englewood Cliffs, New Jersey, 1988 edition.

Fundamentals of Air Cleaning Technology and Its Application in Cleanrooms sets up the theoretical framework for cleanrooms. New ideas and methods are presented, which include the characteristic index of cleanrooms, uniform and non-uniform distribution characteristics, the minimum sampling volume, a new concept of outdoor air conditioning and the fundamentals of leakage-preventing layers. Written by an author who can look back on major scientific achievements and 50 years of experience in this field, this book offers a concise and accessible introduction to the fundamentals of air cleaning technology and its application. The work is intended for researchers, college teachers, graduates, designers, technicians and corporate R&D personnel in the field of HVAC and air cleaning technology. Zhonglin Xu is a senior research fellow at China Academy of Building Research.

This textbook aims to be a one stop shop for those interested in aerosols and their impact on the climate system. It starts with some fundamentals on atmospheric aerosols, atmospheric radiation and cloud physics, then goes into techniques used for in-situ and remote sensing measurements of aerosols, data assimilation, and discusses aerosol-radiation interactions, aerosol-cloud interactions and the multiple impacts of aerosols on the climate system. The book aims to engage those interested in aerosols and their impacts on the climate system: graduate and PhD students, but also post-doctorate fellows who are new to the field or would like to broaden their knowledge. The book includes exercises at the end of most chapters. Atmospheric aerosols are small (microscopic) particles in suspension in the atmosphere, which play multiple roles in the climate system. They interact with the energy budget through scattering and absorption of solar and terrestrial radiation. They also serve as cloud condensation and ice nuclei with impacts on the formation, evolution and properties of clouds. Finally aerosols also interact with some biogeochemical cycles. Anthropogenic emissions of aerosols are responsible for a cooling effect that has masked part of the warming due to the increased greenhouse effect since pre-industrial time. Natural aerosols also respond to climate changes as shown by observations of past climates and modelling of the future climate.

This volume, a reprint from a special issue of the Journal of Nanoparticle Research, draws on work presented at The Second International Symposium on Nanotechnology and Occupational Health, held in Minnesota in 2005. It presents an interdisciplinary approach to nanotechnology and occupational health and offers an overview of recent developments toward assessment and management of hazards and risks associated with engineered nanomaterials.

Atmospheric chemistry is one of the fastest growing fields in the earth sciences. Until now, however, there has been no book designed to help students capture the essence of the subject in a brief course of study. Daniel Jacob, a leading researcher and teacher in the field, addresses that problem by presenting the first textbook on atmospheric chemistry for a one-semester course. Based on the approach he developed in his class at Harvard, Jacob introduces students in clear and concise chapters to the fundamentals as well as the latest ideas and findings in the field. Jacob's aim is to show students how to use basic principles of physics and chemistry to describe a complex system such as the atmosphere. He also seeks to give students an overview of the current state of research and the work that led to this point. Jacob begins with atmospheric structure, design of simple models, atmospheric transport, and the continuity equation, and continues with geochemical cycles, the greenhouse effect, aerosols, stratospheric ozone, the oxidizing power of the atmosphere, smog, and acid rain. Each chapter concludes with a problem set based on recent scientific literature. This is a novel

approach to problem-set writing, and one that successfully introduces students to the prevailing issues. This is a major contribution to a growing area of study and will be welcomed enthusiastically by students and teachers alike.

The most comprehensive hazmat emergency response training manual following NFPA and OSHA competency criteria The choice of firefighters and other rapid response personnel for years, this user friendly manual helps first responders build their skills step-by-step to professionally handle any hazmat emergency. Organized to enhance understanding and retention—and reinforced with copious illustrations, photographs, learning exercises, and case studies—this book takes the reader from preplanning to dispatch to the stabilization of an incident, and on to post-incident critique and follow-up. New material addresses advances in protective clothing, new products for confinement and containment, and changes in the OSHA Respiratory Protection Standard, plus much more. Additional chapters cover WMDs, with sections specific to WMD response including site control, personal protective equipment, and decontamination.

Aerosol Technology Properties, Behavior, and Measurement of Airborne Particles John Wiley & Sons

The #1 guide to aerosol science and technology -now better than ever Since 1982, Aerosol Technology has been the text of choice among students and professionals who need to acquire a thorough working knowledge of modern aerosol theory and applications. Now revised to reflect the considerable advances that have been made over the past seventeen years across a broad spectrum of aerosol-related application areas - from occupational hygiene and biomedical technology to microelectronics and pollution control -this new edition includes: \* A chapter on bioaerosols \* New sections on resuspension, transport losses, respiratory deposition models, and fractal characterization of particles \* Expanded coverage of atmospheric aerosols, including background aerosols and urban aerosols \* A section on the impact of aerosols on global warming and ozone depletion. Aerosol Technology, Second Edition also features dozens of new, fully worked examples drawn from a wide range of industrial and research settings, plus new chapter-end practice problems to help readers master the material quickly.

The ideal textbook for non-science majors, this lively and engaging introduction encourages students to ask questions, assess data critically and think like a scientist. Building on the success of previous editions, Dinosaurs has been thoroughly updated to include new discoveries in the field, such as the toothed bird specimens found in China and recent discoveries of dinosaur soft anatomy. Illustrations by leading paleontological illustrator John Sibbick and new, carefully-chosen photographs, clearly show how dinosaurs looked, lived and their role in Earth history. Making science accessible and relevant through clear explanations and extensive illustrations, the text guides students through the dinosaur groups, emphasizing scientific concepts rather than presenting endless facts. Grounded in the common language of modern evolutionary biology – phylogenetic

systematics – students learn to think about dinosaurs the way that professional paleontologists do.

The book describes the morphological, physical and chemical properties of aerosols from various natural and anthropogenic sources to help the reader better understand the direct role of aerosol particles in scattering and absorbing short- and long-wave radiation.

Aerosol Science and Technology: History and Reviews captures an exciting slice of history in the evolution of aerosol science. It presents in-depth biographies of four leading international aerosol researchers and highlights pivotal research institutions in New York, Minnesota, and Austria. One collection of chapters reflects on the legacy of the Pasadena smog experiment, while another presents a fascinating overview of military applications and nuclear aerosols. Finally, prominent researchers offer detailed reviews of aerosol measurement, processes, experiments, and technology that changed the face of aerosol science. This volume is the third in a series and is supported by the American Association for Aerosol Research (AAAR) History Working Group, whose goal is to produce archival books from its symposiums on the history of aerosol science to ensure a lasting record. It is based on papers presented at the Third Aerosol History Symposium on September 8 and 9, 2006, in St. Paul, Minnesota, USA.

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