



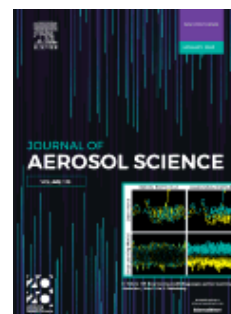
# JOURNAL OF AEROSOL SCIENCE

An International Journal (In association with the [European Aerosol Assembly](#))

## AUTHOR INFORMATION PACK

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### DESCRIPTION

Founded in 1970, the Journal of Aerosol Science considers itself the prime vehicle for the publication of original work as well as reviews related to fundamental and applied aerosol research, as well as aerosol instrumentation. Its content is directed at scientists working in engineering disciplines, as well as physics, chemistry, and environmental sciences.

The editors welcome submissions of papers describing recent experimental, numerical, and theoretical research related to the following topics:

#### 1. Fundamental Aerosol Science:

- Cluster Science; Nucleation and Growth
- Aerosol Transport Phenomena, Kinetics, and Deposition
- Aerosol-Light Interactions; Radiative absorption and emission by particles
- Particle-Particle Interactions and Aggregation
- Particle-Fluid Interactions in Flowing Systems
- Particle-Ion Interactions, Charging and Ionization
- Aerosolization, including Mechanical Aerosolization, Atomization, and Sprays
- Deposition (Dry and Wet) & Resuspension
- Chemical and Physical Transformations in Aerosols; Gas-to-Particle Conversion
- Single Particle and Droplet Thermodynamics, Phase Changes within Aerosol Particles
- Non-equilibrium Systems (Dusty Plasmas, Laser Vaporization Processes, Gas Expansions, Particles in Super Critical Fluids)
- Numerical Simulation: New Solution Schemes for the Aerosol General Dynamic Equation, the Coupling of Aerosol Growth and Transport Dynamics with Fluid Flow and Heat Transfer Models, Applications of Computational Chemistry to Aerosols
- Multiscale Modeling of Aerosol Properties and Behavior (e.g. Molecular Dynamics coupled with Continuum Models)

#### 2. Applied Aerosol Science:

- Aerosol based Manufacturing (including aerosol jet printing & additive manufacturing), Aerosol based Materials Synthesis, and Aerosol based Materials Processing
- Aerosol Control Technology (personal protection, indoor environments, industrial control technology)
- Drug Delivery & Medical Applications of Aerosols
- Bioaerosols
- Industrial Aerosols, Workplace Exposure, Accidental Aerosol Release

- f. Combustion (including Engine Emissions) and High Temperature Aerosol Dynamics
- g. Atmospheric Aerosol Science; Secondary Organic Aerosols; Aerosols & Climate;
- h. Indoor Aerosols: Source Characterization, Chemical Transformation, and Transport
- i. Aerosol based Disease Transmission
- j. Aerosols in Urban Environments

### **3. Instrumentation & Measurement Methods**

- a. Mobility Analysis: new instruments and new applications
- b. Hyphenated techniques, including tandem mobility analysis and mobility analysis coupled with mass spectrometry
- c. Light Scattering and Spectroscopic Techniques
- d. Novel Inertial Separation Schemes for Particles
- e. Condensation Particle Counter Developments
- f. Improved Data Inversion and Control Algorithms for Aerosol Measurements
- g. Calibration Strategies and the Development of Standards
- h. Portable Aerosol Instrumentation
- i. Low Cost, High Quality Sensors
- j. Aerosol Instrumentation at Multiple Scales; Instrumentation Integration and Networking
- k. Innovative Data Analysis Methods; Machine Learning in Aerosol Science

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The Journal is not intended to archive data such as environmental measurements from specific geographical regions, unless new methodologies are involved or broadly relevant new conclusions are reached. Work on source apportionment, as well as global & regional climate modeling is better suited to journals with focuses on atmospheric chemistry and air quality. In addition, routine applications of existing instruments/measurement approaches are not considered suitable for the journal. Work on instrumentation must demonstrate a significant advancement or novel implementation of the instrument or method in question; minor changes to existing instrument or use of established operational principles will not be considered for publication. Numerical or analytical solutions to aerosol growth models must demonstrate that they are a significant advance over existing approaches and must not contain overly-simplified assumptions rendering them incapable of predicting the behavior of real aerosols.

## **AUDIENCE**

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Physicists, Chemists, Biologists, Mathematicians, Engineers, Environmental and Industrial Hygienists and all others with an interest in aerosols.

## **IMPACT FACTOR**

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## ABSTRACTING AND INDEXING

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Regular scientific papers, Notes, Commentaries, Reviews.

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