

## Prof. Sergey A. Nizkorodov

Department of Chemistry  
377 Rowland Hall  
University of California, Irvine  
Irvine, California, 92697-2025

Phone: (949) 824-1262  
Fax: (949) 824-8571  
E-mail: [nizkorod@uci.edu](mailto:nizkorod@uci.edu)  
Web: <http://aerosol.chem.uci.edu/>

BIOSKETCH .....	2
EDUCATION .....	2
EMPLOYMENT .....	2
PROFESSIONAL DEVELOPMENT .....	3
AWARDS .....	3
VISITING PROFESSORSHIPS AND INTERNATIONAL COLLABORATIONS .....	3
FUNDING HISTORY .....	3
APPROVED USER FACILITIES PROPOSALS.....	7
REVIEWING EXPERIENCE.....	7
CONFERENCES ORGANIZED .....	8
PROFESSIONAL SOCIETY AFFILIATIONS.....	9
RESEARCH MENTORSHIP .....	9
POSTDOCTORAL RESEARCHERS MENTORED IN RESEARCH .....	9
GRADUATE STUDENTS MENTORED IN RESEARCH .....	9
GRADUATE STUDENT DOCTORAL COMMITTEES .....	11
UPCOMING DOCTORAL EXAMS.....	13
GRADUATE STUDENT ADVANCEMENT COMMITTEES .....	13
UNDERGRADUATE STUDENTS AND POST-BACS MENTORED IN RESEARCH.....	15
HIGH SCHOOL STUDENTS MENTORED IN RESEARCH .....	17
PUBLIC SERVICE & OUTREACH.....	17
PROFESSIONAL SERVICE.....	18
SUMMARY OF TEACHING EXPERIENCE .....	19
DETAILED TEACHING HISTORY .....	20
PUBLICATIONS.....	25
SEMINARS AT COLLEGES, RESEARCH CENTERS AND ONLINE .....	42
PUBLIC, OUTREACH AND PEDAGOGICAL SEMINARS.....	44
INVITED PARTICIPATION IN PANELS AND WORKSHOPS .....	44
INVITED TALKS AT RESEARCH MEETINGS .....	44
CONTRIBUTED TALKS AT RESEARCH MEETINGS.....	46
POSTER PRESENTATIONS AT RESEARCH MEETINGS.....	48

## BIOSKETCH

Sergey Nizkorodov was born in 1971 in Almaty, Kazakhstan. He received his undergraduate degree in biochemistry from Novosibirsk State University, Russia, in 1993 and graduate degree in physical chemistry from Basel University, Switzerland, in 1997. After doing his postdoctoral research in chemical kinetics and reaction dynamics at the University of Colorado at Boulder, and in atmospheric chemistry at the California Institute of Technology, he joined the faculty of the Department of Chemistry, University of California, Irvine (UCI) in 2002. He teaches general, analytical, and atmospheric chemistry courses at UCI, and does research on chemistry of particulate matter in the ambient atmosphere and in indoor environments using state-of-the-art spectroscopic and mass-spectrometric techniques. He has been a research mentor to over 100 graduate, undergraduate, high-school, and postdoctoral students. His research, education, service and public outreach work have been recognized by several awards including Fulbright Scholarship, AAAS Fellowship, Camille Dreyfus Teacher-Scholar Award, AGU Ascent Award, Coblenz Award, UCI Chancellor's Award for Excellence in Fostering Undergraduate Research, Daniel G. Aldrich, Jr. Distinguished University Service Award, and UCI Professor of the Year Award. He served as the President of the American Association for Aerosol Research (AAAR) in 2020-21, a professional organization of about 1000 scientists and engineers working to advance the field of aerosol research and technology, and been active in various service roles at UCI and in the research community.

## EDUCATION

### Ph.D. in Chemistry (September 1993–June 1997; Summa Cum Laude)

*University of Basel, Basel, Switzerland*

Ph.D. Thesis: “Vibrational Predissociation Spectroscopy of Ionic Complexes and Clusters”

Research mentors: Dr. Evan Bieske and Dr. Otto Dopfer, and Dr. John Maier

### Diploma of Higher Education in Chemistry (September 1988–June 1993; Honors; GPA = 5.00/5.00)

*Novosibirsk State University, Novosibirsk, Russia*

Diploma Thesis: “Influence of Magnetic Field on Time-Resolved Fluorescence and Photolysis of NO<sub>2</sub>”

Research mentors: Dr. Nikolai Bazhin and Dr. Vladimir Makarov

## EMPLOYMENT

### Professor of Chemistry (July 2013–present)

### Associate Professor of Chemistry (July 2008–June 2013)

### Assistant Professor of Chemistry (July 2002– June 2008)

*Department of Chemistry, University of California, Irvine, California, USA*

### Dreyfus Postdoctoral Scholar in Environmental Chemistry (November 2000–June 2002)

*Division of Chemistry & Chemical Engineering / Division of Geological & Planetary Sciences / Jet Propulsion Laboratory at California Institute of Technology, Pasadena, California, USA*

Principal investigators: Drs. Mitchio Okumura, Paul Wennberg, Stanley Sander and Geoffrey Blake

### Postdoctoral Research Associate (October 1997–October 2000)

*JILA, University of Colorado at Boulder, Colorado, USA*

Principal investigator: Dr. David J. Nesbitt

### Graduate Research Assistant (September 1993–June 1997)

*Institute of Physical Chemistry, University of Basel, Basel, Switzerland*

Principal investigator: Dr. John P. Maier

### Research Assistant (September 1992–June 1993)

*Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia*

Principal investigator: Dr. Vladimir I. Makarov

## PROFESSIONAL DEVELOPMENT

- ❑ UCI Faculty Academy for Teaching Excellence (FATE) during the 2024-25 academic year
- ❑ UCI Faculty Mentoring Academy of 2023-24 (three 90-minute workshops for faculty)
- ❑ ESCALA Culturally Responsive Assessment in the STEM Classroom (April 2021, two-part workshop)
- ❑ UCI Digital Learning Institute (summer 2020), certified
- ❑ UCI Course Design Institute (summer 2020)
- ❑ UCI Active Learning Institute (Fall 2018), certified as an active learning instructor (Winter 2019)
- ❑ UCI Provost's Leadership Academy during the 2018-2019 academic year

## AWARDS

- ❑ *Aerosol Science and Technology 2022 Outstanding Reviewer* – for reviewing papers for this journal
- ❑ *Elected Fellow of the American Association for Aerosol Research – AAAR* (Aug 2022)
- ❑ *2022 Dr. De Gallow Professor of the Year* – awarded annually by the Division of Teaching Excellence and Innovation (DTEI) to recognize a faculty member who “excels in teaching through the use of particular methods, tools, or materials that positively impact students”
- ❑ *2021-2022 Daniel G. Aldrich, Jr. Distinguished University Service Award* – conferred by the Senate on a faculty member who, “in addition to achieving with distinction their scholarly pursuits, have nonetheless made sustained and outstanding contributions through service to the University”
- ❑ *2021 UCI School of Physical Sciences Award for Outstanding Contributions to Undergraduate Education* (June 2021) – awarded annually to one faculty member in each of the School's Departments
- ❑ *Fulbright Scholarship, University of Eastern Finland*, supported by the Fulbright-Saastamoinen Foundation Grant in Health and Environmental Sciences (Aug 15, 2016 – Feb 14, 2017)
- ❑ *Elected Fellow of the American Association for the Advancement of Science – AAAS* (2015)
- ❑ *UCI Undergraduate Research Opportunities Program Faculty Mentor of the Month* (Nov 2013)
- ❑ *Ascent Award* from the American Geophysical Union (2013) – given to “exceptional mid-career (academic, government, and private sector) scientists in the fields of the atmospheric and climate sciences”
- ❑ *UCI Chancellor's Award for Excellence in Fostering Undergraduate Research* (May 2012)
- ❑ *Camille Dreyfus Teacher-Scholar Award* (2007)
- ❑ *UCI School of Physical Sciences Award for Outstanding Contributions to Undergraduate Education* (May 2006) – awarded annually to one faculty member in each of the School's Departments
- ❑ *Coblentz Award* from the Coblentz Society (2005) – presented annually “to an outstanding young molecular spectroscopist under the age of 40”
- ❑ *Research Innovation Award* from the Research Corporation (2003)
- ❑ *Camille and Henry Dreyfus Postdoctoral Scholarship* (2000)
- ❑ *International Journal Student Paper Award* from Elsevier Science and Finnigan MAT (1996)
- ❑ *Undergraduate Academic Achievement Award* (1991)
- ❑ *Lenin's Scholarship* (1990)

## VISITING PROFESSORSHIPS AND INTERNATIONAL COLLABORATIONS

- ❑ *IRCELYON, Université Claude Bernard Lyon 1, France* (May 28 – July 19, 2018, 7 weeks, visiting professorship hosted by Prof. Christian George)
- ❑ *University of Melbourne, Australia* (July 9-15, 2017, 1 week, hosted by Prof. Evan Bieske)
- ❑ *University of Eastern Finland, Finland* (Aug 15, 2016 – Feb 14, 2017, Fulbright Visiting Scholar, hosted by Prof. Annele Virtanen)
- ❑ *Fudan University, China* (Sep 7 – Oct 8, 2014, 1 month, visiting professorship hosted by Prof. Xin Yang)
- ❑ *University of Helsinki, Finland* (Oct 2013, 3 weeks, hosted by Prof. R. Benny Gerber)
- ❑ *Hebrew University of Jerusalem, Israel* (Mar 2011, 3 weeks, hosted by Prof. R. Benny Gerber)
- ❑ *Universität Würzburg, Germany* (Mar 2006, 2 weeks, hosted by Prof. Otto Dopfer)

## FUNDING HISTORY

Proposal Title	PI and co-PIs	Agency / Award type	Amount	Period
----------------	---------------	---------------------	--------	--------

Effect of Condensed-Phase Photochemistry on Absorption Coefficients and Phase State of Atmospheric Organic Aerosol Particles	Sergey Nizkorodov (PI)	National Science Foundation AGS-2334731	\$797,203 total \$541,107 direct	2/15/24 - 1/31/27
Molecular-level Understanding Of Atmospheric Aerosols (MUOAA 2024)	Sergey Nizkorodov (PI)	National Science Foundation AGS-2332007	\$14,224 total \$13,600 direct	01/01/24- 12/31/24
UC Irvine Beckman Scholars Program: Undergraduate Mentorships in Chemical and Pharmaceutical Sciences	Sergey Nizkorodov (PI), Sam Schriener (co-PI)	Arnold and Mabel Beckman Foundation AMBF-5658773	\$156,000 total \$156,000 direct	2023- 2026
Composition and Transformations of Organic Aerosol Emitted from Facility Simulated Wildland-Urban Interface Fires	Sergey Nizkorodov (PI)	National Oceanic & Atmospheric Administration NA22OAR4310196	\$375,000 total \$260,951 direct	09/01/22- 08/31/25
Reactive Oxygen Species in Biomass Burning Particles: Dependence on Chemical Composition and Photochemical Aging	Manabu Shiraiwa (PI), Sergey Nizkorodov (co-PI)	National Science Foundation CHE-2203419	\$541,660 total \$379,238 direct	07/01/22- 06/30/25
NASA Funding Support for the American Association for Aerosol Research (AAAR) 2020 Virtual Annual Conference	Sergey Nizkorodov (acting PI for AAAR)	20-TWSC20-0014	\$20,000 direct awarded to AAAR	09/01/20- 12/01/20
UC Irvine Beckman Scholars Program: Undergraduate Mentorships in Chemical and Pharmaceutical Sciences	Sergey Nizkorodov (PI), Sam Schriener (co-PI)	Arnold and Mabel Beckman Foundation AMBF-5571546	\$156,000 total \$156,000 direct	2020- 2023
REU Site: Chemistry Summer Undergraduate Research Fellowship (Chem-SURF) Program at UCI	Sergey Nizkorodov (PI), Stephen Mang (co-PI)	National Science Foundation CHE-1950126	\$312,000 total \$285,151 direct	04/01/20- 03/31/24
MRI: Acquisition of a High-Resolution Mass Spectrometer for Atmospheric Ecometabolomics Research	James Smith (PI), Celia Faiola, Barbara Finlayson-Pitts, Alex Guenther, and Sergey Nizkorodov (co-PIs)	National Science Foundation CHE-1920242	\$448,130 direct	08/01/19- 07/31/22
Chemistry of Atmospheric Aerosols at Pacificchem 2020 Congress	Sergey Nizkorodov (PI)	National Science Foundation AGS-1936123	\$24,724 total \$20,800 direct	06/01/20 -05/31/21
Condensed-Phase Organic Photochemistry in Aerosol Particles and Aerosol Liquid Water	Sergey Nizkorodov (PI)	National Science Foundation AGS-1853639	\$679,907 total \$475,072 direct	4/15/19 - 3/31/23
A validated second-hand smoking exposure model for Electronic Nicotine Delivery Systems (ENDS)	Rufus Edwards (PI), Co-PIs: Don Blake, Sergey Nizkorodov	The Tobacco-Related Disease Research Program (TRDRP) grant number T30IP0866	\$479,770	2019- 2023
Collaborative Research: ICARUS - Index of Chamber Atmospheric Research in the United States	Tran Nguyen (PI of the overall collaborative proposal), Sergey Nizkorodov (PI of the UCI portion)	National Science Foundation, AGS-1740640	\$44,360 total \$28,712 direct	09/01/17 - 8/31/20
Impacts of phase state and water content on secondary organic aerosol formation and partitioning	Manabu Shiraiwa (PI), James Smith (co-PI), Annmarie Carlton (co-	Office of Biological & Environmental Research (BER), Atmospheric Science Program (ASR),	\$698,727 total \$485,948 direct	09/15/17 - 09/14/20

	PI), Sergey Nizkorodov (co-PI).	Department of Energy (DOE) Office of Science		
Vapor and particulate phase smoke components and cardiovascular dysfunction	Michael Kleinman (PI), James Smith (co-PI), Sergey Nizkorodov (co-PI), Norbert Staimer (co-PI)	National Institute of Health 1R01ES027232-01	\$1,050,041 total	09/01/16 - 08/31/19
Studies of Atmospheric Brown Carbon Chemistry in Support of the FIREX Campaign	Sergey Nizkorodov (PI), Julia Laskin (co-PI), Alexander Laskin (co-PI)	National Oceanic & Atmospheric Administration NA16OAR4310102	\$239,999 total \$168,428 direct	07/01/16 - 10/30/19
Effects of Ammonia on Secondary Organic Aerosol Formation in a Changing Climate	Donald Dabdub (PI), Sergey Nizkorodov (co-PI)	US Environmental Protection Agency 835881	\$701,304 total \$510,446 direct	01/01/16 - 12/31/18
Chemistry of Atmospheric Aerosols at Pacificchem 2015 Congress	Sergey Nizkorodov (PI)	Office of Biological & Environmental Research (BER), Atmospheric Science Program (ASR), Department of Energy (DOE) Office of Science, DE-SC0014432	\$10,475 total \$10,475 direct	08/01/15 - 07/31/16
Chemistry of Atmospheric Aerosols at Pacificchem 2015 Congress	Sergey Nizkorodov (PI)	National Science Foundation AGS - 1519142	\$20,254 total \$17,175 direct	04/15/15 - 03/31/16
Impacts of Household Sources on Outdoor Pollution at Village and Regional Scales in India	Kirk Smith, UC Berkeley (PI), Sergey Nizkorodov is one of many investigators on this grant	US Environmental Protection Agency 835425	\$1,495,454 total	04/01/14 - 03/31/17
Development of a test center to determine SAE J2719 (and CCR) listed trace contaminants in hydrogen fuel from hydrogen vehicle fueling stations located within the South Coast Air Basin	Sergey Nizkorodov (PI), co-investigators: Hyun Ji (Julie) Lee, Barbara Finlayson-Pitts, Donald Blake	South Coast Air Quality Management District	\$114,500 total \$74,110 direct	08/13/14 - 04/12/15
Combined Laboratory and Field Characterization of Nitrogen-Containing Light-Absorbing Organic Compounds	Sergey Nizkorodov (PI), Julia Laskin (co-PI), Alexander Laskin (co-PI)	National Oceanic & Atmospheric Administration NA13OAR4310062	\$224,985 total \$162,864 direct	08/01/13 - 07/31/16
MRI: Acquisition of an Atmospheric Pressure Ionization Mass Spectrometer for Measurements of Trace Gases and Secondary Organic Aerosol Components in Air	Barbara Finlayson-Pitts (PI), co-investigators: Sergey Nizkorodov, Donald Blake, Michael Kleinman, Eric Saltzman.	National Science Foundation CHE-1337080	\$278,658 direct	09/01/13 - 08/31/16
Differential Redox & Electrophilic Toxicities of Modified Tobacco Products	Norbert Staimer (PI), co-investigators: Ralph Delfino, Rufus Edwards, Michael Kleinman, Sergey Nizkorodov, Nosratola Vaziri	National Institute of Health 1R21CA164540-01A1	\$359,777 total \$239,250 direct	4/1/13 - 3/31/15
Photochemistry in Organic Aerosols	Sergey Nizkorodov (PI)	National Science Foundation AGS-1227579	\$547,648 total	8/15/12 - 7/31/16

Symposium on Kinetics and Photochemical Processes in the Atmosphere (co-PI = Eric Saltzman)	Sergey Nizkorodov (PI)	UCI Conference Support Program (proposal# 2010-11-6)	\$1,500 direct	3/03/11
The First Application of Chemoinformatics to Organic Aerosols	Sergey Nizkorodov (PI), Pierre Baldi (co-PI)	UCI Environmental Institute	\$26,980 direct	1/01/10 - 1/31/11
A Comprehensive Approach to Understanding Chemistry at Interfaces and Atmospheric Implications)	Barbara Finlayson-Pitts (PI), co-investigators: Donald Dabdub, Philipp Furche, John Hemminger, Benny Gerber, Sergey Nizkorodov, and Douglas Tobias.	National Science Foundation CHE-0909227	\$8,260,697 total	9/01/09 - 8/30/14
MRI: Acquisition of Two High-Resolution Mass Spectrometers for Collaborative Research on Energy Use, Air Quality and Health	Sergey Nizkorodov (PI), co-investigators: Barbara Finlayson-Pitts and Donald Blake.	National Science Foundation MRI-0923323	\$680,680 direct	7/01/09 - 6/30/10
Photochemistry of Secondary Organic Aerosol Particles	Sergey Nizkorodov (PI)	National Science Foundation ATM-0831518	\$447,840 total	9/01/08 - 8/31/12
Inactivation of Human Erythrocyte Glutathione Peroxidase 1 and Cu,Zn Superoxide Dismutase by Air Pollutant-Mediated Oxidative and Electrophilic Stress	Ralph Delfino (PI), Sergey Nizkorodov (co-PI)	The Academic Senate Council on Research, Computing and Library Resources (CORCLR)	\$19,000 total	9/01/08 - 6/30/09
Camille Dreyfus Teacher-Scholar Award: Laboratory Studies of Chemical Processes Taking Place in Atmospheric Aerosol Particles	Sergey Nizkorodov (PI)	The Camille and Henry Dreyfus Foundation	\$75,000 total	7/01/07 - 6/30/12
Graduate Fellowships for Interdisciplinary Training in Chemical and Materials Physics & Atmospheric / Analytical Chemistry	Department Chair (PI); Sergey Nizkorodov is one of the co-PIs who heled write the proposal	Department of Education	\$633,360 direct	7/01/06 - 6/30/09
Photochemistry at Organic Particle-Air Interfaces	Sergey Nizkorodov (PI)	National Science Foundation ATM-0509248	\$341,897 total	7/01/05 - 6/30/08
New Analytical Tools for Characterization of Precursors of Cloud Condensation Nuclei	Otto Dopfer (PI), Sergey Nizkorodov (co-PI)	Bavaria California Technology Center (BaCaTeC)	€7,600 total	9/05 - 8/07
Development of a novel aerosol particle counter	Sergey Nizkorodov (PI)	UCI Committee on Research	\$2,640 total	3/01/05 - 5/31/05
NSF-EMSI: Reactions of Atmospheric Relevance at the Air-Water Interface: Developing a Molecular Level Understanding and Application to the Troposphere on Local to Regional Scales (PI = Barbara Finlayson-Pitts)	Barbara Finlayson-Pitts (PI), co-investigators: Donald Dabdub, John Hemminger, Benny Gerber, Sergey Nizkorodov, and Douglas Tobias	National Science Foundation CHE-0431312	\$6,009,585 total	9/01/04 - 8/30/09
Dreyfus Postdoctoral Scholar in Environmental Chemistry: Training Program Proposal for 2004-2006	Sergey Nizkorodov (PI)	The Camille and Henry Dreyfus Foundation	\$120,000 total	2004-2006

Effect of Particle Size on Rates of Photodegradation and/or Photoactivation of Carcinogenic PAHs Adsorbed on Atmospheric Soot Aerosol Particles	Sergey Nizkorodov (PI)	UC Cancer Research Coordinating Committee	\$50,000 total	7/01/04 - 6/30/05
FMP Schedule of Training Goals for Anthony Gomez in 2004-05	Sergey Nizkorodov (PI)	UCI Office of Graduate Studies / diversity fellowship for grad. student Anthony Gomez	\$22,518 total	9/01/04 - 5/31/05
Effect of particle size on rates of photodegradation of atmospheric toxins adsorbed on soot aerosol particles	Sergey Nizkorodov (PI)	UC Toxic Substances Research and Teaching Program / fellowship for grad. student Xiang Pan	\$25,000 total	7/01/04 - 6/30/05
Development of a novel approach for studying the mechanism of ozonolysis of unsaturated fatty acids at gas-solid and gas-liquid interfaces	Sergey Nizkorodov (PI)	Research Corporation / Research Innovation Award	\$35,000 total	9/01/03 - 8/31/04
Surface Photochemistry Of Oxidized Organic Layers Immobilized on Sea-Salt Studied With Cavity-Ring Down Spectroscopy	Sergey Nizkorodov (PI)	UCI Committee on Research	\$3,000 total	Spring 2003

## APPROVED USER FACILITIES PROPOSALS

The following user proposals have Sergey Nizkorodov as the PI; multiple other proposals where Nizkorodov is a co-PI are not listed here. These proposals were peer-reviewed and carried up to \$100k each in in-kind support.

- ❑ Effect of Relative Humidity and Cloud Processing on Biogenic and Anthropogenically-Influenced Organic Aerosols - A Combined Laboratory and Modeling Approach (DOE EMSL Proposal 48808), 10/01/2015-09/30/2017
- ❑ The Effect of Biogenic-Anthropogenic Interactions on the Physical and Chemical Properties of Atmospheric Organic Aerosols (DOE EMSL Proposal 48624), 1/23/2014-09/30/2015
- ❑ Molecular Level Analysis of Photochemical Processing of Brown Carbon and Nitrogen Compounds in Atmospheric Aerosols (DOE EMSL Proposal 47915), 10/01/2013-09/30/2015
- ❑ Molecular Chemistry of Secondary Organic Aerosol Formed in Photochemical Aging of Primary Anthropogenic Emissions (DOE EMSL Proposal 39957), 10/01/2010-09/30/2013
- ❑ Molecular Characterization of Organic Aerosols from the Los Angeles Ground Site (CalNex 2010) Using High-Resolution Mass Spectrometry (DOE EMSL Proposal 39490), 08/20/2010 - 08/20/2010
- ❑ Probing the Reactivity of Organic Particles Using Ion Soft-Landing (DOE EMSL Proposal 30466), 10/01/2008-09/30/2011
- ❑ Photochemical Processing of Organic Aerosol Particles Studied with High-Resolution Mass Spectrometry (DOE EMSL Proposal 24392), 05/31/2007-09/30/2010

## REVIEWING EXPERIENCE

- ❑ About 15 journal article reviews per year on average according to the Web-of-Science profile showing reviewing activity: <https://www.webofscience.com/wos/author/record/1096573>.
- ❑ *Recent Journals:* ACS Earth and Space Chemistry, Aerosol Science and Technology, Analytical Chemistry, Atmosphere (member of the editorial board), Atmospheric Chemistry and Physics (member of the editorial board), Atmospheric Environment, Atmospheric Measurement Technologies, Chemical Physics, Chemical Physics Letters, Chemical Reviews, Chemical Science, Chemosphere, Geophysical Research Letters, Environmental Chemistry, Environmental Pollution, Environmental Science: Atmospheres, Environmental Science and Pollution Research, Environmental Science & Technology, Environmental Science & Technology Letters, Indoor Air, Journal of Atmospheric Research, Journal of Chemical Education, Journal of Chemical Physics, Journal of Chromatography A, Journal of Geophysical Research Atmospheres, Journal of Labelled Compounds and Radiopharmaceuticals, Journal of

Photochemistry and Photobiology, Journal of Physical Chemistry, Journal of Physical Chemistry Letters, Langmuir, Marine Chemistry, Nature Chemistry, Physical Chemistry Chemical Physics, Proceeding of the National Academy of Sciences, Rapid Communications in Mass Spectrometry, Science Advances, Science of the Total Environment,

- *Proposal Reviews*: ACS Petroleum Research Fund, Department of Energy SBIR program, Department of Energy ASP program, Department of Energy EMSL user proposals, Environmental Protection Agency, NOAA Climate Program Office, National Science Foundation (multiple programs), Research Corporation, Sloan Foundation, Canadian Foundation for Climate and Atmospheric Sciences, Canada Foundation for Innovation, US Civilian Research and Development Foundation, Canada NSERC Discovery Grants, UK Natural Environment Research Council.

## CONFERENCES ORGANIZED

- Conference co-chair: Molecular-Level Understanding of Atmospheric Aerosols (MUOAA) in Cargèse, Corsica, France, April 1-5, 2024. Co-organizers: Antoinette Boreave, Véronique Daële, Christian George, Wahid Mellouki, Céline Toubin, Eric Villenave. Responsible for the scientific program; raised \$15k in conference support from NSF.
- Vice-Chair (2023) and co-Chair (2025) of the Gordon Research Conference on Atmospheric Chemistry, August 3-8, 2025, Newry, Maine, United States. Co-Chair: Colette Heald.
- Conference co-chair: 2022 IGASP Symposium (<https://igasp.org/>), Irvine, CA, June 15, 2022. 146 participants. Co-chair: Prof. Barbara Finlayson-Pitts.
- Symposium co-organizer: “Chemistry of Atmospheric Aerosols” at the 2021 International Chemical Congress of Pacific Basin Societies (Pacifichem) in Honolulu, HI, December 16-21, 2021. Co-organizers: Allan Bertram, Evan Bieske, Alexander Laskin, Chul-Un Ro, Xin Yang. Three days of virtual platform sessions with 78 speakers. Raised \$25k in support of this symposium from NSF.
- Symposium co-organizer: “Fundamental Chemical Processes Common to Dissolved Organic Matter and Atmospheric Organic Aerosols” at the 2019 American Chemical Society (ACS) fall meeting in San Diego, CA, August 25-29, 2019. Co-organizer: Nadine Borduas. Five half-day sessions with 40 speakers and one poster session.
- Aerosol Chemistry Working Group Chair for the American Association for Aerosol Research (AAAR) annual meeting, Raleigh, NC, October 16-20, 2017. Responsible for assigning 100+ abstracts into eight platform sessions and one poster session.
- Symposium co-organizer: “Multi-Phase Environmental Chemistry of Aerosols” at the 2017 American Chemical Society (ACS) spring meeting in Washington, DC, August 20-24, 2017. Co-organizers: Sherri Hunt, Alexander Laskin. Three days of platform presentations with 48 speakers and one poster session. Selected papers from this symposium were later published in a book: “Multiphase Environmental Chemistry in the Atmosphere” Hunt S., Laskin A., Nizkorodov S.A. Eds., 2018; ISBN13: 9780841233638.
- Symposium co-organizer: “Symposium in Honor of Prof. Barbara Finlayson-Pitt, Recipient of the Francis P. Garvan-John M. Olin Medal” at the 2017 American Chemical Society (ACS) spring meeting in San Francisco, CA, April 2-6, 2017. Half-a-day symposium with 8 invited speakers.
- Symposium co-organizer: “Chemistry of Atmospheric Aerosols” at the 2015 International Chemical Congress of Pacific Basin Societies (Pacifichem 2015) in Honolulu, HI, December 15-20, 2015. Co-organizers: Allan Bertram, Evan Bieske, Alexander Laskin, Chul-Un Ro, Xin Yang. Three days of platform sessions with 65 speakers and one poster session. Raised \$30k in support of this symposium from DOE and NSF.
- Symposium co-organizer: “Chemistry of Atmospheric Nitrogen-Containing Compounds” at the 2014 American Chemical Society (ACS) fall meeting in San Francisco, CA, August 10-14, 2014. Co-organizers: Steven Brown, Alexander Laskin. One and a half days of platform presentations with 26 speakers.
- Symposium co-organizer: “Molecular Chemistry and Physicochemical Properties of Organic Aerosols” at the 2013 American Geophysical Union (AGU) annual meeting in San Francisco, CA, December 9-13, 2013. Co-organizers: Alexander Laskin, Yinon Rudich, Joel Thornton.
- Meeting chair: 31<sup>st</sup> annual meeting of the American Association for Aerosol Research (AAAR) in Minneapolis, MN, October 8-12, 2012. The meeting was attended by 845 people.
- Conference chair: 28<sup>th</sup> Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, Irvine, CA, March 3, 2011. 174 participants. Co-chair: Prof. Eric Saltzman.



- ❑ Symposium co-organizer: “Environmental Chemistry of Aerosols” at the 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010) in Honolulu, HI, December 15-20, 2010. Co-organizers: Alexander Laskin, Allan Bertram, Ruth Signorell, Chak Chan, Xin Yang.
- ❑ Conference chair: 22<sup>nd</sup> Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, Irvine, CA, February 14, 2005. 125 participants. Co-chair: Prof. Donald Dabdub.

## PROFESSIONAL SOCIETY AFFILIATIONS

- ❑ American Association for Aerosol Research (member since 2003, elected Fellow in 2022)
- ❑ American Association for the Advancement of Science (member since 2000; elected Fellow in 2015)
- ❑ American Chemical Society (member since 2000)
- ❑ American Geophysical Union (member since 2004)
- ❑ European Association of Geochemistry (member since 2015)
- ❑ European Geosciences Union (member since 2018)
- ❑ Royal Society of Chemistry (member since 2013)

## RESEARCH MENTORSHIP

Prof. Nizkorodov has been a research mentor to the following number of researchers since 2002:

Category	Total mentored since joining UCI in 2002	Female researchers mentored since 2002
Postdoctorals	9	5
Graduate students	26	16
Undergraduate students	63	37
High-school students	17	11
<b>Total</b>	<b>115</b>	<b>69</b>

## POSTDOCTORAL RESEARCHERS MENTORED IN RESEARCH

1. Dr. **Ao Lin** (March 2003 – September 2005). Staff scientist at CARB.
2. Dr. **Jiho Park** (January 2004 – May 2006). Faculty member at Korea National Open University.
3. Dr. **Joelle S. Underwood** (June 2005 – May 2007). Faculty member at Loyola Univ., New Orleans, LA.
4. Dr. **Jia-Hua Xing** (April 2007 – March 2008). Researcher at Kyoto University, Japan.
5. Dr. **David L. Bones** (June 2008 – August 2010). Aeroqual, New Zealand.
6. Dr. **Scott A. Epstein** (May 2011 – March 2014). Staff scientist at SCAQMD.
7. Dr. **Hyun-Ji (Julie) Lee** (January 2012 – May 2015). Staff scientist at CARB.
8. Dr. **Amanda C. MacMillan** (January 2016 – June 2018). Staff scientist at SCAQMD.
9. Dr. **Alexandra L. Klodt** (July 2022 – August 2023).

## GRADUATE STUDENTS MENTORED IN RESEARCH

1. **Anthony L. Gomez** (July 2002 – June 2007). Ph.D. Thesis: “*Analysis of the Chemical and Photochemical Aging of Organic Aerosol Particles.*” Postdoctoral fellow at the Combustion Research Facility at the Sandia National Laboratories in 2007-2010; Principal Research Scientist at Southwest Sciences since 2010; moved to Mesa Photonics in 2022.
2. **Maggie L. Walser** (September 2004 – August 2007). NSF fellow; winner of the 2007 Edward K.C. Lee Award. Ph.D. Thesis: “*Limonene-Derived Secondary Organic Aerosol: Composition and Photochemistry.*” Postdoctoral fellow at the National Council for Science and the Environment (NCSE) in 2007-2008; the AGU's 2008-2009 Congressional Science Fellow; currently works as an Associate Executive Director, Division on Earth and Life Studies at the National Academies of Sciences, Engineering, and Medicine
3. **Ahmad Alshawa** (July 2002 – January 2008). Ph.D. Thesis: “*Hygroscopicity of Mixed Inorganic/Surfactant Ultrafine Aerosol Particles.*” Chemistry Lecturer at Cypress College.
4. **Stephen A. Mang** (September 2003 – May 2008). MS thesis: “*Development of a Microwave Plasma Torch for Single Particle Counting with Chemical Information*”. Ph.D. Thesis: “*Atmospheric Aging of*

- Monoterpene Secondary Organic Aerosol.*” Teaching faculty member at the University of Maryland, Baltimore County from 2008-2016; Teacher-professor in the Department of Chemistry at UCI since 2016.
5. **Xiang Pan** (September 2003 – June 2009). Winner of the 2004 UC TSR&TP graduate fellowship. Ph.D. Thesis: “*Photochemistry of Limonene Secondary Organic Aerosol Studied with Chemical Ionization Mass Spectrometry.*” Researcher at the Jiangsu Skyray Instrument Co, China (2009-2015); Branch Manager at Kunshan Myzy Fixture Technology Co. since 2015.
  6. **Christopher W. Harmon** (June 2007 – December 2009). Winner of the 2009 Joan Rowland Award. Ph.D. Thesis: “*Hygroscopicity of Amphiphilic Nanoparticles: The Role of Size and Composition.*” Postdoctoral researcher at the Lawrence Berkeley National Laboratory (LBNL) in 2010-2011; professor at Humboldt State University since 2011.
  7. **Adam P. Bateman** (September 2006 – May 2011). DOE Graduate Research Environmental Fellowship; winner of the 2010 Marvin L. Wesely Graduate Research Fellow Award and the 2011 Michael Zach Award. Ph.D. Thesis: “*Chemical Composition and Photochemical Evolution of Limonene Secondary Organic Aerosol Studied using High Resolution Electrospray Ionization Mass Spectrometry.*” Postdoctoral researcher at Harvard University 2011-16; R&D at Lam Research since 2016.
  8. **Tran B. Nguyen** (September 2008 – June 2012). Winner of the 2010 Michael E. Gebel Award, 2012 Chancellor’s Club Fund for Excellence Fellowship, and 2012 Edward K.C. Lee Award. Ph.D. Thesis: “*Molecular Composition and Chemical Transformation of Secondary Organic Aerosols from Biogenic Precursors.*” Stanback Postdoctoral Fellowship in Global Environmental Science at Caltech 2012-2015; professor at the University of California, Davis since 2015. In 2015, Tran received the Sheldon K. Friedlander Award from the American Association for Aerosol Research (AAAR). This award recognizes an "outstanding dissertation by an individual who has earned a doctoral degree". Now is an associate professor at the Department of Environmental Toxicology, University of California Davis.
  9. **Hanna Lignell** (June 2011 – December 2013). Student from the University of Helsinki, who did a portion of her research in my lab for two years. Winner of the Finnish Cultural Foundation graduate fellowship. Ph.D. Thesis: “*Photochemical Studies of Atmospherically Relevant Species in Multiple Phases.*” Postdoctoral researcher at Caltech (2014-2015); researcher at SCAQMD (2015-17); Research Director (2017-2023) and then Director (2024-present) of the VERIFIN Institute, Finland.
  10. **Amanda C. MacMillan** (September 2009 – December 2015). NSF fellow; winner of the 2012 Michael E. Gebel award; winner of the 2015 Joan Rowland award. Ph.D. Thesis: “*Uptake of Water and Other Molecules by Aerosolized Nanoparticles.*” Postdoctoral researcher at UCI from 2015-18, science editor (2018-19). Works as an Air Pollution Chemist at the South Coast Air Quality Management District (SCAQMD).
  11. **Sandra L. Blair** (June 2011 – June 2016). Winner of the 2014 Michael E. Gebel award; winner of the 2015 Chancellor’s Club Fund for Excellence Fellowship; winner of the 2016 Joan Rowland award. MS thesis: “*Photolytic Processing of Organic Aerosol through Carbonyl Photochemistry*”. Ph.D. Thesis: “*Composition and Photochemistry of Anthropogenic and Biogenic Organic Aerosols.*” Postdoctoral researcher at Georgia Tech (2016-17) and CU Boulder (2017-2019). Works as an Air Pollution Chemist at the South Coast Air Quality Management District (SCAQMD).
  12. **Dian E. Romonosky** (March 2012 – July 2016). NSF fellow; winner of the 2016 Jackie Smitrovich Prize. Ph.D. Thesis: “*Optical Properties, Chemical Composition, and Aqueous Photochemistry of Secondary Organic Aerosol.*” Postdoctoral researcher at LANL (2016-18); Lecturer at SUNY Geneseo (2018-2021); currently an Analytical Chemist at Alene Candles.
  13. **Mallory L. Hinks** (February 2013 – June 2017). Winner of the 2016 UCI Grad Slam competition; 2nd place in the 2016 UC systemwide Grad Slam competition; winner of the Chemistry Champions competition at the 2016 American Chemical Society meeting; 2017 Chancellor’s Club Fund for Excellence Fellowship; winner of the 2017 Jackie Smitrovich Prize. Ph.D. thesis: “*Effect of Environmental Conditions on Composition and Photochemistry of Secondary Organic Aerosols.*” Works as a Technical Coordinator at the National Coordination Office for the Networking and Information Technology Research and Development (NITRD) Program.
  14. **Paige K. Aiona** (February 2013 – May 2018). Ford Foundation fellow and NSF fellow; winner of the 2018 Joan Rowland award. Ph.D. Thesis: “*Optical Properties and Chemical Composition of Brown Carbon Aerosols.*” Works as an Air Pollution Chemist at the South Coast Air Quality Management District (SCAQMD).

15. **Kurtis T. Malecha** (February 2014 – May 2018). NSF fellow; winner of the 2017 Michael E. Gebel award. Ph.D. Thesis: “*Condensed-phase Photochemical Processes in Secondary Organic Aerosols from Biogenic and Anthropogenic Sources.*” Worked as Air Pollution Chemist at the San Diego County Air Pollution Control District, then as an Air Monitoring Technical Project Manager at the California Air Resources Board (CARB).
16. **Lauren T. Fleming** (February 2015 – June 2019). Winner of the 2018 Peter B. Wagner Memorial Award for Women in Atmospheric Sciences (2<sup>nd</sup> place); winner of the 2018 Michael E. Gebel award; winner of the 2019 Edward K.C. Lee Award. Ph.D. Thesis: “*Molecular Composition, Optical Properties, and Chemical Aging of Primary and Secondary Organic Aerosol*”. Postdoctoral research at University of Leeds, then a Graph Data Scientist at Crisp Thinking
17. **Julia Montoya-Aguilera** (June 2015 – September 2020). LSAMP Bridges to the Doctorate (BD) fellow; NSF fellow; winner of the 2018 Peter B. Wagner Memorial Award for Women in Atmospheric Sciences (3<sup>rd</sup> place); 2020 Jackie Smitrovich Prize. Ph.D. Thesis: “*Nitrogen Containing Secondary Organic Aerosols: Experiments and Air Quality Simulations*” Works as an Air Pollution Specialist at the South Coast Air Quality Management District (SCAQMD).
18. **Vahe Baboornian** (February 2018 – Jun 2022). NSF fellow. Ph.D. Thesis: “*Condensed-Phase Photochemical Aging in Secondary Organic Aerosols*” Worked as Air Pollution Chemist at the San Diego County Air Pollution Control District, then as an Environmental Scientist at Yorke Engineering.
19. **Alexandra M. Klodt** (February 2018 – August 2022). 2021 Michael E. Gebel Award; 2022 Contributions to the Chemistry Department Teaching Program Teaching Program Award. Ph.D. Thesis: “*Effects of Aqueous Inorganic or Viscous Organic Matrices on the Chemical and Photochemical Aging Processes of Secondary Organic Aerosols in the Atmosphere*”. Air Pollution Specialist at the California Air Resources Board (CARB).
20. **Natalie R. Smith** (February 2018 – August 2022). 2020-21 Rowland Fellow; 2020 Graduate Student Award in Environmental Chemistry from the Division of Environmental Chemistry (ENVR) of the American Chemical Society; 2021 Michael E. Gebel Award; 2022 Joan Rowland Award. Ph.D. Thesis: “*Complex Mixtures of Terpenes Results in Highly Viscous Secondary Organic Aerosols*”. Works as an Air Measurement Scientist at the Colorado Department of Public Health and Environment.
21. **Cynthia Wong** (February 2019 – June 2023). 2020-21 Ridge-to-Reef Fellow; 2022 UCI Chemistry Excellence in DEI Award; 2023 Jackie Smitrovich Prize. Ph.D. Thesis: “*Analyzing the Long-Term Aging of Secondary Organic Aerosols and the Impacts of Acidity*”. Air Pollution Specialist at the California Air Resources Board (CARB).
22. **Avery Dalton** (February 2020 – June 2024); 2023 Contributions to the chemistry department teaching program by a TA; 2023-24 Faculty Endowed Fellowship. Ph.D. Thesis: “*Illuminating the Optical Properties and Photochemistry of Nitroaromatics in Different Atmospheric Environments*”. Scientific Programmer with Applied Research Associates since 2024.
23. **Katherine Hopstock** (February 2020 – June 2024). 2021 Contributions to the Chemistry Department Teaching Program Award; 2023-24 Rowland Fellow, 2024 Graduate Student Award in Environmental Chemistry from ACS ENVR Division, 2024 Joan Rowland Award, 2024 Outstanding Contribution to the Department of Chemistry Award. Ph.D. Thesis: “*Molecular Composition and Chemical Aging of Organic Aerosol from Various Types of Smoke*”. Atmospheric Scientist in the Refinery Services Department at Sonoma Tech.
24. **Lena Gerritz** (February 2022 – present). 2022 Contributions to the Chemistry Department Teaching program by a first-year TA; 2023-26 NSF fellow.
25. **Lucia Liu** (September 2022 – present). 2023 Contributions to the chemistry department teaching program by a first-year TA.
26. **Luis Ruiz Armenta** (September 2022 – October 2024). Graduated with an M.S. degree. Senior Analytical Chemist at Babcock Laboratories.
27. **Matthew Zaragoza** (September 2023 – present).
28. **Anthony Jue** (September 2023 – present).

## GRADUATE STUDENT DOCTORAL COMMITTEES

*Nizkorodov's research group students are listed separately above; these are students from other research groups*

1. Darren Segale (UCI ChaMP program; MSc committee member; 2005)
2. Rosemarie L. Wilson (The University of Melbourne; Chemistry; Ph.D. committee member; May 2006)
3. Andreas Beyersdorf (UCI Chemistry; Ph.D. committee member; September 5, 2007)
4. Angela Baker (UCI Chemistry; Ph.D. committee member; December 5, 2007)
5. Jennifer Peairs (UCI Chemistry; MSc committee member; 2008).
6. Jason Midyett (UCI Chemistry; Ph.D. committee member; June 1, 2009)
7. Melissa Yang (UCI Chemistry; Ph.D. committee member; June 25, 2009)
8. Katrine Gorham (UCI Chemistry; Ph.D. committee member; September 8, 2009)
9. Samar Moussa (UCI Chemistry; Ph.D. committee member; January 12, 2009)
10. Nicole Barrentine (UCI Chemistry; Ph.D. committee member; July 7, 2011)
11. Ming Cheng (UCI Chemistry; Ph.D. committee member; October 24, 2011)
12. Nicole Richards (UCI ChaMP program; MSc and Ph.D. committee member; November 16, 2011)
13. Emily Bruns (UC IChemistry; Ph.D. committee member; November 16, 2011)
14. Hyun-Ji (Julie) Lee (UCI Chemistry; Ph.D. committee member; November 28, 2011)
15. Brandon Umber (UCI Chemistry; Ph.D. committee member; January 20, 2012)
16. Alexandria Margarella (UCI Chemistry; Ph.D. committee member; September 12, 2012)
17. Matthew Carlson (UCI Chemistry; Ph.D. committee member; November 29, 2012)
18. Christopher Dilbeck (UCI Chemistry; Ph.D. committee member; May 9, 2013)
19. Gregory Hartt (UCI Chemistry; Ph.D. committee member; August 27, 2013)
20. Yu-Hsin Hung (UCI Chemistry; Ph.D. committee member; December 16, 2013)
21. Matthew Dawson (UCI Chemistry; Ph.D. committee member; July 3, 2014)
22. Safa Khan (UCI Chemistry; Ph.D. committee member; January 5, 2015)
23. Josette Marrero (UCI Chemistry; Ph.D. committee member; April 8, 2015)
24. Jenny Wong (Department of Chemistry, University of Toronto, Ph.D. committee member, April 10, 2015)
25. Jason Schroeder (UCI Chemistry; Ph.D. committee member; June 3, 2015)
26. Amanda Weber (UCI Chemistry; Ph.D. committee member; July 23, 2015)
27. Steven Timko (UCI Civil & Environmental Engineering; Ph.D. committee member; November 20, 2015)
28. Charlotte Hirsch (UCI Chemistry; Ph.D. committee member; February 24, 2016)
29. Stefanie Richters (Leibniz Institute for Tropospheric Research (TROPOS)), Ph.D. external evaluator; 2016)
30. Jordan Vincent (UCI Chemistry; Ph.D. committee member; August 4, 2016)
31. Crystin Eggers (UCI Chemistry; Ph.D. committee member; February 23, 2017)
32. Elizabeth Foreman (UCI Chemistry; Ph.D. committee member; July 25, 2017)
33. Kristine Arquero (UCI Chemistry; Ph.D. committee member; July 26, 2017)
34. Michelle Fairhurst (UCI Chemistry; Ph.D. committee member; August 15, 2017)
35. Nanna Myllys (University of Helsinki, PhD thesis pre-referee; September 2017)
36. Krista Parry (UCI Chemistry; Ph.D. committee member; November 28, 2017)
37. Nick Vizenor (UCI Chemistry; Ph.D. committee member; December 19, 2017)
38. Jack Porter (UCI Chemistry; Ph.D. committee member; March 8, 2018)
39. Jeremy Horne (Mechanical and Aerospace Engineering; Ph.D. committee member; March 1, 2018)
40. Stacey Hughes (UCI Chemistry; Ph.D. committee member; March 14, 2018)
41. Wing-Sy Wong (UCI Chemistry; Ph.D. committee member; May 30, 2019)
42. Kara Kapnas (UCI Chemistry; Ph.D. committee member; June 14, 2019)
43. Rachel Hems (Department of Chemistry, University of Toronto, Ph.D. thesis appraiser, Dec 3, 2019)
44. Amy Christensen (UCI Chemistry; Ph.D. committee member; April 27, 2020)
45. Allison Vander Wall (UCI Chemistry; Ph.D. committee member; May 28, 2020)
46. Michael Jea (Cal State Fullerton, M.S. committee member, July 9, 2020)
47. Christopher Woods (Chemistry; Ph.D. committee member, July 29, 2020)
48. William Howitz (Chemistry; Ph.D. committee member, December 1, 2020)
49. Sabrina Chee (UCI Chemistry; Ph.D. committee member; May 20, 2021)
50. Juan Miguel González Sánchez (Laboratoire de Chimie de l'Environnement, Université Aix-Marseille, Ph.D. examiner and committee member; July 22, 2021)
51. Brian Hwang (UCI Chemistry; Ph.D. committee member; August 25, 2021)
52. Alex Jarnot (UCI Chemistry; Ph.D. committee member; November 29, 2021)
53. Jinlai Wei (Chemistry; Ph.D. committee member, May 23, 2022)

54. Farzaneh Khalaj (Ecology & Evolutionary Biology; Ph.D. committee member, May 27, 2022)
55. Andrea Rohrbacher (UCI Chemistry; Ph.D. committee member; June 9, 2022)
56. Hayley Glicker (UCI Chemistry; Ph.D. committee member, June 13, 2022)
57. Michelia Dam (UCI Chemistry; Ph.D. committee member, July 14, 2023)
58. Robert Weltman (UCI Program in Public Health; Ph.D. committee member, August 21, 2023)
59. Kyla Siemens (Chemistry, Purdue University; Ph.D. external committee member, March 20, 2024)
60. Zachary Cornwell (UCI Chemistry; Ph.D. committee member, June 12, 2024)
61. Alyssa Burns (UCI Chemistry; Ph.D. committee member, July 17, 2024)

## UPCOMING DOCTORAL EXAMS

- ❑ Adam Thomas (UCI Chemistry; Ph.D. committee member, 2021-...)
- ❑ Kasey Edwards (UCI Chemistry; Ph.D. committee member, 2022-...)
- ❑ Jonas Enders (UCI Chemistry; Ph.D. committee member, 2023-...)
- ❑ Diego Calderon-Arrieta (Chemistry, Purdue University; Ph.D. external committee member)

## GRADUATE STUDENT ADVANCEMENT COMMITTEES

1. Shiwei Wu (Physics; advancement exam committee member; Sep. 3, 2003)
2. Gary Mikaelian (Physics; advancement exam committee member; Sep. 2003)
3. Erich Walter (Chemistry; advancement exam committee member; Mar. 18, 2004)
4. Barbara Barletta (Chemistry; candidacy committee member; May 24, 2004)
5. Brandon Finley (ESS; advancement exam committee member; Nov. 22, 2004)
6. Eduardo Roman (Chemistry; advancement exam committee member; Apr. 14, 2005)
7. Jennie Thomas (Chemistry; advancement exam committee chair; May 2, 2005)
8. Huda Shaka (Chemistry; advancement exam committee member; May 18, 2005)
9. Paul Nissenson (Mech. Aerospace Engineering; advancement exam committee member; June 13, 2005)
10. Fuu-Ming Kai (ESS, advancement exam committee member; June 24, 2005)
11. Angela Baker (Chemistry; advancement exam committee chair; Jan. 11, 2006)
12. Li-Mei Yang (Chemistry; advancement exam committee member; Apr. 7, 2006)
13. Andreas Beyersdorf (Chemistry; advancement exam committee member; Apr. 27, 2006)
14. Darren Segale (Chemistry; advancement exam committee chair; May 4, 2006)
15. Siarhei Piatrovitch (Mech. Aerospace Engineering; advancement exam committee member; Dec. 6, 2006)
16. Satish Vutukuru (Mech. Aerospace Engineering; advancement exam committee member; Jan. 29, 2007)
17. Melissa Yang (Chemistry; advancement exam committee member; July 24, 2007)
18. Nicole Barrentine (Chemistry; advancement exam committee member; Nov 29, 2007)
19. Clark Ridge (Chemistry; advancement exam committee member; Nov 19, 2007)
20. Jason Midyett (Chemistry; advancement exam committee member; March 13, 2008)
21. Desiré Whitmore (Chemistry; advancement exam committee member; April 25, 2008)
22. Qi Tang (ESS; advancement exam committee member; June 4, 2008)
23. Jason Deckman (Chemistry; advancement exam committee member; Nov 3, 2008)
24. Brandon Umber (Chemistry; advancement exam committee member; Nov 18, 2008)
25. Matt Carlson (Chemistry; advancement exam committee member; Nov 20, 2008)
26. Hyun Ji Lee (Chemistry; advancement exam committee member; Dec 4, 2008)
27. Christopher Dilbeck (Chemistry; advancement exam committee member; Dec 9, 2008)
28. James Taing (Chemistry; advancement exam committee member; Apr 3, 2009)
29. Nicole Richards (Chemistry; advancement exam committee member; June 3, 2009)
30. Emily Bruns (Chemistry; advancement exam committee member; June 8, 2009)
31. Catalina Espinosa (Chemistry; advancement exam committee member; November 4, 2009)
32. Ming Cheng (Chemistry; advancement exam committee member; November 6, 2009)
33. Alexandria Margarella (Chemistry; advancement exam committee member; November 12, 2009)
34. Aaron Halpern (Chemistry; advancement exam committee member; November 16, 2009)
35. Yong Wang (Chemistry; advancement exam committee member; November 16, 2009)
36. Tanza Lewis (Chemistry; advancement exam committee member; November 17, 2009)
37. Megan Johnson (Chemistry; advancement exam committee member; November 19, 2009)

38. Megan Warner Szyndler (Chemistry; advancement exam committee member; March 8, 2010)
39. Jordan Vincent (Chemistry; advancement exam committee member; March 16, 2010)
40. Molly Taylor (Chemistry; advancement exam committee member; May 6, 2010)
41. Khin Lay Maung (Chemical Engineering; advancement exam committee member; July 13, 2010)
42. Kristal Verhulst (Earth System Science; advancement exam committee member; August 30, 2010)
43. Safa Khan (Chemistry; advancement exam committee member; November 2, 2010)
44. Rachele Ihly (Chemistry; advancement exam committee member; November 3, 2010)
45. Yu-Hsin Hung (Chemistry; advancement exam committee member; November 4, 2010)
46. Wenbo Yan (Chemistry; advancement exam committee member; November 12, 2010)
47. Mathew Dawson (Chemistry; advancement exam committee member; April 13, 2011)
48. Jayde Kwon (Chemistry; advancement exam committee member; April 14, 2011)
49. Alejandro Rodriguez Perez (Chemistry; advancement exam committee member; April 18, 2011)
50. Mayukh Banik (Chemistry; advancement exam committee member; April 19, 2011)
51. Aurora Pribram-Jones (Chemistry; advancement exam committee member; November 1, 2011)
52. Gregory Hartt (Chemistry; advancement exam committee member; November 9, 2011)
53. Yu-Lin Chen (Chemistry; advancement exam committee member; November 14, 2011)
54. Amanda Weber (Chemistry; advancement exam committee member; November 16, 2011)
55. Marijke Van Spyk (Chemistry; advancement exam committee member; November 17, 2011)
56. Josette Marrero (Chemistry; advancement exam committee member; November 21, 2011)
57. Kyunghee Cho (Chemistry; advancement exam committee member; April 2, 2012)
58. Beau Martini (Chemistry; advancement exam committee member; April 9, 2012)
59. Nicholas Shirac (Chemistry; advancement exam committee member; April 10, 2012)
60. Wesley Botello-Smith (Chemistry; advancement exam committee member; April 11, 2012)
61. Steven Yampolski (Chemistry; advancement exam committee member; April 12, 2012)
62. Ruben Magana (Chemistry; advancement exam committee member; April 16, 2012)
63. Moritz Limpensel (Chemistry; advancement exam committee member; August 22, 2012)
64. Maryna Taranova (Chemistry; advancement exam committee member; October 17, 2012)
65. David Montelongo (Chemistry; advancement exam committee member; November 6, 2012)
66. Gavin Bascom (Chemistry; advancement exam committee member; November 7, 2012)
67. Jason Schroeder (Chemistry; advancement exam committee member; November 13, 2012)
68. Brandon Krull (Chemistry; advancement exam committee member; November 14, 2012)
69. Raphael Ribeiro (Chemistry; advancement exam committee member; November 15, 2012)
70. Gergana Mouteva (ESS; advancement exam committee member; February 5, 2013)
71. Emel Ficici (Chemistry; advancement exam committee member; April 5, 2013)
72. Crystin Eggers (Chemistry; advancement exam committee member; November 1, 2013)
73. Brian Albee (Chemistry; advancement exam committee member; November 4, 2013)
74. Gianmarc Johns (Chemistry; advancement exam committee member; November 6, 2013)
75. Paolo Reyes (Chemistry; advancement exam committee member; November 6, 2013)
76. Jin Guo (Chemistry; advancement exam committee member; November 7, 2013)
77. Mohammed El Makkaoui (Chemistry; advancement exam committee member; November 8, 2013)
78. Jose Ocampo (Chemistry; advancement exam committee member; November 13, 2013)
79. Mya Le Thai (Chemistry; advancement exam committee member; November 14, 2013)
80. James Fields (Chemistry; advancement exam committee member; November 15, 2013)
81. Julie Hsu (Chemistry; advancement exam committee member; November 15, 2013)
82. Sandra Brown (Chemistry; advancement exam committee member; November 18, 2013)
83. Charlotte Hirsch (Chemistry; advancement exam committee member; November 20, 2013)
84. Melissa Palmer (Chemistry; advancement exam committee member; November 25, 2013)
85. Krista Parry (Chemistry; advancement exam committee member; April 9, 2014)
86. Nicholas Tallarida (Chemistry; advancement exam committee member; April 11, 2014)
87. Michelle Fairhurst (Chemistry; advancement exam committee member; April 24, 2014)
88. Kristine Arquero (Chemistry; advancement exam committee member; April 25, 2014)
89. Kyle Rosenkoetter (Chemistry; advancement exam committee member; November 10, 2014)
90. Stacey Hughes (Chemistry; advancement exam committee chair; November 13, 2014)

91. Stephen Timko (Civil & Environmental Engineering; advancement exam committee member; November 13, 2014)
92. Elizabeth Foreman (Chemistry; advancement exam committee member; November 17, 2014)
93. Jack Porter (Chemistry; advancement exam committee member; November 17, 2014)
94. David Fooshee (Information and Computer Sciences; advancement exam committee member; November 25, 2014)
95. Tianyang Zhu (Chemistry; advancement exam committee chair; January 15, 2015)
96. Jennifer Logan (Chemistry; advancement exam committee chair; May 7, 2015)
97. Nick Vizenor (Chemistry; advancement exam committee chair; November 4, 2015)
98. John Kelly (Chemistry; advancement exam committee chair; November 5, 2015)
99. Zachary Thammavongsy (Chemistry; advancement exam committee member; November 16, 2015)
100. Amber Hennessy (Chemistry; advancement exam committee chair; November 23, 2015)
101. Kara Kapnas (Chemistry; advancement exam committee member; May 11, 2016)
102. Jeremy Horne (Mechanical and Aerospace Engineering; advancement exam committee member; May 10, 2016)
103. Allison Van der Wall (Chemistry; advancement exam committee member; May 25, 2016)
104. David Herman (Department of Medicine, Environmental Health Sciences Graduate Program; advancement exam committee member; October 23, 2017)
105. Sabrina Chee (Chemistry; advancement exam committee member; November 2, 2017)
106. Wing-Sy Wong (Chemistry; advancement exam committee member; November 9, 2017)
107. Christopher Woods (Chemistry; advancement exam committee chair; November 13, 2017)
108. Amy Christensen (Chemistry; advancement exam committee chair; April 4, 2018)
109. Rebecca Johnson (Department of Medicine, Environmental Health Sciences Graduate Program; advancement exam committee member; August 30, 2018)
110. Hayley Glicker (Chemistry; advancement exam committee chair; November 1, 2018)
111. Vivian Chen (Chemistry; advancement exam committee member; November 5, 2018)
112. Annie Rohrbacher (Chemistry; advancement exam committee chair; May 20, 2019)
113. Alexander Jarnot (Chemistry; advancement exam committee chair; November 21, 2019)
114. Madison Flesch (Chemistry; advancement exam committee member; April 9, 2020)
115. Jinlai Wei (Chemistry; advancement exam committee member; November 2, 2020)
116. Michelia Dam (Chemistry; advancement exam committee member; November 9, 2020)
117. Farzaneh Khalaj (Ecology & Evolutionary Biology; advancement exam committee member, Oct 15, 2021)
118. Adam Thomas (Chemistry; advancement exam committee chair; November 2, 2021)
119. Zachary Cornwell (Chemistry; advancement exam committee member; November 10, 2021)
120. Robert Weltman (Public Health; advancement exam committee member; November 15, 2021)
121. Kasey Edwards (Chemistry; advancement exam committee chair; November 9, 2022)
122. Jonas Enders (Chemistry; advancement exam committee chair; November 16, 2023)
123. Maria Flores (Chemistry; advancement exam committee chair; March 17 and May 23, 2024)
124. Ellie Smith (Chemistry; advancement exam committee member; November 5, 2024)
125. Kieudiem (Kate) Nguyen (Chemistry; advancement exam committee member; November 7, 2024)
126. Regina Luu (Chemistry; advancement exam committee chair; November 14, 2024)

## **UNDERGRADUATE STUDENTS AND POST-BACS MENTORED IN RESEARCH**

1. David Whitt (September 2003 – June 2004)
2. Nicole J. Britigan (September 2004 – June 2005): co-authored a paper. Currently works as a high school chemistry teacher.
3. Melanie Nguyen (September 2004 – June 2005). Currently works as a Chemistry stockroom manager at UCI.
4. Ashley R. Russell (September 2005 – June 2006): co-authored a paper.
5. Steven Ng (September 2005 – June 2006)
6. Robert Benningsdorf (September 2005 – June 2006)
7. Tanza L. Lewis (September 2006 – June 2007): co-authored a paper.
8. Thong Do (September 2006 – June 2007)
9. Enosh Cohen (September 2006 – June 2007)

10. Mark Dailo (September 2006 – June 2007)
11. Stacy A. Wilkinson (September 2007 – June 2008): co-authored a paper.
12. Jennifer Pears (September 2007 – January 2008)
13. Sero Kassabian (September 2007 – June 2008)
14. Dana K. Henriksen (January 2008 – June 2009): co-authored two papers.
15. Joshua Klobas (September 2008 – June 2010) – 2010 Don L. Bunker Award, 2009 ACS Analytical Chemistry Award, wrote a paper for the UCI undergraduate research journal.
16. Madelyn McKittrick (September 2008 – June 2009)
17. Anne Nguyen (September 2008 – March 2009)
18. Mark Peterson (September 2008 – June 2009): co-authored a paper.
19. Susann Rodas (September 2008 – March 2009)
20. Carmen Seetho (September 2008 – June 2009)
21. Kathy Kim (September 2009 – June 2010)
22. Lucas Nguyen (September 2009 – September 2010): 2010 ACS Analytical Chemistry Award, co-authored a paper.
23. Zoe Cabral (September 2009 – September 2010)
24. John Morrison (September 2009 – September 2010): co-authored a paper.
25. Nicole Levac (May 2010 – June 2010, participant in CalNex 2010): co-authored a paper.
26. Paula Lee (September 2010 – August 2011): co-authored a paper.
27. Katelyn Updyke (September 2010 – June 2012): 2011 American Institute of Chemists Award, co-authored a paper, first author on another paper, went to medical school.
28. Van Tran (July 2011 – June 2012): 2012 American Institute of Chemists Award, co-authored a paper. Currently working at Emagen Entertainment Group Inc.
29. Chad Eyerly (September 2011 – June 2012)
30. Moses Avedikian (September 2012 – March 2013)
31. Margaret Marvin (April 2013 – June 2013): co-authored a paper, went to graduate school at the University of Maryland
32. Renee Leslie (Summer 2013 Chem-SURF student): co-authored a paper, got a MS degree in chemistry from SDSU, high school chemistry teacher.
33. Nujhat Ali (April 2013 – September 2014; September 2015 – July 2018) – co-authored multiple papers, 2014 Gebel undergraduate award, 2014 ACS Analytical Chemistry Award; 2016 ACS Division of Environmental Chemistry Award. Went to MD/PhD program at John Hopkins University.
34. Mariyah Saiduddin (September 2013 – June 2014) – co-authored a paper, 2014 Gebel undergraduate award. Went to graduate school at NYU.
35. Monica Brady (summer 2014 SURF student) – co-authored a paper. Went to graduate school at Tulane University in New Orleans.
36. Katrina Mazloomian (September 2014 – December 2014, individual study supervisor)
37. Claire Engelmann (September 2014 – June 2015, individual study supervisor and research advisor)
38. Stephanie Kim (September 2014 – June 2016). 2016 Gebel undergraduate award. Co-authored a paper. Went to medical school.
39. Tim Cai (September 2015 – June 2017). 2017 ACS Division of Environmental Chemistry Award. Co-authored a paper. Went to graduate school at Carnegie Mellon University.
40. Lucas Ellison (Summer 2016 visiting student from McGill University). Co-authored a paper.
41. Aditya Iyengar (April 2016 – June 2017).
42. Suki Gu (September 2017 – June 2020). 2018 Gebel undergraduate award. 2020 Don Bunker award. Co-authored a paper. Went to graduate school at Caltech.
43. Henry Chin (September 2018 – June 2019). 2019 Gebel undergraduate award and 2019 ACS Division of Environmental Chemistry Award. First author on a paper. Went to graduate school at UCSD.
44. Michal Olsen (September 2018 – August 2019). Co-authored a paper. Went to graduate school at UC Riverside.
45. Judith Wang (September 2018 – June 2019).
46. Danielle Rocco (September 2018 – June 2020). 2019 Gebel undergraduate award. Went to graduate school at Cal State Fullerton, then got a position at Ramboll as an air quality consultant.
47. Dainel Vite (September 2019 – June 2020). Co-authored a paper.



48. Jorge Fernandez (September 2019 – June 2020). Co-authored a paper. HPLC Technician at MG Global LLC, Garden Grove.
49. Samantha Scott (December 2019 – March 2021). 2020 Gebel undergraduate award.
50. Kimberly Zhang (April 2020 – August 2021). 2020-21 UCI Beckman Scholar. Co-authored a paper. 2021 Chancellor's Award for Excellence in Research, 2021 Chancellor's Award of Distinction, 2020-21 Beckman Scholarship, 2021 Don L. Bunker Award. Went to graduate school at MIT in 2021.
51. Scott Le (April 2021 – March 2022) – co-authored a paper
52. Angel Arredondo (Summer 2021 Chem-SURF student)
53. Lucia Liu (July 2021 – September 2022). Co-authored a paper. Went to graduate school at UCI in 2022.
54. Krisztina Rakosi (September 2021 – July 2022). 2022 Michael E. Gebel Undergraduate Award and 2022 ACS Division of Analytical Chemistry Undergraduate Award.
55. Maggie Chou (April 2022 – June 2023). 2023 Michael E. Gebel Undergraduate Award. Went to Pharmacy School at UCI in 2023.
56. Seamus Frey (Chem-SURF 2022 summer student). Went to graduate school at MIT.
57. Michael Alvarado (June 2022 – Feb 2023). Works at EMAX Laboratories, Inc. in Torrance, CA
58. Jett Vuong (August 2022 – June 2023). 2023 ACS Division of Environmental Chemistry Undergraduate Award; 2023 Outstanding Senior.
59. Tim Oeij (October 2022 – June 2023)
60. Sofia Stirone (October 2022 – April 2023). 2023 Poster Presentation Chancellor Award Winner, Earth and Beyond category, 3rd place.
61. Eleanor Miko (October 2022 – present)
62. Shweta Shah (October 2022 – March 2023)
63. Helen Qin (October 2022 – June 2023)

## HIGH SCHOOL STUDENTS MENTORED IN RESEARCH

1. Kwano Lee, Woodbridge High School (Science Fair project; Fall 2004)
2. Emily Doo, Woodbridge High School (Science Fair Project; Fall 2006)
3. Regina Lee, Woodbridge High School (Science Fair Project; Fall 2006)
4. Clement Kao, University High School (laboratory internship; Summer 2009)
5. Michelle Yang, Diamond Bar High School (laboratory internship; Summer 2010)
6. Kevin Nguyen, Bolsa Grande High School (laboratory internship; Summer 2011)
7. Elina Balanina, Woodbridge High School (laboratory internship; Summer 2013)
8. Michael Wu, University High School (laboratory internship; Summers 2014, 2015, 2016) – co-authored a paper; won 2<sup>nd</sup> place in the Orange County Science & Engineering Fair (OCSEF) and the 3rd place in the California State Science Fair (CSSF)
9. Aden Alemayhu (Science Fair Project, Winter 2015)
10. Jasmine Wang (Science Fair Project, Winter 2015)
11. Lauren Kim, Woodbridge High School (Science Fair Project, Winter 2015)
12. Yujane Chen, Troy High School (laboratory internship; Summers 2015 and 2016)
13. Bonnie Huang, El Toro High School (laboratory internship; Summer 2015)
14. Emily Yen, Troy High School (laboratory internship; Summer 2016)
15. Daniel Fishman, Sage High School (laboratory internship; September 2017 – August 2018)
16. Reese Carlton, University High School (laboratory internship; Summer 2018)
17. Ailin Jia, Sage High School (laboratory internship; Summer 2019)

## PUBLIC SERVICE & OUTREACH

- AirUCI outreach program coordinator for middle/high school science teachers (every summer, 2005–14)
- Science Fair judge (2011, 2015)
- Activity presenter at “Future of Science Conference” for K-12 teachers, Nov 13, 2010 and Oct 15, 2011
- Ask-A-Scientist Night participant (2010)
- UCI Middle School Science Career Conference participant (2008)
- UCI Honors experience day participant (2008, 09)
- AirUCI Community Day participant (2005, 2006, 2007)

- ❑ UCI COSMOS participant (2004, 2005, 2007)
- ❑ Osher Lifelong Learning Institute (OLLI) participant (2005)

## PROFESSIONAL SERVICE

### *Department of Chemistry at UCI*

*All department service appointments below begin on July 1 and end on June 30 of the year specified.*

- ❑ Laser and spectroscopy facility oversight committee, Member (2004-05, 2024-...)
- ❑ Graduate admissions and recruiting committee, Member (2007-09; 2010-14, 2024-...)
- ❑ Chem-SURF REU, Co-Director (2019-24)
- ❑ External faculty awards committee, Member (2011-14, 2020-...)
- ❑ OVPTL's Academic Success Research Fellow (2018-19) – to improve student retention in Chemistry
- ❑ Nuclear Chemistry/Radiochemistry faculty search committee, Member (2018-19)
- ❑ Undergraduate and TA awards committee, Member (2018-20)
- ❑ Vice-Chair for academic programs and curriculum (2016-20)
- ❑ Teaching assistant assignment and oversight committee, Chair (2016-20)
- ❑ Committee on undergraduate curriculum, Chair (2016-20) and Member (2020-...)
- ❑ Graduate fellowships/awards committee, Member (2017-18)
- ❑ Analytical/atmospheric chemistry graduate academic advisor (2016-17)
- ❑ High Impact Hiring (HIH) search committee, Member (2014-16)
- ❑ Chemistry website oversight committee, Member (2011-18)
- ❑ Graduate fellowships/awards committee, Member (2004-11) and Chair (2011-14)
- ❑ Physical chemistry graduate academic advisor (2010-14)
- ❑ Upper-division labs oversight committee, Member (2003-08, 2010-11) and Chair (2008-10, 2011-12)
- ❑ Undergraduate curriculum review committee, Member (2008-10)
- ❑ Graduate proposal writing committee, Member (2007-10)
- ❑ Physical seminar, Chair (2003-04)
- ❑ Mass-spectrometry facility oversight committee, Member (2003-04, 2009-10)
- ❑ Undergraduate program funding opportunities committee, Member (2008-10)

### *School of Physical Sciences at UCI*

- ❑ NSF GRFP Reviewer Discussion Panel for Physical Sciences students (Aug 2020, 2021, 2022)
- ❑ School of Physical Sciences strategic plan committee, Member (2017-19)
- ❑ School of Physical Sciences Steering Committee, Chair (2006-07)
- ❑ Divisional Senate Assembly Representative for the School of Physical Sciences (2005-07)

### *UCI*

- ❑ Physical Sciences Dean Ad Hoc Review Committee, Chair (2023-24)
- ❑ Hellman Fellow internal review panel at UCI, Member (2023)
- ❑ Beckman Scholars Selection Committee, Chair (2019-...)
- ❑ Subcommittee on Courses and Continuing, Part-Time, and Summer Session Education (SCOC), Member (September 1, 2018 – August 31, 2019) and Chair (September 1, 2019 – August 31, 2021)
- ❑ Fulbright program, internal interviewer for UCI applicants (Fall 2018, 2019, 2020, 2023)
- ❑ Science in Action Chemistry, Department representative (July 2018-June 2019)
- ❑ Provost Ph.D. Fellowship review panel, Member (February-March 2018, 2019, 2020)
- ❑ UCI Research Seed Funding review panel, Member (January 2016)
- ❑ AirUCI Organized Research Unit, Co-Director (September 2015 – present)
- ❑ NSF GRFP Reviewer Discussion Panel for UCI students (July 2014, 2015, 2016)
- ❑ Graduate LEAD Fellowship review panel, Member (February-March 2015)
- ❑ Graduate Opportunity Program (GOP) fellowship review panel, Member (February 2013)

### *Outside UCI*

- ❑ Gordon Research Conference on Atmospheric Chemistry: Vice-Chair of 2021 [postponed to 2023 due to Covid] meeting, Chair of 2023 meeting [postponed to 2025 due to Covid].
- ❑ ACS Society Committee on Education (SOCED), Associate (2021-2024) and Member (2025-2027)

- American Association for Aerosol Research:
  - Vice-President Elect (2018-19) → Vice-President (2019-20) → President (2020-21) → Immediate Past President (2021-22), Executive Board of Directors member during this period
  - Aerosol Chemistry working group chair for the 2017 annual meeting, elected (2015-17)
  - Board of Directors member, elected (2013-2016)
- NSF MRI program review panel, Member (2022)
- NSF REU program review panel, Member (2021)
- EPA STAR program review panel, Member (2021)
- DOE Office of Science Graduate Student Research (SCGSR) Program. Reviewer (2020-21)
- Atmospheric Science graduate program at the University of Nevada, Reno, External Review Committee Chair, November 2020
- National Science Foundation, GRFP panelist (2012-13, 2014-15, 2018-19, 2019-20 competitions)
- National Oceanic and Atmospheric Administration, panelist, 2017 competition
- Atmospheric Chemistry and Physics, Associate Editor (2013-present)
- NSERC Discovery Grant, panelist (2011 and 2012 competitions)
- DOE Environmental Molecular Science Laboratory, user advisory committee member, elected (2011-14)
- Evaluating 3-6 faculty appointment and promotion cases each year for other universities

## SUMMARY OF TEACHING EXPERIENCE\*

Course	Course title	Quarters taught	Description
<i>Chem 1X</i>	<i>General Chemistry Plus</i>	F20, F21(x2), F22(x2), F23(x2), F24(x2)	Class designed to help students do better in general chemistry
<i>Chem 1B</i>	<i>General Chemistry</i>	W12, W14, S14, S15, W16	The second part of the general chemistry sequence at UCI (typically 300-450 students)
<i>Chem 1C</i>	<i>General Chemistry</i>	S07	The third part of the general chemistry sequence at UCI (typically 300-450 students)
<i>Chem H2C</i>	<i>Honors General Chemistry</i>	S16, S17	The third part of the general chemistry sequence for honors students at UCI
<i>Chem M2B</i>	<i>Majors General Chemistry</i>	W18, W19, W20, W21, W22	The second part of the general chemistry sequence for the Chemistry majors
<i>Chem 5</i>	<i>Computational Skills</i>	S06, F06, F07, Sm08, W09, Sm09	A sophomore-level course that introduces chemistry majors to basic computational skills in using programs like <i>Mathematica</i> and <i>Excel</i>
<i>Chem 11</i>	<i>New Chemistry Student Seminar</i>	F17, F18, F19	A course designed to introduce incoming freshman and transfer students to the Major
<i>Chem 130C</i>	<i>Physical Chemistry</i>	S04	The third part of the physical chemistry sequence (required for all chemistry majors). <i>Note: this course is now indexed as Chem 131C.</i>
<i>Chem 151L</i>	<i>Analytical Chemistry Lab</i>	F08, F09, F10, F11	An analytical chemistry laboratory course involving traditional and instrumental projects (required for all chemistry majors).
<i>Chem 152</i>	<i>Advanced Analytical Chemistry</i>	W03, W04, W05, W06	An elective course that focuses on instrumental laboratory skills (typically taken by strong chemistry majors)
<i>Chem 180</i>	<i>Undergraduate research</i>	every quarter	Activities associated with individual mentoring of undergraduate students in the group
<i>Chem 153</i>	<i>Physical Chemistry Lab</i>	S08, S09, S10, S11, S12	An elective course that focuses on physical chemistry experiments and data acquisition (typically taken by strong chemistry majors)
<i>Chem 200</i>	<i>Conduct of Research</i>	F17, F18, F19	A required course in research ethics and skills for incoming graduate students
<i>Chem 206</i>	<i>Laboratory Skills – rotations only</i>	Sm03, Sm04, Sm07, Sm09	A summer course introducing incoming ChaMP (Chemical and Materials Physics) graduate students to core laboratory skills

\* Quarters: F = fall; W = winter; S = spring; Sm = summer.

<i>Chem 241</i>	<i>Current Issues Related to Air Quality, Climate, and Energy</i>	S25	A graduate level course featuring highly-accomplished outside speakers and team projects involving physical sciences and engineering students
<i>Chem 243</i>	<i>Instrumental Analysis</i>	F12, W15	A graduate level course focusing on theory and methods of modern instrumental analysis
<i>Chem 245</i>	<i>Atmospheric Chemistry</i>	F02, F03, F04, F09, W13, W22	A graduate level course covering chemistry of the lower atmosphere
<i>Chem 280</i>	<i>Graduate research</i>	every quarter	Activities associated with individual mentoring of graduate students in the group
<i>Chem 290</i>	<i>Physical Chemistry Colloquium</i>	F03, W04, S04	The physical chemistry seminar series for the department
<i>Chem 291</i>	<i>Group seminar</i>	every quarter	The weekly research group meetings
<i>Chem 399</i>	<i>University teaching</i>	each quarter 2016-17, 2017-18, 2018-19, 2019-20	Supervising teaching activities of all the Department's teaching assistants
<i>Chem X416</i>	<i>AirUCI Workshop for Science Teachers</i>	Every summer from 2005 to 2014	A two-week intensive outreach program with lectures and experiments focusing on environmental chemistry.
<i>Uni Stu 3</i>	<i>Freshman discussion "I breathe: The Science of Our Atmosphere" and "Aerosol World"</i>	W05, F05, F07, W13	A discussion-style course meant to introduce students to the university

## DETAILED TEACHING HISTORY

- **Quarter:** F = Fall; W = Winter; S = Spring; Sm = Summer
- **Course Title:** Regular courses are **bold and underlined**
- **Enr:** number of students who were officially enrolled in the course
- **Eval:** Instructor's mean student evaluation score on a scale of 0.00 (lowest) – 4.00 (highest)
- **Dept:** Mean evaluation score for the entire Department of Chemistry

<b>Quarter</b>	<b>Course</b>	<b>Course Title</b>	<b>Enr</b>	<b>Eval</b>	<b>Dept</b>
F 2002	Chem 245	<b><u>Atmospheric Chemistry</u></b>	7	3.9	3.53
F 2002	Chem 280	Graduate Research	2		
W 2003	Chem 152L	<b><u>Advanced Analytical Lab</u></b>	12	3.7	3.22
W 2003	Chem 280	Graduate Research	2		
W 2003	Chem 291	Research Seminar	2		
S 2003	Chem 280	Graduate Research	3		
S 2003	Chem 291	Research Seminar	2		
Sm 2003	Chem 206	Laboratory Skills (P. Taborek)	13		
F 2003	Chem 245	<b><u>Atmospheric Chemistry</u></b>	9	3.9	3.37
F 2003	Chem 280	Graduate Research	3		
F 2003	Chem 290B	Physical Chemistry Seminar	29		
F 2003	Chem 291	Research Seminar	1		
W 2004	Chem 152L	<b><u>Advanced Analytical Lab</u></b>	10	3.8	3.50
W 2004	Chem 280	Graduate Research	3		
W 2004	Chem 290B	Physical Chemistry Seminar	19		
W 2004	Chem 291	Research Seminar	3		
S 2004	Chem 130C	<b><u>Physical Chemistry C</u></b>	62	3.7	3.56
S 2004	Chem 280	Graduate Research	3		
S 2004	Chem 290B	Physical Chemistry Seminar	19		
S 2004	Chem 291	Research Seminar	3		
Sm 2004	Chem 206	Laboratory Skills (P. Collins)	9		
F 2004	Chem 180	Undergraduate Research	1		
F 2004	Chem 245	<b><u>Atmospheric Chemistry</u></b>	7	3.9	3.43
F 2004	Chem 280	Graduate Research	4		
F 2004	Chem 291	Research Seminar	3		
W 2005	Chem 152L	<b><u>Advanced Analytical Lab</u></b>	28	3.5	3.51

W 2005	Chem 180	Undergraduate Research	2		
W 2005	Chem 280	Graduate Research	5		
W 2005	Chem 291	Research Seminar	5		
W 2005	Uni Stu 3	Freshman Seminar (class 87565)	12		
S 2005	Chem 180	Undergraduate Research	2		
S 2005	Chem 280	Graduate Research	5		
S 2005	Chem 291	Research Seminar	5		
Sm 2005	Chem X416	Workshop for Science Teachers	20		
F 2005	Chem 180	Undergraduate Research	1		
F 2005	Chem 280	Graduate Research	5		
F 2005	Chem 291	Research Seminar	5		
F 2005	Uni Stu 3	Freshman Seminar (class 87588)	10		
W 2006	Chem 152L	<b>Advanced Analytical Lab</b>	8	4.0	3.57
W 2006	Chem 180	Undergraduate Research	1		
W 2006	Chem 280	Graduate Research	5		
W 2006	Chem 291	Research Seminar	5		
S 2006	Chem 5	<b>Chemistry Computational Skills</b>	41	3.8	3.55
S 2006	Chem 180	Undergraduate Research	1		
S 2006	Chem 280	Graduate Research	5		
S 2006	Chem 291	Research Seminar	5		
Sm 2006	Chem X416	Workshop for Science Teachers	20		
F 2006	Chem 5	<b>Chemistry Computational Skills</b>	50	3.8	3.57
F 2006	Chem 180	Undergraduate Research	4		
F 2006	Chem 280	Graduate Research	5		
F 2006	Chem 291	Research Seminar	5		
W 2007	Chem 180	Undergraduate Research	4		
W 2007	Chem 280	Graduate Research	6		
W 2007	Chem 291	Research Seminar	5		
S 2007	Chem 1C	<b>General Chemistry 1C</b>	341	3.8	3.53
S 2007	Chem 180	Undergraduate Research	4		
S 2007	Chem 280	Graduate Research	6		
Sm 2007	Chem X416	Workshop for Science Teachers	20		
Sm 2007	Chem 206	Laboratory Skills (I. Krivorotov)	12		
F 2007	Chem 5	<b>Chemistry Computational Skills</b>	41	3.84	3.45
F 2007	Chem 180	Undergraduate Research	1		
F 2007	Chem 280	Graduate Research	6		
F 2007	Chem 291	Research Seminar	6		
W 2008	Chem 180	Undergraduate Research	2		
W 2008	Chem 280	Graduate Research	4		
W 2008	Chem 291	Research Seminar	4		
S 2008	Chem 153	<b>Physical chemistry Lab 153</b>	12	3.88	3.48
S 2008	Chem 180	Undergraduate Research	4		
S 2008	Chem 280	Graduate Research	2		
S 2008	Chem 291	Research Seminar	4		
Sm 2008	Chem X416	Workshop for Science Teachers	19		
Sm 2008	Chem 5	<b>Chemistry Computational Skills</b>	45	3.84	n/a
F 2008	Chem 151L	<b>Analytical Chemistry Laboratory A</b>	65	3.85	3.48
F 2008	Chem 151L	<b>Analytical Chemistry Laboratory B</b>	49	3.56	3.48
F 2008	Chem 180	Undergraduate Research	6		
F 2008	Chem 280	Graduate Research	4		
F 2008	Chem 291	Research Seminar	4		
W 2009	Chem 5	<b>Chemistry Computational Skills</b>	28	3.77	3.53
W 2009	Chem 180	Undergraduate Research	6		
W 2009	Chem 280	Graduate Research	4		
W 2009	Chem 291	Research Seminar	4		
S 2009	Chem 153	<b>Physical Chemistry Lab 153</b>	11	3.95	3.57
S 2009	Chem 180	Undergraduate Research	4		

S 2009	Chem 280	Graduate Research	3		
S 2009	Chem 291	Research Seminar	3		
Sm 2009	Chem X416	Workshop for Science Teachers	19		
Sm 2009	Chem 5	<b>Chemistry Computational Skills</b>	48	3.76	n/a
Sm 2009	Chem 199	Independent Study	1		
Sm 2009	Chem 206	Laboratory Skills (I. Krivorotov)	16		
F 2009	Chem 151L	<b>Analytical Chemistry Laboratory A</b>	63	3.71	3.49
F 2009	Chem 151L	<b>Analytical Chemistry Laboratory B</b>	41	3.75	3.49
F 2009	Chem 245	<b>Atmospheric Chemistry</b>	7	3.90	3.49
F 2009	Chem 180	Undergraduate Research	4		
F 2009	Chem 280	Graduate Research	3		
F 2009	Chem 291	Research Seminar	3		
W 2010	Chem 180	Undergraduate Research	4		
W 2010	Chem 280	Graduate Research	3		
W 2010	Chem 291	Research Seminar	3		
S 2010	Chem 153	<b>Physical Chemistry Lab 153</b>	23	3.94	3.51
S 2010	Chem 180	Undergraduate Research	4		
S 2010	Chem 280	Graduate Research	3		
S 2010	Chem 291	Research Seminar	3		
Sm 2010	Chem X416	Workshop for Science Teachers	9		
F 2010	Chem 151L	<b>Analytical Chemistry Laboratory A</b>	69	3.59	3.51
F 2010	Chem 151L	<b>Analytical Chemistry Laboratory B</b>	39	3.73	3.51
F 2010	Chem 180	Undergraduate Research	2		
F 2010	Chem 280	Graduate Research	3		
F 2010	Chem 291	Research Seminar	3		
S 2011	Chem 153	<b>Physical Chemistry Lab 153</b>	17	3.85	3.56
S 2011	Chem 280	Graduate Research	3		
S 2011	Chem 291	Research Seminar	3		
Sm 2011	Chem X416	Workshop for Science Teachers	20		
F 2011	Chem 151L	<b>Analytical Chemistry Laboratory A</b>	59	3.82	3.27
F 2011	Chem 151L	<b>Analytical Chemistry Laboratory B</b>	49	3.63	3.27
F 2011	Chem 180	Undergraduate Research	2		
F 2011	Chem 280	Graduate Research	3		
F 2011	Chem 291	Research Seminar	3		
W 2012	Chem 1B	<b>General Chemistry Part B</b>	275	3.69	3.49
W 2012	Chem 180	Undergraduate Research	2		
W 2012	Chem 280	Graduate Research	3		
W 2012	Chem 291	Research Seminar	3		
S 2012	Chem 153	<b>Physical Chemistry Lab 153</b>	13	3.97	3.57
S 2012	Chem 180	Undergraduate Research	3		
S 2012	Chem 280	Graduate Research	3		
S 2012	Chem 291	Research Seminar	3		
Sm 2012	Chem X416	Workshop for Science Teachers	20		
Sm 2011	Chem X416	Workshop for Science Teachers	20		
F 2012	Chem 243	<b>Advanced Instrumental Analysis</b>	20	3.98	3.40
F 2012	Chem 180	Undergraduate Research	1		
F 2012	Chem 280	Graduate Research	4		
F 2012	Chem 291	Research Seminar	2		
W 2013	Chem 245	<b>Atmospheric Chemistry</b>	11	4.00	3.53
W 2013	Uni Stu 3	<b>Freshman seminar</b>	15	3.34	
W 2013	Chem 180	Undergraduate Research	1		
W 2013	Chem 280	Graduate Research	3		
W 2013	Chem 291	Research Seminar	3		
S 2013	Chem 180	Undergraduate Research	2		
S 2013	Chem 280	Graduate Research	3		
S 2013	Chem 291	Research Seminar	2		
F 2013	Chem 180	Undergraduate Research	2		

F 2013	Chem 280	Graduate Research	6		
F 2013	Chem 291	Research Seminar	5		
W 2014	Chem 1B	<b>General Chemistry Part B</b>	429	3.61	3.55
W 2014	Chem 180	Undergraduate Research	2		
W 2014	Chem 280	Graduate Research	5		
W 2014	Chem 291	Research Seminar	5		
S 2014	Chem 1B	<b>General Chemistry Part B – off sequence</b>	338	3.75	3.60
S 2014	Chem 180	Undergraduate Research	2		
S 2014	Chem 280	Graduate Research	6		
S 2014	Chem 291	Research Seminar	6		
F 2014	Chem 180	Undergraduate Research	1		
F 2014	Chem 199	Independent Study	2		
F 2014	Chem 280	Graduate Research	7		
F 2014	Chem 291	Research Seminar	6		
W 2015	Chem 180	Undergraduate Research	2		
W 2015	Chem 280	Graduate Research	6		
W 2015	Chem 243	<b>Advanced Instrumental Analysis</b>	12	4.00	3.55
W 2015	Chem 291	Research Seminar	6		
S 2015	Chem 1B	<b>General Chemistry Part B – off sequence</b>	298	3.84	3.66
S 2015	Chem 180	Undergraduate Research	2		
S 2015	Chem 280	Graduate Research	7		
S 2015	Chem 291	Research Seminar	6		
F 2015	Chem 180	Undergraduate Research	3		
F 2015	Chem 280	Graduate Research	6		
F 2015	Chem 291	Research Seminar	5		
W 2016	Chem 1B	<b>General Chemistry Part B</b>	448	3.95	3.59
W 2016	Chem 180	Undergraduate Research	3		
W 2016	Chem 280	Graduate Research	6		
W 2016	Chem 291	Research Seminar	6		
S 2016	Chem H2C	<b>Honors General chemistry Part C</b>	68	3.87	3.64
S 2016	Chem 180	Undergraduate Research	4		
S 2016	Chem 280	Graduate Research	7		
S 2016	Chem 291	Research Seminar	7		
F 2016	Chem 280	Graduate Research	5		
F 2016	Chem 291	Research Seminar	5		
F 2016	Chem 399	University Teaching	108		
W 2017	Chem 180	Undergraduate Research	2		
W 2017	Chem 280	Graduate Research	5		
W 2017	Chem 291	Research Seminar	5		
W 2017	Chem 399	University Teaching	97		
S 2017	Chem H2C	<b>Honors General Chemistry Part C</b>	63	3.84	3.61
S 2017	Chem 280	Graduate Research	5		
S 2017	Chem 291	Research Seminar	5		
S 2017	Chem 399	University Teaching	90		
F 2017	Chem 11	<b>New Chemistry Student Seminar</b> (four sections: 3.97 from 20/30 students; 3.77 from 18/36 students; 3.98 from 15/34 students; 4.00 from 5/14 students)	114	3.91	3.55
F 2017	Chem 200	<b>Conduct of Research</b> (co-taught with Prof. Eric Potma)	54	3.80	3.55
F 2017	Chem 180	Undergraduate Research	1		
F 2017	Chem 280	Graduate Research	4		
F 2017	Chem 291	Research Seminar	4		
F 2017	Chem 399	University Teaching	102		
W 2018	Chem M2B	<b>Majors General Chemistry Lecture Part B</b>	87	3.90	3.61
W 2018	Chem 180	Undergraduate Research	1		
W 2018	Chem 280	Graduate Research	4		
W 2018	Chem 291	Research Seminar	4		
W 2018	Chem 399	University Teaching	91		

S 2018	Chem 280	Graduate Research	6		
S 2018	Chem 291	Research Seminar	6		
S 2018	Chem 399	University Teaching	102		
F 2018	Chem 11	<b>New Chemistry Student Seminar</b> (two sections, 3.94 from 48/60 students; 3.99 from 27/47 students)	107	3.96	3.56
F 2018	Chem 200	<b>Conduct of Research</b> (co-taught with Prof. Eric Potma)	56	3.90	3.56
F 2018	Chem 180	Undergraduate Research	4		
F 2018	Chem 280	Graduate Research	5		
F 2018	Chem 291	Research Seminar	5		
F 2018	Chem 399	University Teaching	101		
W 2019	Chem M2B	<b>Majors General Chemistry Lecture Part B</b>	56	3.93	3.48
W 2019	Chem 180	Undergraduate Research	4		
W 2019	Chem 280	Graduate Research	5		
W 2019	Chem 291	Research Seminar	5		
W 2019	Chem 399	University Teaching	107		
S 2019	Chem 180	Undergraduate Research	4		3.59
S 2019	Chem 280	Graduate Research	6		
S 2019	Chem 291	Research Seminar	6		
S 2019	Chem 399	University Teaching	115		
F 2019	Chem 11	<b>New Chemistry Student Seminar</b> (two sections, 3.92 from 61/100 students; 3.92 from 30/51 students)	151	3.92	3.59
F 2019	Chem 200	<b>Conduct of Research</b> (co-taught with Prof. Eric Potma)	80	3.92	3.59
F 2019	Chem 180	Undergraduate Research	3		
F 2019	Chem 280	Graduate Research	5		
F 2019	Chem 291	Research Seminar	5		
F 2019	Chem 399	University Teaching	111		
W 2020	Chem M2B	<b>Majors General Chemistry Lecture Part B</b>	72	3.95	3.47
W 2020	Chem 180	Undergraduate Research	4		
W 2020	Chem 280	Graduate Research	5		
W 2020	Chem 291	Research Seminar	5		
W 2020	Chem 399	University Teaching (two sections)	116		
S 2020	Chem 180	Undergraduate Research	3		
S 2020	Chem 280	Graduate Research	6		
S 2020	Chem 291	Research Seminar	6		
S 2020	Chem 399	University Teaching	121		
F 2020	Chem 1X	<b>General Chemistry Extra</b>	191	n/a	n/a
F 2020	Chem 180	Undergraduate Research	2		
F 2020	Chem 280	Graduate Research	6		
F 2020	Chem 291	Research Seminar	6		
W 2021	Chem M2B	<b>Majors General Chemistry Lecture Part B</b>	96	n/a	n/a
W 2021	Chem 280	Graduate Research	6		
W 2021	Chem 291	Research Seminar	6		
S 2021	Chem 180	Undergraduate Research	1		
S 2021	Chem 280	Graduate Research	6		
S 2021	Chem 291	Research Seminar	6		
F 2021	Chem 1X	<b>General Chemistry Extra</b> (in person section)	219	n/a	n/a
F 2021	Chem 1X	<b>General Chemistry Extra</b> (online section)	252	n/a	n/a
F 2021	Uni Stu 198	LA Mentoring	10		
F 2021	Chem 180	Undergraduate Research	3		
F 2021	Chem 280	Graduate Research	6		
F 2021	Chem 291	Research Seminar	6		
W 2022	Chem M2B	<b>Majors General Chemistry Lecture Part B</b>	64	n/a	n/a
W 2022	Uni Stu 198	LA Mentoring	2		
W 2022	Chem 180	Undergraduate Research	1		
W 2022	Chem 145A	<b>Gas-Phase Atmospheric Chemistry</b> (concurrent 245A)	5		
W 2022	Chem 245A	<b>Gas-Phase Atmospheric Chemistry</b> (concurrent 145A)	4		
W 2022	Chem 280	Graduate Research	6		



W 2022	Chem 291	Research Seminar	6		
S 2022	Chem 180	Undergraduate Research	2		
S 2022	Chem 280	Graduate Research	8		
S 2022	Chem 291	Research Seminar	6		
F 2022	Chem 1X	<b>General Chemistry Extra</b> (in person section 1)	275	n/a	n/a
F 2022	Chem 1X	<b>General Chemistry Extra</b> (in person section 2)	198	n/a	n/a
F 2022	Uni Stu 198	LA Mentoring	12		
F 2022	Chem 180	Undergraduate Research	4		
F 2022	Chem 280	Graduate Research	4		
F 2022	Chem 291	Research Seminar	4		
W 2023	Chem M2B	<b>Majors General Chemistry Lecture Part B</b>	60		
W 2023	Chem 180	Undergraduate Research	5		
W 2023	Chem 280	Graduate Research	4		
W 2023	Chem 291	Research Seminar	4		
S 2023	Chem 180	Undergraduate Research	6		
S 2023	Chem 280	Graduate Research	6		
S 2023	Chem 291	Research Seminar	6		
F 2023	Chem 1X	<b>General Chemistry Extra</b> (in person section 1)	237	n/a	n/a
F 2023	Chem 1X	<b>General Chemistry Extra</b> (in person section 2)	134	n/a	n/a
F 2023	Uni Stu 198	LA Mentoring	4		
F 2023	Chem 180	Undergraduate Research	5		
F 2023	Chem 280	Graduate Research	5		
F 2023	Chem 291	Research Seminar	5		
W 2024	Chem 180	Undergraduate Research	4		
W 2024	Chem 280	Graduate Research	5		
W 2024	Chem 291	Research Seminar	5		
S 2024	Chem 180	Undergraduate Research	3		
S 2024	Chem 280	Graduate Research	6		
S 2024	Chem 291	Research Seminar	6		
F 2024	Chem 1X	<b>General Chemistry Extra</b> (in person section 1)			
F 2024	Chem 1X	<b>General Chemistry Extra</b> (in person section 2)			
F 2024	Uni Stu 198	LA Mentoring			
F 2024	Chem 180	Undergraduate Research			
F 2024	Chem 280	Graduate Research			
F 2024	Chem 291	Research Seminar			

## PUBLICATIONS

**Web-of-Science profile:**

<https://www.webofscience.com/wos/author/record/1096573>

**ORCID profile:**

<https://orcid.org/0000-0003-0891-0052>

**Google Scholar profile:**

<https://scholar.google.com/citations?user=PTI75TwAAAAJ>

**Author color coding (for UCI publications only):**

**RED** = HIGH-SCHOOL STUDENT (at the time of doing the study/writing)

**GREEN** = UNDERGRADUATE STUDENT (at the time of doing the study/writing)

**BLUE** = GRADUATE STUDENT (at the time of doing the study/writing)

\* = Corresponding author(s)

## ATMOSPHERIC CHEMISTRY AND AEROSOL SCIENCE

201. **Robert M. Weltman**, Rufus D. Edwards, Norbert Staimer, Ajay Pillarsetti, Narendra K. Arora, and **Sergey A Nizkorodov** "Ethyne Furan ratios as indicators of high and low temperature pPAH emissions from household stoves in Haryana India" *Atmosphere*, **submitted** (2024).

200. Katherine S. Hopstock, Qiaorong Xie, Michael A. Alvarado, Vaios Moschos, Solomon Bililign, Jason D. Surratt, Alexander Laskin, and Sergey A. Nizkorodov\* “Molecular characterization and photoreactivity of organic aerosols formed from pyrolysis of urban materials during fires at the wildland–urban interface” *ACS EST Air*, **1** (2024) 1495–1506. [DOI:10.1021/acsestair.4c00215](https://doi.org/10.1021/acsestair.4c00215), PMID:39539461.
199. Lena Gerritz, Véronique Perraud, Kathryn M. Weber, Manabu Shiraiwa,\* and Sergey A Nizkorodov\* “Application of UHPLC-ESI-MS/MS to identify free radicals via spin trapping with BMPO” *Journal of Physical Chemistry A*, **128** (2024) 10240–10249. [DOI:10.1021/acs.jpca.4c05311](https://doi.org/10.1021/acs.jpca.4c05311), PMID:39564803.
198. Cynthia Wong, Jett Vuong, and Sergey A Nizkorodov\* “Biogenic and anthropogenic secondary organic aerosols become fluorescent after highly acidic aging” *Journal of Physical Chemistry A*, **128** (2024) 7657–7668. [DOI:10.1021/acs.jpca.4c04287](https://doi.org/10.1021/acs.jpca.4c04287).
197. Avery B. Dalton, Lisa M. Wingen, and Sergey A. Nizkorodov\* “Isomeric identification of the nitroindole chromophore in indole + NO<sub>3</sub> organic aerosol” *ACS Physical Chemistry Au*, **4** (2024) 568–574. [DOI:10.1021/acspchemau.4c00044](https://doi.org/10.1021/acspchemau.4c00044), PMID:39346612.
196. Katherine S. Hopstock, Véronique Perraud, Avery B. Dalton, Barbara Barletta, Simone Meinardi, Robert M. Weltman, Megan A. Mirkhanian, Krisztina J. Rakosi, Donald R. Blake, Rufus D. Edwards,\* and Sergey A. Nizkorodov\* “Chemical analysis of exhaled vape emissions: unraveling the complexities of humectant fragmentation in a human trial study” *Chemical Research in Toxicology*, **37** (2024) 1000–1010. [DOI:10.1021/acs.chemrestox.4c00088](https://doi.org/10.1021/acs.chemrestox.4c00088), PMID:38769630.
195. Kristian J. Kiland, Katherine S. Hopstock, Ayomide A. Akande, Kristen N. Johnson, Yixin Li, Fabian Mahrt, Sepehr Nikkho, Barbara J. Finlayson-Pitts, Nadine Borduas-Dedekind, Sergey A. Nizkorodov, and Allan K. Bertram\* “Boiling of catechol secondary organic aerosol when heated to mild temperatures (36–52 °C) due to carbon dioxide formation and high viscosity” *ACS EST Air*, **1** (2024) 547–558. [DOI:10.1021/acsestair.4c00027](https://doi.org/10.1021/acsestair.4c00027).
194. Sijia Liu, Tommaso Galeazzo, Richard Valorso, Manabu Shiraiwa, Celia L. Faiola, and Sergey A Nizkorodov\* “Secondary organic aerosol from OH-initiated oxidation of mixtures of d-limonene and β-myrcene” *Environmental Science & Technology*, **58** (2024) 13391–13401. [DOI:10.1021/acs.est.4c04870](https://doi.org/10.1021/acs.est.4c04870), PMID:39018113.
193. Cynthia Wong, Jessica E. Paziienza, Scott D. Rychnovsky, and Sergey A Nizkorodov\* “Formation of chromophores from cis-pinonaldehyde aged in highly acidic conditions” *Journal of the American Chemical Society*, **146** (2024) 11702–11710. [DOI:10.1021/jacs.3c14177](https://doi.org/10.1021/jacs.3c14177), PMID:38640258.
192. Lena Gerritz, Jinlai Wei, Ting Fang, Cynthia Wong, Alexandra L. Klodt, Sergey A. Nizkorodov,\* and Manabu Shiraiwa\* “Reactive oxygen species formation and peroxide and carbonyl decomposition in aqueous photolysis of secondary organic aerosols” *Environmental Science & Technology*, **58** (2024) 4716–4726. [DOI:10.1021/acs.est.3c08662](https://doi.org/10.1021/acs.est.3c08662), PMID:38412378.
191. Avery B. Dalton,\* Dmitry A. Fishman, and Sergey A. Nizkorodov “Ultrafast excited-state proton transfer in 4-nitrocatechol: implications for the photochemistry of nitrophenols” *Journal of Physical Chemistry A*, **127** (2023) 8307–8315. [DOI:10.1021/acs.jpca.3c04322](https://doi.org/10.1021/acs.jpca.3c04322), PMID:37773630.
190. Katherine S. Hopstock, Alexandra L. Klodt, Qiaorong Xie, Michael A. Alvarado, Alexander Laskin, and Sergey A. Nizkorodov\* “Photolytic aging of organic aerosol from pyrolyzed urban materials” *Environmental Science: Atmospheres*, **3** (2023) 1272–1285. [DOI:10.1039/d3ea00078h](https://doi.org/10.1039/d3ea00078h).
188. Lena Gerritz, Meredith Schervish, Pascale S.J. Lakey, Tim Oeji, Jinlai Wei, Sergey A. Nizkorodov,\* and Manabu Shiraiwa\* “Photoenhanced radical formation in aqueous mixtures of levoglucosan and benzoquinone: implications to photochemical aging of biomass burning organic aerosols” *Journal of Physical Chemistry A*, **127** (2023) 5209–5221. [DOI:10.1021/acs.jpca.3c01794](https://doi.org/10.1021/acs.jpca.3c01794), PMID:37285129.
187. Alexandra L. Klodt, Paige K. Aiona, Amanda C. MacMillan, Hyun Ji (Julie) Lee, Xiaolu Zhang, Taylor Helgestad, Gordon A. Novak, Peng Lin, Julia Laskin, Alexander Laskin, Timothy H. Bertram, Christopher D. Cappa, and Sergey A. Nizkorodov\* “Effect of relative humidity, NO<sub>x</sub>, and ammonia on physical properties of

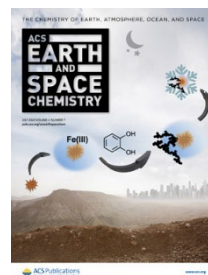
naphthalene secondary organic aerosol” *Environmental Science: Atmospheres*, **3** (2023) 991-1007.

[DOI:10.1039/d3ea00033h](https://doi.org/10.1039/d3ea00033h).

186. Tran B. Nguyen\*, Kelvin H. Bates, Reina S. Buenconsejo, Sophia M. Charan, Eric E. Cavanna, David R. Cocker III, Douglas A. Day, Marla P. DeVault, Neil M. Donahue, Zachary Finewax, Luke F. Habib, Anne V. Handschy, Lea Hildebrandt Ruiz, Chung-Yi S. Hou, Jose L. Jimenez, Taekyu Joo, Alexandra L. Klodt, Weimeng Kong, Chen Le, Catherine G. Masoud, Matthew S. Mayernik, Nga L. Ng, Eric J. Nienhouse, [Sergey A. Nizkorodov](#), John J. Orlando, Jeroen J. Post, Patrick O. Sturm, Bridget L. Thrasher, Geoffrey S. Tyndall, John H. Seinfeld, Steven J. Worley, Xuan Zhang, and Paul J. Ziemann “Overview of ICARUS – a curated, open access, online repository for atmospheric simulation chamber data” *ACS Earth and Space Chemistry*, **7** (2023) 1235-1246. [DOI:10.1021/acsearthspacechem.3c00043](https://doi.org/10.1021/acsearthspacechem.3c00043), PMID:37342759.
185. [Natalie R. Smith](#), [Giuseppe V. Crescenzo](#), Allan K. Bertram, [Sergey A. Nizkorodov](#)\*, and Celia L. Faiola\* “Insect infestation increases viscosity of biogenic secondary organic aerosol” *ACS Earth and Space Chemistry*, **7** (2023) 1060-1071. [DOI:10.1021/acsearthspacechem.3c00007](https://doi.org/10.1021/acsearthspacechem.3c00007), PMID:37223424.
184. [Vahe J. Baboian](#), Quanfu He, [Julia Montoya-Aguilera](#), [Nujhat N. Ali](#), [Lauren T. Fleming](#), Peng Lin, Alexander Laskin, Julia Laskin, Yinon Rudich,\* and [Sergey A. Nizkorodov](#)\* “Light absorption and scattering properties of indole secondary organic aerosol prepared under various oxidant and relative humidity conditions” *Aerosol Science and Technology*, **57** (2023) 532-545. [DOI:10.1080/02786826.2023.2193235](https://doi.org/10.1080/02786826.2023.2193235).
183. **COVER:** [Avery B. Dalton](#), [Scott M. Le](#), Natalia V. Karimova, R. Benny Gerber, and [Sergey A. Nizkorodov](#)\* “Influence of solvent on electronic structure and the photochemistry of nitrophenols” *Environmental Science: Atmospheres*, **3** (2023) 257-267. [DOI:10.1039/d2ea00144f](https://doi.org/10.1039/d2ea00144f).
- 
182. [Katherine S. Hopstock](#), [Brooke P. Carpenter](#), Joseph P. Patterson, Hind A. Al-Abadleh, and [Sergey A. Nizkorodov](#)\* “Formation of insoluble brown carbon through iron-catalyzed reaction of biomass burning organics” *Environmental Science: Atmospheres*, **3** (2023) 207-220. [DOI:10.1039/d2ea00141a](https://doi.org/10.1039/d2ea00141a).
181. [Cynthia Wong](#), [Sijia Liu](#), and [Sergey A. Nizkorodov](#)\* “Highly acidic conditions drastically alter the chemical composition and absorption coefficient of  $\alpha$ -pinene secondary organic aerosol” *ACS Earth and Space Chemistry*, **6** (2022) 2983-2994. [DOI:10.1021/acs.jpca.2c05532](https://doi.org/10.1021/acs.jpca.2c05532), PMID:36561193.
180. [Kasey C. Edwards](#), [Alexandra L. Klodt](#), Tommaso Galeazzo, Meredith Schervish, [Jinlai Wei](#), Ting Fang, Neil M. Donahue, Bernard Aumont, [Sergey A. Nizkorodov](#), and Manabu Shiraiwa\* “Effects of nitrogen oxides on the production of reactive oxygen species and environmentally persistent free radicals from  $\alpha$ -pinene and naphthalene secondary organic aerosols” *Journal of Physical Chemistry A*, **126** (2022) 7361-7372. [DOI:10.1021/acs.jpca.2c05532](https://doi.org/10.1021/acs.jpca.2c05532), PMID:36194388.
179. Kangwei Li, Yunlong Guo, [Sergey A. Nizkorodov](#), Yinon Rudich, Maria Angelaki, Xinke Wang, Taicheng An, Sebastien Perrier, Christian George\* “Spontaneous dark formation of OH radicals at the interface of aqueous atmospheric droplets” *Proceedings of the National Academy of Sciences*, **120** (2023) e2220228120. [DOI:10.1073/pnas.2220228120](https://doi.org/10.1073/pnas.2220228120), PMID:37011187.
178. Yuchen Wang, [Masayuki Takeuchi](#), Siyuan Wang, [Sergey A. Nizkorodov](#), Stefan France, Gamze Eris, and Nga Lee Ng\* “Photolysis of gas-phase atmospherically relevant monoterpene-derived organic nitrates” *Journal of Physical Chemistry A*, **127** (2023) 987-999. [DOI:10.1021/acs.jpca.2c04307](https://doi.org/10.1021/acs.jpca.2c04307), PMID:36651914.
177. Ting Fang, [Brian C. H. Hwang](#), [Sukriti Kapur](#), [Katherine S. Hopstock](#), [Jinlai Wei](#), Vy Nguyen, [Sergey A. Nizkorodov](#), and Manabu Shiraiwa\* “Wildfire particulate matter as a source of environmentally persistent free radicals and reactive oxygen species” *Environmental Science: Atmospheres*, **3** (2023) 581-594. [DOI:10.1039/D2EA00170E](https://doi.org/10.1039/D2EA00170E).
176. [Kristian J. Kiland](#), [Kevin L. Marroquin](#), [Natalie R. Smith](#), Shaun Xu, [Sergey A. Nizkorodov](#), and Allan K. Bertram\* “A new hot-stage microscopy technique for measuring temperature-dependent viscosities of aerosol

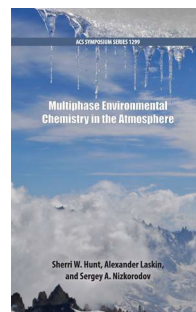
- particles and its application to farnesene secondary organic aerosol” Atmospheric Measurement Techniques, **15** (2022) 5545–5561. [DOI:10.5194/amt-15-5545-2022](https://doi.org/10.5194/amt-15-5545-2022).
175. Fabian Mahrt, Long Peng, Julia Zaks, [Yuanzhou Huang](#), Paul E. Ohno, [Natalie R. Smith](#), Florence K. A. Gregson, Yiming Qin, Celia L. Faiola, Scot T. Martin, [Sergey A. Nizkorodov](#), Markus Ammann, and Allan K. Bertram\* “Not all types of secondary organic aerosol mix: two phases observed when mixing different secondary organic aerosol types” Atmospheric Chemistry and Physics, **22** (2022) 13783-13796. [DOI:10.5194/acp-22-13783-2022](https://doi.org/10.5194/acp-22-13783-2022).
174. [Alexandra L. Klodt](#), [Marley Adamek](#), [Monica Dibley](#), [Sergey A. Nizkorodov](#),\* and Rachel E. O’Brien\* “Effects of the sample matrix on the photobleaching and photodegradation of toluene-derived secondary organic aerosol compounds” Atmospheric Chemistry and Physics, **22** (2022) 10155-10171. [DOI:10.5194/acp-22-10155-2022](https://doi.org/10.5194/acp-22-10155-2022).
173. [Vahe J. Baboornian](#), [Giuseppe V. Crescenzo](#), Yuanzhou Huang, Fabian Mahrt, Manabu Shiraiwa, Allan K. Bertram,\* and [Sergey A. Nizkorodov](#)\* “Sunlight can convert atmospheric aerosols into a glassy solid state and modify their environmental impacts” Proceedings of the National Academy of Sciences, **119** (2022) e2208121119. [DOI:10.1073/pnas.2208121119](https://doi.org/10.1073/pnas.2208121119), **PMID**:36269861.
172. Shupeng Zhu,\* Kai Wu, [Sergey A. Nizkorodov](#), and Donald Dabdub,\* “Modeling reactive ammonia uptake by secondary organic aerosol in a changing climate: a WRF-CMAQ evaluation” Frontiers in Environmental Science, **10** (2022) 867908. [DOI:10.3389/fenvs.2022.867908](https://doi.org/10.3389/fenvs.2022.867908).
171. Hind Al-Abadleh\* and [Sergey A. Nizkorodov](#)\* “Open questions on transition metals driving secondary thermal processes in atmospheric aerosols” Communications Chemistry **4** (2021) 176. [DOI:10.1038/s42004-021-00616-w](https://doi.org/10.1038/s42004-021-00616-w), **PMID**:36697870.
170. [Natalie R. Smith](#), [Julia Montoya-Aguilera](#), Donald Dabdub, and [Sergey A. Nizkorodov](#),\* “Effect of humidity on the reactive uptake of ammonia and di-methylamine by nitrogen-containing secondary organic aerosol” Atmosphere, **12** (2021) 1502. [DOI:10.3390/atmos12111502](https://doi.org/10.3390/atmos12111502).
169. [Adrian M. Maclean](#), Ying Li, [Giuseppe V. Crescenzo](#), [Natalie R. Smith](#), Vlassis A. Karydis, Alexandra P. Tsimpidi, Christopher L. Butenhoff, Celia L. Faiola, Jos Lelieveld, [Sergey A. Nizkorodov](#), Manabu Shiraiwa, and Allan K. Bertram\* “Global distribution of the phase state and mixing times within secondary organic aerosol particles in the troposphere based on room-temperature viscosity measurements” ACS Earth and Space Chemistry, **5** (2021) 3458-3473. [DOI:10.1021/acsearthspacechem.1c00296](https://doi.org/10.1021/acsearthspacechem.1c00296).
168. [Avery B. Dalton](#) and [Sergey A. Nizkorodov](#),\* “Photochemical degradation of 4-nitrocatechol and 2,4-dinitrophenol in a sugar-glass secondary organic aerosol surrogate” Environmental Science & Technology, **55** (2021) 14586-14594. [DOI:10.1021/acs.est.1c04975](https://doi.org/10.1021/acs.est.1c04975), **PMID**:34669384.
167. [Cynthia Wong](#), [Daniel Vite](#), and [Sergey A. Nizkorodov](#),\* “Stability of  $\alpha$ -pinene and d-limonene ozonolysis secondary organic aerosol compounds towards hydrolysis and hydration” ACS Earth and Space Chemistry, **5** “Mario Molina Memorial Special Issue” (2021) 2555-2564. [DOI:10.1021/acsearthspacechem.1c00171](https://doi.org/10.1021/acsearthspacechem.1c00171).
166. [Xinke Wang](#), Rachel Gemayel, [Vahe J. Baboornian](#), [Kangwei Li](#), [Antoinette Boreave](#), [Clement Dubois](#), Sophie Tomaz, Sebastien Perrier, [Sergey A. Nizkorodov](#), and Christian George,\* “Naphthalene-derived secondary organic aerosols interfacial photosensitizing properties” Geophysical Research Letters, **48** (2021) e2021GL093465. [DOI:10.1029/2021GL093465](https://doi.org/10.1029/2021GL093465).
165. [Alexandra L. Klodt](#), [Kimberly Zhang](#), [Michael W. Olsen](#), [Jorge L. Fernandez](#), Filipp Furche, and [Sergey A. Nizkorodov](#),\* “Effect of ammonium salts on the decarboxylation of oxaloacetic acid in atmospheric particles” ACS Earth and Space Chemistry, **5** (2021) 931-940. [DOI:10.1021/acsearthspacechem.1c00025](https://doi.org/10.1021/acsearthspacechem.1c00025).
164. [Natalie R. Smith](#), [Giuseppe V. Crescenzo](#), [Yuanzhou Huang](#), Anusha P. S. Hettiyadura, [Kyla Siemens](#), Ying Li, Celia L. Faiola, Alexander Laskin, Manabu Shiraiwa, Allan K. Bertram,\* and [Sergey A. Nizkorodov](#),\* “Viscosity and liquid-liquid phase separation in healthy and stressed plant SOA” Environmental Science: Atmospheres, **1** (2021) 140-153. [DOI:10.1039/d0ea00020e](https://doi.org/10.1039/d0ea00020e).
163. [Adrian M. Maclean](#), [Natalie R. Smith](#), Ying Li, Yuanzhou Huang, Anusha P. S. Hettiyadura, [Giuseppe V. Crescenzo](#), Manabu Shiraiwa, Alexander Laskin, [Sergey A. Nizkorodov](#),\* and Allan K. Bertram,\* “Humidity-

- dependent viscosity of secondary organic aerosol from ozonolysis of  $\beta$ -caryophyllene: Measurements, predictions, and implications” ACS Earth and Space Chemistry, **5** (2021) 305-318. [DOI:10.1021/acsearthspacechem.0c00296](https://doi.org/10.1021/acsearthspacechem.0c00296).
162. Rachel Gemayel, Corinne Emmelin, Sébastien Perrier, Sophie Tomaz, [Vahe J. Baboornian](#), Dmitry A. Fishman, [Sergey A. Nizkorodov](#), Stéphane Dumas, and Christian George,\* “Quenching of ketone triplet excited states by atmospheric halides” Environmental Science: Atmospheres, **1** (2021) 31-44. [DOI:10.1039/d0ea00011f](https://doi.org/10.1039/d0ea00011f).
161. [Henry Chin](#), [Katherine S. Hopstock](#), [Lauren T. Fleming](#), [Sergey A. Nizkorodov](#),\* and Hind A. Al-Abadleh, “Effect of aromatic ring substituents on the ability of catechol to produce brown carbon in iron(III)-catalyzed reactions” Environmental Science: Atmospheres, **1** (2021) 64-78. [DOI:10.1039/d0ea00007h](https://doi.org/10.1039/d0ea00007h).
160. [Jinlai Wei](#), Ting Fang, [Cynthia Wong](#), Pascale S. J. Lakey, [Sergey A. Nizkorodov](#), and Manabu Shiraiwa,\* “Superoxide formation from aqueous reactions of biogenic secondary organic aerosols” Environmental Science & Technology, **55** (2021) 260-270. [DOI:10.1021/acs.est.0c07789](https://doi.org/10.1021/acs.est.0c07789), PMID:33352036.
159. Matthieu Riva,\* Jianfeng Sun, V. Faye McNeill, [Charline Ragon](#), Sebastien Perrier, Yinon Rudich, [Sergey A. Nizkorodov](#), Jianmin Chen, Frederic Caupin, Thorsten Hoffmann,\* and Christian George,\* “High pressure inside nanometer-sized particles influences the rate and products of chemical reactions” Environmental Science & Technology, **55** (2021) 7786-7793. [DOI:10.1021/acs.est.0c07386](https://doi.org/10.1021/acs.est.0c07386), PMID:34060825.
158. [Vahe J. Baboornian](#), [Yiran Gu](#), and [Sergey A. Nizkorodov](#),\* “Photodegradation of secondary organic aerosols by long-term exposure to solar actinic radiation” ACS Earth and Space Chemistry, **4** (2020) 1078-1089. [DOI:10.1021/acsearthspacechem.0c00088](https://doi.org/10.1021/acsearthspacechem.0c00088).
157. [Robert M. Weltman](#), Rufus D. Edwards,\* [Lauren T. Fleming](#), Ankit Yadav, Cheryl L. Weyant, [Brigitte Rooney](#), John H. Seinfeld, Narendra K. Arora, Tami C. Bond, [Sergey A. Nizkorodov](#), and Kirk R. Smith, “Emissions measurements from household solid fuel use in Haryana, India: Implications for climate and health co-benefits” Environmental Science & Technology, **55** (2021) 3201-3209. [DOI:10.1021/acs.est.0c05143](https://doi.org/10.1021/acs.est.0c05143), PMID:33566595.
156. **COVER:** [Nicole Link](#), [Nicole Rzhemovskiy](#), [Jingwei Yun](#), [Lauren T. Fleming](#), [Sergey A. Nizkorodov](#), Allan K. Bertram, and Hind A. Al-Abadleh,\* “Dust-catalyzed oxidative polymerization of catechol and its impacts on ice nucleation efficiency and optical properties” ACS Earth and Space Chemistry, **4** (2020) 1127-1139. [DOI:10.1021/acsearthspacechem.0c00107](https://doi.org/10.1021/acsearthspacechem.0c00107).
155. Nadine Borduas-Dedekind,\* [Sergey A. Nizkorodov](#), and Kristopher McNeill, “UVB-irradiated laboratory-generated secondary organic aerosol extracts have increased cloud condensation nuclei abilities: Comparison with dissolved organic matter and implications for the photomineralization mechanism” CHIMIA International Journal for Chemistry, **74**, (2020) 142-148. [DOI:10.2533/chimia.2020.142](https://doi.org/10.2533/chimia.2020.142), PMID:32197672.
154. [Arttu Ylisirniö](#),\* Angela Buchholz, Claudia Mohr, Zijun Li, Luis Barreira, Andrew Lambe, Celia Faiola, [Eetu Kari](#), Taina Yli-Juuti, [Sergey A. Nizkorodov](#), Douglas R. Worsnop, Annele Virtanen, and Siegfried Schobesberger, “Composition and volatility of secondary organic aerosol (SOA) formed from oxidation of real tree emissions compared to simplified volatile organic compound (VOC) systems” Atmospheric Chemistry and Physics, **20** (2020) 5629-5644. [DOI:10.5194/acp-20-5629-2020](https://doi.org/10.5194/acp-20-5629-2020).
153. [Alexandra L. Klodt](#), [Dian E. Romonosky](#), Peng Lin, Julia Laskin, Alexander Laskin, and [Sergey A. Nizkorodov](#),\* “Aqueous photochemistry of secondary organic aerosol of  $\alpha$ -pinene and  $\alpha$ -humulene in the presence of hydrogen peroxide or inorganic salts” ACS Earth and Space Chemistry, **3** (2019) 2736-2746. [DOI:10.1021/acsearthspacechem.9b00222](https://doi.org/10.1021/acsearthspacechem.9b00222).



152. **COVER:** [Xinke Wang](#), Rachel Gemayel, Nathalie Hayeck, Sebastien Perrier, Nicolas Charbonnel, Caihong Xu, Hui Chen, Chao Zhu, Liwu Zhang, Lin Wang, Sergey A. Nizkorodov, Xinming Wang, Zhe Wang, Tao Wang, Abdelwahid Mellouki, Matthieu Riva, Jianmin Chen,\* and Christian George,\* “Atmospheric photosensitization: a new pathway for sulfate formation” *Environmental Science & Technology*, **54** (2020) 3114-3120. [DOI:10.1021/acs.est.9b06347](https://doi.org/10.1021/acs.est.9b06347), PMID:32022545.
- 
151. [Lauren T. Fleming](#), Peng Lin, James M. Roberts, [Vanessa Selimovic](#), Robert Yokelson, Julia Laskin, Alexander Laskin, and [Sergey A. Nizkorodov](#),\* “Molecular composition and photochemical lifetimes of brown carbon chromophores in biomass burning organic aerosol” *Atmospheric Chemistry and Physics*, **20** (2020) 1105-1129. [DOI:10.5194/acp-20-1105-2020](https://doi.org/10.5194/acp-20-1105-2020).
150. Mijung Song, [Adrian M. Maclean](#), Yuanzhou Huang, [Natalie R. Smith](#), [Sandra L. Blair](#), Julia Laskin, Alexander Laskin, [Wing-Sy Wong DeRieux](#), Ying Li, Manabu Shiraiwa, [Sergey A. Nizkorodov](#), and Allan K. Bertram, “Liquid-liquid phase separation and viscosity within secondary organic aerosol generated from diesel fuel vapors” *Atmospheric Chemistry and Physics*, **19** (2019) 12515-12529. [DOI:10.5194/acp-19-12515-2019](https://doi.org/10.5194/acp-19-12515-2019).
149. [Alessandro Manfrin](#), [Sergey A. Nizkorodov](#), [Kurtis T. Malecha](#), Gordon J. Getzinger, Kristopher McNeill, and Nadine Borduas-Dedekind,\* “Reactive oxygen species production from secondary organic aerosols: The importance of singlet oxygen” *Environmental Science & Technology*, **53** (2019) 8553-8562. [DOI:10.1021/acs.est.9b01609](https://doi.org/10.1021/acs.est.9b01609), PMID:31306003.
148. [Lauren T. Fleming](#), [Nujhat N. Ali](#), [Sandra L. Blair](#), [Marie Roveretto](#), Christian George, and [Sergey A. Nizkorodov](#),\* “Formation of light-absorbing organosulfates during evaporation of secondary organic material extracts in the presence of sulfuric acid” *ACS Earth and Space Chemistry*, **3** (2019) 947-957. [DOI:10.1021/acsearthspacechem.9b00036](https://doi.org/10.1021/acsearthspacechem.9b00036).
147. Véronique Perraud,\* Michael J. Lawler, [Kurtis T. Malecha](#), [Rebecca M. Johnson](#), [David Herman](#), Norbert Staimer, Michael T. Kleinman, [Sergey A. Nizkorodov](#) and James N. Smith, “Chemical characterization of nanoparticles and volatiles present in mainstream hookah smoke” *Aerosol Science and Technology*, **53** (2019) 1023-1039. [DOI:10.1080/02786826.2019.1628342](https://doi.org/10.1080/02786826.2019.1628342).
146. **COVER:** [Aseel Al Nimer](#), [Laura Rocha](#), [Mohammad A. Rahman](#), [Sergey A. Nizkorodov](#), and Hind A. Al-Abadleh,\* “Effect of oxalate and sulfate on iron-catalyzed secondary brown carbon formation” *Environmental Science & Technology*, **53** (2019) 6708-6717. [DOI:10.1021/acs.est.9b00237](https://doi.org/10.1021/acs.est.9b00237), PMID:31034222.
- 
145. Angela Buchholz,\* Andrew T. Lambe, [Arttu Yliseniö](#), Zijun Li, [Olli-Pekka Tikkanen](#), Celia Faiola, [Eetu Kari](#), Liqing Hao, [Olli Luoma](#), Wei Huang, Claudia Mohr, Douglas R. Worsnop, [Sergey A. Nizkorodov](#), Taina Yli-Juuti, Siegfried Schobesberger, and Annele Virtanen, “Insights into the O:C ratio dependent mechanisms controlling the evaporation of  $\alpha$ -pinene secondary organic aerosol particles” *Atmospheric Chemistry and Physics*, **19** (2019) 4061-4073. [DOI:10.5194/acp-19-4061-2019](https://doi.org/10.5194/acp-19-4061-2019).
144. [Brigitte Rooney](#), Ran Zhao, Yuan Wang, Kelvin H. Bates, Ajay Pillarisetti, Sumit Sharma, Seema Kundu, Tami C. Bond, Nicholas L. Lam, Bora Ozaltun, Li Xu, Varun Goel, [Lauren T. Fleming](#), [Robert Weltman](#), Simone Meinardi, Donald R. Blake, [Sergey A. Nizkorodov](#), Rufus D. Edwards, Ankit Yadav, Narendra L. Arora, Kirk R. Smith, and John H. Seinfeld,\* “Impacts of household sources on air pollution at village and

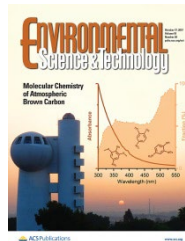
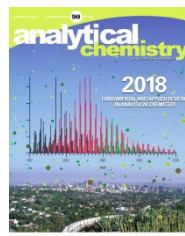
- regional scales in India” *Atmospheric Chemistry and Physics*, **19** (2019) 7719-7742. [DOI:10.5194/acp-19-7719-2019](https://doi.org/10.5194/acp-19-7719-2019).
143. [Zhijian Li](#), [Sergey A. Nizkorodov](#), Hong Chen, Xiaohui Lu, Xin Yang\* and Jianmin Chen, “Nitrogen-containing secondary organic aerosols formation by acrolein reaction with ammonia/ammonium” *Atmospheric Chemistry and Physics*, **19** (2019) 1343-1356. [DOI:10.5194/acp-19-1343-2019](https://doi.org/10.5194/acp-19-1343-2019).
142. [Dagny A. Ullmann](#), [Mallory L. Hinks](#), [Adrian Maclean](#), Christopher Butenhoff, [James Grayson](#), Kelley Barsanti, Jose L. Jimenez, [Sergey A. Nizkorodov](#), Saeid Kamal, and Allan K. Bertram,\* “Viscosities, diffusion coefficients, and mixing times of intrinsic fluorescent organic molecules in brown limonene secondary organic aerosol and tests of the Stokes-Einstein equation” *Atmospheric Chemistry and Physics*, **19** (2019) 1491-1503. [DOI:10.5194/acp-19-1491-2019](https://doi.org/10.5194/acp-19-1491-2019).
141. [Pablo Corral Arroyo](#), [Kurtis T. Malecha](#), Markus Ammann and [Sergey A. Nizkorodov](#),\* “Influence of humidity and iron (III) on photodegradation of atmospheric secondary organic aerosol particles” *Physical Chemistry Chemical Physics*, **20** (2018) 30021-30031. [DOI:10.1039/C8CP03981J](https://doi.org/10.1039/C8CP03981J). PMID:30480278.
140. Dorit Shemesh, Ronnie Salomon, [Stephanie Hyejin Kim](#), Geoffrey S. Tyndall, [Sergey A. Nizkorodov](#) and R. Benny Gerber,\* “Adjacent keto and enol groups in photochemistry of a cyclic molecule: Products, mechanisms and dynamics” *Chemical Physics*, **515** (2018) 177-186. [DOI:10.1016/j.chemphys.2018.07.045](https://doi.org/10.1016/j.chemphys.2018.07.045).
139. [Lauren T. Fleming](#), [Robert Weltman](#), Ankit Yadav, Rufus D. Edwards, Narendra K. Arora, Ajay Pillarisetti, Simone Meinardi, Kirk R. Smith, Donald R. Blake and [Sergey A. Nizkorodov](#),\* “Emissions from village cookstoves in Haryana, India and their potential impacts on air quality” *Atmospheric Chemistry and Physics*, **18** (2018) 15169-15182. [DOI:10.5194/acp-18-15169-2018](https://doi.org/10.5194/acp-18-15169-2018).
138. Peng Lin, [Lauren T. Fleming](#), [Sergey A. Nizkorodov](#), Julia Laskin and Alexander Laskin,\* “Comprehensive molecular characterization of atmospheric brown carbon by high resolution mass spectrometry with electrospray and atmospheric pressure photoionization” *Analytical Chemistry*, **90** (2018) 12493-12502. [DOI:10.1021/acs.analchem.8b02177](https://doi.org/10.1021/acs.analchem.8b02177). PMID:30293422
137. **OPINION:** [Sherri W. Hunt](#),\* [Alexander Laskin](#) and [Sergey A. Nizkorodov](#) “Editors’ Perspective on Multiphase Chemistry in the Atmosphere” ACS Symposium Series volume 1299, Chapter 1, pp 1-6 in “Multiphase Environmental Chemistry in the Atmosphere”, [Hunt S.](#), [Laskin A.](#), [Nizkorodov S.A.](#) Eds., 2018; ISBN13: 9780841233638. [DOI:10.1021/bk-2018-1299.ch001](https://doi.org/10.1021/bk-2018-1299.ch001).
136. [Julia Montoya-Aguilera](#), [Mallory L. Hinks](#), [Paige K. Aiona](#), Lisa M. Wingen, [Jeremy R. Horne](#), Shupeng Zhu, Donald Dabdub, [Alexander Laskin](#), [Julia Laskin](#), Peng Lin and [Sergey A. Nizkorodov](#),\* “Reactive uptake of ammonia by biogenic and anthropogenic organic aerosols” ACS Symposium Series volume 1299, Chapter 7, pp 127-147 in “Multiphase Environmental Chemistry in the Atmosphere”, [Hunt S.](#), [Laskin A.](#), [Nizkorodov S.A.](#) Eds., 2018; ISBN13: 9780841233638. [DOI:10.1021/bk-2018-1299.ch007](https://doi.org/10.1021/bk-2018-1299.ch007).
135. [Alexander Laskin](#),\* Peng Lin, [Julia Laskin](#), [Lauren T. Fleming](#) and [Sergey A. Nizkorodov](#), “Molecular characterization of atmospheric brown carbon”, ACS Symposium Series volume 1299, Chapter 13, pp 261-274 in “Multiphase Environmental Chemistry in the Atmosphere”, [Hunt S.](#), [Laskin A.](#), [Nizkorodov S.A.](#) Eds., 2018; ISBN13: 9780841233638. [DOI:10.1021/bk-2018-1299.ch013](https://doi.org/10.1021/bk-2018-1299.ch013).
134. [Daniel P. Veghte](#), [Swarup China](#), [Johannes Weis](#), Peng Lin, [Mallory L. Hinks](#), [Libor Kovarik](#), [Sergey A. Nizkorodov](#), [Mary K. Gilles](#) and [Alexander Laskin](#),\* “Heating-induced transformations of atmospheric particles: environmental transmission electron microscopy study” *Analytical Chemistry*, **90** (2018) 9761-9768. [DOI:10.1021/acs.analchem.8b01410](https://doi.org/10.1021/acs.analchem.8b01410).
133. [Paige K. Aiona](#), [Jenna L. Luek](#), Stephen A. Timko, Leanne C. Powers, Michael Gonsior and [Sergey A. Nizkorodov](#),\* “Effect of photolysis on absorption and fluorescence spectra of light-absorbing secondary



organic aerosols” ACS Earth and Space Chemistry, **2** (2018) 235-245.

[DOI:10.1021/acsearthspacechem.7b00153](https://doi.org/10.1021/acsearthspacechem.7b00153).

132. [Kurtis T. Malecha](#), [Zicheng Cai](#) and [Sergey A. Nizkorodov](#),\* “Photodegradation of secondary organic aerosol material quantified with a quartz crystal microbalance” Environmental Science & Technology Letters, **5** (2018) 366-371. [DOI:10.1021/acs.estlett.8b00231](https://doi.org/10.1021/acs.estlett.8b00231).
131. [Wing-Sy Wong DeRieux](#), Ying Li, Peng Lin, Julia Laskin, Alexander Laskin, Allan K. Bertram, [Sergey A. Nizkorodov](#) and Manabu Shiraiwa,\* “Predicting the glass transition temperature and viscosity of secondary organic material using molecular composition” Atmospheric Chemistry and Physics, **18** (2018) 6331-6351. [DOI:10.5194/acp-18-6331-2018](https://doi.org/10.5194/acp-18-6331-2018).
130. **REVIEW, COVER:** Julia Laskin,\* Alexander Laskin and [Sergey A. Nizkorodov](#), “Mass spectrometry analysis in atmospheric chemistry” Analytical Chemistry, **90** (2018) 166-189. [DOI:10.1021/acs.analchem.7b04249](https://doi.org/10.1021/acs.analchem.7b04249), PMID:29087178.
129. Shupeng Zhu, [Jeremy R. Horne](#), [Julia Montoya-Aguilera](#), [Mallory L. Hinks](#), [Sergey A. Nizkorodov](#) and Donald Dabdub,\* “Modeling reactive ammonia uptake by secondary organic aerosol in CMAQ: application to the continental US” Atmospheric Chemistry and Physics, **18** (2018) 3641-3657. [DOI:10.5194/acp-18-3641-2018](https://doi.org/10.5194/acp-18-3641-2018).
128. [Jeremy R. Horne](#), Shupeng Zhu, [Julia Montoya-Aguilera](#), [Mallory L. Hinks](#), Lisa M. Wingen, [Sergey A. Nizkorodov](#) and Donald Dabdub,\* “Reactive uptake of ammonia by secondary organic aerosols: Implications for air quality” Atmospheric Environment, **189** (2018) 1-8. [DOI:10.1016/j.atmosenv.2018.06.021](https://doi.org/10.1016/j.atmosenv.2018.06.021).
127. [Lauren T. Fleming](#), Peng Lin, Alexander Laskin, Julia Laskin, [Robert Weltman](#), Rufus D. Edwards,\* Narendra K. Arora, Ankit Yadav, Simone Meinardi, Donald R. Blake, Ajay Pillarisetti, Kirk R. Smith and [Sergey A. Nizkorodov](#),\* “Molecular composition of particulate matter emissions from dung and brushwood burning household cookstoves in Haryana, India” Atmospheric Chemistry and Physics, **18** (2018) 2461-2480. [DOI:10.5194/acp-18-2461-2018](https://doi.org/10.5194/acp-18-2461-2018).
126. [Paige K. Aiona](#), Hyun Ji (Julie) Lee, [Renee Leslie](#), Peng Lin, Alexander Laskin, Julia Laskin and [Sergey A. Nizkorodov](#),\* “Photochemistry of products of the aqueous reaction of methylglyoxal with ammonium sulfate” ACS Earth and Space Chemistry, **1** (2017) 522-532. [DOI:10.1021/acsearthspacechem.7b00075](https://doi.org/10.1021/acsearthspacechem.7b00075).
125. [Mallory L. Hinks](#), [Julia Montoya-Aguilera](#), [Lucas Ellison](#), Peng Lin, Alexander Laskin, Julia Laskin, Manabu Shiraiwa, Donald Dabdub and [Sergey A. Nizkorodov](#),\* “Effect of relative humidity on the composition of secondary organic aerosol from the oxidation of toluene” Atmospheric Chemistry and Physics, **18** (2018) 1643-1652. [DOI:10.5194/acp-18-1643-2018](https://doi.org/10.5194/acp-18-1643-2018).
124. [Paige K. Aiona](#), Hyun Ji (Julie) Lee, Peng Lin, [Forrest Heller](#), Alexander Laskin, Julia Laskin and [Sergey A. Nizkorodov](#),\* “A role for 2-methyl pyrrole in the browning of 4-oxopentanal and limonene secondary organic aerosol” Environmental Science & Technology, **51** (2017) 11048-11056. [DOI:10.1021/acs.est.7b02293](https://doi.org/10.1021/acs.est.7b02293), PMID:28858499.
123. **ACS Editor’s Choice, COVER:** Peng Lin, Nir Bluvshstein, Yinon Rudich, [Sergey A. Nizkorodov](#), Julia Laskin and Alexander Laskin,\* “Molecular chemistry of atmospheric brown carbon inferred from a nationwide biomass burning event” Environmental Science & Technology, **51** (2017) 11561-11570. [DOI:10.1021/acs.est.7b02276](https://doi.org/10.1021/acs.est.7b02276), PMID:28759227





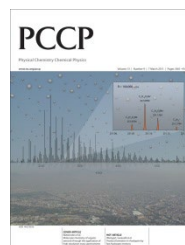
122. [Kurtis T. Malecha](#) and [Sergey A. Nizkorodov](#),\* “Feasibility of photosensitized reactions with secondary organic aerosol particles in the presence of volatile organic compounds” *Journal of Physical Chemistry A*, **121** (2017) 4961-4967. [DOI:10.1021/acs.jpca.7b04066](#), [PMID:28598172](#).
121. [Ashley Tran](#), [Geoffrey Williams](#), [Shagufta Younus](#), [Nujhat N. Ali](#), [Sandra L. Blair](#), [Sergey A. Nizkorodov](#) and [Hind A. Al-Abadleh](#),\* “Efficient formation of light-absorbing polymeric nanoparticles from the reaction of soluble Fe(III) with C4 and C6 dicarboxylic acids” *Environmental Science & Technology* **51** (2017) 9700-9708. [DOI:10.1021/acs.est.7b01826](#), [PMID:28753002](#).
120. **OPINION**: [Jarmo K. Holopainen](#),\* [Mina Kivimäenpää](#) and [Sergey A. Nizkorodov](#) “Plant-derived secondary organic material in the air and ecosystems” *Trends in Plant Science*, **22** (2017) 744-753. [DOI:10.1016/j.tplants.2017.07.004](#), [PMID:28789922](#).
- 
119. [Julia Montoya-Aguilera](#), [Jeremy R. Horne](#), [Mallory L. Hinks](#), [Lauren T. Fleming](#), [Véronique Perraud](#), [Peng Lin](#), [Alexander Laskin](#), [Julia Laskin](#), [Donald Dabdub](#) and [Sergey A. Nizkorodov](#),\* “Secondary organic aerosol from atmospheric photooxidation of indole” *Atmospheric Chemistry and Physics*, **17** (2017) 11605-11621. [DOI:10.5194/acp-17-11605-2017](#).
118. [Dian E. Romonosky](#), [Ying Li](#), [Manabu Shiraiwa](#), [Alexander Laskin](#), [Julia Laskin](#) and [Sergey A. Nizkorodov](#),\* “Aqueous photochemistry of secondary organic aerosol of  $\alpha$ -pinene and  $\alpha$ -humulene oxidized with ozone, hydroxyl radical, and nitrate radical” *Journal of Physical Chemistry A*, **121** (2017) 1298-1309. [DOI:10.1021/acs.jpca.6b10900](#), [PMID:28099012](#).
117. **OPINION**: [James B. Burkholder](#),\* [Jonathan P.D. Abbatt](#),\* [Ian Barnes](#), [James M. Roberts](#), [Megan L. Melamed](#), [Markus Ammann](#), [Allan L. Bertram](#), [Christopher D. Cappa](#), [Annmarie G. Carlton](#), [Lucy J. Carpenter](#), [John N. Crowley](#), [Yael Dubowski](#), [Christian George](#), [Dwayne E. Heard](#), [Hartmut Herrmann](#), [Frank N. Keutsch](#), [Jesse H. Kroll](#), [V. Faye McNeill](#), [Nga Lee Ng](#), [Sergey A. Nizkorodov](#), [John J. Orlando](#), [Carl J. Percival](#), [Bénédicte Picquet-Varrault](#), [Yinon Rudich](#), [Paul W. Seakins](#), [Jason D. Surratt](#), [Hiroshi Tanimoto](#), [Joel A. Thornton](#), [Zhu Tong](#), [Geoffrey S. Tyndall](#), [Andreas Wahner](#), [Charles J. Weschler](#), [Kevin R. Wilson](#) and [Paul J. Ziemann](#), “The essential role for laboratory studies in atmospheric chemistry” *Environmental Science & Technology* **51** (2017) 2519-2528. [DOI:10.1021/acs.est.6b04947](#), [PMID:28169528](#).
116. [Sandra L. Blair](#), [Amanda C. MacMillan](#), [Greg T. Drozd](#), [Allen H. Goldstein](#), [Rosalie Chu](#), [Ljiljana Pasa-Tolic](#), [Jared Shaw](#), [Nicola Tolic](#), [Peng Lin](#), [Julia Laskin](#), [Alexander Laskin](#) and [Sergey A. Nizkorodov](#),\* “Molecular characterization of organosulfur compounds in biodiesel and diesel fuel secondary organic aerosol” *Environmental Science & Technology*, **51** (2017) 119-127. [DOI:10.1021/acs.est.6b03304](#), [PMID:28005381](#).
115. [Dorit Shemesh](#), [Sergey A. Nizkorodov](#) and [R. Benny Gerber](#),\* “Photochemical reactions of cyclohexanone: mechanisms and dynamics” *Journal of Physical Chemistry A*, **120** (2016) 7112-7120. [DOI:10.1021/acs.jpca.6b06184](#), [PMID:27525541](#).
114. [Peng Lin](#), [Paige K. Aiona](#), [Ying Li](#), [Manabu Shiraiwa](#), [Julia Laskin](#), [Sergey A. Nizkorodov](#) and [Alexander Laskin](#),\* “Molecular characterization of brown carbon in biomass burning aerosol particles” *Environmental Science & Technology*, **50** (2016) 11815-11824. [DOI:10.1021/acs.est.6b03024](#), [PMID:27704802](#).
113. [Jingyan Li](#), [Tingting Xu](#), [Xiaohui Lu](#), [Hong Chen](#), [Sergey A. Nizkorodov](#), [Jianmin Chen](#), [Xin Yang](#),\* [Zhaoyu Mo](#), [Zhiming Chen](#), [Huilin Liu](#), [Jingying Mao](#) and [Guiyun Liang](#) “Online single particle measurement of fireworks pollution during Chinese New Year in Nanning” *J. Environ. Sci.* **53** (2017) 184-195. [DOI:10.1016/j.jes.2016.04.021](#), [PMID:28372743](#).
112. [Xianda Gong](#), [Ci Zhang](#), [Hong Chen](#), [Sergey A. Nizkorodov](#), [Jianmin Chen](#) and [Xin Yang](#),\* “Size distribution and mixing state of black carbon particles during a heavy air pollution episode in Shanghai” *Atmospheric Chemistry and Physics*, **16** (2016) 5399-5411. [DOI:10.5194/acp-16-5399-2016](#).

111. [Kurtis T. Malecha](#) and [Sergey A. Nizkorodov](#),\* “Photodegradation of secondary organic aerosol particles as a source of small, oxygenated volatile organic compounds” *Environmental Science & Technology*, **50** (2016) 9990-9997. [DOI:10.1021/acs.est.6b02313](#), [PMID:27547987](#).
110. **COVER:** [Mallory L. Hinks](#), [Monica V. Brady](#), [Hanna Lignell](#), [Mijung Song](#), [James W. Grayson](#), [Allan K. Bertram](#), [Peng Lin](#), [Alexander Laskin](#), [Julia Laskin](#) and [Sergey A. Nizkorodov](#),\* “Effect of viscosity on photodegradation rates in complex secondary organic aerosol materials” *Physical Chemistry Chemical Physics*, **18** (2016) 8785-8793. [DOI:10.1039/C5CP05226B](#), [PMID:26685987](#).
- 
109. [Peng Lin](#), [Sergey A. Nizkorodov](#), [Julia Laskin](#) and [Alexander Laskin](#),\* “Revealing brown carbon chromophores produced in reactions of methylglyoxal with ammonium sulfate” *Environmental Science & Technology*, **49** (2015) 14257-14266. [DOI:10.1021/acs.est.5b03608](#), [PMID:26505092](#).
108. [David R. Fooshee](#), [Paige K. Aiona](#), [Alexander Laskin](#), [Julia Laskin](#), [Sergey A. Nizkorodov](#)\* and [Pierre Baldi](#),\* “Atmospheric oxidation of squalene: molecular study using COBRA modeling and high-resolution mass spectrometry” *Environmental Science & Technology*, **49** (2015) 13304-13313. [DOI:10.1021/acs.est.5b03552](#), [PMID:26492333](#).
107. [Dian E. Romonosky](#), [Nujhat N. Ali](#), [Mariyah N. Saiduddin](#), [Michael Wu](#), [Hyun Ji \(Julie\) Lee](#), [Paige K. Aiona](#) and [Sergey A. Nizkorodov](#),\* “Effective absorption cross sections and photolysis rates of anthropogenic and biogenic secondary organic aerosols” *Atmos. Environ.* **130** (2016) 172-179. [DOI:10.1016/j.atmosenv.2015.10.019](#).
106. [Sandra L. Blair](#), [Scott A. Epstein](#), [Sergey A. Nizkorodov](#)\* and [Norbert Staimer](#),\* “A real-time fast-flow tube study of VOC and particulate emissions from electronic, potentially reduced-harm, conventional, and reference cigarettes” *Aerosol Science and Technology*, **49** (2015) 816-827. [DOI:10.1080/02786826.2015.1076156](#), [PMID:PMC4696598](#)
105. [Samantha Slikboer](#), [Lindsay Grandy](#), [Sandra L. Blair](#), [Sergey A. Nizkorodov](#), [Richard W. Smith](#) and [Hind A. Al-Abadleh](#),\* “Formation of light absorbing soluble secondary organics and insoluble polymeric particles from the dark reaction of catechol and guaiacol with Fe(III)” *Environmental Science & Technology*, **49** (2015) 7793-7801. [DOI:10.1021/acs.est.5b01032](#), [PMID:26039867](#).
104. [Dian E. Romonosky](#), [Lucas Q. Nguyen](#), [Dorit Shemesh](#), [Tran B. Nguyen](#), [Scott A. Epstein](#), [David B.C. Martin](#), [Christopher D. Vanderwal](#), [R. Benny Gerber](#)\* and [Sergey A. Nizkorodov](#),\* “Absorption spectra and aqueous photochemistry of  $\beta$ -hydroxyalkyl nitrates of atmospheric interest” *Molecular Physics*, **113** (2015) 2179-2190. [DOI:10.1080/00268976.2015.1017020](#).
103. [Mona Shrestha](#), [Yue Zhang](#), [Mary A. Upshur](#), [Pengfei Liu](#), [Sandra L. Blair](#), [Hong-fei Wang](#), [Sergey A. Nizkorodov](#), [Regan J. Thomson](#), [Scot T. Martin](#)\* and [Franz M. Geiger](#),\* “On surface order and disorder of  $\alpha$ -pinene-derived secondary organic material” *Journal of Physical Chemistry A*, **119** (2015) 4609-4617. [DOI:10.1021/jp510780e](#), [PMID:25514505](#).
102. **REVIEW:** [Christian George](#),\* [Markus Ammann](#), [Barbara D'Anna](#), [D. James Donaldson](#) and [Sergey A. Nizkorodov](#), “Heterogeneous photochemistry in the atmosphere” *Chemical Reviews*, **115** (2015) 4218-4258. [DOI:10.1021/cr500648z](#), [PMID:25775235](#), [PMCID:PMC4772778](#).
101. **REVIEW:** [Alexander Laskin](#),\* [Julia Laskin](#) and [Sergey A. Nizkorodov](#), “Chemistry of atmospheric brown carbon” *Chemical Reviews*, **115** (2015) 4335-4382. [DOI:10.1021/cr5006167](#), [PMID:25716026](#).
100. [Dian E. Romonosky](#), [Alexander Laskin](#), [Julia Laskin](#) and [Sergey A. Nizkorodov](#),\* “High-resolution mass spectrometry and molecular characterization of aqueous photochemistry products of common types of secondary organic aerosols” *Journal of Physical Chemistry A*, **119** (2015) 2594-2606. [DOI:10.1021/jp509476r](#), [PMID:25412112](#).

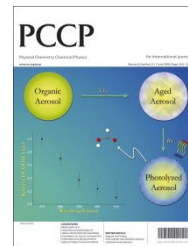
99. Julia Laskin,\* Alexander Laskin,\* Sergey A. Nizkorodov, Patrick Roach, Peter Eckert, Mary K. Gilles, Bingbing Wang, Hyun Ji (Julie) Lee, Qichi Hu, “Molecular selectivity of brown carbon chromophores” *Environmental Science & Technology*, **48** (2014) 12047-12055. [DOI:10.1021/es503432r](https://doi.org/10.1021/es503432r), PMID:25233355.
98. Scott A. Epstein, Sandra L. Blair, and Sergey A. Nizkorodov,\* “Direct photolysis of  $\alpha$ -pinene ozonolysis secondary organic aerosol: effect on particle mass and peroxide content” *Environmental Science & Technology*, **48** (2014) 11251-11258. [DOI:10.1021/es502350u](https://doi.org/10.1021/es502350u), PMID:25165890.
97. Dorit Shemesh, Sandra L. Blair, Sergey A. Nizkorodov and R. Benny Gerber,\* “Photochemistry of aldehyde clusters: cross-molecular *versus* unimolecular reaction dynamics” *Physical Chemistry Chemical Physics*, **16** (2014) 23861-23868. [DOI:10.1039/C4CP03130J](https://doi.org/10.1039/C4CP03130J), PMID:25273824.
96. Shikang Tao, Xiaohui Lu, Nicole Levac, Adam P. Bateman, Tran B. Nguyen, David L. Bones, Sergey A. Nizkorodov, Julia Laskin, Alexander Laskin\* and Xin Yang,\* “Molecular characterization of organosulfates in organic aerosols from Shanghai and Los Angeles urban areas by nanospray-desorption electrospray ionization high-resolution mass spectrometry” *Environmental Science & Technology*, **48** (2014) 10993-11001. [DOI:10.1021/es5024674](https://doi.org/10.1021/es5024674), PMID:25184338.
95. Jorge Michel Flores, Rebecca A. Washenfelder, Gabriela Adler, Hyun Ji (Julie) Lee, Lior Segev, Julia Laskin, Alexander Laskin, Sergey A. Nizkorodov, Steven S. Brown and Yinon Rudich,\* “Complex refractive indices in the near-ultraviolet spectral region of biogenic secondary organic aerosol aged with ammonia” *Physical Chemistry Chemical Physics*, **16** (2014) 10629-10642 [DOI:10.1039/C4CP01009D](https://doi.org/10.1039/C4CP01009D), PMID:24752662.
94. Amanda C. MacMillan, Theresa M. McIntire, Scott A. Epstein and Sergey A. Nizkorodov,\* “Effect of alkyl chain length on hygroscopicity of nanoparticles and thin films of imidazolium-based ionic liquids” *Journal of Physical Chemistry C*, **118** (2014) 29458-29466. [DOI:10.1021/jp503049j](https://doi.org/10.1021/jp503049j).
93. Hyun Ji (Julie) Lee, Paige K. Aiona, Alexander Laskin, Julia Laskin and Sergey A. Nizkorodov\* “Effect of solar radiation on the optical properties and molecular composition of laboratory proxies of atmospheric brown carbon” *Environmental Science & Technology*, **48** (2014) 10217-10226, [DOI:10.1021/es502515r](https://doi.org/10.1021/es502515r), PMID:25102050.
92. Rachel E. O’Brien,\* Alexander Neu, Scott A. Epstein, Amanda C. MacMillan, Bingbing Wang, Stephen T. Kelly, Sergey A. Nizkorodov, Alexander Laskin, Ryan C. Moffet and Mary K. Gilles, “Physical properties of ambient and laboratory-generated secondary organic aerosol” *Geophysical Research Letters*, **41** (2014) 4347-4353. [DOI:10.1002/2014GL060219](https://doi.org/10.1002/2014GL060219).
91. Hanna Lignell, Mallory L. Hinks and Sergey A. Nizkorodov,\* “Exploring matrix effects on photochemistry of organic aerosols” *Proceedings of the National Academy of Sciences*, **111** (2014) 13780–13785. [DOI:10.1073/pnas.1322106111](https://doi.org/10.1073/pnas.1322106111), PMID: 25201953.
90. Hanna Lignell, Scott A. Epstein, Margaret R. Marvin, Dorit Shemesh, R. Benny Gerber and Sergey A. Nizkorodov,\* “Experimental and theoretical study of aqueous *cis*-pinonic acid photolysis” *Journal of Physical Chemistry A*, **117** (2013) 12930-12945. [DOI:10.1021/jp4093018](https://doi.org/10.1021/jp4093018), PMID:24245507.
89. Tran B. Nguyen,\* Alexander Laskin, Julia Laskin and Sergey A. Nizkorodov, “Brown carbon formation from ketoaldehydes of biogenic monoterpenes” *Faraday Discussions* **165** (2013) 473-494. [DOI:10.1039/C3FD00036B](https://doi.org/10.1039/C3FD00036B), PMID:24601018.
88. Scott A. Epstein, Enrico Tapavicza, Filipp Furche and Sergey A. Nizkorodov,\* “Direct photolysis of carbonyl compounds dissolved in cloud and fog droplets” *Atmospheric Chemistry and Physics*, **13** (2013) 9461-9477. [DOI:10.5194/acp-13-9461-2013](https://doi.org/10.5194/acp-13-9461-2013).
87. Hyun Ji (Julie) Lee, Alexander Laskin, Julia Laskin and Sergey A. Nizkorodov,\* “Excitation-emission spectra and fluorescence quantum yields for fresh and aged biogenic secondary organic aerosols” *Environmental Science & Technology*, **47** (2013) 5763–5770. [DOI:10.1021/es400644c](https://doi.org/10.1021/es400644c), PMID:23663151.

86. **REVIEW:** Julia Laskin,\* Alexander Laskin and Sergey A. Nizkorodov “New mass spectrometry techniques for studying physical chemistry of atmospheric heterogeneous processes” *International Reviews in Physical Chemistry*, **32** (2013) 128-170. [DOI:10.1080/0144235X.2012.752904](https://doi.org/10.1080/0144235X.2012.752904).
- 
85. Rachel E. O'Brien, Tran B. Nguyen, Alexander Laskin,\* Julia Laskin, Patrick L. Hayes, Shang Liu, Jose L. Jimenez, Lynn M. Russell, Sergey A. Nizkorodov and Allen H. Goldstein,\* “Probing molecular associations of field-collected and laboratory-generated SOA with nano-DESI high-resolution mass spectrometry” *Journal of Geophysical Research: Atmospheres*, **118** (2013) 1042-1051. [DOI:10.1002/jgrd.50119](https://doi.org/10.1002/jgrd.50119).
84. Adam P. Bateman, Julia Laskin, Alexander Laskin and Sergey A. Nizkorodov,\* “Applications of high-resolution electrospray ionization mass spectrometry to measurements of average oxygen to carbon ratios in secondary organic aerosols” *Environmental Science & Technology*, **46** (2012) 8315-8324. [DOI:10.1021/es3017254](https://doi.org/10.1021/es3017254), **PMID:**22747310.
83. **COVER:** Julia Laskin,\* Peter A. Eckert, Patrick J. Roach, Brandi S. Heath, Sergey A. Nizkorodov and Alexander Laskin,\* “Chemical analysis of complex organic mixtures using reactive nanospray desorption electrospray ionization mass spectrometry” *Analytical Chemistry*, **84** (2012) 7179-7187. [DOI:10.1021/ac301533z](https://doi.org/10.1021/ac301533z), **PMID:**22812571.
- 
82. Amanda C. MacMillan, Theresa M. McIntire, J. Alfredo Freites, Douglas J. Tobias and Sergey A. Nizkorodov,\* “Interaction of water vapor with the surfaces of imidazolium-based ionic liquid nanoparticles and thin films” *Journal of Physical Chemistry B*, **116** (2012) 11255–11265. [DOI:10.1021/jp305029n](https://doi.org/10.1021/jp305029n), **PMID:**22900634.
81. **REVIEW:** Alexander Laskin,\* Sergey A. Nizkorodov and Julia Laskin, “Mass spectrometric approaches for chemical characterization of atmospheric aerosols: critical review of the most recent advances” *Environ. Chem.* **9** (2012) 163-189. [DOI:10.1071/EN12052](https://doi.org/10.1071/EN12052), **PMID:** n/a.
80. Tran B. Nguyen, Alexander Laskin, Julia Laskin and Sergey A. Nizkorodov,\* “Direct aqueous photochemistry of isoprene high-NO<sub>x</sub> secondary organic aerosol” *Physical Chemistry Chemical Physics*, **14** (2012) 9702-9714. [DOI:10.1039/C2CP40944E](https://doi.org/10.1039/C2CP40944E), **PMID:**22678223.
79. Tran B. Nguyen, Sergey A. Nizkorodov,\* Alexander Laskin and Julia Laskin,\* “An approach toward quantification of organic compounds in complex environmental samples using high-resolution electrospray ionization mass spectrometry” *Analytical Methods* **5** (2013) 72-80. [DOI:10.1039/C2AY25682G](https://doi.org/10.1039/C2AY25682G), **PMID:** n/a.
- 
78. Scott A. Epstein and Sergey A. Nizkorodov,\* “A comparison of the chemical sinks of atmospheric organics in the gas and aqueous phase” *Atmospheric Chemistry and Physics*, **12** (2012) 8205-8222. [DOI:10.5194/acp-12-8205-2012](https://doi.org/10.5194/acp-12-8205-2012), **PMID:** n/a.
77. Katelyn M. Updyke, Tran B. Nguyen and Sergey A. Nizkorodov,\* “Formation of brown carbon via reactions of ammonia with secondary organic aerosols from biogenic and anthropogenic precursors” *Atmos. Env.* **63** (2012) 22-31. [DOI:10.1016/j.atmosenv.2012.09.012](https://doi.org/10.1016/j.atmosenv.2012.09.012). **PMID:** n/a.
76. Scott A. Epstein, Dorit Shemesh, Van T. Tran, Sergey A. Nizkorodov\* and R. Benny Gerber,\* “Absorption spectra and photolysis of methyl peroxide in liquid and frozen water” *Journal of Physical Chemistry A*, **116** (2012) 6068-6077. [DOI:10.1021/jp211304v](https://doi.org/10.1021/jp211304v), **PMID:**22217262.

75. [David R. Fooshee](#), [Tran B. Nguyen](#), [Sergey A. Nizkorodov](#),\* Julia Laskin, Alexander Laskin and P. Baldi,\* “COBRA: a computational brewing application for predicting the molecular composition of organic aerosols” *Environmental Science & Technology*, **46** (2012) 6048-6055. [DOI:10.1021/es3003734](#), [PMID:22568707](#).
74. Norbert Staimer,\* [Tran B. Nguyen](#), [Sergey A. Nizkorodov](#) and Ralph J. Delfino, “Glutathione peroxidase inhibitory assay for electrophilic pollutants in diesel exhaust and tobacco smoke” *Analytical and Bioanalytical Chemistry*, **403** (2012) 431-441. [DOI:10.1007/s00216-012-5823-z](#), [PMID:22349402](#).
73. [Amanda C. MacMillan](#), [John B. Morrison](#), [Christopher W. Harmon](#) and [Sergey A. Nizkorodov](#),\* “Enhancement of surfactants in nanoparticles produced by an electrospray aerosol generator” *Aerosol Science and Technology*, **46** (2012) 1239-1245. [DOI:10.1080/02786826.2012.708946](#), [PMID: n/a](#).
72. [Tran B. Nguyen](#), [Paula B. Lee](#), [Katelyn M. Updyke](#), David L. Bones, Julia Laskin, Alexander Laskin and [Sergey A. Nizkorodov](#),\* “Formation of nitrogen- and sulfur-containing light-absorbing compounds accelerated by evaporation of water from secondary organic aerosols” *Journal of Geophysical Research: Atmospheres*, **117** (2012) D01207. [DOI:10.1029/2011JD016944](#), [PMID: n/a](#).
71. [Tran B. Nguyen](#), Julia Laskin, Alexander Laskin and [Sergey A. Nizkorodov](#),\* “Nitrogen-containing organic compounds and oligomers in secondary organic aerosol formed by photooxidation of isoprene” *Environmental Science & Technology*, **45** (2011) 6908-6918. [DOI: 10.1021/es201611n](#), [PMID: 21732631](#).
70. [Tran B. Nguyen](#), Patrick J. Roach, Julia Laskin, Alexander Laskin and [Sergey A. Nizkorodov](#),\* “Effect of humidity on the composition of isoprene photooxidation secondary organic aerosol” *Atmospheric Chemistry and Physics*, **11** (2011) 6931-6944. [DOI: 10.5194/acp-11-6931-2011](#), [PMID: n/a](#).
69. [Adam P. Bateman](#), [Sergey A. Nizkorodov](#),\* Julia Laskin and Alexander Laskin, “Photolytic processing of secondary organic aerosols dissolved in cloud droplets” *Physical Chemistry Chemical Physics*, **13** (2011) 12199-12212, [DOI:10.1039/C1CP20526A](#), [PMID: 21617794](#).
68. **REVIEW**: [Sergey A. Nizkorodov](#),\* Julia Laskin\* and Alexander Laskin,\* “Molecular chemistry of organic aerosols through the application of high resolution mass spectrometry” *Physical Chemistry Chemical Physics*, **13** (2011) 3612-3629, [DOI:10.1039/C0CP02032J](#), [PMID:21206953](#).
67. [Adam P. Bateman](#), [Sergey A. Nizkorodov](#),\* Julia Laskin and Alexander Laskin,\* “High-resolution electrospray ionization mass spectrometry analysis of water-soluble organic aerosols collected with a particle into liquid sampler” *Analytical Chemistry*, **82** (2010) 8010-8016, [DOI:10.1021/ac1014386](#), [PMID:20809606](#).
66. Julia Laskin,\* Alexander Laskin,\* Patrick J. Roach, Gordon W. Slysz, Gordon A. Anderson, [Sergey A. Nizkorodov](#), David L. Bones and [Lucas Q. Nguyen](#), “High-resolution desorption electrospray ionization mass spectrometry for chemical characterization of organic aerosols” *Analytical Chemistry*, **82** (2010) 2048-2058. [DOI:10.1021/ac902801f](#), [PMID:20146449](#).
65. [Christopher W. Harmon](#), Ronald L. Grimm, Theresa M. McIntire, [Mark D. Peterson](#), Bosa Njagic, Vanessa M. Angel, [Ahmad Alshawa](#), Joelle S. Underwood, Douglas J. Tobias, R. Benny Gerber, Mark S. Gordon, John C. Hemminger and [Sergey A. Nizkorodov](#),\* “Hygroscopic growth and deliquescence of NaCl nanoparticles mixed with surfactant SDS” *Journal of Physical Chemistry B*, **114** (2010) 2435-2449, [DOI:10.1021/jp909661q](#), [PMID:20108956](#).
64. [Tran B. Nguyen](#), [Adam P. Bateman](#), David L. Bones, [Sergey A. Nizkorodov](#),\* Julia Laskin and Alexander Laskin, “High-resolution mass spectrometry analysis of secondary organic aerosol generated by ozonolysis of isoprene” *Atmospheric Environment*, **44** (2010) 1032-1042, [DOI:10.1016/j.atmosenv.2009.12.019](#), [PMID: n/a](#).



63. Michael A. Kamboures, [Sergey A. Nizkorodov](#) and R. Benny Gerber,\* “Ultrafast photochemistry of methyl hydroperoxide on ice particles” Proceedings of the National Academy of Sciences, **107** (2010) 6600-6604, [DOI:10.1073/pnas.0907922106](#), **PMID**:19846778.
62. David L. Bones, [Dana K. Henricksen](#), [Stephen A. Mang](#), Michael Gonsior, [Adam P. Bateman](#), [Tran B. Nguyen](#), William J. Cooper and [Sergey A. Nizkorodov](#),\* “Appearance of strong absorbers and fluorophores in limonene-O<sub>3</sub> secondary organic aerosol due to NH<sub>4</sub><sup>+</sup>-mediated chemical aging over long time scales” Journal of Geophysical Research: Atmospheres, **115** (2010) D05203, [DOI:10.1029/2009JD012864](#), **PMID**: n/a.
61. [Adam P. Bateman](#), [Sergey A. Nizkorodov](#),\* Julia Laskin and Alexander Laskin, “Time-resolved molecular characterization of limonene/ozone aerosol using high-resolution electrospray ionization mass spectrometry” Physical Chemistry Chemical Physics, **11** (2009) 7931-7942, [DOI:10.1039/b905288g](#), **PMID**:19727500.
60. [Xiang Pan](#), Joelle S. Underwood, Jia-Hua Xing, [Stephen A. Mang](#) and [Sergey A. Nizkorodov](#),\* “Photodegradation of secondary organic aerosol generated from limonene oxidation by ozone studied with chemical ionization mass spectrometry” Atmospheric Chemistry and Physics, **9** (2009) 3851-3865, [DOI:10.5194/acp-9-3851-2009](#), **PMID**: n/a.
59. [Ahmad Alshawa](#), Otto Dopfer, [Christopher W. Harmon](#), [Sergey A. Nizkorodov](#)\* and Joelle S. Underwood, “Hygroscopic growth and deliquescence of NaCl nanoparticles coated with surfactant AOT” Journal of Physical Chemistry A, **113** (2009) 7678-7686, [DOI:10.1021/jp809869r](#), **PMID**:19298069.
57. [Stephen A. Mang](#), [Dana K. Henricksen](#), [Adam P. Bateman](#), Mads P.S. Andersen, Donald R. Blake and [Sergey A. Nizkorodov](#),\* “Contribution of carbonyl photochemistry to aging of atmospheric secondary organic aerosol” Journal of Physical Chemistry A, **112** (2008) 8337-8344, [DOI:10.1021/jp804376c](#), **PMID**:18700731.
56. [Adam P. Bateman](#), [Maggie L. Walser](#), Yury Desyaterik, Julia Laskin, Alexander Laskin and [Sergey A. Nizkorodov](#),\* “The effect of solvent on the analysis of secondary organic aerosol using electrospray ionization mass spectrometry” Environmental Science & Technology, **42** (2008) 7341-346, [DOI:10.1021/es801226w](#), **PMID**:18939568.
55. [Stephen A. Mang](#), [Maggie L. Walser](#), [Xiang Pan](#), Jia-Hua Xing, [Adam P. Bateman](#), Joelle S. Underwood, [Anthony L. Gomez](#), Jiho Park and [Sergey A. Nizkorodov](#),\* “Photochemistry of secondary organic aerosol formed from oxidation of monoterpenes” Chapter 7, page 91-109, [DOI:10.1021/bk-2009-1005.ch007](#). Published in “Atmospheric Aerosols: Characterization, Chemistry and Modeling (ACS Symposium Series)”, Valsaraj, K. T., Kommalapati, R. R., Eds., 2009; 216 pages, ISBN13: 9780841269736.
52. [Anthony L. Gomez](#), [Tanza L. Lewis](#), [Stacy A. Wilkinson](#) and [Sergey A. Nizkorodov](#),\* “Stoichiometry of ozonation of environmentally relevant olefins in saturated hydrocarbon solvents” Environmental Science & Technology, **42** (2008) 3582-3587, [DOI:10.1021/es800096d](#), **PMID**:18546693.
51. [Maggie L. Walser](#), Yury Desyaterik, Julia Laskin, Alexander Laskin and [Sergey A. Nizkorodov](#),\* “High-resolution mass spectrometric analysis of secondary organic aerosol produced by ozonation of limonene” Physical Chemistry Chemical Physics, **10** (2008) 1009-1022, [DOI:10.1039/b712620d](#), **PMID**:18259641.
50. [Maggie L. Walser](#), Jiho Park, [Anthony L. Gomez](#), [Ashley R. Russell](#) and [Sergey A. Nizkorodov](#),\* “Photochemical aging of secondary organic aerosol particles generated from the oxidation of d-limonene” Journal of Physical Chemistry A, **111** (2007) 1907-1913, [DOI:10.1021/jp066293l](#), **PMID**:17311364.
49. [Ahmad Alshawa](#), [Ashley R. Russell](#) and [Sergey A. Nizkorodov](#),\* “Kinetic analysis of competition between aerosol particle removal and generation by ionization air purifiers” Environmental Science & Technology, **41** (2007) 2498-2504, [DOI:10.1021/es061760y](#), **PMID**:17438806.
47. [Anthony L. Gomez](#), Jiho Park, [Maggie L. Walser](#), Ao Lin and [Sergey A. Nizkorodov](#),\* “UV photodissociation spectroscopy of oxidized undecylenic acid films” Journal of Physical Chemistry A, **110** (2006) 3584-3592, [DOI:10.1021/jp0554442](#), **PMID**:16526639.



46. Jiho Park, [Anthony L. Gomez](#), [Maggie L. Walser](#), Ao Lin and [Sergey A. Nizkorodov](#),\* “Ozonolysis and photolysis of alkene-terminated self-assembled monolayers on quartz nanoparticles: implications for photochemical aging of organic aerosol particles” *Physical Chemistry Chemical Physics*, **8** (2006) 2506-2512, [DOI:10.1039/b602704k](#), **PMID:16721435**.
45. [Nicole Britigan](#), [Ahmad Alshawa](#) and [Sergey A. Nizkorodov](#),\* “Quantification of ozone levels in indoor environments generated by ionization and ozonolysis air-purifiers” *JAWMA* **56** (2006) 601-610, [DOI:10.1080/10473289.2006.10464467](#), **PMID:16739796**.
44. [Sergey A. Nizkorodov](#),\* John D. Crouse, Juliane L. Fry, Coleen M. Roehl and Paul O. Wennberg, “Near-IR photodissociation of peroxy acetyl nitrate” *Atmospheric Chemistry and Physics*, **5** (2005) 385-392, [DOI:10.5194/acp-5-385-2005](#).
43. Yael Dubowski, John Vieceli, Douglas J. Tobias,\* [Anthony L. Gomez](#), Ao Lin, [Sergey A. Nizkorodov](#), Theresa M. McIntire and Barbara J. Finlayson-Pitts,\* “Interaction of gas-phase ozone at 296 K with unsaturated self-assembled monolayers: a new look at an old system” *Journal of Physical Chemistry A*, **108** (2004) 10473-10485, [DOI:10.1021/jp046604x](#).
41. Juliane L. Fry,\* [Sergey A. Nizkorodov](#), Mitchio Okumura,\* Coleen M. Roehl, Joseph S. Francisco and Paul O. Wennberg,\* “*Cis-cis* and *trans-perp* HOONO: action spectroscopy and isomerization kinetics” *Journal of Chemical Physics*, **121** (2004) 1432-1448, [DOI:10.1063/1.1760714](#), **PMID:15260688**.
40. [Sergey A. Nizkorodov](#),\* Stanley P. Sander\* and Linda R. Brown,\* “Temperature and pressure dependence of high-resolution air-broadened absorption cross sections of NO<sub>2</sub> (415-525 nm)” *Journal of Physical Chemistry A*, **108** (2004) 4864-4872, [DOI:10.1021/jp049461n](#).
39. Brian D. Bean, Andrew K. Mollner, [Sergey A. Nizkorodov](#), Gautham Nair, Mitchio Okumura,\* Stanley P. Sander,\* Kirk A. Peterson and Joseph S. Francisco, “Cavity ringdown spectroscopy of *cis-cis* HOONO and the HOONO/HONO<sub>2</sub> branching ratio in the reaction OH + NO<sub>2</sub> + M” *Journal of Physical Chemistry A*, **107** (2003) 6974-6985, [DOI:10.1021/jp034407c](#).
37. [Sergey A. Nizkorodov](#)\* and Paul O. Wennberg, “First spectroscopic observation of gas-phase HOONO” *Journal of Physical Chemistry A*, **106** (2002) 855-859, [DOI:10.1021/jp013598l](#).
36. Coleen M. Roehl,\* [Sergey A. Nizkorodov](#), Hui Zhang, Geoffrey A. Blake and Paul O. Wennberg, “Photodissociation of peroxyacetic acid in the near-IR” *Journal of Physical Chemistry A*, **106** (2002) 3766-3772, [DOI:10.1021/jp013536v](#).
34. [Sergey A. Nizkorodov](#), Warren W. Harper and David J. Nesbitt,\* “Fast vibrational relaxation of OH( $\nu=9$ ) by ammonia and ozone” *Chemical Physics Letters*, **341** (2001) 107-114, [DOI:10.1016/S0009-2614\(01\)00371-2](#).
32. [Sergey A. Nizkorodov](#), Warren W. Harper, Brad W. Blackmon and David J. Nesbitt,\* “Temperature dependent kinetics of the OH/HO<sub>2</sub>/O<sub>3</sub> chain reaction by time-resolved IR laser absorption spectroscopy” *Journal of Physical Chemistry A*, **104** (2000) 3964-3973, [DOI:10.1021/jp9934984](#).
4. [Sergey A. Nizkorodov](#), Vladimir I. Makarov, Igor V. Khmelinskii, Sergei A. Kotschubei and Konstantin A. Amosov, “LIF detection of NO<sub>3</sub> radical after pulsed excitation of NO<sub>2</sub> vapor at 436.45 nm” *Chemical Physics Letters*, **222** (1994) 135-140, [DOI:10.1016/0009-2614\(94\)00290-8](#).

### MOLECULAR REACTION DYNAMICS

53. François Lique, Millard A. Alexander,\* Guoliang Li, Hans-Joachim Werner, [Sergey A. Nizkorodov](#), Warren W. Harper and David J. Nesbitt, “Evidence for excited spin-orbit state reaction dynamics in F + H<sub>2</sub>: theory and experiment” *Journal of Chemical Physics*, **128** (2008) 084313: 1-9, [DOI:10.1063/1.2831412](#), **PMID:18315052**.

35. Warren W. Harper, Sergey A. Nizkorodov and David J. Nesbitt,\* “Reactive scattering of  $F + HD \rightarrow HF(v,J) + D$ :  $HF(v,J)$  nascent product state distributions and evidence for quantum transition state resonances” *Journal of Chemical Physics*, **116** (2002) 5622-5632, [DOI:10.1063/1.1456507](https://doi.org/10.1063/1.1456507).
33. Warren W. Harper, Sergey A. Nizkorodov and David J. Nesbitt,\* “Differential scattering dynamics of  $F + CH_4 \rightarrow HF(v,J) + CH_3$  via high-resolution IR laser Dopplerimetry” *Chemical Physics Letters*, **335** (2001) 381-387, [DOI:10.1016/S0009-2614\(01\)00034-3](https://doi.org/10.1016/S0009-2614(01)00034-3).
31. Warren W. Harper, Sergey A. Nizkorodov and David J. Nesbitt,\* “Quantum state-resolved reactive scattering of  $F + CH_4 \rightarrow HF(v,J) + CH_3$ : nascent  $HF(v,J)$  product state distributions” *Journal of Chemical Physics*, **113** (2000) 3670-3680, [DOI:10.1063/1.1287398](https://doi.org/10.1063/1.1287398).
30. Sergey A. Nizkorodov, Warren W. Harper, William B. Chapman, Brad W. Blackmon and David J. Nesbitt,\* “Energy-dependent cross-sections and nonadiabatic reaction dynamics in  $F(^2P_{3/2}, ^2P_{1/2}) + n-H_2 \rightarrow HF(v,J) + H$ ” *Journal of Chemical Physics*, **111** (1999) 8404-8416, [DOI:10.1063/1.480182](https://doi.org/10.1063/1.480182).
29. Sergey A. Nizkorodov, Warren W. Harper and David J. Nesbitt,\* “State-to-state reaction dynamics in crossed supersonic jets: threshold evidence for non-adiabatic channels in  $F + H_2$ ” *Faraday. Disc. Chem. Soc.* **113** (1999) 107-117, [DOI:10.1039/a901824g](https://doi.org/10.1039/a901824g).
27. William B. Chapman, Brad W. Blackmon, Sergey A. Nizkorodov and David J. Nesbitt,\* “Quantum state-resolved reactive scattering of  $F + H_2$  in supersonic jets: nascent  $HF(v,J)$  rovibrational distributions via IR laser direct absorption methods” *Journal of Chemical Physics*, **109** (1998) 9306-9317, [DOI:10.1063/1.477592](https://doi.org/10.1063/1.477592).

### PHOTODISSOCIATION DYNAMICS

42. Sergey A. Nizkorodov, Michael Ziemkiewicz, David J. Nesbitt\* and Alan E. W. Knight, “Overtone spectroscopy of  $H_2O$  clusters in the  $v_{OH}=2$  manifold: infrared-ultraviolet vibrationally mediated dissociation studies” *Journal of Chemical Physics*, **122** (2005) 194316: 1-11, [DOI:10.1063/1.1899157](https://doi.org/10.1063/1.1899157), PMID:16161582.
38. Sergey A. Nizkorodov, Michael Ziemkiewicz, Tanya L. Myers and David J. Nesbitt,\* “Vibrationally mediated dissociation dynamics of  $H_2O$  in the  $v_{OH} = 2$  polyad” *Journal of Chemical Physics*, **119** (2003) 10158-10168, [DOI:10.1063/1.1616915](https://doi.org/10.1063/1.1616915).
26. Sergey A. Nizkorodov and Evan J. Bieske,\* “Photofragmentation dynamics of the  $(N_2O)_2^+$  and  $(N_2O)_3^+$  clusters: fragment  $N_2O^+ A \leftarrow X$  spectra” *Chemical Physics*, **239** (1998) 369-378, [DOI:10.1016/S0301-0104\(98\)00320-6](https://doi.org/10.1016/S0301-0104(98)00320-6).
6. Dan Lessen, Sergey A. Nizkorodov, Patrick Knupfer, Thomas Ruchti, Evan J. Bieske\* and John P. Maier, “Rotational distribution of  $N_2^+$  fragments from 355 nm photolysis of  $N_4^+$ ” *Chemical Physics Letters*, **226** (1994) 187-192, [DOI:10.1016/0009-2614\(94\)00698-9](https://doi.org/10.1016/0009-2614(94)00698-9).
5. Evan J. Bieske,\* Sergey A. Nizkorodov, Adrian A. Friedmann and John P. Maier, “Metastable decay of  $N_2^{+---}He_n$  ( $v = 1$ ) ( $1 < n \leq 6$ ) clusters” *International Journal of Mass Spectrometry and Ion Processes*, **135** (1994) 19-30, [DOI:10.1016/0168-1176\(94\)03975-5](https://doi.org/10.1016/0168-1176(94)03975-5).

### SPECTROSCOPY

48. Horia-Sorin Andrei, Sergey A. Nizkorodov and Otto Dopfer\* “IR spectra of protonated carbonic acid and its isomeric  $H_3O^+ \cdot CO_2$  complex” *Angew. Chem. Int. Ed* **46** (2007) 4754-4756 (*Angew. Chem.* **119** (2007) 4838-4840), [DOI:10.1002/anie.200700750](https://doi.org/10.1002/anie.200700750), PMID:17487916.
28. Rouslan V. Olkhov, Sergey A. Nizkorodov and Otto Dopfer,\* “Intermolecular interaction in the  $CH_3^{+---}He$  ionic complex revealed by *ab initio* calculations and infrared photodissociation spectroscopy” *Journal of Chemical Physics*, **110** (1999) 9527-9535, [DOI:10.1063/1.478917](https://doi.org/10.1063/1.478917).
25. Otto Dopfer,\* Sergey A. Nizkorodov, Rouslan V. Olkhov, John P. Maier and Ken Harada, “Infrared spectrum of the  $Ar^{---}NH_2^+$  ionic complex” *Journal of Physical Chemistry A*, **102** (1998) 10017-10024, [DOI:10.1021/jp983132b](https://doi.org/10.1021/jp983132b).



24. Rouslan V. Olkhov, Sergey A. Nizkorodov and Otto Dopfer,\* “Infrared photodissociation spectra of isomeric  $\text{SiOH}^+ \text{---} \text{Ar}_n$  ( $n=1-10$ ) complexes” *Chemical Physics*, **239** (1998) 393-407, [DOI:10.1016/S0301-0104\(98\)00253-5](https://doi.org/10.1016/S0301-0104(98)00253-5).
23. Doris Roth, Sergey A. Nizkorodov, John P. Maier and Otto Dopfer,\* “Intermolecular interaction in the  $\text{OH}^+ \text{---} \text{He}$  and  $\text{OH}^+ \text{---} \text{Ne}$  open-shell ionic complexes: Infrared predissociation spectra of the  $\nu_1$  and  $\nu_1 + \nu_b$  vibrations” *Journal of Chemical Physics*, **109** (1998) 3841-3849, [DOI:10.1063/1.476984](https://doi.org/10.1063/1.476984).
22. Rouslan V. Olkhov, Sergey A. Nizkorodov and Otto Dopfer,\* “Infrared photodissociation spectra of  $\text{CH}_3^+ \text{---} \text{Ar}_n$  complexes ( $n=1-8$ )” *Journal of Chemical Physics*, **108** (1998) 10046-10060, [DOI:10.1063/1.476465](https://doi.org/10.1063/1.476465).
21. Sergey A. Nizkorodov, Markus Meuwly, John P. Maier, Otto Dopfer\* and Evan J. Bieske, “Infrared predissociation spectra of  $\text{Ne}_n \text{---} \text{HN}_2^+$  clusters ( $n=1-5$ )” *Journal of Chemical Physics*, **108** (1998) 8964-8975, [DOI:10.1063/1.476342](https://doi.org/10.1063/1.476342).
20. Rouslan V. Olkhov, Sergey A. Nizkorodov and Otto Dopfer,\* “Hindered rotation in ion-neutral molecular complexes: The  $\nu_1$  vibration of  $\text{H}_2 \text{---} \text{HCO}^+$  and  $\text{D}_2 \text{---} \text{DCO}^+$ ” *Journal of Chemical Physics*, **107** (1997) 8229-8238, [DOI:10.1063/1.475027](https://doi.org/10.1063/1.475027).
19. Sergey A. Nizkorodov, Doris Roth, Rouslan V. Olkhov, John P. Maier and Otto Dopfer,\* “Infrared predissociation spectra of  $\text{He} \text{---} \text{HO}_2^+$  and  $\text{Ne} \text{---} \text{HO}_2^+$ : prediction of the  $\nu_1$  frequency of  $\text{HO}_2^+$ ” *Chemical Physics Letters*, **278** (1997) 26-30, [DOI:10.1016/S0009-2614\(97\)01003-8](https://doi.org/10.1016/S0009-2614(97)01003-8).
18. Markus Meuwly, Sergey A. Nizkorodov, Evan J. Bieske, John P. Maier and Otto Dopfer,\* “Reply to the comment on “The  $\nu_3$  infrared spectrum of the  $\text{He} \text{---} \text{NH}_4^+$  complex”” *Chemical Physics Letters*, **270** (1997) 252-254, [DOI:10.1016/S0009-2614\(97\)00346-1](https://doi.org/10.1016/S0009-2614(97)00346-1).
17. Otto Dopfer,\* Sergey A. Nizkorodov, Markus Meuwly, Evan J. Bieske and John P. Maier, “Microsolvation of the ammonium ion in argon: infrared spectra of  $\text{NH}_4^+ \text{---} \text{Ar}_n$  complexes ( $n=1-7$ )” *Int. J. Mass Spectr. Ion. Proc.* **167-168** (1997) 637-647, [DOI:10.1016/S0168-1176\(97\)00111-0](https://doi.org/10.1016/S0168-1176(97)00111-0).
16. Sergey A. Nizkorodov, Yuri Spinelli, Evan J. Bieske, John P. Maier and Otto Dopfer,\* “Dissociation energy of the  $\text{Ar} \text{---} \text{HN}_2^+$  complex” *Chemical Physics Letters*, **265** (1997) 303-307, [DOI:10.1016/S0009-2614\(96\)01480-7](https://doi.org/10.1016/S0009-2614(96)01480-7).
15. Otto Dopfer,\* Sergey A. Nizkorodov, Markus Meuwly, Evan J. Bieske and John P. Maier, “The  $\nu_3$  infrared spectrum of the  $\text{He} \text{---} \text{NH}_4^+$  complex” *Chemical Physics Letters*, **260** (1996) 545-550, [DOI:10.1016/0009-2614\(96\)00919-0](https://doi.org/10.1016/0009-2614(96)00919-0).
14. Sergey A. Nizkorodov, Otto Dopfer,\* Markus Meuwly, John P. Maier and Evan J. Bieske, “Mid-infrared spectra of the proton-bound complexes  $\text{Ne}_n \text{---} \text{HCO}^+$  ( $n=1, 2$ )” *Journal of Chemical Physics*, **105** (1996) 1770-1777, [DOI:10.1063/1.472052](https://doi.org/10.1063/1.472052).
13. Evan J. Bieske,\* Sergey A. Nizkorodov, Otto Dopfer, John P. Maier, Ross J. Stickland, Bryan J. Cotterell and Brian J. Howard, “Observation of the infrared spectrum of the  $\nu_3$  band of the argon-ammonium ionic complex” *Chemical Physics Letters*, **250** (1996) 266-272, [DOI:10.1016/0009-2614\(96\)00029-2](https://doi.org/10.1016/0009-2614(96)00029-2).
12. Markus Meuwly, Sergey A. Nizkorodov, John P. Maier and Evan J. Bieske,\* “Mid-infrared spectra of  $\text{He} \text{---} \text{HN}_2^+$  and  $\text{He}_2 \text{---} \text{HN}_2^+$ ” *Journal of Chemical Physics*, **104** (1996) 3876-3885, [DOI:10.1063/1.471244](https://doi.org/10.1063/1.471244).
11. Sergey A. Nizkorodov, Otto Dopfer, Thomas Ruchti, Markus Meuwly, John P. Maier and Evan J. Bieske,\* “Size effects in cluster infrared spectra: the  $\nu_1$  band of  $\text{Ar}_n \text{---} \text{HCO}^+$  ( $n=1-13$ )” *Journal of Physical Chemistry*, **99** (1995) 17118-17129, [DOI:10.1021/j100047a013](https://doi.org/10.1021/j100047a013).
10. Sergey A. Nizkorodov, John P. Maier and Evan J. Bieske,\* “The infrared spectrum of  $\text{He} \text{---} \text{HCO}^+$ ” *Journal of Chemical Physics*, **103** (1995) 1297-1302, [DOI:10.1063/1.469806](https://doi.org/10.1063/1.469806).
9. Evan J. Bieske,\* Sergey A. Nizkorodov, Frederick R. Bennett and John P. Maier, “Combined infrared and *ab initio* study of the  $\text{H}_2 \text{---} \text{NH}_2^+$  complex” *International Journal of Mass Spectrometry and Ion Processes*, **149/150** (1995) 167-177, [DOI:10.1016/0168-1176\(95\)04239-H](https://doi.org/10.1016/0168-1176(95)04239-H).
8. Sergey A. Nizkorodov, John P. Maier and Evan J. Bieske,\* “The infrared spectrum of the  $\text{N}_2\text{H}^+ \text{---} \text{He}$  ion-neutral complex” *Journal of Chemical Physics*, **102** (1995) 5570-5571, [DOI:10.1063/1.469286](https://doi.org/10.1063/1.469286).

7. Evan J. Bieske,\* [Sergey A. Nizkorodov](#), Frederick R. Bennett and John P. Maier, “The infrared spectrum of the H<sub>2</sub>---HCO<sup>+</sup> complex” *Journal of Chemical Physics*, **102** (1995) 5152-5164, [DOI:10.1063/1.469240](#).
3. Adrian A. Friedmann, Antony M. Soliva, [Sergey A. Nizkorodov](#), Evan J. Bieske\* and John P. Maier, “A <sup>3</sup>Π<sub>u</sub> ← X<sup>3</sup>Σ<sub>g</sub><sup>-</sup> electronic spectrum of N<sub>3</sub><sup>+</sup>” *Journal of Physical Chemistry*, **98** (1994) 8896-8902, [DOI:10.1021/j100087a013](#).
2. Adrian A. Friedmann, [Sergey A. Nizkorodov](#), Evan J. Bieske\* and John P. Maier, “Discrete UV absorption by N<sub>3</sub><sup>+</sup>---(N<sub>2</sub>)<sub>n</sub> clusters” *Chemical Physics Letters*, **224** (1994) 16-20, [DOI:10.1016/0009-2614\(94\)00514-1](#).
1. [Sergey A. Nizkorodov](#), Vladimir I. Makarov,\* Igor V. Khmelinskii, Sergei A. Kotschubei and Konstantin A. Amosov, “Time-resolved fluorescence of NO<sub>2</sub> in a magnetic field” *Chemical Physics Letters*, **215** (1993) 662-667, [DOI:10.1016/0009-2614\(93\)89374-Q](#).

### CHEMICAL EDUCATION

189. Kameryn Denaro, [Sergey A. Nizkorodov](#), and Amanda J. Holton\* “The impact of modality choice on final exam success and retention in a concurrent preparatory chemistry course” *Journal of Chemical Education*, **100** (2023) 4585-4596. [DOI:10.1021/acs.jchemed.3c00365](#).
54. [Stephen A. Mang](#), [Maggie L. Walser](#), [Sergey A. Nizkorodov](#),\* and John M. Laux “Measurement of ozone emission and particle removal rates from portable air purifiers” *Journal of Chemical Education*, **86** (2009) 219-221, [DOI:10.1021/ed086p219](#).

### TOXICOLOGY

58. Jeffrey R. Suchard,\* [Sergey A. Nizkorodov](#), [Stacy A. Wilkinson](#), “1,4-Butanediol Content of Aqua Dots Children’s Craft Toy Beads” *Journal of Medical Toxicology*, **5** (2009) 120-124, [DOI:10.1007/BF03161221](#), **PMID**:19655283.  
(Preliminary results of this study were also reported in printed peer-reviewed conference proceedings: Jeffrey R. Suchard, [Sergey A. Nizkorodov](#), [Stacy A. Wilkinson](#), “1,4-Butanediol Content of Aqua Dots Craft Toy Beads” *Academic Emergency Medicine*, **15** (2008) S84-S102, [DOI:10.1111/j.1553-2712.2008.00123.x](#).)

### OTHER PEER-REVIEWED PUBLICATIONS

Donald R. Blake, Barbara J. Finlayson-Pitts and [Sergey A. Nizkorodov](#), “James N. Pitts Jr. (1921–2014)” *EOS*, **96** (2015) [DOI:10.1029/2015EO029385](#).

### SEMINARS AT COLLEGES, RESEARCH CENTERS AND ONLINE

77. The American Association for Aerosol Research on-line lecture series (June 19, 2024), “Light-absorbing products of atmospheric oxidation of indole by hydroxyl radical, nitrate radical and ozone”, remote seminar, about 70 attendees.
76. Environmental Science and Engineering (EnSE) program at King Abdullah University of Science and Technology (KAUST) (May 7, 2024), “Photochemical and dark ageing of organic aerosols”, remote seminar, about 40 attendees
75. Frontiers in Atmospheric Chemistry Seminar Series (<https://facss.mit.edu/>) (September 8, 2023), “Photochemical and dark ageing of organic aerosols”, remote seminar, about 200 attendees
74. Atmospheric Science Graduate Group, University of California, Davis (November 10, 2020) – remote seminar
73. Environmental Protection Agency, Raleigh-Durham, North Carolina Area (May 21, 2020) – remote seminar
72. Department of Chemistry & Biochemistry, California State University, Fullerton, CA (March 14, 2019)
71. Department of Chemistry, University of California, Riverside, CA (February 7, 2019)
70. CIRES, University of Colorado, Boulder, CO (September 17, 2018)
69. Center for the Environment, Harvard University, Cambridge, MA (September 14, 2018)
68. Department of Chemistry, California State University, Long Beach, CA (September 12, 2018)
67. Laboratoire de Chimie de l'Environnement, Aix-Marseille Université, France (July 6, 2018)
66. Department of Environmental Systems Science, ETH Zurich, Switzerland (July 3, 2018)
65. IRCELYON, Université Claude Bernard Lyon 1, France (June 14, 2018)
64. Department of Chemistry, University of Alberta, Canada (April 27, 2018)
63. Department of Chemistry, Purdue University, West Lafayette, IN (April 10, 2018)

62. School of Chemistry, University of Melbourne, Australia (July 11, 2017)
61. Department of Environmental Science and Analytical Chemistry (ACES), Stockholm University, Sweden (Feb 2, 2017)
60. Department of Physics, Tampere University of Technology, Tampere, Finland (Jan 26, 2017)
59. Department of Chemistry, Aarhus University, Aarhus, Denmark (Jan 12, 2017)
58. Department of Applied Physics, University of Eastern Finland, Kuopio, Finland (Nov 22, 2016)
57. Labor für Umweltchemie (LUC), Paul Scherrer Institut (PSI), Switzerland (Nov 4, 2016)
56. Department of Physics, University of Helsinki, Helsinki, Finland (Oct 31, 2016)
55. Department of Chemistry, Colorado State University, Fort Collins, CO (Nov 18, 2015)
54. Department of Chemistry, Humboldt State University, Arcata, CA (Nov 13, 2015)
53. Department of Chemistry, University of California, Berkeley, CA (Nov 11, 2015)
52. Leibniz-Institut für Troposphärenforschung (TROPOS), Leipzig, Germany (August 24, 2015)
51. National Center for Atmospheric Research, Boulder, CO (June 16, 2015)
50. University of Toronto, joint research seminar of atmospheric chemistry groups, Toronto, Canada (April 10, 2015)
49. Department of Chemical and Environmental Engineering, University of California, Riverside, CA (Feb 27, 2015)
48. Department of Environmental Science and Engineering and Shanghai Key Laboratory of Atmospheric Particle Pollution and Prevention, Fudan University, Shanghai, China (Sep 25, 2014)
47. Department of Chemistry and Biochemistry, University of California, San Diego, CA (Feb 11, 2014)
46. Department of Chemistry and Biochemistry, California State University, San Bernardino, CA (Feb 6, 2014)
45. Laboratory of Physical Chemistry, University of Helsinki, Helsinki, Finland (Oct 18, 2013)
44. Department of Chemistry and Biochemistry, California State University, Chico, CA (Sep 27, 2013)
43. Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic (June 15, 2013)
42. School of Earth & Atmospheric Sciences, Georgia Tech, Atlanta, GA (May 4, 2012)
41. Department of Chemistry, University of Wisconsin-Madison, Madison, WI (March 20, 2012)
40. Department of Chemistry, University of Colorado, Denver, Denver, CO (Sep 2, 2011)
39. Fritz Haber Research Center for Molecular Dynamics, Hebrew University of Jerusalem, Israel (March 14, 2011)
38. Department of Chemistry and Biochemistry, Southern Illinois University, Carbondale, IL (Sep 17, 2010)
37. Environmental Molecular Science Laboratory, Pacific Northwest National Laboratory, Richland, WA (Feb 25, 2010)
36. Department of Chemistry, Reed College, Portland, OR (February 18, 2010)
35. Department of Chemistry, University of Toronto, Toronto, Canada (May 29, 2009)
34. Environmental Science and Engineering, California Institute of Technology, Pasadena, CA (April 15, 2009)
33. Department of Chemistry and Biochemistry, San Diego State University, San Diego, CA (March 27, 2009)
32. Department of Chemistry, University of California, Irvine, CA (October 2, 2007)
31. Department of Chemistry, University of Southern California, Los Angeles, CA (September 24, 2007)
30. Department of Chemistry, Georgetown University, Washington, DC (March 22, 2007)
29. Department of Environmental Sciences, University of California, Riverside, CA (March 12, 2007)
28. Department of Chemistry, University of Iowa, Iowa City, IA (March 2, 2007)
27. Department of Chemistry, Iowa State University, Ames, IA (March 1, 2007)
26. Scripps Institute of Oceanography, University of California, San Diego, La Jolla, CA (February 20, 2007)
25. Department of Atmospheric Sciences, Harvard University, Cambridge, MA (February 16, 2007)
24. Department of Chemistry, University of North Carolina, Chapel Hill, NC (February 12, 2007)
23. Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN (February 8, 2007)
22. Indiana University, Department of Chemistry, Bloomington, IN (February 6, 2007)
21. Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles, CA (Jan 31, 2007)
20. Environmental Molecular Science Laboratory, Pacific Northwest National Laboratory, Richland, WA (Jan 16, 2007)
19. Department of Chemistry, University of Georgia, Athens, GA (December 1, 2006)
18. Department of Chemistry, Emory University, Atlanta, GA (November 30, 2006)
17. Department of Chemistry and Biochemistry, Georgia Tech, Atlanta, GA (November 29, 2006)
16. Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ (October 26, 2006)
15. Department of Chemistry and Biochemistry, University of Colorado, Boulder, CO (September 22, 2006)
14. Institut für Physikalische Chemie, Universität Würzburg, Germany (March 27, 2006)
13. Department of Chemistry and Biochemistry, California State University, Fullerton, CA (March 2, 2006)
12. Department of Chemistry, University of California, Irvine, CA (September, 2005)
11. College of Arts and Sciences, California Lutheran University, Thousand Oak, CA (April, 2005)
10. Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, CA (April, 2003)
9. Department of Chemistry, University of California, Irvine, CA (2001, faculty job interview seminar)
8. Department of Chemistry and Biochemistry, University of Colorado, Boulder, CO (2001, faculty job interview seminar)
7. Department of Chemistry, Iowa State University, Ames, IA (2001, faculty job interview seminar)
6. Department of Chemistry, University of California, Berkeley, Berkeley, CA (2001, faculty job interview seminar)
5. Department of Chemistry, Washington University, St. Louis, MO (2001, faculty job interview seminar)
4. Department of Chemistry, University of Wisconsin-Madison, Madison, WI (2001, faculty job interview seminar)

3. Department of Chemistry, Kansas State University, Manhattan, KS (2001, faculty job interview seminar)
2. Department of Chemistry, Louisiana State University, Baton Rouge, LA (1999, faculty job interview seminar)
1. Department of Chemistry, University of Minnesota, Minneapolis, MN (1999, faculty job interview seminar)

## **PUBLIC, OUTREACH AND PEDAGOGICAL SEMINARS**

17. The Fourth Sino-European School on Atmospheric Chemistry, Nov 2019, Shanghai, China  
*Two 90 min lectures to graduate students from various universities from China and other countries; invited*
  - a. "Particle Photochemistry"
  - b. "Atmospheric Brown Carbon"
16. The Third Sino-European School on Atmospheric Chemistry, Nov 2017, Shanghai, China  
*"Photochemical ageing of organic aerosols" (a 90 min lecture to graduate students from various universities from China and other countries; invited)*
15. American Voices Seminar, University of Turku, Oct 7-8, 2016, Turku, Finland  
*"A Look at Californian Forests: Forests on Fire" (presented jointly with Marie Tysman)*
14. The Second Sino-European School on Atmospheric Chemistry, Oct 2015, Shanghai, China  
*Two 90 min lectures to graduate students from various universities from China and other countries; invited*
  - c. "Photochemical and dark ageing of organic aerosols"
  - d. "Atmospheric Brown Carbon"
13. Troy High School, Fullerton, CA, USA (Oct 8, 2015)  
*"Air-pollution research" (two identical talks for two classes of AP chemistry students)*
12. AirUCI Informal seminar, Irvine, CA, USA (Nov 25, 2014)  
*"How to recognize different types of aerosols from quite a long way away" (an overview of aerosol mass spectrometry methods for AirUCI students and postdocs)*
11. Fudan University, Department of Environmental Science and Engineering, Shanghai, China (Sep 19 and 26, 2014)  
*"Introduction to aerosols" (two two-hour lectures for the Fudan University graduate students; invited)*
10. Sino-European School on Atmospheric Chemistry, May 2013, Taicang City, China  
*"Photochemical and dark ageing of organic aerosols" (a two-hour lecture to graduate students from various universities from China and other countries)*
9. Associated Students UCI (ASUCI) luncheon, January 2009, Irvine, CA, USA  
*"How you can generate a smog in your own home"*
8. UCI Middle School Science Career Conference, December 2008, Irvine, CA, USA  
*"Clean air on my mind"*
7. Chemical Sciences Roundtable workshop "Strengthening High School Chemistry Education through Teacher Outreach Programs", August 2008, Washington, DC, USA  
*"AirUCI summer workshop for teachers"*
6. UCI Chancellor's Club luncheon, August 2007, Irvine, CA, USA  
*"What is in the air we breathe?"*
5. Ninth Annual Discover the Physical Sciences Breakfast Lecture Series, January 2007, Irvine, CA, USA  
*"Chewable components of the air we breathe: organic particles in indoor and outdoor environment"*
4. OCSEA Science and Technology Conference, November 2005, Santa Ana, CA, USA  
Educating high school students about energy use, air pollution and climate problems
3. Osher Lifelong Learning Institute, October 2005, Irvine, CA, USA  
*"Ultrafine particles in the air we breathe"*
2. UCI Cosmos Program, July 2005, Irvine, CA, USA  
*"Particles in the atmosphere"*
1. UCI Cosmos Program, July 2004, Irvine, CA, USA  
*"The Earth atmosphere: a fragile reactor"*

## **INVITED PARTICIPATION IN PANELS AND WORKSHOPS**

1. The Future of Laboratory Studies in Atmospheric Chemistry Workshop, June 17-19, 2015, Boulder, CO, USA  
*(participant in workshop discussions; discussion subgroup chair)*

## **INVITED TALKS AT RESEARCH MEETINGS**

46. American Geophysical Union Meeting, December 9-13, 2024, Washington, DC, USA  
*Condensed-phase photochemical and acid-catalyzed reactions in atmospheric aerosol particles*

45. **Keynote speaker** at the 7<sup>th</sup> International Workshop on Heterogeneous Kinetics Related to Atmospheric Aerosols, October 19-20, 2024, Qingdao, China  
*Rates and mechanisms of photochemical reactions in organic aerosol particles*
44. 268<sup>th</sup> American Chemical Society National Meeting, August 18-22, 2024, Denver, CO, USA  
*Direct and indirect photochemistry of organic aerosols in aqueous solutions*
43. Telluride Summer Research Workshop, “Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact” July 29 – August 2, 2024, Telluride, Colorado, USA  
*Chemical composition and photochemical aging of organic aerosols from burning of biomass and urban materials*
42. 266<sup>th</sup> American Chemical Society National Meeting, August 13-17, 2023, San Francisco, CA, USA  
*Atmospheric transformations of organic aerosol emitted from burning of biomass and urban materials*
41. Canadian Chemical Society Meeting, June 2-6, 2023, Vancouver, Canada  
*Chemical composition, absorption coefficients and atmospheric transformations of organic aerosol emitted from burning of biomass and urban materials*
40. 265<sup>th</sup> American Chemical Society National Meeting, March 26-30, 2023, Indianapolis, IN, USA  
*Condensed-phase photochemical and dark aging processes in secondary organic aerosol*
39. Telluride Summer Research Workshop, “Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact” July 18-22, 2022, Telluride, Colorado, USA  
*Condensed-phase organic photochemistry in atmospheric particles: effect on chemical composition and properties*
38. 258<sup>th</sup> American Chemical Society National Meeting, August 25-29, 2019, San Diego, CA, USA  
*Reactive uptake of amines and ammonia by secondary organic aerosols*
37. 258<sup>th</sup> American Chemical Society National Meeting, August 25-29, 2019, San Diego, CA, USA  
*Condensed-phase photochemical processes in atmospheric particulate matter*
36. The 29<sup>th</sup> International Conference on Photochemistry, July 21-26, 2019, Boulder, CO, USA  
*Organic photochemistry in atmospheric particulate matter*
35. 4th International Workshop on Heterogeneous Kinetics Related to Atmospheric Aerosols, September 24, 2018, Tsukuba, Japan  
*Rates of photodegradation of organic aerosol particle*
34. Tsukuba Global Science Week 2018, The Mitsubishi UFJ Environment Foundation Lectures, “Air Pollution and its Biological Effects” September 22, 2018, Tsukuba, Japan  
*Role of photochemistry in controlling composition of organic aerosols*
33. Telluride Summer Research Workshop, “Organic Particles in the Atmosphere: Formation, Properties, Processing, and Impact” July 23-27, 2018, Telluride, Colorado, USA  
*Condensed-phase photochemical processes in organic particles*
32. 36<sup>th</sup> Annual AAAR Conference, October 16-20, 2017, Raleigh, North Carolina, USA  
*Effect of aerosol water on chemical composition and aging of organic aerosols*
31. Indoor air chemistry, December 7-8, 2016, Washington, DC, USA  
*Towards molecular level modeling of indoor air chemistry*
30. John P. Maier’s Retirement Symposium, University of Basel, September 3-4, 2016, Basel, Switzerland  
*Photochemistry of Organic Aerosols*
29. 21T Ultra-High Resolution Mass Spectrometer Dedication Event, Pacific Northwest National Laboratory, April 14, 2016, Richland, WA, USA  
*Effects of biogenic-anthropogenic interactions on the physical and chemical properties of atmospheric organic aerosols*
28. 251<sup>st</sup> American Chemical Society National Meeting, March 13-17, 2016, San Diego, CA, USA  
*Condensed-phase photochemical reactions in atmospheric organic aerosols*
27. Goldschmidt Conference, Aug 16-21, 2015, Prague, Czech Republic  
*The role of condensed-phase photochemistry in atmospheric processing of aerosols and aqueous droplets*
26. Gordon Research Conference on Atmospheric Chemistry, Aug 2-7, 2015, Waterville Valley, NH, USA  
*The state of knowledge of condensed-phase photochemistry in atmospheric organic aerosols*
25. Innovations in Aerosol Physics and Chemistry, organized by the Center for Aerosol Science and Engineering (CASE) at Washington University in St. Louis, July 13-15, 2015, St. Louis, MO, USA  
*Photochemical and dark ageing processes in organic aerosols*
24. Interface between indoor and atmospheric chemistry, May 15-16, 2015, Lille, France  
*Composition and aging of secondary organic aerosols under illuminated and dark conditions*
23. 249<sup>th</sup> American Chemical Society National Meeting, March 22-26, 2015, Denver, CO, USA  
*Aqueous-phase and organic-phase photochemistry of atmospheric organic compounds*
22. American Geophysical Union Meeting, December 15-19, 2014, San Francisco, CA, USA  
*Exploring atmospheric aerosol chemistry with advanced high-resolution mass spectrometry and particle imaging methods*
21. 31<sup>st</sup> Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, March 2014, Riverside, CA, USA  
*Aqueous and aerosol photochemistry of atmospheric organic compounds*

20. American Geophysical Union Meeting, December 9-13, 2013, San Francisco, CA, USA  
*Photochemical processing of water-soluble organic compounds by clouds and fogs*
19. XXXVIII Colloquium Spectroscopicum Internationale (CSI 2013), June 16-20, 2013, Tromsø, Norway  
*Plenary talk: Molecular-level analysis and photochemical aging of atmospheric organics in ambient particles and aqueous droplets*
18. XXV International Symposium on Molecular Beams, June 9-14, 2013, Prague, Czech Republic  
*Water uptake by aerosolized nanoparticles: experiments, modeling, and molecular dynamics simulations*
17. 245<sup>th</sup> American Chemical Society National Meeting, April 7-11, 2013, New Orleans, LA, USA  
*Photochemical aging of atmospheric organics in ambient particles and aqueous droplets*
16. 244<sup>th</sup> American Chemical Society National Meeting, August 19-23, 2012, Philadelphia, PA, USA  
*Evolution of organic aerosol composition and properties through aqueous chemistry and photochemistry*
15. 243<sup>rd</sup> American Chemical Society National Meeting, March 25-29, 2012, San Diego, CA, USA  
*Photolysis of atmospheric organics in water and aerosols*
14. Triennial review of the Environmental Molecular Science Laboratory, October 2011, Richland, WA, USA  
(a small number of productive EMSL users invited to highlight their scientific work)  
*Probing molecular chemistry of aerosols with high resolution mass spectrometry*
13. 242<sup>nd</sup> American Chemical Society National Meeting, August 2011, Denver, CO, USA  
*Effect of chemical and photochemical cloud processing on the light absorption properties of biogenic secondary organic aerosols*
12. 240<sup>th</sup> American Chemical Society National Meeting, August 2010, Boston, MA, USA  
*Aging of secondary organic aerosols by carbonyl-amine chemistry*
11. Gordon Research Conference on "Water & Aqueous Solutions" August 2010, Holderness, NH, USA  
*Hygroscopic growth of nanoparticles containing surface active molecules*
10. 235<sup>th</sup> American Chemical Society National Meeting, April 2008, New Orleans, Louisiana, USA  
*Photodissociation processes in secondary organic aerosol particles*
9. 55<sup>th</sup> Annual Western Spectroscopy Association Conference, February 2008, Pacific Grove, California, USA  
*Photochemistry of organic aerosol formed by oxidation of monoterpenes*
8. 234<sup>th</sup> American Chemical Society National Meeting, August 2007, Boston, Massachusetts, USA  
*Photochemistry of secondary organic aerosol particles formed in oxidation of monoterpenes by O<sub>3</sub> and NO<sub>3</sub>*
7. Workshop, "Interfacial chemistry in indoor environments" July 2007, Berkeley, CA, USA  
*Composition of indoor secondary organic aerosol particles*
6. 2007 Joint Assembly of Geophysical Societies, May 2007, Acapulco, Mexico  
*Photochemical aging of organic aerosol particles*
5. Workshop, "Atmospheric Chemistry: Climate Change with Trace Gases and Aerosols" August 2006, Telluride, CO, USA  
*Photochemical processing of secondary organic aerosol particles*
4. ACS Orange County Section March dinner meeting, March 2006, Santa Ana, CA, USA  
*Organic aerosol particles in indoor and outdoor air*
3. 23<sup>rd</sup> Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, Feb 2006, Pasadena, CA, USA  
*Photochemistry of secondary organic aerosol particles*
2. 40<sup>th</sup> American Chemical Society Western Regional Meeting, January 2006, Anaheim, CA, USA  
*Photochemical processes in secondary organic aerosol particles*
1. Coblenz award lecture at the 60<sup>th</sup> Intern. Symp. on Molecular Spectroscopy, June 2005, Columbus, Ohio, USA  
*Studying chemistry with vibrational overtone photodissociation spectroscopy*

## CONTRIBUTED TALKS AT RESEARCH MEETINGS

33. Molecular-Level Understanding of Atmospheric Aerosols, April 1-5, 2024, Cargèse, Corsica, France  
*Atmospheric transformations of organic aerosol emitted from burning of biomass and urban materials*
32. 40<sup>th</sup> Annual AAAR Conference, October 3-7, 2022, Raleigh, NC, USA  
*Effect of condensed-phase photochemistry on the viscosity of atmospheric secondary organic aerosol particles*
31. 11<sup>th</sup> International Aerosol Conference, September 4-9, 2022, Athens, Greece [attending virtually]  
*Condensed-phase photochemistry greatly increases the viscosity of atmospheric secondary organic aerosol particles*
30. 254<sup>th</sup> American Chemical Society National Meeting, August 16-20, 2017, Washington, DC, USA  
*Reactive uptake of ammonia by biogenic and anthropogenic organic aerosols*
29. 253<sup>rd</sup> American Chemical Society National Meeting, April 2-6, 2017, San Francisco, CA, USA  
*Organic photochemistry in atmospheric particulate matter*
28. The International Chemical Congress of Pacific Basin Societies (Pacifichem), Dec. 15-20, 2015, Honolulu, HI, USA  
*Photolysis of organic compounds in atmospheric aerosols*

27. American Geophysical Union Meeting, December 15-19, 2014, San Francisco, CA, USA  
*Effect of relative humidity and temperature on photochemical aging of secondary organic aerosols*
26. 33<sup>rd</sup> Annual AAAR Conference, October 20-24, 2014, Orlando, FL, USA  
*Photochemical aging of brown carbon aerosols*
25. 248<sup>th</sup> American Chemical Society National Meeting, August 10-14, 2014, San Francisco, CA, USA  
*Photochemistry in secondary organic aerosols*
24. EMSL User Meeting, May 6-7, 2014, Richland, WA, USA  
*Photochemistry in atmospheric aerosols and clouds*
23. 247<sup>th</sup> American Chemical Society National Meeting, March 16-20, 2014, Dallas, TX, USA  
*Combined experimental and theoretical studies of photolysis of atmospherically relevant organic compounds in various phases*
22. 247<sup>th</sup> American Chemical Society National Meeting, March 16-20, 2014, Dallas, TX, USA  
*Photochemical and dark aging of secondary organic aerosols*
21. 32<sup>nd</sup> Annual AAAR Conference, September 30 – October 4, 2013, Portland, OR, USA  
*A systematic evaluation of the extent of photochemical processing in different types of secondary organic aerosols*
20. The Aerosol Society's Focus Meeting – Atmospheric Aerosols, July 24-24, 2013, University of Leeds, UK  
*Processing of fresh and aged secondary organic aerosols by direct photolysis*
19. Faraday Discussion 165: Tropospheric Aerosol – Formation, Transformation, Fate and Impacts, July 22-24, 2013, University of Leeds, UK  
*Brown carbon formation from ketoaldehydes of biogenic monoterpenes*
18. 244<sup>th</sup> American Chemical Society National Meeting, August 19-23, 2012, Philadelphia, PA, USA  
*Interaction of water vapor with ionic liquid nanoparticles and thin films*
17. CalNex 2010 Data Analysis Workshop, May 2011, Sacramento, CA, USA  
*Molecular characterization of organic aerosols from the Los Angeles ground site during the CalNex 2010 campaign using high-resolution mass spectrometry*
16. Pacificchem 2010, December 15-20, 2010, Honolulu, HI, USA  
*Hygroscopic properties of nanoparticles coated with ionic surfactants*
15. Pacificchem 2010, December 15-20, 2010, Honolulu, HI, USA  
*Photodegradation of organic hydroperoxides and carbonyls derived from atmospheric oxidation of unsaturated fatty acids in aerosols and cloud droplets*
14. 2009 Joint Assembly of Geophysical Societies, May 2009, Toronto, Ontario, Canada  
*Effect of slow aging reactions on optical properties of secondary organic aerosol prepared by oxidation of selected monoterpenes*
13. 27<sup>th</sup> Annual AAAR Conference, October 20-24, 2008, Orlando, FL, USA  
*Hygroscopic growth of nanoparticles containing surface active molecules prepared by an electrospray aerosol source*
12. 27<sup>th</sup> Annual AAAR Conference, October 20-24, 2008, Orlando, FL, USA  
*Photodegradation of secondary organic aerosol derived from oxidation of terpenes*
11. 2006 AirUCI Meeting, December 2006, Christchurch, New Zealand.  
*Ultrafine aerosol particle generation by ionization air purifiers*
10. 7<sup>th</sup> International Aerosol Conference, September 2006, St. Paul, MN, USA  
*Laboratory studies of photochemical processing of secondary organic aerosol particles*
9. 2005 AirUCI Meeting, June 2005, Prague, Czech Republic  
*Photochemistry of aged organic aerosol particles*
8. 2005 American Physical Society March Meeting, March 2005, Los Angeles, CA, USA  
*Photodissociation action spectroscopy of ozonized films of undecylenic acid*
7. 228<sup>th</sup> American Chemical Society National Meeting, August 2004, Philadelphia, PA, USA  
*Photodissociation action spectroscopy at organic aerosol particle-air interfaces*
6. 227<sup>th</sup> American Chemical Society National Meeting, March 2004, Anaheim, CA, USA  
*Ozonolysis of undecylenic and oleic acid films studied with infrared cavity-ring down spectroscopy*
5. 223<sup>rd</sup> American Chemical Society National Meeting, April 2002, Orlando, FL, USA  
*Observation and characterization of HOONO in the OH + NO<sub>2</sub> reaction*
4. 222<sup>nd</sup> American Chemical Society National Meeting, August 2001, Chicago, IL, USA  
*Vibrationally-mediated dissociation of water molecules inside (H<sub>2</sub>O)<sub>2</sub> and Ar-H<sub>2</sub>O*
3. 48<sup>th</sup> Annual Western Spectroscopy Association Conference, January 2001, Pacific Grove, CA, USA  
*Vibrationally-mediated photodissociation of H<sub>2</sub>O, (H<sub>2</sub>O)<sub>2</sub> and Ar-H<sub>2</sub>O: Spectroscopy and energy flow dynamics*
2. 4<sup>th</sup> Annual Rocky Mountain Symposium on Photons and Chemistry, March 1998, Estes Park, CO, USA  
*State-to-state reactive scattering study of the F + n-H<sub>2</sub> reaction in crossed molecular beams*
1. Structure and Reactivity of Molecular Ions, July 1995, Spandau, Germany.  
*Infrared spectroscopic studies of ionic complexes: HCO<sup>+</sup>-Rg and N<sub>2</sub>H<sup>+</sup>-Rg (Rg = He, Ne, Ar)*

**POSTER PRESENTATIONS AT RESEARCH MEETINGS**

28. 40<sup>th</sup> Annual Informal Gathering on Atmospheric Sciences and Photochemistry (IGASP), October 4, 2024, San Diego, CA, USA  
*Optical Properties and Atmospheric Transformations of Organic Aerosol Emitted from Burning of Urban Materials*
27. The 16<sup>th</sup> International Commission on Atmospheric Chemistry and Global Pollution (iCACGP) Symposium and 18<sup>th</sup> International Global Atmospheric Chemistry (IGAC) Science Conference (iCACGP-IGAC Conference 2024), September 9 – 13, 2024, Kuala Lumpur, Malaysia  
*Optical Properties and Atmospheric Transformations of Organic Aerosol Emitted from Burning of Urban Materials*
26. Gordon Research Conference on Atmospheric Chemistry, July 28 – August 2, 2019, Sunday River, Newry, ME, USA  
*Condensed-phase photochemistry changes chemical composition and optical properties of aerosol particles*
25. The 14<sup>th</sup> iCACGP Quadrennial Symposium and the 15<sup>th</sup> IGAC Science Conference, September 25 – 29, 2018, Takamatsu, Japan  
*Effect of condensed-phase photochemistry on the mass, composition, and properties of organic aerosols*
24. Gordon Research Conference on Atmospheric Chemistry, July 30 – August 4, 2017, Sunday River, Newry, ME, USA  
*Climate-relevant compounds produced from burning forest fire fuels in conjunction with the FIREX campaign*
23. 35<sup>th</sup> Annual AAAR Conference, October 17-21, 2016, Portland, OR, USA  
*Molecular Composition of Biomass Burning Aerosol from Household Cookstoves in Rural Haryana, India*
22. Gordon Research Conference on Atmospheric Chemistry, July 28 – August 2, 2013, West Dover, VT, USA  
*Photochemical degradation of primary and secondary brown carbon*
21. 30<sup>th</sup> Annual AAAR Conference, October 3-7, 2011, Orlando, FL, USA  
*Effect of cloud processing on the light absorption properties of biogenic secondary organic aerosols*
20. Gordon Research Conference on Atmospheric Chemistry, August 2011, West Dover, VT, USA  
*Modification of light absorption properties of organic aerosols by cloud processing*
19. CalNex 2010 Data Analysis Workshop, May 2011, Sacramento, CA, USA  
*Molecular characterization of organic compounds in atmospheric aerosols*
18. 240<sup>th</sup> American Chemical Society National Meeting, August 2010, Boston, MA, USA  
*Characterization of hygroscopic core-organic shell nanoparticles by tandem particle mobility measurements*
17. 31<sup>st</sup> DOE Annual Combustion Research Meeting, June 2010, Warrenton, VA, USA  
*Investigation of molecular level composition and atmospheric aging of organic aerosols*
16. 28<sup>th</sup> Annual AAAR Conference, October 26-30, 2009, Minneapolis, MN, USA  
*Chemical and photoinduced aging processes in secondary organic aerosol derived from oxidation of isoprene and selected monoterpenes*
15. Gordon Research Conference on Atmospheric Chemistry, August 2009, Waterville Valley, NH, USA  
*Extracting chemical and mechanistic information from high-resolution mass spectra of organic aerosols*
14. 24<sup>th</sup> Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, Feb 2007, Los Angeles, CA, USA  
*Ultrafine aerosol particle and ozone generation by ionization and ozonation air-purifiers*
13. Gordon Research Conference on Atmospheric Chemistry, August 2007, Big Sky, MT, USA  
*Photochemical processing of secondary organic aerosol particles*
12. Gordon Research Conference on Atmospheric Chemistry, September 2005, Big Sky, MT, USA  
*Photochemistry of oxidized organic aerosol particles*
11. 228<sup>th</sup> American Chemical Society National Meeting, August 2004, Philadelphia, PA, USA  
*Ozonolysis of organic particles studied with laser ablation - chemical ionization aerosol mass spectrometry*
10. 22<sup>nd</sup> Annual AAAR Conference, October 2003, Anaheim, CA, USA  
*Surface photochemistry of oxidized organic layers immobilized on sea-salt studied with cavity-ring down spectroscopy*
9. Gordon Research Conference on Atmospheric Chemistry, September 2003, Big Sky, MT, USA  
*Novel instrumentation for investigation of photochemistry in atmospheric particle-air interfaces*
8. 50<sup>th</sup> Annual Western Spectroscopy Association Conference, January 2003, Pacific Grove, CA, USA  
*Photochemistry of atmospheric aerosols studied with action spectroscopy*
7. Atmospheric Chemistry and Air Pollution Yesterday, Today and Tomorrow: a Symposium to Honor James N. Pitts, Jr., August 2001, University of California, Irvine, CA, USA  
*Experimental study of vibrationally mediated dissociation of PNA, PAN and HOONO*
6. Gordon Research Conference on Atmospheric Chemistry, June 2001, Newport, RI, USA  
*Experimental study of vibrationally mediated dissociation of PNA, PAN and HOONO*
5. Gordon Research conference on Molecular Energy Transfer, January 2001, Ventura, CA, USA  
*Vibrationally-mediated photodissociation dynamics of H<sub>2</sub>O in the  $\nu_{OH} = 2$  polyad*
4. 17<sup>th</sup> Conference on the Dynamics of Molecular Collisions, July 1999, Split Rock, PA, USA  
*State-to-state reaction dynamics in F+H<sub>2</sub> studied in crossed supersonic jets*



3. Gordon Research Conference on Atomic and Molecular Interactions, June 1998, NH, USA  
*State-to-state reactive scattering study of the  $F + n-H_2$  reaction in crossed molecular jets*
2. Symposium on Atomic Cluster and Surface Physics, January 1996, Engelberg, Switzerland  
*Mid-infrared spectra of ionic proton-bound complexes: intermolecular interaction and solvation effects*
1. Structure and Reactivity of Molecular Ions, January 1994, Dourdan, France  
*Metastable decay of  $N_2^+-He_n$  ( $v = 1$ ) ( $1 < n \leq 6$ ) clusters*