
 Curriculum Vitae

Kimberly A. Prather
Distinguished Professor
Distinguished Chair in Atmospheric Chemistry

EDUCATION

University of California, Davis	Chemistry	B.S., 1985
University of California, Davis	Chemistry	Ph.D., 1990
University of California, Berkeley	Chemistry	Postdoctoral Fellow, 1990 – 1992

ACADEMIC AND PROFESSIONAL APPOINTMENTS

2017 – Present	Distinguished Professor
2009 – Present	Founding Director, NSF Center for Aerosol Impacts on Chemistry of the Environment
2010 – Present	Distinguished Chair in Atmospheric Chemistry
2001 – Present	Professor, Dept. of Chemistry and Biochemistry, Scripps Institution of Oceanography, Univ. of Calif., San Diego,
2000 – 2001	Professor, Univ. of California, Riverside
1996 – 2000	Associate Professor, Univ. of California, Riverside
1994 – 2001	Research Associate, Statewide Air Pollution Research Center
1992 – 1996	Assistant Professor, Univ. of California, Riverside

LIST OF HONORS AND AWARDS

- 2020 ACS Frank H. Field and Joe L. Franklin Award for Outstanding Achievement in Mass Spectrometry
- 2019 Member, National Academy of Engineering: *“For technologies that transformed understanding of aerosols and their impacts on air quality, climate, and human health.”*
- 2019 Top 100 Power List, Analytical Scientist
- 2018 Chancellor’s Associates Excellence Award in Research in Science and Engineering
- 2017 Top 10 Public Defenders (Scientists Protecting People and the Planet), Analytical Scientist
- 2016 Philip B. Hopke Inaugural Lecture, Clarkson University
- 2016 Top 50 Women in the Analytical Sciences, The Analytical Scientist Power List of World Leaders
- 2015 Top “Environmental Science” publication in Environmental Science and Technology
- 2015 Haagen-Smit Clean Air Award Citation: *“For her pioneering work that has transformed our understanding of atmospheric aerosols and their impacts on atmospheric chemistry, climate, and the hydrologic cycle. Her innovations in aerosol measurement techniques, contributions to aerosol science, and her commitment to training the next generation of researchers will have scientific impacts for years to come.”*
- 2014 UC San Diego Faculty Research Lecturer
- 2012 American Chemical Society Eminent Scientist Lecturer
- 2012 Environmental Fellow of John Muir College
- 2011 American Chemical Society, San Diego, Distinguished Scientist of the Year

2010 Elected Fellow, American Academy of Arts and Sciences
2010 ACS Award for Creative Advances in Environmental Science & Technology
2010 Elected Fellow, American Association for the Advancement for Science
2009 Elected Fellow, American Geophysical Union
2009 UC San Diego Faculty Sustainability Award
2000 R&D Magazine Top 100 Invention Awards
1999 UC CONNECT Most Innovative New Product Award (ATOFMS)
1999 Kenneth T. Whitby Award (American Association for Aerosol Research)
1998 Smoluchowski Award (GaeF, German Aerosol Society)
1997 Special Creativity Award, National Science Foundation
1994 American Society for Mass Spectrometry Research Award
1994 National Science Foundation Young Investigator Award

SYNERGISTIC ACTIVITIES

Examples of National Service Activities: Served as co-author on 2016 National Academy of Science Report "The Future of Atmospheric Chemistry Research". Serves as external advisor to the Asst. Director of Geosciences at the National Science Foundation. Served two terms (2009-2015) on the National Academy of Sciences Board for Atmospheric Science and Climate (BASC). Co-chaired Committee of Visitors to AGS at NSF (2016). Chaired and organized Gordon Research Conference on "Atmospheric Chemistry" (2017). Co-Organizer of NAS Sackler Symposium on "Improving our fundamental understanding of the role of aerosol-cloud interactions in the climate system" (2016). Co-chief scientist of CalWater study on focusing on aerosol impacts on the hydrological cycle and atmospheric rivers (2009-present).

Local Leadership: Founding Director of NSF funded Center for Aerosol Impacts on Chemistry of the Environment (CAICE) performing fundamental chemical studies that will ultimately improve climate model treatment of aerosol chemistry and assist in developing more effective policies.

Assisted with the UC San Diego strategic plan related to the Understanding and Protecting the Planet theme. UC San Diego Academic Senate Committee on Committees (2 years as Chair) (2016-2018).

Innovation: Five patents for developments in on-line mass spectrometry: *Aerosol Time-of-Flight Mass Spectrometry* (ATOFMS) (US Patent 5,681,752), *Development of Transportable ATOFMS* (US Patent 5,998,215), *MALDI-IM-ortho-TOF Mass Spectrometry with Simultaneous Positive and Negative Mode Detection* (w/ J. Albert Schultz) (US Patent: 7,170,052), (w/ J.E. Mayer, Marc Gonin, and Katrin Fuhrer), *Compact Aerosol Time-of-Flight Mass Spectrometer*, US Patent: 8,648,294, w/ J. E. Mayer), *Biological Cell Sorting and Characterization Using Aerosol Mass Spectrometry*, US Patent: 8,626,449.

Public outreach: Dedicates significant time educating the public on climate and air pollution issues by giving lectures at the SIO Birch Aquarium, San Diego Natural History Museum, radio (NPR), TV broadcasts (PBS, CNN), local schools. She and members of her research group take science communication very seriously. She has given public lectures and participated in videos and news interviews, including Story Collider (March 2016), an ACS Webinar on Earth Day (April 2015: <https://youtu.be/rVHiWByxqC4>), and an ACS YouTube Video on CAICE research (<https://youtu.be/qBX4Vl6-SMM>). She also works with local schools in economically challenged

regions to reinvigorate science education through the use of environmental (particle) measurements. Highlights of her group's research have appeared in the popular press including the LA Times, CBS Evening News, Discover, Scientific American, Al Jazeera, and National Geographic.

Prather has been in a number of documentaries including a 2016 documentary entitled "Death by Design" that won awards in several Film Festivals (<http://deathbydesignfilm.com/>). She also participated in a very popular Reddit session with CAICE students on the Ask Me Anything (AMA) program (July 2015).

Professor Prather's research focusing on aerosols and climate has attained tremendous public interest and has received extensive media coverage. Some recent examples with links to popular and technical press news or feature articles indicative of public benefit and interest are below:

<https://www.fondriest.com/news/calwater-2015-campaign-charts-aerosols-impacts-on-californias-atmospheric-rivers.htm>

<https://scripps.ucsd.edu/news/research-highlight-scientists-bring-ocean-lab-study-human-impacts-ocean-and-climate>

<https://www.10news.com/news/local-news/researchers-bring-ocean-into-lab-to-study-pollutions-impact-on-climate-change>

<https://www.kpbs.org/news/2019/jul/19/san-diego-scientists-make-waves-climate-research/>

<https://www.theatlantic.com/science/archive/2018/06/microbes-can-change-the-temperature/564092/>

<https://cen.speakingofchemistry.org/how-bacteria-make-it-rain-with-kim-prather-speaking-of-chemistry-road-trip/>

<https://cen.acs.org/articles/93/i11/Dissecting-California-Precipitation.html>

<https://www.hcn.org/issues/46.22/the-dust-detectives>

https://www.nytimes.com/2018/07/04/climate/fireworks-pollution.html?rref=collection%2Ftimestopic%2FFireworks&action=click&contentCollection=timestopics®ion=stream&module=stream_unit&version=latest&contentPlacement=1&pgtype=collection

<http://www.latimes.com/local/lanow/la-me-ln-fireworks-lead-20180704-story.html>

<http://www.sandiegouniontribune.com/news/science/sd-me-fireworks-lead-20180703-story.html>

<https://www.theatlantic.com/science/archive/2018/06/microbes-can-change-the-temperature/564092/>

<https://www.sciencedaily.com/releases/2018/05/180525095420.htm>

Contributions to Education: Prather has graduated 36 PhD students and mentored hundreds of undergraduates. She teaches courses on Instrument Development, Environmental Chemistry, Chemistry and Climate, and Atmospheric Aerosols. She works extensively with graduate students and postdocs on effective methods for effective science communication, as well as how to design and build scientific instrumentation to address complex environmental problems. Through CAICE, she is working to cross-train students to have science and engineering backgrounds so they can build the instruments needed to solve complex problems. She is currently helping develop new curricula for K-12 science education focused on climate and atmospheric chemistry.

Select Graduate Students (GS) and Postdocs (PD) who started their careers with Prof. Prather: Kerri Pratt (Asst. Prof.; Univ. of Michigan; GS), Andrew Ault (Asst. Prof.; Univ. of Michigan; GS), Deborah Gross (Professor; Carleton College; PD), Doug Collins (Asst. Prof. Bucknell Univ., GS); Jack Cahill (Research Scientist, Oak Ridge National Labs, GS); Sergio Guazzotti (Manager, Thermo Fisher, GS/PD); Markus Gaelli (Research Scientist; TSI, Inc.; PD), Cassandra Gaston (Asst. Prof.; University of Miami; GS), Ryan Sullivan (Asst. Prof.; Carnegie Mellon University; GS), Eric Gard (Research Director; LLNL; PD), Kaitlyn Suski (Research Scientist; PNNL; GS), Jessie Creamean (Research Scientist; NOAA; GS), Stephen Toner (Research Scientist; Teledyne; GS).

Funding Sources: National Science Foundation, California Air Resources Board, California Energy Commission, National Cancer Institute, NOAA, Dept. of Energy, Pacific Northwest National Laboratory.

SUMMARY OF THE TEN HIGHEST SOCIETAL IMPACT PUBLICATIONS

Prof. Prather has an h-index of 78 (Google Scholar). Overall, her publications have been cited over 19,000 times and 56 have been cited over 100 times.

I. Development of On-line Instrumentation for Single Aerosol Particle Analysis: At the beginning of her career, Prather invented aerosol time-of-flight mass spectrometry (ATOFMS), the instrument to provide real-time information on the size, chemical composition, and source of individual aerosol particles (Prather, 1994; Gard, 1997; Pratt, 2009). ATOFMS measurements have led to an improved understanding of the major sources of atmospheric aerosols in studies worldwide. Furthermore, Prather's research has uniquely demonstrated that single particle composition and source strongly control the composition of the atmosphere by controlling the partitioning of organic species to individual particles (Hatch, 2011), volatility (Pratt, 2009), and the ability to form clouds (Sullivan, 2009). These findings have profound implications for predicting the composition of the atmosphere and are leading to improved treatment of aerosols in atmospheric and climate models.

The invention of ATOFMS has expanded mass spectrometry into an on-line chemical analysis tool and is enabling new research that extends into areas including pharmaceuticals, materials synthesis, cheese and beer fermentation process monitoring, biofuel production, agriculture and ecosystem health, human health studies, nanoparticle and materials characterization, semiconductor industry for clean room monitoring, and single cell characterization.

1. Prather, K. A.; Nordmeyer, T.; Salt, K., Real-Time Characterization of Individual Aerosol-Particles Using Time-of-Flight Mass-Spectrometry. *Analytical Chemistry* **1994**, *66* (9), 1403-1407.

2. Gard, E.; Mayer, J. E.; Morrical, B. D.; Dienes, T.; Ferguson, D. P.; Prather, K. A., Real-Time Analysis of Individual Atmospheric Aerosol Particles: Design and Performance of a Portable ATOFMS. *Analytical Chemistry* **1997**, *69* (20), 4083-4091.

II. Sources of atmospheric particles in air pollution. ATOFMS instruments are being used worldwide to identify the major sources of air pollution in California as well as other regions of the world including India, Canada, Europe, Mexico, Africa, and China.

3. Ault, A. P.; Moore, M. J.; Furutani, H.; Prather, K. A., Impact of Emissions from the Los Angeles Port Region on San Diego Air Quality During Regional Transport Events. *Environmental Science & Technology* **2009**, *43* (10), 3500-3506.

4. Guazzotti, S. A.; Suess, D. T.; Coffee, K. R.; Quinn, P. K.; Bates, T. S.; Wisthaler, A.; Hansel, A.; Ball, W. P.; Dickerson, R. R.; Neususs, C.; Crutzen, P. J.; Prather, K. A., Characterization of Carbonaceous Aerosols Outflow from India and Arabia: Biomass/Biofuel Burning and Fossil Fuel Combustion. *Journal of Geophysical Research-Atmospheres* **2003**, *108* (D15).

5. Moffet, R. C.; de Foy, B.; Molina, L. T.; Molina, M. J.; Prather, K. A., Measurement of Ambient Aerosols in Northern Mexico City by Single Particle Mass Spectrometry. *Atmospheric Chemistry and Physics* **2008**, *8* (16), 4499-4516.

III. Impact of aerosols on climate: A specially designed version of the ATOFMS provided the first direct measurements of the optical properties of atmospheric soot particles mixed with sulfate. A major field study in Mexico City demonstrated that mixtures of soot and sulfate absorb more 3 times more light than pure soot particles. This finding has tremendous implications for climate forcing by aerosols, making soot second only to carbon dioxide in terms of warming the atmosphere. The results were used to improve the treatment of the radiative forcing of aerosols in climate models. This is essential for establishing effective policies to reduce atmospheric pollutants in an effort to mitigate climate change.

6. Moffet, R. C.; Prather, K. A., In-Situ Measurements of the Mixing State and Optical Properties of Soot with Implications for Radiative Forcing Estimates. *Proceedings of the National Academy of Sciences of the United States of America* **2009**, *106* (29), 11872-11877.

IV. Detection of microbes in clouds and influence on precipitation processes:

An aircraft version of the ATOFMS developed by Prather was flown through clouds and used to directly measure the composition of individual ice residues. For the first time, microbes were directly observed in ice crystals in clouds. During CalWater, the Prather group demonstrated how high altitude cloud seeding by dust and microbes transported from as far away as Africa changes the amount of snowfall over the Sierra Nevada mountains in California. The Prather group determined for the first time that much of the precipitation in California is modulated by long range transport and ocean microbes and far less by local California pollution.

7. Pratt, K. A.; DeMott, P. J.; French, J. R.; Wang, Z.; Westphal, D. L.; Heymsfield, A. J.; Twohy, C. H.; Prenni, A. J.; Prather, K. A., In Situ Detection of Biological Particles in Cloud Ice-Crystals. *Nature Geoscience* **2009**, 2 (6), 397-400.

8. Creamean, J. M.; Suski, K. J.; Rosenfeld, D.; Cazorla, A.; DeMott, P. J.; Sullivan, R. C.; White, A. B.; Ralph, F. M.; Minnis, P.; Comstock, J. M.; Tomlinson, J. M.; Prather, K. A., Dust and Biological Aerosols from the Sahara and Asia Influence Precipitation in the Western U.S. *Science* **2013**, 339 (6127), 1572-1578.

V. New approach for studying ocean impacts on clouds and climate: In order to explain results from field studies on how the ocean influences our climate, Prather founded the NSF-funded Center for Aerosol Impacts on Chemistry of the Environment. Prather designed a one-of-a-kind facility which replicates the full biological, physical, and chemical complexity of the ocean-atmosphere system in the laboratory. In this facility, CAICE scientists are able to induce phytoplankton blooms in 3,400 gallons of seawater in an effort to establish a mechanistic framework linking biological processes in the ocean with atmospheric chemistry and climate. CAICE studies have already shown that the transfer of microbial and biological species from the ocean to the atmosphere cannot be explained by the traditionally used indicator (i.e. phytoplankton biomass), but instead is controlled by physical production and microbial degradation processes. These findings provide an explanation for the observed discrepancies in field studies in seemingly identical oceanic environments – a highly debated topic for decades. Understanding the connections between the ocean, atmosphere, and clouds is critical to predicting our future climate in a rapidly evolving world.

9. Prather, K. A.; Bertram, T. H.; Grassian, V. H.; Deane, G. B.; Stokes, M. D.; DeMott, P. J.; Aluwihare, L. I.; Palenik, B. P.; Azam, F.; Seinfeld, J. H.; Moffet, R. C.; Molina, M. J.; Cappa, C. D.; Geiger, F. M.; Roberts, G. C.; Russell, L. M.; Ault, A. P.; Baltrusaitis, J.; Collins, D. B.; Corrigan, C. E.; Cuadra-Rodriguez, L. A.; Ebben, C. J.; Forestieri, S. D.; Guasco, T. L.; Hersey, S. P.; Kim, M. J.; Lambert, W. F.; Modini, R. L.; Mui, W.; Pedler, B. E.; Ruppel, M. J.; Ryder, O. S.; Schoepp, N. G.; Sullivan, R. C.; Zhao, D., Bringing the Ocean into the Laboratory to Probe the Chemical Complexity of Sea Spray Aerosol. *Proceedings of the National Academy of Sciences of the United States of America* **2013**, 110 (19), 7550-7555.

10. Wang, X. F.; Sultana, C. M.; Trueblood, J.; Hill, T. C. J.; Malfatti, F.; Lee, C.; Laskina, O.; Moore, K. A.; Beall, C. M.; McCluskey, C. S.; Cornwell, G. C.; Zhou, Y. Y.; Cox, J. L.; Pendergraft, M. A.; Santander, M. V.; Bertram, T. H.; Cappa, C. D.; Azam, F.; DeMott, P. J.; Grassian, V. H.; Prather, K. A., Microbial Control of Sea Spray Aerosol Composition: A Tale of Two Blooms. *ACS Central Science* **2015**, 1 (3), 124-131.

COMPLETE LIST OF PUBLICATIONS BY K. A. PRATHER

1. Weiner, B. R.; Pasternack, L.; Nelson, H. H.; Prather, K. A.; Rosenfeld, R. N., Photodissociation Dynamics of BH₃CO at 193-nm. *Journal of Physical Chemistry* **1990**, 94 (10), 4138-4142.
2. Prather, K. A.; Rosenfeld, R. N., Photodissociation Dynamics of 3-Cyclopentenone Using a Tunable Diode-Laser. *Journal of Physical Chemistry* **1991**, 95 (17), 6544-6548.
3. Noble, C. A.; Nordmeyer, T.; Salt, K.; Morrical, B.; Prather, K. A., Aerosol Characterization Using Mass-Spectrometry. *Trac-Trends in Analytical Chemistry* **1994**, 13 (5), 218-222.

4. Nordmeyer, T.; Prather, K. A., Real-Time Measurement Capabilities Using Aerosol Time-of-Flight Mass-Spectrometry. *Analytical Chemistry* **1994**, *66* (20), 3540-3542.
5. Prather, K. A.; Lee, Y. T., The Photodissociation of Pyridine at 193-nm. *Israel Journal of Chemistry* **1994**, *34* (1), 43-53.
6. Prather, K. A.; Nordmeyer, T.; Salt, K., Real-Time Characterization of Individual Aerosol-Particles Using Time-of-Flight Mass-Spectrometry. *Analytical Chemistry* **1994**, *66* (9), 1403-1407.
7. Noble, C. A.; Prather, K. A., Real-Time Measurement of Correlated Size and Composition Profiles of Individual Atmospheric Aerosol Particles. *Environmental Science & Technology* **1996**, *30* (9), 2667-2680.
8. Salt, K.; Noble, C. A.; Prather, K. A., Aerodynamic Particle Sizing Versus Light Scattering Intensity Measurement as Methods for Real Time Particle Sizing Coupled with Time-of-Flight Mass Spectrometry. *Analytical Chemistry* **1996**, *68* (1), 230-234.
9. Fergenson, D. P.; Liu, D. Y.; Silva, P. J.; Prather, K. A., Spectrasort: A Data Analysis Program for Real-Time Aerosol Analysis by Aerosol Time-of-Flight Mass Spectrometry. *Chemometrics and Intelligent Laboratory Systems* **1997**, *37* (1), 197-203.
10. Gard, E.; Mayer, J. E.; Morrical, B. D.; Dienes, T.; Fergenson, D. P.; Prather, K. A., Real-Time Analysis of Individual Atmospheric Aerosol Particles: Design and Performance of a Portable ATOFMS. *Analytical Chemistry* **1997**, *69* (20), 4083-4091.
11. Liu, D. Y.; Rutherford, D.; Kinsey, M.; Prather, K. A., Real-Time Monitoring of Pyrotechnically Derived Aerosol Particles in the Troposphere. *Analytical Chemistry* **1997**, *69* (10), 1808-1814.
12. Noble, C. A.; Prather, K. A., Real-Time Single Particle Monitoring of a Relative Increase in Marine Aerosol Concentration During Winter Rainstorms. *Geophysical Research Letters* **1997**, *24* (22), 2753-2756.
13. Silva, P. J.; Prather, K. A., On-Line Characterization of Individual Particles from Automobile Emissions. *Environmental Science & Technology* **1997**, *31* (11), 3074-3080.
14. Gard, E. E.; Kleeman, M. J.; Gross, D. S.; Hughes, L. S.; Allen, J. O.; Morrical, B. D.; Fergenson, D. P.; Dienes, T.; Galli, M. E.; Johnson, R. J.; Cass, G. R.; Prather, K. A., Direct Observation of Heterogeneous Chemistry in the Atmosphere. *Science* **1998**, *279* (5354), 1184-1187.
15. Morrical, B. D.; Fergenson, D. P.; Prather, K. A., Coupling Two-Step Laser Desorption/Ionization with Aerosol Time-of-Flight Mass Spectrometry for the Analysis of Individual Organic Particles. *Journal of the American Society for Mass Spectrometry* **1998**, *9* (10), 1068-1073.
16. Noble, C.; Prather, K., Air Pollution: The Role of Particles. *Physics World* **1998**, *11* (1), 39-43.
17. Noble, C. A.; Prather, K. A., Single Particle Characterization of Albuterol Metered Dose Inhaler Aerosol in near Real-Time. *Aerosol Science and Technology* **1998**, *29* (4), 294-306.
18. Wood, S. H.; Prather, K. A., Time-of-Flight Mass Spectrometry Methods for Real Time Analysis of Individual Aerosol Particles. *TRAC-Trends in Analytical Chemistry* **1998**, *17* (6), 346-356.
19. Hughes, L. S.; Allen, J. O.; Kleeman, M. J.; Johnson, R. J.; Cass, G. R.; Gross, D. S.; Gard, E. E.; Galli, M. E.; Morrical, B. D.; Fergenson, D. P.; Dienes, T.; Noble, C. A.; Silva, P. J.; Prather, K. A., Size and Composition Distribution of Atmospheric Particles in southern California. *Environmental Science & Technology* **1999**, *33* (20), 3506-3515.

20. Silva, P. J.; Liu, D. Y.; Noble, C. A.; Prather, K. A., Size and Chemical Characterization of Individual Particles Resulting from Biomass Burning of Local Southern California Species. *Environmental Science & Technology* **1999**, *33* (18), 3068-3076.
21. Song, X. H.; Hopke, P. K.; Fergenson, D. P.; Prather, K. A., Classification of Single Particles Analyzed by ATOFMS Using an Artificial Neural Network, ART-2a. *Analytical Chemistry* **1999**, *71* (4), 860-865.
22. Suess, D. T.; Prather, K. A., Mass Spectrometry of Aerosols. *Chemical Reviews* **1999**, *99* (10), 3007.
23. Allen, J. O.; Fergenson, D. P.; Gard, E. E.; Hughes, L. S.; Morrical, B. D.; Kleeman, M. J.; Gross, D. S.; Galli, M. E.; Prather, K. A.; Cass, G. R., Particle Detection Efficiencies of Aerosol Time of Flight Mass Spectrometers Under Ambient Sampling Conditions. *Environmental Science & Technology* **2000**, *34* (1), 211-217.
24. Gross, D. S.; Galli, M. E.; Silva, P. J.; Prather, K. A., Relative Sensitivity Factors for Alkali Metal and Ammonium Cations in Single Particle Aerosol Time-of-Flight Mass Spectra. *Analytical Chemistry* **2000**, *72* (2), 416-422.
25. Gross, D. S.; Galli, M. E.; Silva, P. J.; Wood, S. H.; Liu, D. Y.; Prather, K. A., Single Particle Characterization of Automobile and Diesel Truck Emissions in the Caldecott Tunnel. *Aerosol Science and Technology* **2000**, *32* (2), 152-163.
26. Hughes, L. S.; Allen, J. O.; Bhawe, P.; Kleeman, M. J.; Cass, G. R.; Liu, D. Y.; Fergenson, D. F.; Morrical, B. D.; Prather, K. A., Evolution of Atmospheric Particles Along Trajectories Crossing the Los Angeles Basin. *Environmental Science & Technology* **2000**, *34* (15), 3058-3068.
27. Liu, D. Y.; Prather, K. A.; Hering, S. V., Variations in the Size and Chemical Composition of Nitrate-Containing Particles in Riverside, CA. *Aerosol Science and Technology* **2000**, *33* (1-2), 71-86.
28. Noble, C. A.; Prather, K. A., Real-Time Single Particle Mass Spectrometry: A Historical Review of a Quarter Century of the Chemical Analysis of Aerosols. *Mass Spectrometry Reviews* **2000**, *19* (4), 248-274.
29. Prather, K., The Ongoing Evolution of Analytical Chemistry. *Analytical Chemistry* **2000**, *72* (15), 501A-501A.
30. Silva, P. J.; Carlin, R. A.; Prather, K. A., Single Particle Analysis of Suspended Soil Dust from Southern California. *Atmospheric Environment* **2000**, *34* (11), 1811-1820.
31. Silva, P. J.; Prather, K. A., Interpretation of Mass Spectra from Organic Compounds in Aerosol Time-of-Flight Mass Spectrometry. *Analytical Chemistry* **2000**, *72* (15), 3553-3562.
32. Wexler, A.; Prather, K., Introduction: Online Single Particle Analysis. *Aerosol Science and Technology* **2000**, *33* (1-2), 1-2.
33. Angelino, S.; Suess, D. T.; Prather, K. A., Formation of Aerosol Particles from Reactions of Secondary and Tertiary Alkylamines: Characterization by Aerosol Time-of-Flight Mass Spectrometry. *Environmental Science & Technology* **2001**, *35* (15), 3130-3138.
34. Bhawe, P. V.; Fergenson, D. P.; Prather, K. A.; Cass, G. R., Source Apportionment of Fine Particulate Matter by Clustering Single-Particle Data: Tests of Receptor Model Accuracy. *Environmental Science & Technology* **2001**, *35* (10), 2060-2072.
35. Cantrell, W.; Shaw, G.; Cass, G. R.; Chowdhury, Z.; Hughes, L. S.; Prather, K. A.; Guazzotti, S. A.; Coffee, K. R., Closure between Aerosol Particles and Cloud Condensation Nuclei at Kaashidhoo Climate Observatory. *Journal of Geophysical Research-Atmospheres* **2001**, *106* (D22), 28711-28718.

36. Fergenson, D. P.; Song, X. H.; Ramadan, Z.; Allen, J. O.; Hughes, L. S.; Cass, G. R.; Hopke, P. K.; Prather, K. A., Quantification of ATOFMS Data by Multivariate Methods. *Analytical Chemistry* **2001**, *73* (15), 3535-3541.
37. Galli, M.; Guazzotti, S. A.; Prather, K. A., Improved Lower Particle Size Limit for Aerosol Time-of-Flight Mass Spectrometry. *Aerosol Science and Technology* **2001**, *34* (4), 381-385.
38. Guazzotti, S. A.; Coffee, K. R.; Prather, K. A., Continuous Measurements of Size-Resolved Particle Chemistry During INDOEX-Intensive Field Phase 99. *Journal of Geophysical Research-Atmospheres* **2001**, *106* (D22), 28607-28627.
39. Guazzotti, S. A.; Whiteaker, J. R.; Suess, D.; Coffee, K. R.; Prather, K. A., Real-Time Measurements of the Chemical Composition of Size-Resolved Particles During a Santa Ana Wind Episode, California USA. *Atmospheric Environment* **2001**, *35* (19), 3229-3240.
40. Lelieveld, J.; Crutzen, P. J.; Ramanathan, V.; Andreae, M. O.; Brenninkmeijer, C. A. M.; Campos, T.; Cass, G. R.; Dickerson, R. R.; Fischer, H.; de Gouw, J. A.; Hansel, A.; Jefferson, A.; Kley, D.; de Laat, A. T. J.; Lal, S.; Lawrence, M. G.; Lobert, J. M.; Mayol-Bracero, O. L.; Mitra, A. P.; Novakov, T.; Oltmans, S. J.; Prather, K. A.; Reiner, T.; Rodhe, H.; Scheeren, H. A.; Sikka, D.; Williams, J., The Indian Ocean Experiment: Widespread Air Pollution from South and Southeast Asia. *Science* **2001**, *291* (5506), 1031-1036.
41. Ramanathan, V.; Crutzen, P. J.; Lelieveld, J.; Mitra, A. P.; Althausen, D.; Anderson, J.; Andreae, M. O.; Cantrell, W.; Cass, G. R.; Chung, C. E.; Clarke, A. D.; Coakley, J. A.; Collins, W. D.; Conant, W. C.; Dulac, F.; Heintzenberg, J.; Heymsfield, A. J.; Holben, B.; Howell, S.; Hudson, J.; Jayaraman, A.; Kiehl, J. T.; Krishnamurti, T. N.; Lubin, D.; McFarquhar, G.; Novakov, T.; Ogren, J. A.; Podgorny, I. A.; Prather, K.; Priestley, K.; Prospero, J. M.; Quinn, P. K.; Rajeev, K.; Rasch, P.; Rupert, S.; Sadourny, R.; Satheesh, S. K.; Shaw, G. E.; Sheridan, P.; Valero, F. P. J., Indian Ocean Experiment: An Integrated Analysis of the Climate Forcing and Effects of the Great Indo-Asian Haze. *Journal of Geophysical Research-Atmospheres* **2001**, *106* (D22), 28371-28398.
42. Song, X. H.; Faber, N. M.; Hopke, P. K.; Suess, D. T.; Prather, K. A.; Schauer, J. J.; Cass, G. R., Source Apportionment of Gasoline and Diesel by Multivariate Calibration Based on Single Particle Mass Spectral Data. *Analytica Chimica Acta* **2001**, *446* (1-2), 329-343.
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