

BIOGRAPHICAL SKETCH: Sonia M. Kreidenweis

EDUCATION AND TRAINING

Manhattan College, Chemical Engineering, B.E., 1983
California Institute of Technology, Chemical Engineering, M.S., 1985
California Institute of Technology, Chemical Engineering, Ph.D., 1989

RESEARCH AND PROFESSIONAL EXPERIENCE

2002-present Professor, Dept. of Atmospheric Science, Colorado State University, Ft. Collins, CO
1996-2002 Associate Professor, Dept. of Atmospheric Science, Colorado State University, Ft. Collins, CO
1991-1996 Assistant Professor, Dept. of Atmospheric Science, Colorado State University, Ft. Collins, CO
1988-1991 Assistant Professor, Dept. of Chemical Engineering, San Jose State University, San Jose, CA
1988-1999 Participating guest and consultant, University of California Lawrence Livermore National Laboratory, Livermore, CA
1999 USRA NASA/Goddard Space Flight Center Visiting Fellow, Greenbelt, MD

TEN RELATED PUBLICATIONS

Ward, D. S., T. Eidhammer, W. R. Cotton and S. M. Kreidenweis, The role of the particle size distribution in assessing aerosol composition effects on simulated droplet activation. *Atmospheric Chemistry and Physics* **10**, 5435-5447, 10.5194/acp-10-5435-2010, 2010.

DeMott, P.J., A. J. Prenni, X. Liu, M. D. Petters, C H. Twohy, M. S. Richardson, T. Eidhammer, S. M. Kreidenweis, and D. C. Rogers, 2010: Predicting global atmospheric ice nuclei distributions and their impacts on climate, *Proc. Natnl. Acad. Sci.*, **107** (25), 11217-11222.

Heald, C. L., D. A. Ridley, S. M. Kreidenweis and E. E. Drury, Satellite observations cap the atmospheric organic aerosol budget. *Geophys. Res. Lett.*, **37**, 5, L24808,10.1029/2010gl045095, 2010.

Carrico, C. M., M. D. Petters, S. M. Kreidenweis, A. P. Sullivan, G. R. McMeeking, E. J. T. Levin, G. Engling, W. C. Malm and J. L. Collett, Water uptake and chemical composition of fresh aerosols generated in open burning of biomass. *Atmospheric Chemistry and Physics* **10**, 5165-5178, 10.5194/acp-10-5165-2010, 2010.

Petters, M. D., M. T. Parsons, A. J. Prenni, P. J. DeMott, S. M. Kreidenweis, C. M. Carrico, A. P. Sullivan, G. R. McMeeking, E. Levin, et al., Ice nuclei emissions from biomass burning. *J. Geophys. Res.*, **14**, D07209, 10.1029/2008jd011532, 2009.

Koehler, K. A., P. J. DeMott, S. M. Kreidenweis, O. B. Popovicheva, M. D. Petters, C. M. Carrico, E. D. Kireeva, T. D. Khokhlova and N. K. Shonija, Cloud condensation nuclei and ice nucleation activity of hydrophobic and hydrophilic soot particles, *Phys. Chem. Chem. Phys.*, DOI:10.1039/b905334b, 2009.

Petters, M.D. and S. M. Kreidenweis: A single parameter representation of hygroscopic growth and cloud condensation nucleus activity. *Atmospheric Chemistry and Physics*, **7**, 1961-1971, 2007.

Koehler, K., Kreidenweis, S.M., DeMott, P.J., Prenni, A.J., and Petters, M.D., Potential impact of Owens (dry) Lake dust on warm and cold cloud formation. *J. Geophys. Res.*, **112**, D12210, doi:10.1029/2007JD008413, 2007.

Wells, K., Witek, M., Flatau, P., Kreidenweis, S., and Westphal, D., An analysis of seasonal surface dust aerosol concentrations in the western U.S. (2001-2004): Observations and model predictions, *Atmos. Environ.*, **41**, 6585-6597, 2007.

McMeeking, G. R., Kreidenweis, S. M., Lunden, M., Carrillo, J., Carrico, C. M., Lee, T., Herckes, P., Engling, G., Day, D. E., Hand, J., Brown, N., Malm, W. C., and Collett, Jr., J. L., Smoke-impacted regional haze in California during the summer of 2002, *J. Agric. Forest Meteor.*, **137**, 25-42, 2006.

SYNERGISTIC ACTIVITIES

American Association for Aerosol Research. Secretary-Elect and Secretary, 1992–5; Nominating Committee, 1996–7; Awards Committee, 2010-13; Meeting Program Chair, Annual Meeting, 2000; Vice-President Elect, Vice-President, President and Immediate Past President, 2002–2006. Editorial Advisory Board, *Aerosol Science and Technology*, 2010-2013.

AAAR Fellow, elected 2010.

American Meteorological Society. AMS Fellow, elected 2011.

American Geophysical Union. Assoc. Editor, *Journal of Advances in Modeling Earth Systems*.

Workshop Organizer, *Organic Particles in the Atmosphere*, Telluride Science Research Center, August 2010.

NRC Committee on Atmospheric Chemistry, 1999-2000; 2008-2009.

IDENTIFICATION OF POTENTIAL CONFLICTS OF INTEREST IN SELECTION OF REVIEWERS

Collaborators and Co-editors: W. Patrick Arnott (U Nevada); Paolo Artaxo (U Sao Paulo); Rajasekhar Balasubramanian (NU Singapore); Darrel Baumgardner (UNAM); Katherine (Beem) Benedict (CSU); Sarah Brooks (TAMU); Christian Carrico (AECOM); Rajan Chakrabarty (U Nevada); Judy Chow (DRI); Steven Cliff (UCDavis); Jeffrey Collett, Jr. (CSU); Hugh Coe (U Manchester); William Cotton (CSU); Derek Day (CIRA); Joost de Gouw (NOAA); Paul DeMott (CSU); Yury Desyaterik (CSU); Manvendra Dubey (LANL); Trude Eidhammer (NCAR); Guenter Engling (Academica Sinica); Wei Gao (USDA); Alex Guenther (NCAR); Jennifer Hand (CIRA); Wei-Min Hao (USFS); Colette Heald (MIT); Chris Hennigan (CMU); Andy Heymsfield (NCAR); Brent Holben (NASA GSFC); Amanda Holden (CSU); Jose Jimenez (University of Colorado); Thomas Kirchstetter (LBL); Kirsten Koehler (CSU); Nicholas Krotkov (NASA GSFC); Alex Laskin (PNNL); Taehyoung Lee (CSU); Barry Lefer (U Houston); Kristin Lewis (U Nevada); Neng-Huei Lin (NCU Taiwan); Xioahong Liu (PNNL); Sasha Madronich (NCAR); William Malm (National Park Service / CIRA); Scot Martin (Harvard); Vanderlie Martins (UMBC); A. Matsunaga (UC Riverside); Claudio Mazzoleni (Michigan Tech); Greg McFarquhar (U Illinois); Gavin McMeeking (CSU); Hans Moosmuller (DRI); Daniel Obrist (DRI); Tim Onasch (Aerodyne); Markus Petters (CSU); Mike Poellot (UND); Olga Popovicheva (U. Moscow); Ulrich Pöschl (MPI-Chemistry, Mainz); Laurent Poulain (IfT Leipzig); Kimberly Prather (UCSD); Anthony Prenni (CSU); Suresh Raja (Clarkson); Lorraine Remer (UMBC); Greg Roberts (Scripps); Allen Robinson (CSU); David Rogers (NCAR); Santo Salinas (NU Singapore); Ken Sassen (U Alaska); Bret Schichtel (NPS); N. Shonija (U. Moscow); James Slusser (USDA); Jim Smith (NCAR); Frank Stratmann (IfT Leipzig); Graeme Stephens (JPL); Amy Sullivan (CSU); Ryan Sullivan (CMU); Si-Chee Tsay (GSFC); Cynthia Twohy (OSU); David Wang (CSU); Kelley Wells (U Minn); Doug Westphal (NRL); Cyle Wold (USFS/FSL); Z. Wang (Univ. of Wyoming); Dan Ward (Cornell); Heike Wex (IfT Leipzig); Liya Yu (NU Singapore); Yongjing Zhao (UCDavis); Paul Ziemann (UC Riverside).

Graduate Advisors: Professor John H. Seinfeld and Professor Richard Flagan (California Institute of Technology, Pasadena, CA.) *Postdoctoral Advisor:* None.

Postdoctoral advisees (last 5 years): Dr. Taehyoung Lee (CSU); Dr. Barbara Ervens (NOAA/CIRES); Dr. Kirsten Koehler (CSU); Dr. Markus Petters (NCSU), Dr. Matthew Parsons (U. Alberta), Dr. Trude Eidhammer (NCAR), Dr. Ryan Sullivan (CMU), Dr. Gavin McMeeking (CSU); Dr. Guoxun Tian (CSU); Dr. Yutaka Tobo (CSU); Dr. Elvin Garcia (CSU).

Thesis / Dissertation Advisees (last 5 years): Kelley Johnson Wells (UMinn); Chelsea Corr (UNH); Ezra Levin (CSU); Laura Mack (ARS, Fort Collins); Mathews Richardson (NOAA); Laura Sample McMeeking (consultant and CSU); Gavin McMeeking (CSU); Kirsten Koehler (CSU); Sam Atwood (CSU); Christina McCluskey (CSU); James Carpenter (CSU); Lauren Potter (CSU).