CURRICULUM VITAE Dr. Barbara Ervens

NOAA Earth System Research Laboratory
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RESEARCH EXPERIENCE

2011 – present Research Scientist III, Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, and NOAA, Earth System Research Laboratory, Chemical Sciences Division, Boulder, CO

2008 – 2011 Research Scientist II, Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, and NOAA, Earth System Research Laboratory, Chemical Sciences Division, Boulder, CO

2005 – 2008 Research Scientist I, Atmospheric Science Department, Colorado State University, Fort Collins, and NOAA, Earth System Research Laboratory, Chemical Sciences Division, Boulder, CO

2002 – 2004 Postdoctoral Fellow, Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, Fort Collins, and NOAA, Environmental Technology Laboratory, Boulder, CO

2001 – 2002 Postdoctoral Fellow, Institute for Tropospheric Research, Leipzig, GERMANY

1998 – 2001 Research Assistant, Institute for Tropospheric Research, Leipzig, GERMANY

1997 – 1998 Research Assistant, Institute for Physical and Theoretical Chemistry, University Essen, GERMANY

EDUCATION

2001 Dr. rer. nat. (Ph.D., Natural Sciences)
Department of Chemistry and Mineralogy, University Leipzig, GERMANY
THESIS: Tropospheric multiphase chemistry: Model calculations and kinetic laboratory investigations of OH radical reactions in aqueous solution

1997 Diplom - Chemistry (M.S. equivalent)
Department of Chemistry, Institute for Physical and Theoretical Chemistry, University Essen, GERMANY
THESIS: Kinetic laboratory investigations of the atmospheric chemistry of SO_4^- and Cl_2^- radical anions in aqueous solution

1994 Vordiplom - Chemistry (B.S. equivalent); Department of Chemistry, University Essen, GERMANY

RESEARCH PROJECTS (SINCE 2001)

2009 - 2010 Secondary organic aerosol formation from glyoxal: Linking laboratory, field and model studies, Cooperative Institute for Research in Environmental Sciences (CIRES) Innovative Research Program (University of Colorado, Boulder) (PI with R. Volkamer, $30,000)

2008 - 2011 A study of cloud processing of organic aerosols using models and CHAPS data, Atmospheric Science Program, US Department of Energy (PI, ~ $340,000)

2005 - 2008 Processing of organic aerosols by heterogeneous and multiphase processes, NOAA Climate Program Office, Atmospheric Composition and Climate (PI, ~ $300,000)

2002 - 2004 The role of stratocumulus clouds in modifying pollution plumes transported to the North American continent, NOAA Office of Global Programs

2001 - 2002 Modeling of multiphase processes (MODMEP; Modellierung von Mehr-phasenprozessen): German Federal Office of Education and Research (Bundesministerium für Bildung und Forschung) (PI, ~ $300,000)

2001 - 2002 Multiphase chemistry of oxygenated species in the troposphere (MOST); European Community

AWARDS/HIGHLIGHTS

2013 Excellence in Review Award, Environmental Science and Technology

2012 CO-LABS Governor's Award for High-Impact Research for contributing to data analysis and interpretation of the Deepwater Horizon Oil Spill

2008 AGU Editor's Highlight: Ervens, B., A. G. Carlton, B. J. Turpin, K. E. Altieri, S. M. Kreidenweis, and G. Feingold, Secondary organic aerosol yields from cloud-processing of isoprene oxidation products, *Geophys. Res. Lett.*, 35, L02816, doi: 2007GL031828.

TEACHING EXPERIENCE (TEACHING ASSISTANT)

2001 Undergraduate laboratory course: Atmospheric Chemistry

2000 Undergraduate course: Tropospheric Multiphase Chemistry

1998 - 1999 Undergraduate course: Stratospheric and Tropospheric Chemistry

1997 - 1998 Undergraduate laboratory course: Physical Chemistry

1993 - 1995 Undergraduate course: General and Inorganic Chemistry, 1st year students

OTHER PROFESSIONAL ACTIVITIES

2011 - present Co-Editor 'Atmospheric Chemistry and Physics'

2011 - 2012 Editorial Board Member 'Atmospheric and Climate Sciences'

2012 Session convener at AGU Fall Meeting, "Ice nucleation and properties of cold clouds"

2012 Session chair at AGU Fall Meeting "The Chemical Processing of Atmospheric Organic Aerosol"

2010, 2011, 2013 Session convener at AGU Fall Meeting, "Multiphase chemistry: Aerosol formation and modification by aqueous phase processes"

2009	Session chair **"**Chemical Transformations of Organic Compounds in Aerosol and Clouds", Joint Assembly Meeting AGU, Toronto, CANADA, 2009
2008	Session Chair "Aerosol, Clouds, and Climate" 27th AAAR Annual Conference, Orlando, FL
2011 - present	Member of the European Geophysical Union (EGU)
2010 - present	Member of the American Chemical Society
2007 - present	Member of the American Meteorological Society
2005 - present	Member of the American Geophysical Union (AGU)
2003 - 2009	Member of the American Association for Aerosol Research (AAAR)
1995 - 2008	Member of the 'Gesellschaft deutscher Chemiker' (GdCh, Association of German Chemists)

Member of PhD committee:	**2012**	Jessica Axson, University of Colorado, CO
	2011	Marta Kapala, University of Colorado, CO
	2006	AnnMarie Carlton, Rutgers University, NJ

2012 Scientific reviewer of various resources of CLEAN (Climate Literacy & Energy Awareness Network), CIRES Education and Outreach

Reviewer of Manuscripts

Advances in Meteorology
Atmosphere
Atmospheric Chemistry and Physics
Atmospheric Environment
Atmospheric Research
Biogeosciences
Chemosphere
Environmental Chemistry
Environmental Science and Technology
Environmental Science and Pollution Research
Geophysical Research Letters
Geoscientific Model Development
Journal of Aerosol Science
Journal of Atmospheric Chemistry
Journal of Geophysical Research
Journal of Physical Chemistry
Nature Geosciences
Physical Chemistry Chemical Physics
Proceedings of the National Academy of Sciences

Reviewer of Research Proposals

- Research Corporation for Science Advancement
- National Science Foundation, Atmospheric Chemistry Program (regular, since 2006)
- France's National Research Agency (Agence Nationale de la Recherche) (regular, since 2009)
- European Research Area 'Chemistry' (European Commission) (2008, 2009)
- Netherlands' Organisation for Scientific Research (Council Earth and Life Sciences) (2008, 2009)

INVITED TALKS

Ervens, B., Secondary organic aerosol formation in the aqueous phase, Earth, Planetary and Space Sciences Institute, Michigan Tech University, Houghton, MI, **2012**.

Ervens, B., and G. Feingold, Mixed-phase clouds: Sensitivity to microphysical and chemical parameters, 'Aerosol and Cloud Interaction' Workshop, Telluride, CO, **2012**.

Ervens, B. and G. Feingold, Mixed-phase clouds: Sensitivity to microphysical and chemical parameters, Institute for Tropospheric Research, Leipzig, GERMANY, **2012**

Ervens, B., Secondary organic aerosol formation in the aqueous phase, Laboratoire Chimie d'Environnement, Aix-Marseille University, FRANCE, **2012**.

Ervens, B., Chemical processes in the atmosphere: Effects on clouds and particulate matter, Special symposium to commemorate the 100th Year Anniversary of Marie Curie's Nobel Prize, Division of Physical Chemistry, 242nd American Chemical Society (ACS) National Meeting, Denver, CO, **2011**.

Ervens, B., Impacts of aerosol composition on properties of warm and cold clouds, Symposium: Atmospheric Aerosols: Chemistry, Clouds and Climate, Division of Environmental Chemistry, 242nd American Chemical Society (ACS) National Meeting, Denver, CO, **2011**.

Ervens, B., Formation of secondary organic aerosol by aqueous phase processes in the atmosphere, Department of Atmospheric Science, University of Arizona, AZ, **2011**.

Ervens, B., Formation of secondary organic aerosol by aqueous phase processes in the atmosphere, Arizona State University, College of Liberal Art and Sciences, Department of Chemistry and Biochemistry, Tempe, AZ, **2011**.

Ervens, B.: The impact of aqueous phase chemistry on the fate of carbonyl compounds, 3rd Conference on Atmospheric Chemical Mechanisms, Univ of California Davis, Air Quality Research Center, CA, **2010**.

Ervens, B.: Secondary organic aerosol formation in the atmospheric aqueous phase: Model approaches, Department of Earth and Planetary Sciences, Harvard School of Engineering and Applied Sciences, Cambridge, MA, **2010**.

Ervens, B.: Organic aerosol formation and processing in the atmospheric aqueous phase – a model perspective, Symposium "Physical chemistry of hydrates, interfaces and aerosols and their relationship to the climate system", 240th National Meeting of the American Chemical Society, Boston, MA, **2010**.

Ervens, B.: Secondary organic aerosol formation in the aqueous phase: Different pathways in clouds and deliquesced particles, Air Quality Model Development Meeting, Electric Power Research Institute (EPRI), Palo Alto, CA, **2010**.

Ervens, B.: Aerosol, Wolken und chemische Multiphasenprozesse (Aerosols, Clouds and chemical multiphase processes), Institute for Tropospheric Research, Leipzig, GERMANY, **2009**.

Ervens, B.: Secondary organic aerosol formation in haze particles and cloud droplets; Joint Assembly Meeting AGU, Toronto, CANADA, **2009.**

Ervens, B.: The role of organics in aerosol-cloud interactions, Department of Earth and Atmospheric Sciences, Purdue University, IN, **2008**.

Ervens, B.: Organic aerosol modeling - Approaches, problems, open questions, Graduate Seminar 'Organic molecules in the atmosphere', Dept. of Chemistry and Biochemistry, CU Boulder, **2008**.

Ervens, B.: Chemical processes in cloud droplets as a source of secondary organic aerosol, International Aerosol Modeling Algorithms (IAMA) Conference, Davis, CA, USA, **2007**.

Ervens, B: Secondary organic aerosol formation in clouds, Analytical, Environmental and Atmospheric Seminar Series, University of Colorado, Boulder, CO, **2007**.

Ervens, B.: Chemical and physical modification of aerosol particles by cloud processing, Joint Assembly

Meeting AGU, Acapulco, MEXICO, **2007**.

Ervens, B.: Process model studies of SOA formation by biogenics in the condensed phase, Gordon Research Conference: Biogenic Hydrocarbons & the Atmosphere, Ventura, CA, USA, **2007**.

Ervens, B.: Chemie und Wolken - Eine wechselseitige Beziehung, Institute for the Atmosphere and Environment, Johann-Wolfgang-Goethe-University, Frankfurt, GERMANY, **2006**.

Ervens, B.: The role of aerosol chemistry in the climate system, Univ of California, Merced, CA, USA, **2006**.

Ervens, B., and S. M. Kreidenweis: Modeling studies of chemical SOA formation, Organic Aerosol Workshop, Telluride, CO, **2006**.

Ervens, B.: Connections between aerosols, clouds, chemistry and climate, Institute for Terrestrial and Planetary Atmospheres, Stony Brook University, NY, **2006**.

Ervens, B.: Connections between aerosols, clouds, chemistry and climate, École Polytechnique Fédérale de Lausanne, SWITZERLAND, **2005**.

Ervens, B.: Organic Aerosols: The big unknown in atmospheric models?, Rosenstiel School of Marine and Atmospheric Science, University of Miami, FL, **2005**.

Ervens, B.: Connections between aerosols, clouds, chemistry and climate, Rosenstiel School of Marine and Atmospheric Science, University of Miami, FL, **2005**.

Ervens, B.: Organische Aerosole: Makromolekulare Verbindungen und ihr Effekt auf Wolkenbildung, Institute for Chemistry and Dynamics of the Geosphere, Research Centre Jülich, GERMANY, **2005**.

Ervens, B., and G. Feingold: Impact of organic surfactants on the aerosol indirect effect: Model results and open questions, University of Colorado, Boulder, CO, **2003**.

Ervens, B., G. Feingold, S. M. Kreidenweis, and S. L. Clegg: Cloud processing of organic/ inorganic aerosols: Organic mass production rates and implications for cloud physics, Organic Aerosol Workshop (EC Project PHOENICS), Belgirate, ITALY, **2003**.

RECENT AND ONGOING COLLABORATIONS

Roya Bahreini	University of California, Riverside, CA
Annmarie Carlton	Rutgers University, NJ
Maria Cristina Facchini	Institute of Atmospheric Sciences and Climate, National Research Council, Bologna, Italy
Graham Feingold	NOAA/ESRL/CSD, Boulder, CO
Jerry Y. Harrington	PennState University, PA
Pierre Herckes	Arizona State University, AZ
José L. Jimenez	University of Colorado, Boulder, CO
Sonia M. Kreidenweis	Colorado State University, Fort Collins, CO
Anne Monod	University of Marseille, France
Dennis Niedermeier	Institute for Tropospheric Research, Leipzig, Germany
Armin Sorooshian	University of Arizona, AZ
Frank Stratmann	Institute for Tropospheric Research, Leipzig, Germany
Barbara J. Turpin	Rutgers University, NJ
Veronica Vaida	University of Colorado, Boulder, CO
Rainer Volkamer	University of Colorado, Boulder, CO
Rodney J. Weber	GeorgiaTech, GA

CITATION METRICS

ResearcherID: D-5495-2013 Sum of Times Cited: 2098
H-Index: 19 (June 2013)

PEER REVIEWED PUBLICATIONS

[35] Ervens, B. and G. Feingold, Sensitivities of immersion freezing: Reconciling classical nucleation theory and deterministic expressions, *Geophys. Res. Lett., in press*, doi: 10.1002/grl.50580, **2013**.

[34] Ervens, B., Y. Wang, J. Eagar, W. R. Leaitch, A. MacDonald, K. T. Valsaraj, and P. Herckes, Dissolved organic carbon (DOC) and select aldehydes in cloud and fog water: The role of the aqueous phase in impacting trace gas budgets, *Atmos. Chem. Phys.*, 13, 5117-5135, doi: 10.5194/acp-13-5117-2013, **2013.**

[33] Waxman E. M., B. Ervens, K. Dzepina, J. Lee-Taylor, S. Madronich, B. Aumont, J. Jimenez, Rainer Volkamer, Secondary Organic Aerosol formation from S/IVOC and glyoxal: Relevance of O/C as a tracer for aqueous multiphase chemistry, *Geophys. Res. Lett*, 40,1-5, doi: 10.1002/grl.50203, **2013.**

[32] Wonaschütz, A., A. Sorooshian, B. Ervens, P.Y. Chuang, G. Feingold, S.M. Murphy, J.A. de Gouw, C. Warneke, H.H. Jonsson, Aerosol and Gas Redistribution by Shallow Cumulus Clouds: An investigation using airborne measurements, *J. Geophys. Res.*, 117, D17202, doi: 10.1029/2012JD018089, **2012**.

[31] Bahreini, R., A. M. Middlebrook, C. A. Brock, J. A. de Gouw, S. A. McKeen, L. R. Williams, K. E. Daumit, A. T. Lambe, P. Massoli, M. R. Canagaratna, R. Ahmadov, A. J. Carrasquillo, E. S. Cross, B. Ervens, J. S. Holloway, J. F. Hunter, T. B. Onasch, I. B. Pollack, J. M. Roberts, T. B. Ryerson, C. Warneke, P. Davidovits, D. R. Worsnop, and J. H. Kroll: Mass Spectral Analysis of Organic Aerosol Formed Downwind of the Deepwater Horizon Oil Spill: Field Studies and Laboratory Confirmations, Environ. Sci. Technol., 46, 15,8025-8034, doi: 10.1021/es301691k, **2012**.

[30] Ervens, B. and G. Feingold, On the representation of immersion and condensation freezing in cloud models using different nucleation schemes, *Atmos. Chem. Phys.*, 12, 5807-5826, doi: 10.5194/acp-12-5807-2012, **2012**.

[29] Ervens, B., B. J. Turpin, and R. J. Weber, Secondary organic aerosol formation in cloud droplets and aqueous particles (aqSOA): a review of laboratory, field and model studies, *Atmos. Chem. Phys*, 11 11069-11102, doi: 10.5194/acp-11-11069-2011, **2011**.

[28] Ervens, B., G. Feingold, K. Sulia, J. Y Harrington, The impact of microphysical parameters, ice nucleation mode, and habit growth on the ice/liquid partitioning in mixed-phase Arctic clouds, *J. Geophys. Res.*, 116, D17205, doi: 10.1029/2011JD015729, **2011**.

[27] Rinaldi, M., S. Decesari, C. Carbone, E. Finessi,, S. Fuzzi, D. Ceburnis, C.D. O'Dowd, J. Sciare, J.P. Burrows, M. Vrekoussis, B. Ervens, K. Tsigaridis, and M. C. Facchini, Evidence of a natural marine source of oxalic acid and a possible link to glyoxal, *J. Geophys. Res.*, D16204, doi: 10.1029/2011JD015659, **2011**.

[26] Hutchings, J., B. Ervens, D. Straub, and P. Herckes, N-nitrosodimethylamine occurrence, formation and cycling in clouds and fogs, *Environ. Sci. Technol.*, *44*, 8128–8133, **2010**.

[25] Ervens, B. and R. Volkamer, Glyoxal processing by aerosol multiphase chemistry: towards a kinetic modeling framework of secondary organic aerosol formation in aqueous particles, *Atmos. Chem. Phys.*, *10*, 8219-8244, **2010.**

[24] Ervens, B., Cubison, M. J. Andrews, E. Feingold, G. Ogren, J. A. Jimenez, J. L. Quinn, P. Bates, T. Wang, J. Zhang, Q. Coe, H. Flynn, M. Allan, J. D., CCN predictions using simplified assumptions on organic aerosol composition and mixing state: A synthesis from six different locations, *Atmos. Chem. Phys.*, *10*, 4795–4807, **2010**.

[23] Bahreini, R., B. Ervens, A.M. Middlebrook, C. Warneke, J.A. de Gouw, P. F. DeCarlo, J.L. Jimenez, E. Atlas, J. Brioude, C.A. Brock, A. Fried, J.S. Holloway, D. Richter, T. B. Ryerson, H. Stark, J. Walega, A.G. Wollny, F.C. Fehsenfeld, Organic aerosol formation in urban and industrial plumes near Houston and Dallas, TX, *J. Geophys. Res.* (Special TexAQS Issue), 114, doi:10.1029/2008JD011493, **2009**.

[22] Cubison, M. J., B. Ervens, G. Feingold, K. S. Docherty, I. M. Ulbrich, L. Shields, K. Prather, S. Hering, and J. L. Jimenez, The influence of chemical composition and mixing state of Los Angeles urban aerosol on CCN number and cloud properties, *Atmos. Chem. Phys.*, 8, 5649-5667, **2008**.

[21] Ervens, B., A. G. Carlton, B. J. Turpin, K. E. Altieri, S. M. Kreidenweis, and G. Feingold, Secondary organic aerosol yields from cloud-processing of isoprene oxidation products, *Geophys. Res. Lett.*, 35, L02816, doi: 2007GL031828, **2008**.

[20] Carlton, A. G., B. J. Turpin, K. E. Altieri, A. Reff, S. Seitzinger, H. Lim, and B. Ervens, Atmospheric oxalic acid and SOA production from glyoxal: Results of aqueous photooxidation experiments, *Atmos. Environ.* 41, 7588-7602, **2007**.

[19] Ervens, B. and S. M. Kreidenweis, SOA formation by biogenic and carbonyl compounds: Data evaluation and application, *Environ. Sci. Technol.* 41(11), 3904-3910, **2007**.

[18] Ervens, B., M. J. Cubison, E. Andrews, G. Feingold, J. A. Ogren, J. L. Jimenez, P. DeCarlo, and A. Nenes, Prediction of cloud condensation nucleus number concentration using measurements of aerosol size distributions and composition and light scattering enhancement due to humidity, *J. Geophys. Res.* 112, D10S32, doi: 10.1029/ 2006JD007426, **2007**.

[17] Sorooshian, A., F. J. Brechtel, B. Ervens, G. Feingold, V. Varutbangkul, R. Bahreini, S. Murphy, J. S. Holloway, E. L. Atlas, K. Anlauf, G. Buzorius, H. Jonsson, R. C. Flagan, and J. H. Seinfeld, Oxalic acid in clear and cloudy atmospheres: Analysis of data from International Consortium for Atmospheric Research on Transport and Transformation 2004, *J. Geophys. Res.* 111, D23, D23S45, 10.1029/2005JD006880, **2006**.

[16] Koehler, K. A., S. M. Kreidenweis, P. J. DeMott, A. J. Prenni, C. Carrico, B. Ervens, and G. Feingold, Cloud condensation activity of atmospheric aerosols. Part II: Application to organic species, *Atmos. Chem. Phys.* 6, 785-809, **2006**.

[15] Ervens, B., G. Feingold, and S. M. Kreidenweis, The influence of water soluble organic carbon on cloud drop number concentration, *J. Geophys. Res.* 110, D18, D18211, doi: 10.1029/2004 JD005634, **2005**.

[14] Kanakidou, M., J. H. Seinfeld, S. N. Pandis, I. Barnes, F. J. Dentener, M. C. Facchini, R. van Dingenen, B. Ervens, A. Nenes, C. J. Nielsen, E. Swietlicki, J.P. Putaud, Y. Balkanski, C. E., S. Fuzzi, J. Hjorth, G. Moortgat, R. Winterhalter, C. E. L. Myhre, K. Tsigaridis, E. Vignati, E. Stephanou, and J. Wilson, Organic aerosol and global climate modelling: A review, *Atmos. Chem. Phys.* 5, 1053-1123, **2005**.

[14] Kreidenweis, S. M., K. A. Koehler, P. J. DeMott, A. J. Prenni, C. Carrico, B. Ervens, and S. L. Clegg, Cloud condensation activity of atmospheric aerosols. Part I: Application to inorganic species, *Atmos. Chem. Phys.* 5, 1357-1370, **2005**.

[13] Ervens, B., G. Feingold, G. J. Frost, and S. M. Kreidenweis, A modeling study of aqueous production of dicarboxylic acids, 1. Chemical pathways and organic mass production, *J. Geophys. Res.* 109, D15205, doi: 10.1029/2003JD004387, **2004**.

[12] Ervens, B., G. Feingold, S. L. Clegg, and S. M. Kreidenweis, A modeling study of aqueous production of dicarboxylic acids, 2. Implications for cloud microphysics, *J. Geophys. Res.* 109, D15206, doi: 10.1029/2004JD004575, **2004**.

[11] Ervens, B., P. Herckes, G. Feingold, T. Lee, J. L. Collett, Jr., and S. Kreidenweis, On the drop-size dependence of organic acid and formaldehyde concentrations in fog, *J. Atmos. Chem.* 46, 239-269, **2003**.

[10] Ervens, B., S. Gligorovski, and H. Herrmann, Temperature dependent rate constants for hydroxyl radical reactions with organic compounds in aqueous solution, *Phys. Chem. Chem. Phys.* 5, 1811-1824, **2003**.

[9] Ervens, B., C. George, J. E. Williams, G. V. Buxton, G. A. Salmon, M. Bydder, F. Wilkinson, F. Dentener, P. Mirabel, R. Wolke, and H. Herrmann, CAPRAM2.4 (MODAC mechanism): An extended and condensed tropospheric aqueous phase mechanism and its application, *J. Geophys. Res.* 108, D14, 4426, doi: 10.1029/2002JD002202, **2003**.

[8] Herrmann, H., Z. T. Majdik, B. Ervens, and D. Weise, Halogen production from aqueous tropospheric particles, *Chemosphere* 52, 2, 485-502, **2003**.

[7] Lahoutifard, N., M. Ammann, L. Gutzwiller, B. Ervens, and C. George, The impact of multiphase reactions of NO_2 with aromatics: A modelling approach, *Atmos. Chem. Phys.* 2, 1-12, **2002**.

[6] Poppe, D., B. Aumont, B. Ervens, H. Geiger, H. Herrmann, E.-P. Röth, W. Seidl, W. R. Stockwell, B. Vogel, S. Wagner, and D. Weise, Scenarios for modeling multiphase tropospheric chemistry, *J. Atmos. Chem.* 40, 1, 77-86, **2001**.

[5] Herrmann, H., B. Ervens, D. Weise, Sulfur chemistry in clouds, *IGACtivity Newsletter* 23, 6-10, **2001**.

[4] Herrmann, H., B. Ervens, H.-W. Jacobi, R. Wolke, P. Nowacki, R. Zellner, CAPRAM2.3: A chemical aqueous phase radical mechanism for tropospheric chemistry, *J. Atmos. Chem.* 38, 231-284, **2000**.

[3] Ervens, B., and H. Herrmann, Reply to "Comment on 'A chemical aqueous phase radical mechanism for tropospheric chemistry' by R. Sander, and P. Crutzen", *Chemosphere* 41, 633-634, **1999**.

[2] Herrmann, H., B. Ervens, P. Nowacki, R. Wolke, and R. Zellner, A chemical aqueous phase radical mechanism for tropospheric chemistry, *Chemosphere* 38, 1223-1232, **1999**.

[1] Herrmann, H., A. Reese, B. Ervens, F. Wicktor, and R. Zellner, Laboratory and modelling studies of tropospheric multiphase conversions involving some C_1 and C_2 peroxyl radicals, *Phys. Chem. Earth B* 24, 287-290, **1998**.

SUBMITTED/ IN PREPARATION

Sorooshian, A., Z. Wang, M. M. Coggon, H. H. Jonsson, B. Ervens, Observations of Sharp Oxalate Reductions in Stratocumulus Clouds at Variable Altitudes: Organic Acid and Metal Measurements During the 2011 E-PEACE Campaign, *submitted to Environ. Sci. Technol*., **2013.**

Niedermeier, D., T. Clauss, S. Hartmann, J. Voigtländer, H. Wex, B. Ervens, and. F. Stratmann, A computationally-efficient description of heterogeneous freezing: A simplified version of the Soccer ball model, *submitted to Geophys. Res. Lett*., **2013.**

Ervens, B., Y. B. Lim, A. Sorooshian, and B. J. Turpin, Key parameters in aqSOA formation, *in preparation.*

Ervens, B., and A. Sorooshian, The signature of aqSOA: Modification of aerosol distributions by secondary organic aerosol formation in the aqueous phase, *in preparation.*

BOOK REVIEW

Book review (invited), Lamb, D., and H. Verlinde: Physics and Chemistry of Clouds, 1st ed., University Press, Cambridge, 584 pp., 2011; *B. Am. Meteorol. Soc.*, 93, 8, 1233, **2012**.

OTHER PUBLICATIONS/ CONFERENCE CONTRIBUTIONS (SINCE 2008)

*** denotes presenter**

*Ervens, B., and G. Feingold, Sensitivities of immersion freezing: Transition from classical nucleation theory to deterministic expressions, 19th International Conference on Nucleation and Atmospheric Aerosols, Fort Collins, CO, **2013**.

*Bahreini, R., A. M. Middlebrook, C. A. Brock, J. A. de Gouw, S. A. McKeen, L. R. Williams, K. E. Daumit, A. T. Lambe, P. Massoli, M. R. Canagaratna, R. Ahmadov, A. J. Carrasquillo, E. S. Cross, B. Ervens, J. S. Holloway, J. F. Hunter, T. B. Onasch, I. B. Pollack, J. M. Roberts, T. B. Ryerson, C. Warneke, P. Davidovits, D. R. Worsnop, and J. H. Kroll, Organic Aerosol from the Deepwater Horizon Oil Spill: Chemical and Microphysical properties, ACS Colloid and Surface Science Symposium, Riverside, CA, **2013**.

*Eagar, J., P. Herckes, B. Ervens, Photooxidation of Polycyclic Aromatic Hydrocarbons in Clouds and Fog – Laboratory and Model Studies, 32nd Annual Conference, AAAR, Portland, OR, **2013.**

Renard, P., F. Siekmann, G. Salque[c], S. Ravier, E. Quivet, J. Clément, M Traikia, A. Delort, D. Voisin, R. Thissen, *B. Ervens, A. Monod, Impacts of aqueous phase radical mechanism of oligomerization of methyl vinyl ketone (MVK) on SOA formation: on the paradoxical role of dissolved oxygen, AGU Fall Meeting, San Francisco, CA, **2012.**

Turpin, B. J., *B. Ervens, Y. B. Lim, Oxidant supply and aqueous photochemical SOA formation in cloud

droplets and aqueous aerosol, AGU Fall Meeting, San Francisco, CA, **2012.**

*Ervens, B.; A. Sorooshian, A.G. Carlton; The signature of aqueous phase SOA: Evidence from field and model studies, AGU Fall Meeting, San Francisco, CA, **2012.**

Niedermeier, D., *B. Ervens, S. Hartmann, H. Wex, F. Stratmann, The sensitivity of predicted freezing behavior of dust and biological particles to new laboratory-based expressions, AGU Fall Meeting, San Francisco, CA, **2012.**

*Ervens, B. and G. Feingold, Mixed-phase clouds: Sensitivity to microphysical and chemical parameters, Earth, Planetary and Space Sciences Institute, Michigan Tech University, Houghton, MI, **2012**.

*Ervens, B., and G. Feingold, The importance of time-dependence of ice nucleation in mixed-phase clouds, 16th International Conference on Clouds and Precipitation, Leipzig, GERMANY, **2012**.

*Ervens, B., Secondary organic aerosol formation in the aqueous phase, Institute for Tropospheric Research, Leipzig, GERMANY, **2012.**

*Ervens, B., Y. Lim, B. J. Turpin, Aerosol modification by secondary organic aerosol formation in the aqueous phase, 22nd International Symposium on Gas Kinetics, Boulder, CO, **2012**.

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