Thank you to our Program Committee for putting in the extra time and effort to recruit specialty presenters and evaluate proposals.

Alex Archibald, University of Cambridge, Department of Chemistry

Marie Camredon, LISA, CNRS/UPEC/UPD

Ajith Kaduwela, California Air Resources Board

Henrik Kjærgaard, University of Copenhagen, Department of Chemistry

Jesse Kroll, MIT

Deborah Lueckens, National Exposure Research Laboratory, US EPA

Sasha Madronich, National Center for Atmospheric Research

Thomas Mentel, Jülich’s Institute of Energy and Climate Research, Troposphere

Tran Nguyen, UC Davis

Carl Percival, Jet Propulsion Laboratory, NASA

John Wenger, University College Cork, Centre for Research into Atmospheric Chemistry

Lisa Whalley, National Center for Atmospheric Science, University of Leeds
7:00 AM  REGISTRATION AND BREAKFAST in Conference Center Lobby
8:00 AM  OPENING REMARKS
8:10 AM  SESSION: APPLICATIONS & IMPLICATIONS PART 1
         Hosted by Ajith Kaduwela, California Air Resources Board, Deborah Luecken, EPA
         Development of Future Atmospheric Chemical Mechanisms for Photochemical Modeling
         Ajith Kaduwela, California Air Resources Board / Air Quality Research Center, UC Davis
         Ongoing EPA efforts to evaluate modeled NOy budgets
         Heather Simon, US EPA
         Characterization of Chemical Mechanisms used in Top-Down VOC Emission Estimates
         Jennifer Kaiser, Georgia Institute of Technology
9:10 AM  PLENARY SPEAKER: LUCY CARPENTER, UNIVERSITY OF YORK
         Oceanic Physicochemical Processes Affecting Tropospheric O3
9:50 AM  BREAK
10:10 AM SESSION: MECHANISM/SAR DEVELOPMENT
         Hosted by Alex Archibald, University of Cambridge, Marie Camredon, LISA-CNRS/UPEC/UPD
         Development, Extension, and Validation of Theory-Based Structure-Activity Relationships (SARs) for Atmospheric Modeling
         Luc Vereecken, Forschungszentrum Jülich GmbH
         Structure-Activity Relationships for the Development of MCM/GECKOA Mechanisms
         Bernard Aumont, LISA
         Development of Furan Oxidation Mechanism from OH and NO3 Oxidation Within Biomass-Burning Regimes via Chamber Experiments
         Benjamin Brown-Steiner, AER
         Molecular Dynamics Simulations of Sulfuric Acid Cluster Collisions
         Bernhard Reischl, Institute for Atmospheric and Earth System Research / Physics, University of Helsinki
         The Impact of the Aldehyde-Hydrogen Shift on the OH Radical Budget in the Isoprene Oxidation Mechanism in Pristine Environments
         Anna Novelli, Institute of Energy and Climate Research, IEK-8: Troposphere, Forschungszentrum Jülich GmbH, Jülich, Germany
12:10 PM  LUNCH
1:10 PM  SESSION: NEW INSTRUMENTS & ALGORITHMS PART 1
         Hosted by Thomas Mentel, Julich’s Institute of Energy & Climate, Tran Nguyen, UC Davis
         Characterizing Cluster Fragmentation in an Atmospheric Pressure Interface Time of Flight (API-ToF) Mass Spectrometer
         Hanna Vehkamäki, University of Helsinki
         Quantification of Multifunctional Molecules in Chamber and Ambient Air Using Gas-Chromatography Chemical Ionization Mass Spectrometry (GC-CIMS)
         John Crounse, Caltech
         Detection of Novel Organic Nitrogen Compounds with Protonated Ethanol Cluster Chemical Ionization Mass Spectrometry
         Eleanor Browne, University of Colorado Boulder
         Free Troposphere Wintertime Gas-Phase Composition Using CI-API-TOF
         Ugo Molteni, PSI
         Predicting Instrument Response as a Function of Composition
         David Topping, University of Manchester
2:50 PM  BREAK
3:10 PM  SESSION: NEW INSTRUMENTS & ALGORITHMS PART 2
         Bulk vs. Stochastic Kinetics To Describe The Oxidation Of Organic Aerosol Components
         Mark Goldman, Massachusetts Institute of Technology
         Understanding The Atmosphere: Graph Clustering Methods For Mechanism Reduction
         Daniel Ellis, University of York
3:50 PM  SESSION: MINUTE MADNESS POSTERS
4:40 PM  WELCOME RECEPTION AND POSTER VIEWING
7:00 PM  WEDNESDAY CONCLUDES
7:00 AM  REGISTRATION AND BREAKFAST in Conference Center Lobby
8:00 AM  CONFERENCE BEGINS
8:10 AM  PLENAry SPEAKER: PAUL ZIEMANN, UNIVERSITY OF COLORADO BOULDER
Gas- and Particle-Phase Products and their Mechanisms of Formation from the Reactions of Monoterpenes with NO3 Radicals: Comprehensive Measurements and Modeling
8:50 AM  SESSION: ATMOSPHERIC OXIDATION PART 1
Hosted by Sasha Madronich, National Center for Atmospheric Research, John Wenger, University College Cork
Structural Dependence of Stabilized CH2OOY Yield in Terminal Alkene Ozonolysis
Mike Newland, University of York
Direct Measurements of Vinoxy Radicals And Formaldehyde From Ozonolysis Of Trans- And Cis-2-Butenes: New Insights Into OH Radical Formation And Secondary Chemistry
Míxtli Campos-Pineda, University of California, Riverside
The Role of Criegee Intermediate + ROOH Reactions Towards Secondary Organic Aerosol Formation Laboratory, Modelling and Field Studies
Rebecca Caravan, Sandia National Laboratories
Investigation of the Alpha-Pinene & Beta-Pinene Photooxidation by OH in the Atmospheric Simulation Chamber SAPHIR
Does Water Complexation Affect the Reaction of the ß-hydroxyethyl Peroxy Radical with NO?
Frank Winiberg, Jet Propulsion Lab/Caltech
10:10 AM  BREAK
10:30 AM  SESSION: ATMOSPHERIC OXIDATION PART 2
Developing Reactivity- and Source-Based Monoterpene Parameterizations for Secondary Organic Aerosol Modeling
Kelley Barsanti, University of California, Riverside
Formation of Highly Oxidized Molecules from NO3 Radical Oxidation of Δ-3-Carene: A Computational Mechanism
Danielle Draper, University of California, Irvine
Investigation of the Alpha-Pinene & Beta-Pinene Photooxidation by OH in the Atmospheric Simulation Chamber SAPHIR
Michael Rolletter, Institute of Energy and Climate Research, IEK-8: Troposphere, Forschungszentrum Jülich GmbH, Jülich, Germany
Laboratory Exploration of the Reactions Between Aromatics and OH Using Cavity Ringdown Spectroscopy
Joseph Messinger, California Institute of Technology
Chlorine-Initiated Oxidation of Hydrocarbons: Mechanistic Insights from Measurements of Gas- and Particle-Phase Composition
Lea Hildebrandt Ruiz, The University of Texas at Austin
The Atmospheric Chemistry of Nitriles
Mads Sulbaek Andersen, California State University, Northridge
12:30 PM  LUNCH
1:30 PM  SESSION: ATMOSPHERIC OXIDATION PART 3
Interconnection of Day- and Night Time Chemistry for VOC Degradation and SOA Formation
Anke Mutzel, Leibniz Institute for Tropospheric Research
Modeling the Absorption Spectra of Phenol and Guaiacol at the Ice-Air Interface
Fernanda Bononi, Department of Chemistry, UC Davis
2:20 PM  SESSION: R02 RADICAL CHEMISTRY PART 1
Hosted by Henrik Kjærgaard, University of Copenhagen, Lisa Whalley, National Center for Atmospheric Science
Formation of Highly Oxidized Multifunctional Compounds in Alkane Autoxidation – Relevance to Atmospheric and Combustion Chemistry
Mani Sarathy, KAUST
Dependence of Alkyl Nitrate Yields on Structure for Mid-Sized Alkanes
Geoff Tyndall, NCAR/ACOM
Trends in Peroxy Radical Hydrogen Shift Rate Constants
Rasmus V. Otkjaer, Department of Chemistry, University of Copenhagen
3:20 PM  BREAK
3:40 PM  SESSION: R02 RADICAL CHEMISTRY PART 2
Isomerization and Decomposition of Isoprene’s Delta-(Z)-Hydroxyperoxyl Radicals
Gabriel da Silva, University of Melbourne
Observational Constraints on the Fate of the Hydroxy Nitrates Produced in the Reaction of Isoprene Peroxy Radicals with NO
Krystal Vasquez, California Institute of Technology
Unimolecular Peroxy Radical Hydrogen Shift Reactions in Isoprene Oxidation
Kristian H. Möller, University of Copenhagen
The effect of NOx on formation of Highly Oxidized Multifunctional Molecules and SOA formation in photochemical system
Sungah Kang, Forschungszentrum Juelich IEK-8
Peroxy Radical Autoxidation and Dimer Formation in Alpha-Pinene Oxidation: Constraints from Flow Tubes, Chambers, and the Field
Joel Thornton, University of Washington
5:20 PM  THURSDAY CONCLUDES
7:00 AM  REGISTRATION AND BREAKFAST in Conference Center Lobby
8:00 AM  CONFERENCE BEGINS
8:10 AM  SESSION: R02 RADICAL CHEMISTRY PART 3
  Hosted by Henrik Kjærgaard, University of Copenhagen, Lisa Whalley, National Center for Atmospheric Science
  Accretion Product Formation From Self-And Cross-Reactions of RO2 Radicals in the Atmosphere
    Torsten Berndt, Leibniz Institute for Tropospheric Research (TROPOS), 04318 Leipzig, Germany
  Evaluating mechanisms for dimer formation from RO2 + RO2 reactions
    Theo Kurten, University of Helsinki
  An inter-comparison of methods for HO2 and CH3O2 detection and kinetic study of the HO2 + CH3O2 cross-reaction in the Highly Instrumented Reactor for Atmospheric Chemistry (HIRAC)
    Lavinia Onel, University of Leeds
  Effect of Relative Humidity on the Mechanism of New Particle Formation From Monoterpene Oxidation
    James Smith, University of California, Irvine
9:30 AM  SESSION: APPLICATIONS & IMPLICATIONS PART 2
  Hosted by Ajith Kaduwela, California Air Resources Board, Deborah Luecken, EPA
  GoAMAZON: Exploring the Impacts of a Metropolis on Amazonian Air with an Explicit Organic Chemistry Scheme
    Camille Mouchel-Vallon, NCAR
  Impact of Anthropogenic and Natural Emissions on Air Quality in Korea
    Louisa Emmons, National Center for Atmospheric Research
10:10 AM  BREAK
10:30 AM  SESSION: APPLICATIONS & IMPLICATIONS PART 3
  Winter Haze in Beijing Driven by Fast Photochemical Smog Reactions
    Keding Lu, Peking University
  Source Apportionment of O3 Formation in California using SAPRC11
    Michael Kleeman, UC Davis
  Review of the SAPRC-16 Chemical Mechanism and Comparison with the Regional Atmospheric Chemistry Mechanism, Version-2
    William R. Stockwell, University of Texas at El Paso
  Science-Based Policy Formation at the California Air Resources Board
    Michael Benjamin, California Air Resources Board
11:50 AM  FRIDAY CONCLUDES

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CALIFORNIA AIR RESOURCES BOARD

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UC DAVIS
AIR QUALITY RESEARCH CENTER
Correlating aerosol chemical composition and optical properties using 7-year co-located measurements at the ARM Southern Great Plains (SGP) site
Ningxin Wang, UC Davis

Kinetics and product yield studies of the HO2 + CH3C(O)O2 reaction: direct detection of OH by mid-IR spectroscopy
Aileen Hui, California Institute of Technology and Jet Propulsion Laboratory, California Institute of Technology

Atmospheric chemistry of (Z)-CF3CH=CHCl: CI atom, OH radical and O3 reactions, and the role of isomerization
Aleskandra Volkova, California State University, Northridge

Mechanisms for Atmospheric chemistry: Generation, Interpretation and FideliY - MAGNIFY
Andrew Rickard Wolfson, Atmospheric Chemistry Laboratories, Department of Chemistry, University of York

Parameter identification of molecular cluster enthalpies and entropies by Monte Carlo method
Anna Shcherbachova, Institute for Atmospheric and Earth System Research/Physics

Kinetic and mechanistic investigations of the reactions of trans-2, 3-epoxybutane and cis-2, 3-epoxybutane with Cl atoms and OH radicals
Carmen Tovar, Institute for Atmospheric and Environmental Research, University of Wuppertal, 42097 Wuppertal, Germany

Modeling of OH, HO2 and RO2 reactions in atmospheric pressure flow reactors
David Hanson, Augsburg University

Does water complexation affect the reaction of the \( \text{\textipa{1\textdegree}} \)-hydroxyethylperoxy radical with NO?
Frank Winberg, Jet Propulsion Lab/Caltech

Heterogeneous hydrolysis of dinitrogen pentoxide in Beijing during winter haze episode
Haichao Wang, Peking University

Kinetic investigations of the OH-initiated oxidation of a series of alkylfurans at 298 K and atmospheric pressure
Justinstian Bejan, “Alexandru Ioan Cuza” University of Iasi

Steady State Continuous Flow Chamber for the Study of Atmospheric Hydrocarbon Oxidation Chemistry under Daytime and Nighttime Conditions – Chamber Characterization and First Results
John Orlando, Atmospheric Chemistry Observations and Modeling Laboratory, National Center for Atmospheric Research

Oxidation products and aerosol production from NO3 oxidation of isoprene
Juliane Fry, Reed College

Kinetic study of the reaction of the simplest Criegee intermediate with ozone
Lavinia Onel, University of Leeds

A Kinetic Study of the Atmospheric Aqueous-Phase Reactions of OH Radicals with Methoxyphenolic Compounds
Lin He, Leibniz Institute for Tropospheric Research

“Unimolecular Reactions of Peroxy Radicals Formed in the Oxidation of \( \alpha \)-pinene and \( \beta \)-pinene by Hydroxyl Radical”
Lu Xu, California Institute of Technology

Speciation and properties of gaseous organic compounds: an explicit modeling of organic species sources and sinks
Marie Camredon, LISA, UMR CNRS/INSU

Constraining the summertime chemical production of organic acids in forested environments with measurements and modeling
Michael Link, Colorado State University, Chemistry Department

Low pressure yields of stabilized Criegee intermediates produced from ozonolysis of a series of alkenes
Mixtli Campos-Pineda, University of California, Riverside

What is required to form stable clusters at atmospheric conditions?
Nanna Myllys, UC Irvine

Potential Performance differences of the National Air Quality Forecasting Capability when upgrading the Chemical Transport Model
Pius Lee, NOAA

Trends in Peroxy Radical Hydrogen Shift Rate Constants
Rasmus V. Otger, Department of Chemistry, University of Copenhagen

Exploring the Importance of Horizontal Resolution versus Chemical Resolution in CESM/CAM-chem
Rebecca Schwantes, National Center for Atmospheric Research/Aerospheric Chemistry Observations and Modeling Laboratory

AtChem, an open source box-model for the Master Chemical Mechanism
Andrew Rickard, University of Birmingham/University of Leicester

Development of a UV inlet-less Broadband Cavity Enhanced Absorption Spectrometer (BBCEAS) for detection of HCHO, HONO, NO2 and O4
Ryan Thalman, Snow College

Secondary Organic Aerosol Formation and the Oxidation Mechanism of Methylfuran by Nitrate Radical Oxidation
TaeKyoo Joo, Georgia Institute of Technology

A Comprehensive Test of the Recent Proposed HONO Sources in Field Measurements at Rural North China Plain
Yuhun Liu, Peking University

Experimental budgets of OH, HO2 and RO2 radicals and implications for ozone formation in the Pearl River Delta (PRD) in China 2014
ZhaoFeng Tan, IEK-8: Troposphere, Forschungszentrum Jülich, Jülich, Germany

Atmospheric Oxidation of Piperazine Initiated by OH: A Theoretical Kinetics Investigation
Zhonghua Ren, Department of Chemical Engineering, The University of Melbourne

Heterogeneous Ozonolysis of Endocyclic Organic Aerosol Model Compounds: Chemical Mechanisms and Implication for Criegee Intermediate Dynamics
Zixu (Tiffany) Zhao, UC Riverside

\( \Delta3 \)-carene photooxidation SOA: identifying particle-phase products and the first steps of oxidation
Emma D’Ambro, University of Washington, Seattle

Carbon-, Oxygen-, and Size-Resolved Model to Simulate the Microphysics, Chemistry, and Thermodynamics of Biomass Burning Organic Aerosol
Ali Akherati, Colorado State University

Sensitivity of present and future aviation-related air quality impacts to changing background conditions
Guillaume Chossiere, Massachusetts Institute of Technology

Title: E-waste driven pollution in Pakistan: First evidence of atmospheric exposure to flame retardants (FRs) in Karachi city
Jabir Syed, COMSATS University Islamabad

Contrasting SOA Formation in Urban and Rural Locations using an Oxidation Flow Reactor
Rishabh Shah, Center for Atmospheric Particle Studies, Carnegie Mellon University

Product distribution and reaction kinetics of 3-methyl-3-penten-2-one initiated by OH radicals and Cl atoms.
Investigation of the oxidation of methyl vinyl ketone (MVK) by OH radicals in the atmospheric simulation chamber SAPHIR
Hendrik Fuchs, Forschungszentrum Jülich
Upcoming Events

Aviation Noise & Emissions Symposium
March 3-5, 2019 • Jacksonville, Florida
For more information: https://anesymposium.aqrc.ucdavis.edu/

Meteorology and Climate - Modeling for Air Quality Conference
September 11-13, 2019 • Davis, California
For more information: https://macmaq.sf.ucdavis.edu/

Refinery And Chemical Industry Emissions Symposium
November 6-8, 2019 • Davis, California
For more information: https://racie.aqrc.ucdavis.edu/

International Aerosol Modeling Algorithms Conference
December 4-6, 2019 • Davis, California