

31st Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere

University of California, Riverside

Wednesday, March 12, 2014

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Chemical Physics Letters

UCR Department of Chemistry

UCR Department of Environmental Sciences

UCR College of Natural and Agricultural Sciences (CNAS)

PROGRAM

- 7:30-8:20 Arrival, registration, coffee, pastries (Pentland Hills Bear Cave B107/C101)
Poster set-up (Pentland Hills Fox Hole F111/G101)
- 8:20-8:30 Welcome and introductory remarks (Pentland Hills Bear Cave B107/C101)
- 8:30-9:15 Invited talk: *Studies of the Carbon Cycle and Air Quality from Mountaintops and Satellites: Present and Future*
Stanley Sander, Jet Propulsion Laboratory
- 9:15-10:00 Invited talk: *Gaseous Phase Kinetics Studies using the RR/DF/MS Technique: the Temperature and Pressure Dependence of OH + VOCs Rate Constants*
Zhuangjie Li, California State University, Fullerton
- 10:00-10:35 1-minute poster PowerPoint summaries for Poster Session I: M1-M29
- 10:35-12:00 Coffee break and Poster Session I (Pentland Hills Fox Hole F111/G101)
- 12:00-1:30 Lunch (sponsored buffet lunch, Aberdeen-Inverness Residential Restaurant)
- 1:30-2:15 Invited talk: *Aqueous and Aerosol Photochemistry of Atmospheric Organic Compounds*
Sergey Nizkorodov, University of California, Irvine
- 2:15-3:00 Invited talk: *Linking Organic Aerosol Properties to Cloud Condensation Nuclei*
Akua Asa-Awuku, University of California, Riverside
- 3:00-3:35 1-minute poster PowerPoint summaries for Poster Session II: A1-A28
- 3:35-5:00 Coffee break and Poster Session II (Pentland Hills Fox Hole F111/G101)
- 5:00-5:15 Concluding remarks (Pentland Hills Bear Cave B107/C101)
- 5:15-5:30 Poster removal (Pentland Hills Fox Hole F111/G101)

Poster No.	Last Name	First Name	Institution	Poster Title	Co-authors
M01	Abdelhamid	Aroob	CSU-Fresno	Kinetic and mechanistic studies of gas phase reactions of isoprene hydroxynitrates	Laxmi Ramya Addala, Catalina Olea, Srikar Middala, Kennedy Vu, Lucien Nana, Austen Scruggs, Nick Vizenor, Santanu Maitra, Max Stephenson, Michelle Boyce, Geoffrey Tyndall, John Orlando and Alam Hasson
M02	Campos-Pineda	Mixtli	University of California, Riverside	Study of the Ozonolysis of Ethene, Propene, cis-2-Butene, and trans-2-Butene using Cavity Ring-Down Spectroscopy	Liming Wang, Yingdi Liu, Chad Priest, and Jingsong Zhang
M03	Chad	Priest	University of California, Riverside	Estimating GHG Mixing Ratios with a Two Level Sampling Tower in San Bernardino	Jingsong Zhang, Sally Newman, Marc L. Fischer, and Ying K. Hsu
M04	Dawson	Matthew	University of California, Irvine	A New Method for Measurement of Gas-Phase Ammonia and Amines in Air	Adrian Gomez, Kristine D. Arquero, Veronique Perraud, Barbara J. Finlayson-Pitts
M05	Dinh	Lauren	CSU-Fullerton	Computational Study of Glucose and Asparagine to Produce Actylamide in the Presence of Water: The First Transition State	Watit Sontising, Fu-Ming Tao
M06	Dodson	Leah	California Institute of Technology	Kinetics and product yields of the acetyl peroxy + HO ₂ radical reaction studied by photoionization mass spectrometry	Linhan Shen, John D. Savee, Nathan C. Eddingsaas, Olver Welz, Craig A. Taatjes, David L. Osborn, Stanley P. Sander, Mitchio Okumura
M07	Green	Jaime	CSU-Fresno	Product yields from the reaction of isoprene with OH under low Nox conditions	Lucas Algrim, Nick Vizenor, Geoffrey Tyndall, Alam S Hasson
M08	Hargrove	James	ALTI LLC	ALTI LLC CARDS-GID Air Pollution Measurements	
M09	Hui	Aileen	California Institute of Technology	Kinetic Studies of HO ₂ reactions with Peroxy Radicals	Frederick Grieman, Mitchio Okumura, Stanley Sander
M10	Liu	Yingdi	Jet Propulsion Laboratory	Direct Observation of OH from Simplest Crigee (CH ₂ OO)	Kyle D. Bayes, Stanley P. Sander
M11	Lucas	Michael	University of California, Riverside	Ultraviolet Photodissociation Dynamics of Aromatic Radicals	Yu Song, Jasmine Minor, Maria Alcaraz, Jingsong Zhang
M12	Lunny	Elizabeth	California Institute of Technology	Photoacoustic Spectroscopy of the Oxygen A-band in Support of Remote Sensing	Thinh Bui, Priyanka Milinda Rupasinghe, Daniel Hogan, Mitchio Okumura

M13	Lyster	Kjertan	University of Copenhagen & University of California, Irvine	Preliminary Investigation of SO ₂ Exhaust Gas Cleaning Systems in Ships	M.S. Johnson, A. Butcher
M14	Meewan	Ittipat	CSU-Fullerton	Bond Function Calculation for DNA Base Pair Interaction Energy	Fu-Ming Tao
M15	Mertens	Laura	California Institute of Technology	Direct Real-Time Observation of the Isomerization of n-Butoxy and n-Butoxy-d9 Radicals	Mitchio Okuruma
M16	Olea	Catalina	CSU-Fresno	Emissions of VOCs and Methane from a Central California Dairy	Srikar Middala, Kennedy Vu, Laxmi R Addala, Lucien Nana, Julie Steele, Austen Scruggs, Thomas Shelton Segun O Ogunjemiyo, Shawn Ashkan, Alam S Hasson
M17	Plett	Lydia	University of California, Riverside	Cavity Enhanced Absorption Spectroscopy of Nitrous Acid and Nitrogen Dioxide	David Medina, Jingsong Zhang
M18	Roueintan	Masoud	CSU-Fullerton	Kinetics and Dynamics Investigations of OH Reaction with Naphthalene	Joeson Cho, Zhuangjie Li
M19	Shen	Linhan	California Institute of Technology	Infrared Kinetics Spectroscopy Studies on HO ₂ Radicals from Criegee Intermediate (CH ₂ OO) Reaction	Yingdi Liu, Erin Delaria, Kyle Bayes, Stanly Sander, Frederick Grieman, Mitchio Okumura
M20	Smarte	Matthew	California Institute of Technology	Kinetics and Spectroscopy of Chlorine-Substituted Peroxy Radicals	Leah G. Dodson, Kana Takematsu, Nathan C. Eddingsaas, Mitchio Okumura
M21	Sontising	Watit	CSU-Fullerton	A Theoretical Study of HONO Formation from Humic Acid Segment with NO ₂	Abraham Shenhur, Nhan Nguyen, Fu-Ming Tao
M22	Tsai	Catalina	University of California, Los Angeles	HONO Vertical Gradients in Urban and Rural Areas	Ross Cheung, Fedele Colosimo, Stephen Hurlock, Olga Pikelnaya, Max Spolaor, Jochen Stutz
M23	Varner	Mychel	University of California, Irvine	Intermediates in the Photooxidation of Ammonia	Jonathon D. Raff, R. Benny Gerber
M24	Vizenor	Ashley	University of California, Riverside	Real time gas-phase analysis by selective ion flow tube mass spectrometry	Xinze Peng, Chia-Li Chen, Derek Price, Shaokai Gao, Mary Kacarab, Kelly McCoy, Igor Irianto, David R. Cocker III, Akua Asa-Awuku
M25	Weber	Kevin	CSU-Fullerton	Thermodynamically Stable Seed Clusters of Oxalic Acid, Ammonia, and Water	

M26	Wong	Clare	Jet Propulsion Laboratory	Remote Sensing of Trend and Seasonal Variability of Greenhouse Gas Emissions from the Los Angeles Basin Using an FTS on Mount Wilson	Dejian Fu, Thomas Pongetti, Sally Newman, Yuk L. Yung, Stanley Sander
M27	Wu	Jinhong	CSU-Fullerton	An ab initio Computational Study of Dehydrated Schiff Base of Glyoxal as a Precursor in the Formation of Carcinogenic Acrylamide	Kevin Tong, Watit Sontising, Fu-Ming Tao
M28	Zoerb	Matthew	University of California, San Diego	Ion-Molecule Reaction Dynamics Studied by Electronic Structure Theory Calculations and Chemical Ionization Mass Spectrometry	Michelle Kim, Timothy H. Bertram
M29	Liu	Yingdi	Jet Propulsion Laboratory	Mass spectrometry studies of Criegee intermediates in the ozonolysis reactions of alkenes	Jingsong Zhang, Amir Golan and Musahid Ahmed

Poster No.	Last Name	First Name	Institution	Poster Title	Co-authors
A01	Arquero	Kristine	University of California, Irvine	Heterogeneous Reaction of Methanesulfonic Acid with Trimethylamine on Surfaces: Implications for Laboratory and Atmospheric Measurements	Noriko Nishino, Matthew L. Dawson, Barbara J. Finlayson-Pitts
A02	Baroi	James	CSU-Fresno	Concentrations of selected organics and reactive oxygen species generation from PM2.5 extracts	Sowmya Tummala , Kennedy- Kiet T. Vu, Annabelle Lolinco, Kylie Markarian, Clarissa Nino, Robyn Verhalen, Catalina Olea, Alam S. Hasson
A03	Barraza	Kevin	California Institute of Technology	Fundamental Studies of the Reactions of Hydroxyl Radicals with Organic Molecules at the Air-Water Interface	J.L. Beauchamp
A04	Blair	Sandra	University of California, Irvine	Peroxide Content of α -Pinene SOA as a Function of UV Exposure	Scott A. Epstein, Sergey A. Nizkorodov
A05	Chang	Kylee	Scripps Institution of Oceanography	Organic Aerosols at Alert, Canada	Lynn Russell
A06	Chen	Haihan	University of California, Irvine	Particles and Their Precursors: From Angstrom to Regional Scales	Mychel Varner, Matthew L. Dawson, Andrew Martinez, Michael J. Ezell, Kristine D. Arquero, R. Benny Gerber, Donald Dabdub, Barbara J. Finlayson-Pitts
A07	Dingle	Justin	University of California, Riverside	Total organic aerosols and trace polycyclic aromatic hydrocarbon measurements from on-line aerosol mass spectrometry and off-line gas chromatography/mass spectrometry	Kennedy Vu, Roya Bahreini
A08	Fairhurst	Michelle	University of California, Irvine	Measuring Uptake Coefficients for Gases on Model Secondary Organic Aerosol	Carla Kidd, Barbara J. Finlayson-Pitts
A09	Hall	Wiley	USDA	Molecular Transformations Accompanying the Aging of Laboratory Secondary Organic Aerosol	M. Ross Pennington, Murray V. Johnston
A10	Hawkins	Lelia	Harvey Mudd College	The Optical Properties and Chemical Composition of Po Valley Fog Water	Lydia Jahl, M. Cristina Facchini, Stefania Gilardoni, Marco Paglione
A11	Hinks	Mallory	University of California, Irvine	Photochemistry in Atmospheric Condensed Phases: Exploring the Effects of Matrix	Hanna Lignell, Sergey A. Nizkorodov

A12	Hofstra	Julie	CSU-Fullerton	Chemical Oxidation of Light-Absorbing Components in Aerosol	Paula K. Hudson
A13	Kidd	Carla	University of California, Irvine	Particle Bounce and Phase of Secondary Organic Aerosol from Ozonolysis of α -Pinene as a Function of Relative Humidity	Veronique Perraud, Lisa M. Wingen, Barbara J. Finalyson-Pitts
A14	Kuang	Michelle	University of California, Los Angeles	Generation of ROS by ambient particulate matter: identification of possible active components responsible for this generation	
A15	Lee	Hyun Ji (Julie)	University of California, Irvine	Photobleaching and Molecular Level Analysis of Brown Carbon Aerosols	Paige Aiona, Julia Laskin, Alexander Laskin, Sergey A. Nizkorodov
A16	Loop	Bryce	University of California, Irvine	Study of Organic Nitrate Partitioning Into Secondary Organic Aerosol generated from Ozonolysis of α -Pinene	Veronique Perraud, Barbara J. Finlayson-Pitts
A17	Muller	Katherine	Harvey Mudd College	Mass Spectrometry and Brown Carbon Absorptivity of Atmospheric Nitrophenols	Lelia Hawkins
A18	Northen	Trent	CSU-Fullerton	Hygroscopic Growth of Aqueous Phase Photo-Oxidized Succinic Acid: A Comparison to the ZSR Model	Aaron Ninokawa, Minh Ho, Paula K. Hudson
A19	Parry	Krista	University of California, Irvine	Thermodynamics of alkali metal and halide ion adsorption to the air-water interface	Abraham C. Stern, Douglas J. Tobias
A20	Zhao	Yue	University of California, Irvine	New Particle Formation and Growth During Alkene Ozonolysis: the Role of Criegee Intermediates	Lisa Wingen, Veronique Perraud, Barbara J. Finlayson-Pitts
A21	Romonosky	Dian	University of California, Irvine	A Systematic Evaluation of the Extent of Photochemical Processing in Different Types of Secondary Organic Aerosols in the Aqueous Phase	Hyun Ji (Julie) Lee, Scott A. Epstein, Julia Laskin, Sergey A. Nizkorodov
A22	Sanchez	Kevin	Scripps Institution of Oceanography	Affect of Organic Aerosols on Cloud Droplet Size	Lynn Russell
A23	Schill	Steven	University of California, San Diego	Assembly of marine aggregates and their potential impacts on CCN activity of nascent sea-spray aerosol	Kathryn Zimmerman, Olivia S. Ryder, Nicole Campbell, Norman Olson, Timothy Baker, Nathan Gianneschi, Timothy H. Bertram

A24	Shaheen	Robina	University of California, San Diego	Sulfur and Oxygen Isotope Anomaly in Sulfate Aerosol and its Implications for Understanding the Present and Paleoaotmosphere	M. Abaunzal, T. Jackson, J. McCabel, J. Savarino, M.H. Thiemens
A25	Tummala	Sowmya	CSU-Fresno	Concentrations of selected organics and reactive oxygen species generation from PM2.5 extracts	James Baroi , Kennedy- Kiet T. Vu, Annabelle Lolinco, Kylie Markarian, Clarissa Nino, Robyn Verhalen, Catalina Olea, Alam S. Hasson
A26	Vu	Diep	University of California, Riverside	Flow Tube Experiments: Understanding Aerosol Mixing States	Shaokai Gao, Akua Asa-Awuku
A27	Vu	Kennedy	University of California, Riverside	Summertime measurements of ambient aerosol extinction and composition in Mira Loma, California	Justin Dingle, Roya Bahreini
A28	Zimmerman	Kathryn	University of California, San Diego	Direct measurement of the impact of the reactive uptake of ammonia and alkylamines on the CCN activity of ambient aerosol sampled during SOAS 2013	O.S. Ryder, A. Guzman Corrigan, J.M. Russell, L.M. Budisulistiorini, S.H. Surratt, J.D. Zhang, X. Cappa, C.D. Bairai, S.T. Hicks, W.R. Renfro, J. Brady, J.B. Schill, T.H.S. Bertram