

Colorado State University: University Center for the Arts

Sunday 23rd June 2013: Lobby/Instrument Recital Hall (I)

Registration 1500-1800

Icebreaker 1730-1930

Plenary Lectures: Griffin Theater

Platform sessions: Griffin Theater (G)/Organ Recital Hall (O)

Final Program

19th International Conference on Nucleation & Atmospheric Aerosols

**Fort Collins, Colorado
USA**

June 2013 – 24th to 28th

Sessions

N1	Nucleation: Experiment & Theory	TS3	Tropos./Stratos. Aerosols
N2	Nucleation: Experiment & Theory	TS4	Tropos./Stratos. Aerosols
N3	Nucleation: Experiment & Theory	AC1	Aerosol-Climate 1
N4	Nucleation: Experiment & Theory	AC2	Aerosol-Climate 2
N5	Nucleation: Experiment & Theory	AC3	Aerosol-Climate 3
CL1	CLOUD Special Session 1	AC4	Aerosol-Climate 4
CL2	CLOUD Special Session 2	DI1	CCN and warm clouds
TS1	Tropos./Stratos. Aerosols	DI2	Ice Nuclei and cold clouds
TS2	Tropos./Stratos. Aerosols	DI3	Ice Nuclei and cold clouds



19th ICNAA Program Outline

Sunday, June 23, 2013

	1500-1800	Registration (UCA Lobby)
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	1730-1930	Icebreaker (I, UCA Lobby)
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Monday, June 24, 2013

Opening	0800-0830	Opening Ceremony (G)
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Plenary	0830-1000	Kirkby & Carslaw (G)
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Coffee 1000-1030

Platforms	1030-1200	CL1 (O)	TS1 (G)
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Lunch	1200-1330		
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Platforms	1330-1530	CL2 (O)	AC1 (G)
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Poster 1/Refresh 1530-1800

Tuesday, June 25, 2013

Plenary	0800-0930	Reguera & Petäjä (G)
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Poster 2/Refresh 0930-1200

Lunch 1200-1330

Plenary	1330-1415	Feingold (G)
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Platforms	1430-1530	N1 (O)	TS2 (G)
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Coffee 1530-1600

Platforms	1600-1730	N2 (O)	AC2 (G)
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Banquet Fort Collins Museum of Discovery

Wednesday, June 26, 2013

Field Trip

Thursday, June 27, 2013

Plenary	0830-1000	Petters & Russell (G)
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Coffee 1000-1030

Platforms	1030-1200	DI1 (O)	TS3 (G)
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Lunch 1200-1330

Platforms	1330-1530	N3 (O)	AC3 (G)
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Coffee 1530-1600

Platforms	1600-1800	DI2 (O)	AC4 (G)
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Friday, June 28, 2013

Plenary	0830-1000	Wölk & Möhler (G)
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Coffee 1000-1030

Platforms	1030-1230	N4 (O)	DI3 (G)
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Lunch 1230-1400

Plenary	1400-1445	Molinero
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Platforms	1500-1630	N5 (O)	TS4 (G)
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Closing Ceremony 1630-1700

19th ICNAA Program

Monday June 24, 2013

0800-0830	Opening Ceremony	
<p>Opening Remarks: Dr. Paul DeMott (Conference Co-Chair) Welcome: Dr. William Farland (CSU Vice President for Research) Tribute: Dr. S. Gerard Jennings</p>		
0830	<p>Plenary 1 Jasper Kirkby: Atmospheric nucleation and growth in the CLOUD experiment at CERN</p>	
1000	<p>Plenary 2 Kenneth Carslaw: New Approaches to Quantifying the Magnitude and Causes of Uncertainty in Global Aerosol Models</p> <p>Session Chairs: Joachim Curtius and Jeffrey Pierce</p>	
1000-1030	Refreshments	
	<p style="text-align: center;">CL1: CLOUD (Cosmics Leaving Outdoor Droplets) Special Session 1 Session Chair: Neil Donahue</p> <p>1030 Arnaud Praplan: Evolution of α-pinene oxidation products in the presence of varying oxidizers: negative API-TOF point of view</p> <p>1045 Frank Stratmann: Evolution of nanoparticle composition in CLOUD in presence of sulphuric acid, ammonia and organics</p> <p>1100 Katrianne Lehtipalo: How do amines affect the growth of recently formed aerosol particles</p> <p>1115 Siegfried Schobesberger: Measuring Composition & Growth Of Ion Clusters Of Sulfuric Acid, Ammonia, Amines & Oxidized Organics As First Steps Of Nucleation In The CLOUD Experiment</p> <p>1130 Nina Sarnela: Molecular Steps of Neutral Sulfuric Acid and Dimethylamine Nucleation in CLOUD</p> <p>1145 Mike Lawler: Particle Composition Measurements During CLOUD7</p>	<p style="text-align: center;">TS1: Tropospheric and Stratospheric Aerosols Session Chair: Colin O'Dowd</p> <p>Darius Ceburnis: Intercontinental And Regional Transport of Air Pollution Monitored at Mace Head, Ireland and Over Europe</p> <p>Radovan Krejci: Atmospheric aerosol variability and properties in lowermost tropical free troposphere</p> <p>Jenny Hand: Widespread reductions in sulfate across the United States since the early 1990s</p> <p>Riikka Väänänen: Analysis of Particle Size Distribution Changes between Three Measurement Sites in Northern Scandinavia</p> <p>Anu-Maija Sundström: Estimating the concentration of nucleation mode aerosol particles over South Africa using satellite remote sensing measurements</p> <p>Pengfei Yu: Building a sectional aerosol model in CAM5</p>

1200-1330	Lunch	
<p>1330</p> <p>1345</p> <p>1400</p> <p>1415</p> <p>1430</p> <p>1445</p> <p>1500</p> <p>1515</p>	<p>CL2: CLOUD (Cosmics Leaving Outdoor Droplets) Special Session 2 Session Chair: Katrianne Lehtipalo</p> <p>Andreas Kürten: Ternary H₂SO₄-H₂O-NH₃ Neutral And Charged Nucleation Rates For A Wide Range Of Atmospheric Conditions</p> <p>Eimear Dunne: The Radiative Effect of Ion-Induced Inorganic Nucleation in the Free Troposphere</p> <p>Mikko Sipilä: Nucleation of H₂SO₄ and Oxidized Organics in CLOUD experiment</p> <p>Jasmin Tröstl: Aerosol nucleation and growth in a mixture of sulfuric acid / alpha-pinene oxidation products at the CERN CLOUD chamber</p> <p>João Almeida: Multi-species nucleation rates in CLOUD</p> <p>Josef Dommen: Role of Organics in Particle Nucleation: From the Lab to Global Model</p> <p>Neil Donahue: Two-dimensional Volatility Basis Set Modeling of Pinanediol Oxidation in the CLOUD Experiment</p> <p>Sebastian Ehrhart: Simulation of ion-induced nucleation in the CLOUD chamber</p>	<p>AC1: Aerosol-Cloud-Climate Interactions Session Chair: Susan van den Heever</p> <p>Adele Igel: Impacts of Cloud Condensation Nuclei on Deep Stratus Clouds</p> <p>Daniel Rieger: Sensitivity of post-frontal convective precipitation on natural and anthropogenic aerosol particles</p> <p>Leah Grant: Aerosol-Cloud-Land Surface Interactions Within Tropical Convection Simulations</p> <p>Zheng Lu: Examining The Cloud Buffering Under Smoke-laden Conditions: A Case Study Of The 2002 Yakutsk Wildfire Season</p> <p>Shaocheng Xie: Sensitivity of CAM5 Simulated Arctic Clouds and Radiation to Ice Nucleation Parameterizations</p> <p>Kai Zhang: Assessing aerosol indirect effect through ice clouds in CAM5</p> <p>Ulrike Lohmann: Dust ice nuclei effects on cirrus clouds in ECHAM5-HAM</p> <p>Muge Komurcu: Inter-Comparison of the Phase Partitioning of Cloud Water among Global Climate Models</p>
1530-1800	Refreshments and Posters 1	
Poster No.	Presenting Author (lead)	Title
CL01	TBD (Makhmutov)	Ion production rates and cross-sections from the atmospheric observations and comparison with the CLOUD experiment results
CL02	Bianchi	Characterization of positive clusters in the CLOUD nucleation experiments
CL03	Adamov	Cluster measurements at CLOUD using a high resolution ion mobility spectrometer - mass spectrometer combination

CL04	Vehkamäki (Ortega)	Linking Neutral and Charged Sulfuric Acid - Ammonia and Sulfuric Acid - Dimethylamine Clusters
CL05	Vehkamäki (Ortega)	The Role of Highly Oxidized Organics in New Particle Formation
CL06	Nieminen	Contribution of oxidized organic compounds to nanoparticle growth
CL07	Lehtipalo (Franchin)	Measurements of Cluster Ions Using a Nano Radial DMA and a Particle Size Magnifier in CLOUD
CL08	Praplan (Rissanen)	Evolution of Alpha-Pinene Oxidation Products in the Presence of Varying Oxidizers: CI-API-TOF Point of View
CL09	Rondo	Experimental study on the influence of dimethylamine on the detection of gas phase sulfuric acid using CIMS
CL10	Simon	Measurement of Neutral Sulfuric Acid-Dimethylamine Clusters using CI-API-TOF-MS
CL11	Sarnela	Chemistry of Stabilized Criegee Intermediates in the CLOUD Chamber
CL13	Williamson	A Double Inversion: Size and Time Resolved Growth Rates for Aerosol Particles in the CERN CLOUD Experiment
CL14	Dias	The CLOUD data acquisition system and online derivation of nucleation rates
N01	Malila	Repairing the First Nucleation Theorem: Precritical Cluster Losses
N02	Obeidat	Free Energy of Formation of Small Clusters Using the BAR Method and MD Simulations
N03	Hruby	Corrections to the classical work of formation of critical clusters
N04	Asuquo	Competitive Freezing in Gold Nanoparticles
N08	Anisimov	Advances and Problems of the Nucleation Rate Measurements by the Flow Diffusion Chamber
N09	Anisimov	Generalisation of the Ostwald's Rule
N10	Anisimov(Petrova-Bogdanova)	Lines of Peritectic and Eutectic Points for Model Cases of a Binary Systems Nucleation
N11	Anisimov(Petrova-Bogdanova)	Multifold Nucleation Rate Surfaces over Phase Diagrams with Monotropic Phase Transitions
N12	Wilemski	Form Factors for Russian Doll Droplet Models
N14	Frederix	An OpenFOAM®-based tool for computational modeling of aerosol nucleation and transport
TS04	Park	Aerosol Measurement and Study of New Particle Formation Event in Seoul during 2004 – 2010
TS05	McGivern	High performance liquid chromatography study of complex oxygenated alkane mixtures from organic aerosols
TS06	Iida	Inkjet Aerosol Generator as Monodisperse Particle Number Standard
TS07	Raddatz	Size Selection of Sub- and Super-micron Clay Mineral Kaolinite Particles Using a Custom-Built Maxi-DMA
TS08	Ardon-Dryer	Collection of submicron particles with cloud droplets using the new MIT-CFC

TS09	Wang	Field and Laboratory Studies of Reactions between Atmospheric Water Soluble Organic Acids and Inorganic Particles
TS10	Crljenica	Determining the saturation vapour pressures of keto-dicarboxylic acids in aqueous solutions
TS11	Pathak	The Structure of Aqueous-Alkane Nanodroplets
TS12	Wexler	Statistical Mechanics of Multilayer Sorption: Surface Tension
TS13	Petäjä (Hakala)	Hygroscopicity of sub-6 nm sodium chloride particles
TS14	Eiguren-Fernandez	Time-resolved Chemical Characterization of Aerosol Particles Down to 6 nm Diameter in Stockton, California
AC02	Coleman	Future Aerosol Concentrations in Europe: Effects Of Changing Meteorology and Emissions
AC03	Coleman (Martin)	Assessment of the Effects of Changing Meteorology on Future Isoprene and Isoprene SOA using a Regional Climate Model
AC04	Petäjä (Vuollekoski)	Climatic Implications of the Brazilian Biofuel Transition
AC05	Jha	Examination of the potential impacts of dust acting as cloud nucleating aerosol on water resources in the Colorado River Basin
AC06	Zhang (Liu)	Implement a Classical-Theory-Based Parameterization of Heterogeneous Ice Nucleation in CAM5
AC07	Riuttanen	Aerosols May Increase Upper Tropospheric Humidity
AC08	Sheffield	Aerosol-Induced Cumulus Congestus Moistening of the Atmosphere
AC09	Bangert	The impact of flue gas cleaning technologies in coal-fired power plants on the CCN distribution and cloud properties in Germany
AC10	AlHassoun	Estimation of Rainfall using Remote Sensing for Riyadh Climate, KSA
AC11	Manninen	Atmospheric Electricity And Aerosol-Cloud Interactions In Earth's Atmosphere
AC12	Tinsley	Changes in Scavenging Rate Coefficients Due to Electric Charge on Droplets and Particles
DI02	Levin	The Importance Of Organic Aerosol To CCN Concentrations And Characteristics At A Forested Site In Colorado
DI03	Matsuki	Droplet sizes of activated CCN measured at Noto peninsula, Japan, in autumn 2012
DI04	Morales (Nenes)	Constraining the water vapor uptake coefficient in ambient cloud droplet formation
DI05	Jeong	Microphysical Properties of Low-level Clouds and Fogs in a Mountain Area of South Korea
Tuesday June 25, 2013		
0800	Plenary 3 David Reguera: How Far is Classical Nucleation Theory from Predicting Nucleation Rates Accurately?	
0845	Plenary 4 Tuukka Petäjä: On the benefits of comprehensive long-term observations of atmospheric nanoparticles, clusters and ions Session Chairs: Barbara Hale and Markku Kulmala	
0930-1200	Refreshments and Posters 2	

Poster No.	Presenting Author	Title
N15	Petäjä	Probing Aerosol Formation By Comprehensive Measurements Of Gas Phase Oxidation Products
N16	Lehtipalo (Mikkilä)	The Particle Size Magnifier closing the gap between measurement of molecules, molecular clusters and aerosol particles
N17	Wimmer (Kangasluoma)	Ion Generation And CPC Detection Efficiency Studies In Sub 3-nm Size Range
N18	Kuang	Laboratory Characterization of a Size-Resolved CPC Battery to Infer the Composition of Freshly Formed Atmospheric Nuclei
N19	Kim	Development of condensation particle counter for nucleation and growth study
N20	Wimmer	Characterization of Diethylene Glycol-Condensation Particle Counters for detection of sub-3 nm particles
N21	Froyd	An Assessment of Atmospheric Nucleation Mechanisms using Accurate Cluster Thermodynamics
N22	Kupiainen (Olenius)	Is There an Energy Barrier in the Growth of Sulfuric Acid Clusters?
N23	Tsona (Ruusuvoori)	The Charging Properties Of Protonated Acetone And Acetone Clusters
N24	Kupiainen (Henschel)	Hydration of Pure and Base - Containing Sulfuric Acid Cluster Studied by Computational Chemistry Methods
N25	Bianchi	Particle nucleation events at the high alpine station Jungfraujoch
N26	Laaksonen (Hamed)	New Particle Formation at Po-Valley during PEGASOS Campaign
N27	Laaksonen (Hamed)	The Contribution of Sulfuric Acid and Non-Volatile Compounds on the Growth of Freshly Formed Particles at Melpitz
N28	Lehtinen	Log-log slope analyses of simulated particle formation events at different conditions
N29	Kontkanen	Determination of the Size Distribution of Recombination Products from Atmospheric Measurements
TS15	Dunne	Trends in Wind Speeds Affect Atmospheric Aerosol
TS16	Leaitch	A Comparison of Measurements and Global Model Simulations of the Atmospheric Aerosol at Two Remote Sites
TS18	Potter	Variability of Sulfate Aerosol Concentrations at Mauna Loa Observatory, Hawaii
TS19	Singh	Chemical characteristics of ambient aerosols contributed by cooking process at Noorpur village near Delhi (India)
TS20	McMeeking (Su)	Size-resolved measurement of the mixing state of soot in the megacity Beijing, China: diurnal cycle, aging and parameterization
TS22	Bian	One-year Observations of Size Distribution Characteristics of Major Aerosol Constituents at a Coastal Suburban Site in Hong Kong
TS24	Anisimov (Kaloshin)	Modeling of Microphysics and Optics of Aerosol Particles in the Marine Environments

TS25	OVadnevaite	Submicron Sea Salt Source Fluxes
TS26	Vaishya	Aerosol Light Scattering Dependency on Wind Speed in Marine Air
AC14	Hodgson	Case Study Analysis of Biomass Burning Plumes Observed Over Brazil during SAMBBA, September 2012
AC15	Hyvarinen	Particle size distribution measurements at Hada Al Sham, Western Saudi Arabia
AC16	Nieminen (Leino)	Observations of biomass burning smoke from Russian wild fire episodes in Finland 2010
AC17	Liao	The Impact of Temperature on Natural Aerosol Budget over Boreal Forests
AC18	Luo	Aerosol property variations over global oceans as observed by the A-Train satellites
AC19	Coleman (Martin)	Assessment of the Effect of Trans-boundary Air Pollution on Aerosol Concentrations in Ireland
AC20	O'Dowd (Martucci)	Ground-Based Remote Sensing Profiling Of Aerosols and Mass Concentration Above Mace Head, Ireland
AC21	Rojas	Study of the Dynamics of the Aerosol Optical Depth in South America from MODIS images of Terra and Aqua satellites (2000-2011)
AC22	Sarnela	Sulphur Dioxide and Sulphuric Acid Concentrations in the Vicinity of Kilpilahti Industrial Area
DI06	Hara	Heat Sensitivity of ice nuclei in fresh snow collected in Kanazawa, Japan
DI07	Mason	Determination of the Ice-Nucleating Ability of <i>F. caucasicum</i> Microconidia
DI08	Hill	Hunting the Snark: Identifying the Organic Ice Nuclei in Soils
DI09	Hiranuma	Immersion Freezing of Clay Minerals and Bacterial Ice Nuclei
DI10	Yamashita	CCN and IN parameter of Arizona Test Dust derived from laboratory experiments to simulate ice crystal formation by condensation freezing
DI11	Savre	Parameterizing ice nucleation ability of mineral dust particles in the deposition mode: numerical investigations using Large Eddy Simulation
DI12	Cantrell	Ice nucleation in the contact mode: Temperature and size dependence for selected dusts
DI13	Eltuony	The Impact of Chemical Aging on Ice Nucleating Abilities of Iron Oxide Nanoparticles in the Atmosphere
DI14	McCluskey	Observations of Ice Nuclei Associated with Biomass Burning
DI15	Umo	Ice Nucleation Efficiency of Soot from Biomass Combustion
DI16	DeMott	Laboratory measurements of ice nuclei concentrations from ocean water spray
DI17	Shilin	Experimental Studies of Silver Iodide Pyrotechnic Aerosol Ice Forming Efficiency Dynamics
DI18	Budke	Investigation of Heterogeneous Ice Nucleation Using a Novel Optical Freezing Array
DI19	Snider (Vali)	Time and Temperature Dependence of Freezing Nucleation in a Cloud Parcel Model

DI20	McMeeking	The Spectrometer for Ice Nuclei (SPIN): An Instrument for Continuous Measurements of Ice Nuclei	
DI21	Nillius	Measurements of IN and BIO-IN with the Fast Ice Nucleus Chamber FINCH at Mt. Zugspitze, Mt. Puy de Dome and Jungfraujoch during fall and winter	
DI22	Brus	Pallas Cloud Experiment, PaCE 2012	
DI23	Lee	Preliminary Study of Hydrological Assessment for the Effects of the Cloud Seeding Experiment	
DI24	Peng	Ice generation in wave clouds observation analysis and parameterization evaluation	
1200-1330	Lunch		
1330	Plenary 5 Graham Feingold: How resilient are cloud systems to aerosol perturbations? Session Chair: Ulrike Lohmann		
1430	N1: Cluster Properties, their Modeling, and their Role in Nucleation Session Chair: Gerald Wilemski Laura Feldmar: New Measurements of Argon and Nitrogen Nucleation in the Cryogenic Nucleation Pulse Chamber	TS2: Aerosol Physics and Chemistry Session Chair: Anthony Wexler Narcisse Tsona: From Gas-Phase Oxidation of SO ₂ by SO ₄ ⁻ to the Formation of Sulfuric Acid	
1445	Jürg Diemand: Large scale MD simulations of nucleation	Jan Julin: Molecular Dynamics Simulations of Mass Accommodation and Evaporation on Surfaces of Atmospheric Interest	
1500	Raymond Angéilil: The physics of nucleated droplets in Large-scale MD Lennard-Jones simulations	Cari Dutcher: Thermodynamic Modeling of Atmospheric Aerosols: 0-100% Relative Humidity	
1515	Barbara Hale: Monte Carlo Simulations of Growth/Decay Rate Constant Ratios for Small Methanol Clusters: Application to Nucleation Data Analysis	Taina Yli-Juuti: Effect of Salt Formation On Condensation Of Organic Compounds On Atmospheric Nanoparticles	
1530-1600	Refreshments		

	<p>N2: Atmospheric Particle Nucleation Session Chair: Paul Wagner</p>	<p>AC2: Aerosol-Water Interactions Session Chair: Richard Leitch</p>
1600	Markku Kulmala: On Atmospheric Neutral and Ion Clusters observed in Hyytiälä Spring 2011	Narges Rastak: Modeling Aerosol Water Uptake In The Arctic Based on The κ -Köhler Theory
1615	Paul M. Winkler: A Fast-Scanning DMA Train for Precision Quantification of Early Nanoparticle Growth	Stephen Noble: Cloud Supersaturations and Hoppel Minima
1630	Tamara Pinterich: The versatile Size Analyzing Nuclei Counter - vSANC	James Hudson: Influences on Droplet Concentrations and Supersaturations in Stratus Clouds
1645	Li Liao: Modelling New Particle Formation from Jülich Plant Atmosphere Chamber and CERN CLOUD Chamber Measurements	Jurgita Ovadnevaite: A Dual Behavior of Primary Marine Organics
1700	Bryan R. Bzdek: Fragmentation and Growth Energetics of Clusters Relevant to New Particle Formation	Aditya Vaishya: Marine Organics effect on Sea-Spray Light Scattering
1715	Jonathan Duplissy: Charged and Neutral Binary Nucleation of Sulfuric Acid in Free Troposphere Conditions	Stephanie Gagne: Aircraft Measurements of Aerosol, Cloud Droplets and Drizzle in Stratiform Clouds over the Northwest Atlantic Ocean
1900-2200	Conference Banquet	
Wednesday June 26, 2013		
0745-1845	Field Trip to the Rocky Mountain National Park/Estes Park	
Thursday June 27, 2013		
0830	Plenary 6 Markus Petters: The Role of Dynamic Surface Tension in Cloud Droplet Activation	
0915	Plenary 7 Lynn Russell: Observed Aerosol Effects on Marine Cloud Nucleation and Supersaturation	
	Session Chairs: Sonia Kreidenweis and Darius Ceburnis	
1000-1030	Refreshments	

<p>1030</p> <p>1045</p> <p>1100</p> <p>1115</p> <p>1130</p> <p>1145</p>	<p>DI1: CCN and Warm Clouds Session Chair: Jefferson Snider</p> <p>Julia Burkart: CCN activation of Ambient and "synthetic ambient" urban aerosol</p> <p>Beth Friedman: CCN Closure and Composition Analysis of Droplet-Forming Aerosol</p> <p>Masataka Murakami: CCN Ability of Atmospheric Aerosols and Microphysical Structures of Shallow Warm Clouds in Western Japan</p> <p>Mikhail Paramonov: Long-Term Size Segregated Cloud Condensation Nuclei Counter (CCNc) Measurements in a Boreal Environment and the Implications for Aerosol-Cloud Interactions</p> <p>Shunsuke Nakao: Cloud nucleating activities of water-soluble semi-volatile organic compounds</p> <p>Colin O'Dowd: Comparison Of In-Situ, Satellite And Ground-Based Remote Sensing Retrievals Of Liquid Cloud Microphysics During MACLOUD</p>	<p>TS3: Aerosol Formation and Growth Session Chair: Peter McMurry</p> <p>Murray Johnston: Identification and Quantification of Particle Growth Channels During New Particle Formation</p> <p>Priya Pillai: Formation and Growth of Atmospheric Particles at a Forest Site in the Southeast US</p> <p>Luxi Zhou: Modeling new particle formation with detailed chemistry and aerosol dynamics in a boreal forest environment</p> <p>Ella-Maria Kyrö: Long-term Aerosol and Trace Gas Measurements in Eastern Lapland, Finland: The Impact of Kola Air Pollution to New Particle Formation</p> <p>Tuomo Nieminen: New particle formation events observed at a high altitude site Pico Espejo, Venezuela</p> <p>Robin Stevens: Aerosol Nucleation in Coal-Fired Power-Plant Plumes</p>
<p>1200-1330</p>	<p>Lunch</p>	
<p>1330</p> <p>1345</p> <p>1400</p>	<p>N3: Nucleation Theory, Modeling, and Experiments Session Chair: Vitaly Kalikmanov</p> <p>Stephan Braun: Structuring Effects in Binary Nucleation: Molecular Dynamics Simulations and Coarse-Grained Nucleation Theory</p> <p>Jan-Hubert Wittmann: Direct Formation of "Janus"-Particles via Molecular Dynamics Simulations</p> <p>Harshad Pathak: Co-condensation of Nonane and D₂O in a Supersonic Nozzle</p>	<p>AC3: Aerosol-Climate Session Chair: Lynn Russell</p> <p>Fangqun Yu: Ion Mediated Nucleation and Anthropogenic Aerosol Indirect Radiative Forcing</p> <p>Hanna Manninen: Does The Onset Of New Particle Formation Occur In The Planetary Boundary Layer?</p> <p>Modris Matisans: New aerosol particle formation in Amazonia</p>

1415	Fawaz Hrahsheh: Fluctuating Structure of Aqueous Organic Nanodroplets	Duncan Axisa: New Particle Formation In, Around and Out of Ice Clouds in MACPEX
1430	Richard Bowles: The Solubility Transition in Partially Miscible, Non-Volatile Liquid Drops	Colin O'Dowd: Cleaner Air: Brightening the Pollution Perspective?
1445	Maurice Fransen: Homogeneous nucleation of water in synthetic air	Robert Bullard: Determination of Seasonal, Diurnal, and Height Resolved Average Number Concentration in a Pollution Impacted Rural Continental Location
1500	Patrick Shipman: Topochemical Diffusion-Reaction-Convection Dynamics in Vapor-to-Particle Aerosol Nucleation and Growth	Will Morgan: Overview of the South American Biomass Burning Analysis (SAMBBA) Field Experiment
1515	Tereza Travnickova: Comparison of the Transport Models of a Laminar Flow Diffusion Chamber	Paulo Artaxo: Aerosols in Amazonia: Natural Biogenic Particles and Large Scale Biomass Burning Impacts
1530-1600	Refreshments	
	DI2: Ice Nucleation Session Chair: Daniel Cziczo	AC4: Aerosol-Climate Modeling Session Chair: Ken Carslaw
1600	Alexei Kiselev: On the size dependence of contact freezing probability	Peter McMurry: Acid-Base Chemical Reaction Model for Nucleation Rates In The Polluted Atmospheric Boundary Layer
1615	Barbara Ervens: Sensitivities of Immersion Freezing: Transition from Classical Nucleation Theory To Deterministic Expressions	Robert McGraw: Sparse Aerosol Models Beyond the Quadrature Method of Moments
1630	Gregory Schill: Deposition and Immersion Mode Nucleation of Ice by Three Distinct Samples of Volcanic Ash	Tapani Korhola: Effects Of Modal And Sectional Aerosol Representations On Aerosol Activation And Light Extinction
1645	Daniel O'Sullivan: Atmospheric Ice Nucleation by Fertile Soil Dusts Particles: Relative Importance of Mineral and Biological Components	Doug Stolz: The Effects of Thermodynamics and Aerosols on Tropical Lightning Variability
1700	Yutaka Tobo: Investigation of Ice Nucleation Properties of Mineral and Soil Particles	Liz Coleman: Modelling Marine Aerosol Precursor Vapours and Impact On Aerosol Population

1715	Zamin Kanji: Heterogeneous Ice Nucleation of Mineral Dust Particles Exposed to Ozone	Stephen D'Andrea: Effect of Secondary Organic Aerosol Amount and Condensational Behavior on Global Aerosol Size Distributions
1730	Damao Zhang: Dust Impacts on Mixed-phase and Warm Stratiform Clouds Observed from CALIPSO and CloudSat Measurements	Jeffrey Pierce: The Sensitivity of Global Nucleation, Cloud Condensation Nuclei and Climate to SO ₂ and Criegee-Intermediate Chemistry
1745	Andrew Heymsfield: Development of First Ice Hydrometeors and Secondary Ice in a Tropical Oceanic Deep Convective Cloud System near Africa	Ricardo Morales: Relative contributions of aerosol properties to cloud droplet number: Adjoint sensitivity approach in a GCM

Friday June 28, 2013

0830	Plenary 8 Judith Wölk: Homogeneous nucleation of water: From Vapor to Supercooled Droplets to Ice
0915	Plenary 9 Ottmar Möhler: Parameterizations of ice formation derived from AIDA cloud simulation experiments
Session Chairs: Barbara Wyslouzil and Paul DeMott	

1000-1030 Refreshments

1030	N4: Atmospheric Nucleation Session Chair: Chongai Kuang Oona Kupiainen: Experimental Setup Affects The Particle Formation Rate And Its Slope $d(\log J)/d(\log C)$	DI3: Ice Nucleation Session Chair: Karin Ardon-Dryer Jefferson Snider: Coarse Particle and Derived Ice Nuclei Concentrations in the Northern and Southern Subtropical Middle Troposphere
1045	Miikka Dal Maso: The effect of early growth dynamics on determining particle formation rates of a nucleating burst	Frank Stratmann: Heterogeneous Ice Nucleation on Biological Particles: Bacteria and Pollen
1100	Jian Wang: Adsorption of Organic Molecules May Explain Growth of Newly Nucleated Clusters and New Particle Formation	Anthony Prenni: Biological Ice Nuclei And The Impact Of Rain On Ice Nuclei Populations
1115	Jamison A. Smith: Using Self-Consistent Energy Surfaces to Calculate the Population Distributions of Neutral Clusters and Negatively Charged Clusters Consisting of Sulfuric Acid and Water	Matthias Hummel: The Contribution of Biological Aerosols to Atmospheric Ice Nucleation
1130	Ville Loukonen: First-Principles Molecular Dynamics Simulations of (sulfuric acid)(dimethylamine) Cluster Formation	Karl Froyd: Cirrus Cloud Formation and the Role of Heterogeneous Ice Nuclei

1145	Jake L. Stinson: Empirical Valence Bonds: a reactive classical potential for sulphuric acid and water	Daniel Murphy: Ice nucleation processes in cold cirrus clouds
1200	Ari Laaksonen: A Combined Theory of Heterogeneous Nucleation and Adsorption of Vapors on Solid Surfaces	Christopher Hoyle: Heterogeneous Formation of Polar Stratospheric Clouds - Nucleation of Nitric Acid Trihydrate (NAT) in the Arctic Stratosphere
1215	Agnieszka Kupc: Temperature Dependence Of Heterogeneous Nucleation Of Water Vapor on Ag and NaCl Particles	Hartawan Laksmo: Probing Homogeneous Ice Nucleation within Supercooled Bulk Water Droplet in "No Man's Land" with an Ultrafast X-ray Laser
1230-1400	Lunch	
1400	Plenary 10 Valeria Molinero: What Determines the Homogeneous Freezing Temperature of Water? Session Chair: Judith Wölk	
	N5: Fundamental Nucleation Studies Session Chair: Jan Hrubý	TS4: Stratospheric and Marine Aerosols Session Chair: Daniel Murphy
1500	Viraj Modak: Surface Freezing of n-octane Nanodroplets	Patrick Campbell: Stratospheric Condensation Nuclei: A Climatology in the Mid-Latitude and Antarctic Regions
1515	Troy Loeffler: Monte Carlo Simulations of Surface Induced Nucleation	Yunqian Zhu: Microphysical Simulations of Polar Stratospheric Clouds in 2010-2011 spring based on SD-WACCM/CARMA model
1530	Donguk Suh: Molecular Dynamics Simulation of Heterogeneous Nucleation on Nanorods	Gannet Hallar: Nighttime Sub-3 nm Particles Observed in the Coastal Atmosphere
1545	Barbora Plankova: Prediction of the homogeneous droplet nucleation by the density gradient theory and PC-SAFT equation of state	Amanda Frossard: Regional Signatures in the Organic Composition of Marine Aerosol Particles
1600	Vitaly Shneidman: Ostwald Ripening with Nucleation Initial Conditions	Luke Cravigan: Marine Aerosol Hygroscopicity and Volatility, Measured on the Chatham Rise (New Zealand)
1615	Shawn Kathmann: Beyond Classical Theories	Douglas Collins: Evaluating the Properties of Sea Spray Aerosols Produced in the Laboratory: Comparisons with Controlled Breaking Waves