19th International Conference on
Nucleation &
Atmospheric Aerosols
and Nucleation Symposium
24-28 June 2013
Fort Collins, Colorado, USA
ICNAA
2013
Fort Collins, Colorado U.S.A.

Conference At-A-Glance

Sunday, 23 June			
Registration	1500-1800	Lobby, UCA	
Icebreaker Reception	1730-1930	Instrument Recital Hall	
Monday, 24 June			
Registration and Coffee	0700-0830	Lobby, UCA	
Opening Ceremony	0800-0830	Griffin Theater – Opening Remarks, Dr. William H. Farland, VP for Research	
Plenary	0830-1000	Kirkby & Carslaw (Griffin Theater)	
Coffee	1000-1030	Lobby, UCA	
Platforms	1030-1200	CL1 (Organ Recital Hall)	TS1 (Griffin Theater)
Lunch (on your own)	1200-1330		
Platforms	1330-1530	CL2 (Organ Recital Hall)	AC1 (Griffin Theater)
Poster 1 / Refreshments	1530-1800	Instrument Recital Hall	
Tuesday, 25 June			
Coffee	0700-0800	UCA Lobby	
Plenary	0800-0930	Reguera & Petäjä (Griffin Theater)	
Poster 2 / Refreshments	0930-1200	Instrument Recital Hall	
Lunch (on your own)	1200-1330		
Plenary	1330-1415	Feingold (Griffin Theater)	
Platforms	1430-1530	N1 (Organ Recital Hall)	TS2 (Griffin Theater)
Coffee	1530-1600	UCA Lobby	
Platforms	1600-1730	N2 (Organ Recital Hall)	AC2 (Griffin Theater)
Conference Banquet	1900-2200	Fort Collins Museum of Discovery	
Wednesday, 26 June			
Field Trip	0745-1845	Lunch provided; board buses at 0745	
Thursday, 27 June			
Coffee	0730-0830	UCA Lobby	
Plenary	0830-1000	Petters & Russell (Griffin Theater)	
Coffee	1000-1030	UCA Lobby	
Platforms	1030-1200	DI1 (Organ Recital Hall)	TS3 (Griffin Theater)
Lunch (on your own)	1200-1330		
Platforms	1330-1530	N3 (Organ Recital Hall)	AC3 (Griffin Theater)
Coffee	1530-1600	UCA Lobby	
Platforms	1600-1800	DI2 (Organ Recital Hall)	AC4 (Griffin Theater)
Friday, 28 June			
Coffee	0730-0830	UCA Lobby	
Plenary	0830-1000	Wölk & Möhler (Griffin Theater)	
Coffee	1000-1030	UCA Lobby	
Platforms	1030-1230	N4 (Organ Recital Hall)	DI3 (Griffin Theater)
Lunch (on your own)	1230-1400		
Plenary	1400-1445	Molinero (Griffin Theater)	
Platforms	1500-1630	N5 (Organ Recital Hall)	TS4 (Griffin Theater)
Closing Ceremony	1630-1700	Griffin Theater	

Sessions: N – Nucleation, CL – CLOUD Special Session, AC – Aerosol-Climate Interactions, DI1 – CCN and Warm Clouds; DI2,3 – Ice Nuclei and Cold Clouds; TRS – Tropospheric and Stratospheric Aerosols

19th ICNAA Program

Monday June 24, 2013

0800-0830	**Opening Ceremony** **Opening Remarks**: Dr. Paul DeMott (Conference Co-Chair) **Welcome:** Dr. William Farland (CSU Vice President for Research) **Tribute:** Dr. S. Gerard Jennings	
0830	**Plenary 1 Jasper Kirkby:** Atmospheric nucleation and growth in the CLOUD experiment at CERN	
1000	**Plenary 2 Kenneth Carslaw:** New Approaches to Quantifying the Magnitude and Causes of Uncertainty in Global Aerosol Models **Session Chairs: Joachim Curtius and Jeffrey Pierce**	
1000-1030	**Refreshments**	
	CL1: CLOUD (Cosmics Leaving OUtdoor Droplets) Special Session 1 Session Chair: Neil Donahue	**TS1: Tropospheric and Stratospheric Aerosols Session Chair: Colin O'Dowd**
1030	**Allessandro Franchin:** Measurements of cluster-ions using a nano radial DMA and a particle size magnifier in CLOUD	**Paulo Artaxo:** Aerosols in Amazonia: Natural Biogenic Particles and Large Scale Biomass Burning Impacts
1045	**Frank Stratmann:** Evolution of nanoparticle composition in CLOUD in presence of sulphuric acid, ammonia and organics	**Radovan Krejci:** Atmospheric aerosol variability and properties in lowermost tropical free troposphere
1100	**Katrianne Lehtipalo**: How do amines affect the growth of recently formed aerosol particles	**Jenny Hand:** Widespread reductions in sulfate across the United States since the early 1990s
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	**Riikka Väänänen:** Analysis of Particle Size Distribution Changes between Three Measurement Sites in Northern Scandinavia
1130	**Nina Sarnela**: Molecular Steps of Neutral Sulfuric Acid and Dimethylamine Nucleation in CLOUD	**Anu-Maija Sundström**: Estimating the concentration of nucleation mode aerosol particles over South Africa using satellite remote sensing measurements
1145	**Mike Lawler**: Particle Composition Measurements During CLOUD7	**Pengfei Yu**: Building a sectional aerosol model in CAM5

1200-1330	**Lunch**	
	CL2: CLOUD (Cosmics Leaving OUtdoor Droplets) Special Session 2 Session Chair: Katrianne Lehtipalo	**AC1: Aerosol-Cloud-Climate Interactions Session Chair: Susan van den Heever**
1330	**Andreas Kürten**: Ternary H_2SO_4-H_2O-NH_3 Neutral And Charged Nucleation Rates For A Wide Range Of Atmospheric Conditions	**Adele Igel**: Impacts of Cloud Condensation Nuclei on Deep Stratus Clouds
1345	**Eimear Dunne**: The Radiative Effect of Ion-Induced Inorganic Nucleation in the Free Troposphere	**Daniel Rieger**: Sensitivity of post-frontal convective precipitation on natural and anthropogenic aerosol particles
1400	**Mikko Sipilä**: Nucleation of H_2SO_4 and Oxidized Organics in CLOUD experiment	**Leah Grant**: Aerosol-Cloud-Land Surface Interactions Within Tropical Convection Simulations
1415	**Jasmin Tröstl**: Aerosol nucleation and growth in a mixture of sulfuric acid / alpha-pinene oxidation products at the CERN CLOUD chamber	**Zheng Lu**: Examining The Cloud Buffering Under Smoke-laden Conditions: A Case Study Of The 2002 Yakutsk Wildfire Season
1430	**João Almeida**: Multi-species nucleation rates in CLOUD	**Shaocheng Xie**: Sensitivity of CAM5 Simulated Arctic Clouds and Radiation to Ice Nucleation Parameterizations
1445	**Josef Dommen**: Role of Organics in Particle Nucleation: From the Lab to Global Model	**Kai Zhang**: Assessing aerosol indirect effect through ice clouds in CAM5
1500	**Neil Donahue**: Two-dimensional Volatility Basis Set Modeling of Pinanediol Oxidation in the CLOUD Experiment	**Ulrike Lohmann**: Dust ice nuclei effects on cirrus clouds in ECHAM5-HAM
1515	**Sebastian Ehrhart**: Simulation of ion-induced nucleation in the CLOUD chamber	**Muge Komurcu**: Inter-Comparison of the Phase Partitioning of Cloud Water among Global Climate Models

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	Praplan	Evolution of a-pinene oxidation products in the presence of varying oxidizers: negative APi-TOF point of view
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	Petaja (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 0845	**Plenary 3 David Reguera**: How Far is Classical Nucleation Theory from Predicting Nucleation Rates Accurately? **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	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 (Ruusuvuori)	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 F. caucasicum 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**	
	N1: Cluster Properties, their Modeling, and their Role in Nucleation **Session Chair:** **Gerald Wilemski**	**TS2: Aerosol Physics and Chemistry** **Session Chair:** **Anthony Wexler**
1430	**Laura Feldmar**: New Measurements of Argon and Nitrogen Nucleation in the Cryogenic Nucleation Pulse Chamber	**Narcisse Tsona**: From Gas-Phase Oxidation of SO_2 by SO_4^- to the Formation of Sulfuric Acid
1445	**Raymond Angélil**: The physics of nucleated droplets in Large-scale MD Lennard-Jones simulations	**Jan Julin**: Molecular Dynamics Simulations of Mass Accommodation and Evaporation on Surfaces of Atmospheric Interest
1500	**Jürg Diemand**: Large scale MD simulations of nucleation	**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**	

	N2: Atmospheric Particle Nucleation Session Chair: Paul Wagner	AC2: Aerosol-Water Interactions Session Chair: Richard Leaitch
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
1930-2230	**Conference Banquet**	
Wednesday June 26, 2013		
0800-1830	**Field Trip to the Rocky Mountain National Park/Estes Park**	
Thursday June 27, 2013		
0830 0915	**Plenary 6 Markus Petters**: The Role of Dynamic Surface Tension in Cloud Droplet Activation **Plenary 7 Lynn Russell**: Observed Aerosol Effects on Marine Cloud Nucleation and Supersaturation **Session Chairs**: **Sonia Kreidenweis and Darius Ceburnis**	
1000-1030	**Refreshments**	

	DI1: CCN and Warm Clouds **Session Chair:** **Jefferson Snider**	**TS3: Aerosol Formation and Growth** **Session Chair:** **Peter McMurry**
1030	**Julia Burkart**: CCN activation of Ambient and "synthetic ambient" urban aerosol	**Murray Johnston**: Identification and Quantification of Particle Growth Channels During New Particle Formation
1045	**Beth Friedman**: CCN Closure and Composition Analysis of Droplet-Forming Aerosol	**Priya Pillai**: Formation and Growth of Atmospheric Particles at a Forest Site in the Southeast US
1100	**Masataka Murakami**: CCN Ability of Atmospheric Aerosols and Microphysical Structures of Shallow Warm Clouds in Western Japan	**Luxi Zhou**: Modeling new particle formation with detailed chemistry and aerosol dynamics in a boreal forest environment
1115	**Mikhail Paramonov**: Long-Term Size Segregated Cloud Condensation Nuclei Counter (CCNc) Measurements in a Boreal Environment and the Implications for Aerosol-Cloud Interactions	**Ella-Maria Kyrö**: Long-term Aerosol and Trace Gas Measurements in Eastern Lapland, Finland: The Impact of Kola Air Pollution to New Particle Formation
1130	**Shunsuke Nakao**: Cloud nucleating activities of water-soluble semi-volatile organic compounds	**Tuomo Nieminen**: New particle formation events observed at a high altitude site Pico Espejo, Venezuela
1145	**Colin O'Dowd**: Comparison Of In-Situ, Satellite And Ground-Based Remote Sensing Retrievals Of Liquid Cloud Microphysics During MACLOUD	**Robin Stevens**: Aerosol Nucleation in Coal-Fired Power-Plant Plumes
1200-1330	**Lunch**	
	N3: Nucleation Theory, Modeling, and Experiments **Session Chair:** **Vitaly Kalikmanov**	**AC3: Aerosol-Climate** **Session Chair:** **Lynn Russell**
1330	**Stephan Braun**: Structuring Effects in Binary Nucleation: Molecular Dynamics Simulations and Coarse-Grained Nucleation Theory	**Fangqun Yu**: Ion Mediated Nucleation and Anthropogenic Aerosol Indirect Radiative Forcing
1345	**Jan-Hubert Wittmann**: The physics of nucleated droplets in Large-scale MD Lennard-Jones simulations	**Hanna Manninen**: Does The Onset Of New Particle Formation Occur In The Planetary Boundary Layer?
1400	**Harshad Pathak**: Co-condensation of Nonane and D_2O in a Supersonic Nozzle	**Modris Matisans**: New aerosol particle formation in Amazonia

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 Trávničková:** Comparison of the Transport Models of a Laminar Flow Diffusion Chamber	**Darius Ceburnis**: Intercontinental And Regional Transport Of Air Pollution Monitored At Mace Head, Ireland And Over Europe
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 SO2 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**	
	N4: Atmospheric Nucleation **Session Chair:** **Chongai Kuang**	**DI3: Ice Nucleation** **Session Chair:** **Karin Ardon-Dryer**
1030	**Oona Kupiainen:** Experimental Setup Affects The Particle Formation Rate And Its Slope d(log J)/d(log C)	**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 Laksmono**: Probing Homogenous 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