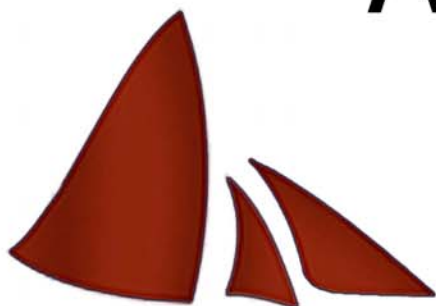


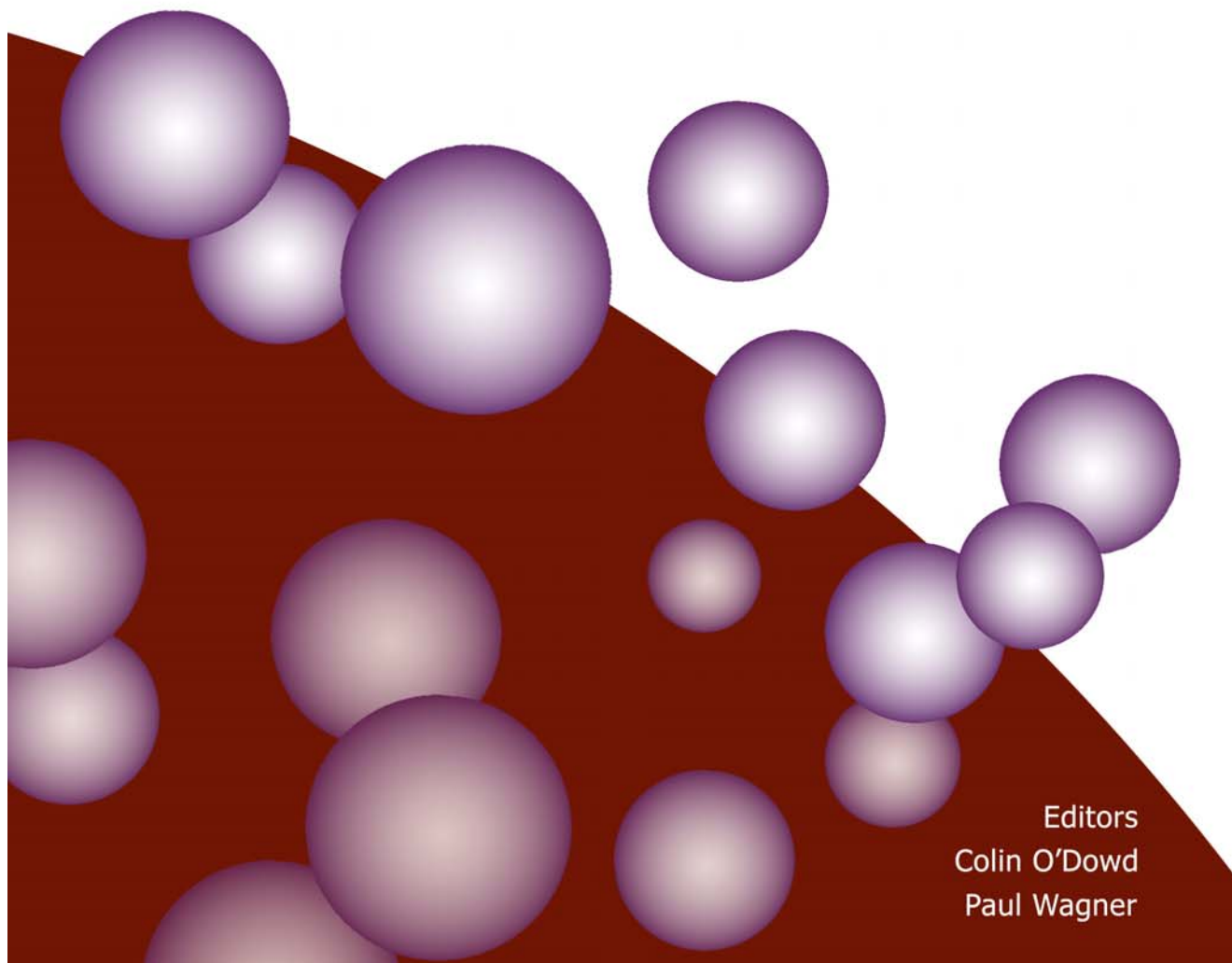
Nucleation and Atmospheric Aerosols



ICNAA 2007

17th International Conference

Galway, Ireland, 2007

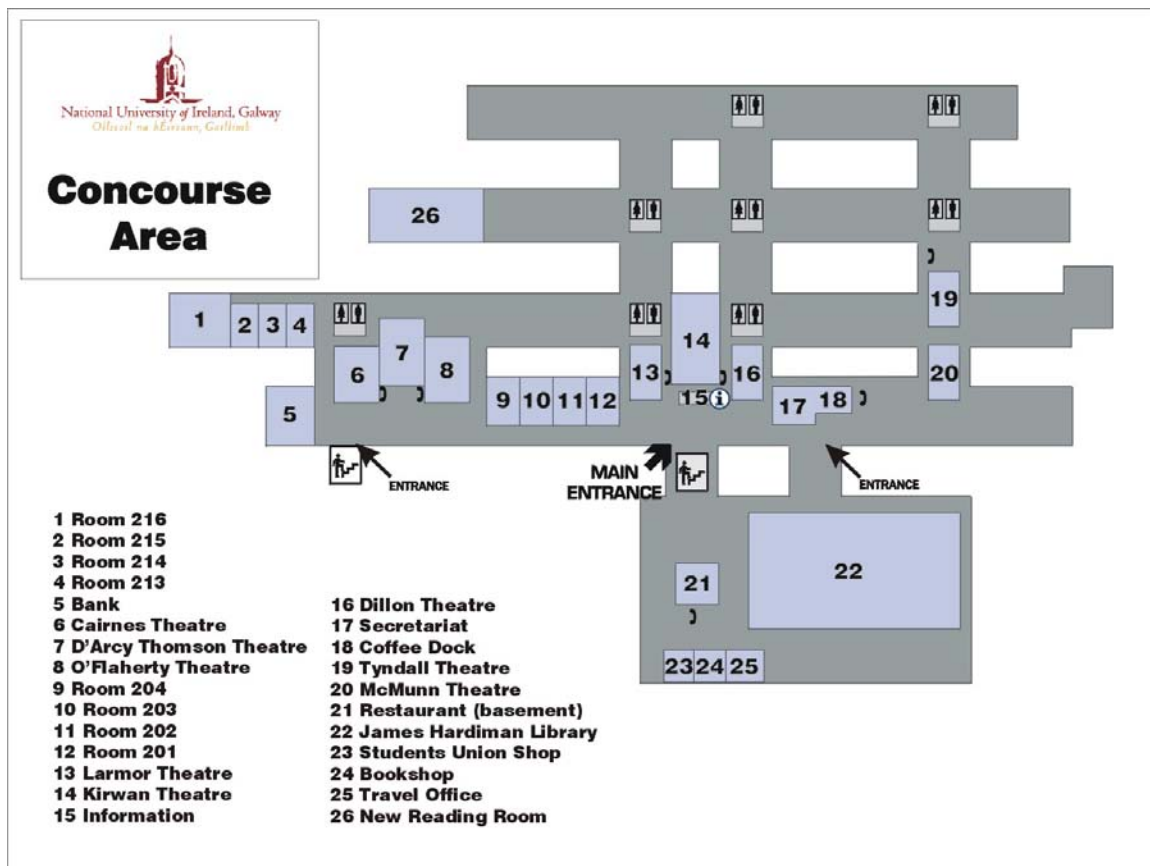


Editors
Colin O'Dowd
Paul Wagner

Event Location

Sunday 12th August 2007: **Main Concourse:** Registration 1500-1700
Ice Breaker 1700-1830

Plenary Lectures: **O'Flaherty Theatre**
A series Lectures: **O'Flaherty Theatre**
N series Lectures: **Cairnes Theatre**



Final Programme

17th International Conference on Nucleation & Atmospheric Aerosol

Galway
Ireland,

August 2007 – 13th to 17th

Sessions & Categories

N1	Nucleation: Experiment & Theory	I
N2	Nucleation: Experiment & Theory	II
N3	Nucleation: Experiment & Theory	III
N4	Nucleation: Experiment & Theory	IV
N5	Nucleation: Experiment & Theory	V
N6	Nucleation: Binary, homogeneous and heterogeneous	I
N7	Nucleation: Ion & cluster properties	I
N8	Nucleation: Ion & cluster properties	II
N9	Ice-Nucleation	
A1	Air Quality-Climate Interactions	I
A2	Aerosol-Cloud Interactions	I
A3	Aerosol-Cloud Interactions	II
A4	Aerosol Characterisation & Properties	I
A5	Aerosol Characterisation & Properties	II
A6	Aerosol Characterisation & Properties	III
A7	Aerosol Formation, dynamics and growth	Special ACCENT Session
A8	Marine Aerosol Production	Special MAP Session
A9	Remote Sensing of aerosol & clouds	I
A10	Chemical Composition & Cloud Drop Activation	I

Outline Programme				
Monday				
	Opening	0900-0950	Opening Ceremony	
2 x 40	Plenary	1000-1120	P1 & P2	
	Coffee	1120-1140		
3 x 20	Set 1	1140-1240	N1	A1
	Lunch	1240-1350		
4 x 20	Set 2	1350-1510	N2	A2
	Coffee	1510-1530		
5 x 20	Set 3	1530-1710	N3	A3
50	Poster 1	1730-1930	Poster 1	
Tuesday				
2 x 40	Plenary	0900-1020	P3 & P4	
	Coffee	1020-1040		
5 x 20	Set 4	1040-1220	N4	A4
	Lunch	1220-1330		
1 x 40	Plenary	1330-1410	P5	
4 x 20	Set 5	1410-1530	N5	A5
	Coffee	1530-1550		
4 x 20	Set 6	1550-1710	N6	A6
50	Poster 2	1730-1930	Poster 2	
Wednesday				
2 x 40	Plenary	0900-1020	P9 & P10	
	Coffee	1020-1040		
*Connemara Tour 1100-1700				
Thursday				
2 x 40	Plenary	0900-1020	P6 & P7	
	Coffee	1020-1040		
5 x 20	Set 7	1040-1220	N7	A7
	Lunch	1220-1330		
1 x 40	Plenary	1330-1410	P8	
4 x 20	Set 8	1410-1530	N8	A8
	Coffee	1530-1550		
4 x 20	Set 9	1550-1710	N9	A9
Conference Dinner 2000-0000				
Friday				
2 X 40	Plenary	0900-1020	P11	
	Coffee	1020-1040		
4 X 40	Set 4	1040-1200	A10	
	Closing	1200-1220	Closing Ceremony	
	Lunch	1220-1330		
Mace Head Field Station Tour 1330-1830				

Final Programme

Monday 13th August 2007

Opening		0900-0950	Opening Ceremony	
2 x 40 Plenary		1000	Plenary 1 V. Ramanathan: Global Dimming by Air Pollution and Global Warming by Greenhouse Gases: Global and Regional Perspectives	
		1040	Plenary 2 Markku Kulmala: Atmospheric Nucleation Session Chairs: Colin O'Dowd & Paul Wagner	
Coffee 1120-1140				
Set 1 3 x 20		1140	N1: Nucleation: Experiment & Theory Session Chair: Robert McGraw Michael Boy: Relevance of several nucleation theories in different environment	A1: Air Quality – Climate Session Chair: Spyros Pandis Joyce E. Penner: The effect of including aerosol nucleation and coagulation in a global model
		1200	Joonas Merikanto: An Insight into the Failure of Classical Nucleation Theory	Alfred Wiedensohler: Relative Humidity Dependence of Aerosol Optical Properties and Direct Radiative Forcing in the Surface Boundary Layer of South-Eastern China
		1220	Joseph L Katz: Homogeneous Nucleation: What I understand, what I somewhat understand, what I do not understand	Stefan Kinne: Direct Aerosol Radiative Forcing
Lunch 1240-1350				
Set 2 4 x 20		1350	N2: Nucleation: Experiment & Theory Session Chair: Joseph Katz & Michael Boy Jussi Malila: Displacement Barrier Heights from Experimental NucleationRate Data: Scaling and Universality	A2: Aerosol Cloud Interactions Session Chairs: Jens Redemann & G. S. Jennings Fred Rogers: Maritime CCN Drizzle Relationships
		1410	Barbara Hale: A Study of Scaled Nucleation in a Model Lennard-Jones System	Verena Grützun: The Role Of Aerosol Characteristics In The Evolution Of Clouds And Precipitation
		1430	Jonathan Barrett: Simulation of the Growth and Decay of Isolated Lennard-Jones Clusters	J. Cozic: Partitioning of Aerosol Particles in Mixed-Phase Clouds at a High Alpine Site
		1450	Robert McGraw: Arrhenius temperature dependence of homogeneous nucleation rates	B.S. Gilfedder: Iodine speciation in rain and snow
Coffee 1510-1530				
Set 3 5 x 20		1530	N3: Nucleation: Experiment & Theory Session Chairs: Barbara Hale & Paul Winkler Vladimir Ždimal: Homogeneous Nucleation Rate in Supersaturated Water Vapor	A3: Aerosol Cloud Interactions Session Chair: Fred Rogers M.L. Frias-Cisneros: On the Estimated Impact of Anthropogenic Cloud Condensation Nuclei (CCN) in the Region of Mexico City on the development of Precipitation
		1550	Hua Du: Water homogeneous nucleation: Importance of clustering thermodynamics	Scot Martin: Mass Spectral Evidence that Small Changes in Composition Caused by Oxidative Aging Processes Alter Aerosol CCN
		1610	Judith Wölk: Argon Nucleation in a Cryogenic Nucleation Pulse Chamber	H. Wex: Influence Of Surface Tension On The Connection Between Hygroscopic Growth And Activation
		1630	Dzmitry Labetski: n-Nonane nucleation in the presence of carbon dioxide	Risto Makkonen: Effect of Nucleation and Secondary OrganicAerosol Formation on Cloud Droplet Number Concentrations
		1650	David Ghosh: Using Small Angle X-ray Scattering to measure homogeneous nucleation rates of n-propanol in a supersonic nozzle	Jefferson Snider: Freshly-formed Aerosol Particles: Connections to Precipitation
Poster 1 50		1730-1930	Poster 1	

Tuesday 14th August 2007

Plenary 2 x 40	0900 0940	Plenary 3 Gerald Wilemski: Homogeneous Binary Nucleation Theory And The Structure of Binary Nanodroplets Plenary 4 Terry Deshler: Stratospheric Aerosol: Measurements, Importance, Life Cycle, Anomalous Aerosol Session Chairs: Paul DeMott & Surabi Menon	
Coffee: 1020-1040			
Set 4 5 x 20	1040 1100 1120 1140 1200	N4: Nucleation: Experiment & Theory Session Chair: Jiri Smolik & Vincent Holten Theo Kurtén: Investigating the Role of Ammonia in Atmospheric Nucleation Vincent Holten: Kinetic Theory Applied to Nucleation and Droplet Growth Jan Hruby: Computation Of Nucleation Rates For N-Nonane Using The Gradient Theory Jan Wedekind: The Temperature of Nucleating Droplets Antti Lauri: Monte Carlo Simulations on Heterogeneous Nucleation II: Line Tension.	A4: Aerosol Characterisation & Properties Session Chairs: Joyce Penner & A. Wiedensohler Tom O'Connor: Highlights of Fifty Years of Atmospheric Aerosol Research at Mace Head Judith Chow: Size-Resolved Aerosol Chemical Concentrations at Rural and Urban Sites in Central California, USA Zoran Ristovski: Hygroscopic and Volatile Properties of Ultrafine Particles in the Eucalypt Forests: Comparison with Chamber Experiments and the Role of Sulphates in New Particle Formation Andreas Minikin: Airborne measurements of tropospheric aerosol up to 12 km over West Africa during the monsoon season in August 2006 Alexander Safatov: Tropospheric bioaerosols of Southwestern Siberia: their concentrations and variability, distributions and long-term dynamics
Lunch 1220-1330			
Plenary 1 x 40	1330-1410	Plenary 5 Surabi Menon: Current understanding of Aerosol-Climate Effects Session Chairs: Maria Cristina Facchini & Terry Deshler	
Set 5 4 x 20	1410 1430 1450 1510	N5: Nucleation: Experiment & Theory Session Chairs: Ian Ford & Herald Berresheim Frank Stratmann: Atmospheric H ₂ SO ₄ / H ₂ O Particle Formation: Mechanistic Investigations Dave Benson: Laboratory-Measured Nucleation Rates of Sulfuric Acid and Water from the SO ₂ + OH Reaction Chongai Kuang: Dependence Of Nucleation Rates On Sulfuric Acid Concentration In Diverse Atmospheric Locations Alexey Nadykto: Stabilization of H ₂ SO ₄ -H ₂ O Clusters by Organic Acids	A5: Aerosol Characterisation & Properties Session Chair: Scot Martin & Heike Wex Grégory Eyglunet: Secondary Organic Aerosol Formation And On-Line Chemical Composition Analysis By Thermal Desorption Chemical Ionisation Aerosol Mass Spectrometer (TDCIAMS) Hugh Coe: Contrasting Organic Aerosol Behaviour in Continental Polluted, Biomass Burning and Pristine Tropical Forest Environments Ingrid George: Heterogeneous Oxidation of Saturated Organic Particles by OH Martin Gysel: Closure between chemical composition and hygroscopic growth of aerosol particles during TORCH2
Coffee 1530-1550			
Set 6 4 x 20	1550 1610 1630 1650	N6: Nucleation: Binary, homogeneous and heterogeneous Session Chair: Frank Stratmann & Jan Wedekind Vitaly Kalikmanov: Critical cluster content in high-pressure binary nucleation: compensation pressure effect Antti-Pekka Hyvärinen: The Effect Of Total Pressure On Nucleation In A Laminar Flow Diffusion Chamber: N-Pentanol + Helium Sergey Fisenko: Microstructure Of Supersaturation Field And Nucleation Experiments Ian Ford: Stochastic Birth and Death equations to treat chemistry and nucleation in small systems	A6: Aerosol Characterisation & Properties Session Chair: Zoran Ristovski & Judy Chow Bart Verheggen: Observations of particle nucleation and growth events in the lower Free Troposphere Lauri Laakso: New particle formation in clean savannah environment John Watson: Measurement of Ultrafine and Fine Particle Black Carbon and its Optical Properties Kaarle Hämeri: Hygroscopic Properties of Sub-Micrometer Atmospheric Aerosol Particles Measured with H-TDMA Instruments in Various Environments- A Review
Poster 2	1730-1930	Poster 2	

Wednesday 15th August 2007

Plenary 2 x 40	0900 0940	Plenary 6 Barbara E. Wyslouzil: Homogeneous nucleation rate measurements and the properties of critical clusters Plenary 7 Paul DeMott: Progress and Issues in Quantifying Ice Nucleation Involving Atmospheric Aerosols Session Chairs: Markku Kulmala & V. Ramanathan
Coffee 1020-1040		
Connemara Tour 1100-1700		



Thursday 16th August 2007

Plenary 2 x 40	0900 0940	Plenary 8 Spyros Pandis: Regional Air Quality-Atmospheric Nucleation Interactions Plenary 9 Kikuo Okuyama Size Analysis of Ion and Aerosol Nanoparticles in Nucleation and Growth Session Chairs: Sandro Fuzzi & Kaarle Hämeri	
Coffee 1020-1040			
Set 7 5 x 20	1040 1100 1120 1140 1200	N7: Nucleation: Ion and cluster properties Session Chairs: Jonathan Barrett & Boris Bonn Paul M Winkler: The Effect of Seed Particle Charge on Heterogeneous Nucleation Anna-Kaisa Viitanen: The effect of temperature on ion cluster formation of 2-propanol Samy El-Shall: Heterogeneous Ion-Induced Nucleation: Condensation of Supersaturated Vapors on Neutral and Charged Nanoparticles Veli-Matti Kerminen: Using charging state in estimating the relative importance of neutral and ion-induced nucleation Richard Turco: Charged State of Freshly Nucleated Particles: Implications for Nucleation Mechanisms	A7 Aerosol Formation, Dynamics & Growth Session Chairs: Lynn Russell & Darius Ceburnis Kenjiro Iida: Estimating Nanoparticle Growth Rates from Size-Dependent Charged Fractions - Analysis of New Particle Formation Events in Mexico City Ken Carslaw: The impact of boundary layer nucleation on global CCN Iiona Riipinen: Atmospheric Charged and Total Particle Formation Rates below 3 nm Mikhail Arshinov: Spatial Distribution of Nanoparticles in the Free Troposphere over Siberia Rebecca Barthelmie: Upward fluxes of particles over forests: When, where, why?
Lunch: 1220-1330			
Plenary 1 x 40	1330	Plenary 10 Maria Cristina Facchini Organic Marine Aerosol: State Of The Art And New Findings Session Chair: Gerard S. Jennings	
Set 8 4 x 20	1410 1430 1450 1510	N8: Nucleation: Ion and cluster properties Session Chair: Richard Turco Marko Vana: Air Ion Measurements At Mace Head On The West Coast Of Ireland Boris Bonn: Biogenic sesquiterpenes and atmospheric new particle formation: A boreal forest site investigation Paul M Winkler: The Role of Ions in Condensation Particle Counting for Particle Diameters Below 2 nm Mikko Sipilä: Improving Particle Detection Efficiency of a Condensation Particle Counter by means of Pulse Height Analysis	A8 Marine Aerosol Production Session Chairs: J. Snider & Ken Carslaw Colin O'Dowd: A Combined Organic-Inorganic Sea-Spray Source Function Tattu Anttila: On the contribution of isoprene oxidation to marine aerosol over the North-East Atlantic Petri Vaattovaara: Organic fraction in recently formed nucleation event particles in Mace Head coastal atmosphere during MAP 2006 summer campaign Darius Ceburnis: Chemical Fluxes in Northeast Atlantic Air
Coffee 1530-1550			
Set 9 4 x 20	1550 1610 1630 1650	N9: Ice Nucleation Session Chair: Vladimir Ždimal Mathews Richardson: An Examination of a Continuous Flow Diffusion Chamber's Performance: Implications for Field Measurements of Ice Nuclei Ulrich Bundke: The FINCH (Fast Ice Nucleus CHamber counter) Ottmar Möhler: Heterogeneous Ice Nucleation on Soot Particles Martin Simmel: Ice Initiation For Various Ice Nuclei Types And Its Influence On Precipitation Formation In Convective Clouds	A9 Remote Sensing of Aerosols & Clouds Session Chair: Stefan Kinne Jens Redemann: Full column aerosol optical depth observations in the vicinity of clouds Anca Nemuc: Dust Intrusion Influence on Atmospheric Boundary Layer using lidar data Zbigniew Ulanowski: Alignment of Atmospheric Dust Observed by High-Sensitivity Optical Polarimetry Jane Mulcahy: Wind Speed Influences on Aerosol Optical Depth in Clean Marine Air
Conference Dinner 2000-0000			

Friday 17th August 2007

Plenary 2 X 40		0900	Plenary 11 Yinon Rudich: Laboratory studies on the properties and processes of complex organic aerosols Session Chair: Hugh Coe	
Coffee 1020-1040				
Set 4 4 X 40		1040 1100 1120 1140	<p style="text-align: center;">A10 Chemical Composition & Cloud Drop Activation Session Chair: Martin Gysel</p> <p>Akua Asa-Awuku: Characterization of Sesquiterpene Secondary Organic Aerosol: Thermodynamic Properties, Aging Characteristics, CCN Activity, and Droplet Growth Kinetic Analysis</p> <p>Lynn Russell: Internal Mixing of Organic and Elemental Components in DYCOMS-II Cloud Drop Activation</p> <p>Jefferson Snider: Optical particle measurements of marine aerosol hygroscopic growth</p> <p>Rachel Chang: Aerosol – CCN Closure At A Semi-Rural Site</p>	
Closing		1200-1220	Closing Ceremony	
Lunch		1220-1330		
Mace Head Field Station Tour 1330-1830				



ICNAA Poster Sessions

Monday, August 13, 1730–1930

Authors in attendance for sessions: N1–N3, A1–A3, A7–A8

N1-N3

Number	Lead Author	Abstract Title
N-1	Schmelzer	Classical and Generalized Gibbs' Approaches and the Work of Critical Cluster Formation in Nucleation Theory
N-2	Marcolli	Efficiency Of Immersion Mode Ice Nucleation On Surrogates Of Mineral Dust
N-3	Bartell	Do Highly Supercooled Liquids Freeze By Spinodal Decomposition?
N-4	Leubner	The Balanced Nucleation And Growth (BNB) Model For Controlled Crystal Nucleation And Size Distribution
N-5	Leubner	The Balanced Nucleation And Growth (BNB) Model For Controlled Crystal Nucleation And Size in Controlled Precipitations
N-6	Leubner	Continuous crystallization: Nucleation and size control as a function of crystal solubility
N-7	Onischuk	Evaluation of surface tension and Tolman length as a function of droplet radius from experimental nucleation rate and supersaturation ratio.
N-8	Ruetten	Challenges in the thermochemical water-splitting cycle based on the ZnO/Zn redox pair: Rapid quench and nucleation of zinc
N-9	Reguera	Kinetic Reconstruction of the Nucleation Free-Energy Landscape
N-10	Kathmann	Nucleation Chemical Physics: From Vapor Phase Clusters to Crystals in Solution
N-11	Shneidman	Condensation of a Supersaturated Lattice Gas
N-12	Kang	Validation And Development of A New Hailstone Formation Theory__ Numerical Simulations of A Strong Hailstorm Occurring Over The Qinghai-Tibetan Plateau
N-13	Napari	Scaling of critical nuclei composed of diatomic and triatomic molecules
N-14	Fisenko	Heterogeneous Condensation On Nanoparticle
N-15	Fisenko	Kinetics Of Multicomponent Nucleation In Gas Phase
N-16	Fisenko	Simulation Of Nucleation Experiments In Laminar Flow Diffusion Chamber
N-17	Julin	A Comparative Study in Molecular Dynamics Simulation of Nucleation
N-18	Kurtén	The Reactions of Sulfuric Acid with Biogenic Criegee Intermediates or Secondary Ozonides as A Possible Source of Nucleation Precursors
N-19	Kortsenshteyn	Condensation-Relaxation of Supersaturated Vapor and the Possibility of the Experimental Determination of the Nucleation Rate
N-20	Kortsenshteyn	New Method for Simulation of Supersaturated Vapor Condensation
N-21	Benson	Laboratory-Measured Nucleation Rates of Sulfuric Acid and Water from the SO ₂ + OH Reaction

Number	Lead Author	Abstract Title
N-22	Mordas	Nano-particle detection using nucleation regime of the CPC
N-23	Salonen	Structure of Sulfuric Acid - Water Clusters
N-24	Salonen	Quantum Chemical Calculations of the Binding Energies of (H ₂ SO ₄) ₂ , HOSO ₂ •H ₂ SO ₄ , and HOSO ₄ •H ₂ SO ₄
N-25	Ford	Calculation of cluster free energies using the Jarzynski relation
N-26	Nieminen	New Particle Formation and Sulphuric Acid Concentrations During 26 Months in Hyytiälä
N-27	Lauri	The First Heterogeneous Nucleation Theorem Including Line Tension: Analysis of Experimental Data
N-28	Lauri	Heterogeneous Nucleation Theorems for Multicomponent Systems
N-29	Hamed	Nucleation events in Melpitz, Germany, and Po Valley, Italy: similarities and differences
N-30	Salm	Simulation of an Aerosol Nucleation Burst
N-31	Chkonia	Heterogeneous Nucleation of Nitrogen
N-32	Bergmann	Homogeneous Nucleation of a homologous series of n-Alkanes in a Supersonic Nozzle
N-33	Manka	Preliminary Results on Homogeneous Nucleation of Water: A Novel Measurement Technique using the Two Valve Expansion Chamber

A1-A3

A-1	Langmann	Aerosol distributions over Europe: A regional model evaluation
A-2	Ying	An Analysis on Aerosol Variable Tendency and Clouds Physical Effect for Decrease of Natural Precipitation over Hebei Area
A-3	Stefan	An Assessment of the Direct Radiative Forcing of the PM ₁₀ -Study Case
A-4	Barrado Olmedo	Measurements of Hydroxylated Polycyclic Aromatic Hydrocarbons in atmospheric aerosols from an urban site of Madrid (Spain)
A-5	Koo	The Simulation of Aerosol Transport in East Asia Region Using CMAQ
A-6	Kivekäs	Using Aerosol Number To Volume Ratio In Predicting Cloud Droplet Number Concentration
A-7	Leskinen	On Aerosol-Cloud Studies At The Puijo Semi-Urban Measurement Station
A-8	Ruehl	Measurements of the rate of cloud droplet formation on atmospheric particles
A-9	Ying	An Analysis on Aerosol Variable Tendency and Clouds Physical Effect for Decrease of Natural Precipitation over Hebei Area
A-10	Sogacheva	Aerosol Particle Formation in Different Types of Air Masses in Hyytiälä, Southern Finland

Number	Lead Author	Abstract Title
A-11	Wang	The effect of including aerosol nucleation and coagulation in a global model
A-12	Pietikäinen	Model Studies Of Nitric Acid Condensation In Mixed-Phase Clouds
A-13	Horseman	Modelling Cirrus Cloud Fields For Climate And Atmospheric Chemistry Studies
A-14	Flanagan	A Modelling Study of the Effect of Increasing Background Ozone on PM Production in Clouds

A7-A8

A-57	Yu	Ion-Mediated Nucleation As An Important Source of Global Tropospheric Aerosols
A-58	Kannosto	Density of boreal forest aerosol particles as a function of mode diameter
A-59	Lee	Effects of Photochemistry and Convection on the UT/LS Aerosol Nucleation: Observations
A-60	Suni	Ions And Charged Aerosol Particles In A Native Australian Eucalypt Forest
A-61	Korhonen	Factors controlling spring and summer time aerosol size distributions in the Arctic: A global model study
A-62	Beaver	Relative Humidity Dependence of Light Extinction by Mixed Organic/Sulfate Particles
A-63	Riipinen	Evaporation Rates and Saturation Vapour Pressures of C3-C6 Dicarboxylic Acids
A-64	Riipinen	Condensational Growth of N-Propanol and N-Nonane Droplets: Experiments and Model Calculations
A-65	Riipinen	Connections between Ambient Sulphuric Acid and New Particle Formation in Hyytiälä and Heidelberg
A-66	Dal Maso	Aerosol Formation From Plant Emissions: The Jülich Plant Chamber Experiments
A-67	Pryor	Observations of winter-time nucleation and particle growth over/in a forest
A-68	Suni	Atmospheric aerosol and ion characteristics during EUCAP (Eucalypt Forest Aerosols and Precursors)
A-69	Smorodin	Revising the Fuchs "Boundary Sphere" Method
A-70	Junninen	An Algorithm for Automatic Classification of 2-dimensional aerosol data
A-71	Lemmetty	Capturing the effect of sulphur in diesel exhaust
A-72	Facchini	Conditions Favours New Particle Formation in a Polluted Environment: Results of the QUEST-Po Valley Experiment 2004
A-73	Vuollekoski	Simulations of Iodine Dioxide Nucleation
A-74	Bae	Development and estimation of an expression of particle dry deposition process using the moment method
A-75	Manninen	Investigating the Chemical Composition of Growing Nucleation Mode Particles with CPC Battery
A-76	Verheggen	Aerosol Formation from Isoprene: Determination of Particle Nucleation and Growth Rates
A-77	Morikawa	Heterogeneous Reactivity of Sulfate-Coated CaCO ₃ Particles with Gaseous Nitric Acid

Number	Lead Author	Abstract Title
A-78	Han	Physical, chemical and optical properties of fine aerosol as a function of relative humidity at Gosan, Korea during ABC-EAREX 2005
A-79	Yoon	Austral Summer Particle Formation Events Observed At The King Sejong Station
A-80	Mikkonen	Analysing the Number Concentration of 50nm Particles with Multivariate Mixed Effects Model
A-81	Sihto	Aerosol Dynamics Box Model Studies On The Connection Of Sulphuric Acid And New Particle Formation
A-82	Suni	Effect of vegetation on aerosol formation in South-East Australia
A-83	Lushnikov	Linear model of nucleation burst in the atmosphere
A-84	Bonn	Do we miss fragile particles in particle size distribution measurements?
A-85	Lingard	Physicochemical Characterisation Of Marine Boundary Layer Aerosol Particles During The Sea Spray, Gas Fluxes And Whitecaps (SEASAW) Experiment
A-86	Lai	Iodine Speciation in Marine Boundary Layer
A-87	Seitz	DOAS measurements of iodine oxides in the framework of the MAP (Marine Aerosol Production) project
A-88	Anttila	On the contribution of isoprene oxidation to marine aerosol over the North-East Atlantic
A-89	Scannell	A Global Emission Inventory of Sea Spray Aerosols
A-90	Callaghan	Observations of Oceanic Whitecap Coverage in the North Atlantic during Gale Force Winds
A-91	Rinaldi	Similarity Between Aerosol Physico-chemical Properties At A Coastal Station And Open Ocean Over The North Atlantic
A-92	Ehn	Marine Aerosol And Secondary Particle Formation Over The North Atlantic
A-93	Sellegri	Role of the Volatile Fraction of Marine Aerosol on its Hygroscopic Properties
A-94	Varghese	Sea-salt Production and Distribution over the North-east Atlantic
A-95	Byrne	Evaluation of Measured and Predicted Cloud Condensation Nuclei in Mace Head

Tuesday, August 14, 1730–1930:

Authors in attendance for sessions: N4–N9, A4–A6, A9-A10

N4-N9

Number	Lead Author	Abstract Title
N-34	Abyzov	Nucleation versus Spinodal Decomposition in Confined Binary Solutions
N-35	Nadykto	Thermochemistry of (H ₂ SO ₄) _m (H ₂ O) _n (NH ₃) _k : A DFT study
N-36	Nellas	Insights From The Atomistic Simulations Of A Ternary Nucleating System
N-37	Määttänen	Two-component heterogeneous nucleation in the Martian atmosphere
N-38	Brus	Binary Homogenous Nucleation of Sulfuric Acid and Water Mixture: Experimental Device and Setup
N-39	Lauri	Monte Carlo Simulations on Heterogeneous Nucleation I: The Point where the Classical Theory Fails
N-40	Lauri	A Kinetically Correct and an Approximate Model of Heterogeneous Nucleation
N-41	Noppel	Reversible Work of the Heterogeneous Formation of an Embryo of a New Phase on a Spherical Charged Conductor Within a Uniform Multicomponent Macroscopic Mother Phase
N-42	Bowles	Surface Nucleation in the Freezing of Gold Nanoparticles
N-43	Venzac	The Effect of Clouds on Ion Clusters and Aerosol Nucleation at 1465 m a.s.l.
N-44	Winkler	Experimental Observation of Heterogeneous Nucleation Probabilities for Ion-induced Nucleation
N-45	Vana	Air Ion Measurements During A Cruise From Europe To Antarctica
N-46	Gagné	Measurement of the Charging State with an Ion-DMPS to Estimate the Contribution of Ion-Induced Nucleation
N-47	Popovicheva	Immersion Freezing Efficiency Of Soot Particles With Various Physico-Chemical Properties
N-48	Salam	Ice Nucleation Characteristics of Atmospheric Trace Gas Aged Mineral Dust Aerosols with a Continuous Flow Diffusion Chamber
N-49	Murray	Strong dependence of cubic ice formation on aqueous droplet ammonium to sulphate ratio
N-50	Tobo	Ice Cloud Formation Mechanisms Inferred From In-situ Measurements Of Particle Number-size Distribution
N-51	Kim	Activation of artificial ice nuclei
N-52	Zobrist	Heterogeneous ice nucleation of aqueous solutions with immersed mineral dust particles
N-53	Böttcher	Immersion Freezing In Emulsified Aqueous Sulfuric Acid Solutions Containing AgI Particles
N-54	Stan	A microfluidic apparatus for the study of ice nucleation in water

A4-A6

Number	Lead Author	Abstract Title
A-15	Shi	The Observations of Cloud Condensation Nuclei over the Bohai Gulf
A-16	Hatakeyama	Transformation of nitrates during the transport of air from China to Okinawa, Japan

A-17	Kim	Major factors affecting the ambient particulate nitrate level at Gosan, Korea
A-18	Dron	Functional group analysis using tandem mass spectrometry, method development and application to particulate organic matter
A-19	Jing	Study On the Distribution and Variation Trends of Atmospheric Aerosol Optical Depth over the Yangtze River Delta in China
A-20	Iida	Detecting Below 3nm Particles Using Ethylene Glycol Based Ultrafine Condensation Particle Counter
A-21	Möller	Chlorine phase partitioning at Melpitz near Leipzig
A-22	Berresheim	Characterization of Rural Aerosol in Southern Germany (HAZE2002)
A-23	Vartiainen	Measured Neutral and Charged Aerosol Particle Number Size Distributions in Russia
A-24	Vartiainen	Size Distributions, Charging State, and Hygroscopicity of Aerosol Particles in Antarctica
A-25	Birsan	Dry deposition fluxes and timescales of turbulent deposition over tall vegetative canopies
A-26	Laakso	Hot-air balloon measurements of vertical variation of boundary layer new particle formation
A-27	Despiou	Optical Properties and Radiative Effects of Aerosols in a Coastal Zone
A-28	Petäjä	On Water Condensation Particle Counters and Their Applicability To Field Measurements
A-29	Pugatshova	Relationship of aerosol microphysical properties and chemical composition of aerosol in the Baltic Sea region
A-30	Matsumoto	Number Density and Carbon Concentration of Accumulation Mode Particles Over the North Pacific Ocean
A-31	Verhaege	Assessment of Refractive Index and Microphysical Parameters of Spherical Aerosols from Data of Dual-Polarization Nephelometer
A-32	Luo	Effect of airborne pollutants on the Angstrom turbidity coefficients
A-33	Amiranashvili	Weekly Distribution of the Aerosol Pollution of the Atmosphere in Tbilisi
A-34	Amiranashvili	The Influence of Relative Humidity on the Changeability of the Atmospheric Aerosol Optical Depth
A-35	Amiranashvili	Connection Between Atmospheric Aerosol Optical Depth and Aerosol Particle Number Concentration in the Air in Tbilisi
A-36	Chou	Ground-Based Observations of the Chemical Composition of Asian Outflow Aerosols
A-37	Smirnov	Study of Aerosol Emission at Continental Area of Russia
A-38	Zuend	Modeling The Non-ideal Thermodynamics Of Mixed Organic/Inorganic Aerosols
A-39	Dueñas Buey	⁷ Be to ²¹⁰ Pb concentration ratio in ground level air in Málaga (36.7°N, 4.5°W)
A-40	Rimšelytė	Chemical composition and size distribution of fine Aerosol particles measured with AMS on the east coast of the Baltic Sea
A-41	Hess	Uptake Of Nitric Acid On NaCl Single Crystals Measured By Backscattering Spectrometry
A-42	Townsend	Investigation Of The Heterogeneous Reactions Between Ammonia and Nitric Acid Aerosols

A-43	Duarte	Carbonaceous Materials in Size-Segregated Atmospheric Aerosols in Urban and Rural Environments in Northwestern Portugal
A-44	Jensen	Using Föhn Conditions To Characterize Urban And Regional Sources Of Particles
A-45	Schwarz	EC/OC at two sites in Prague
A-46	Sorribas Panero	Sub-micrometric Aerosol Size Distributions in Southwestern Spain: Relation with Meteorological Parameters
A-47	Barthazy	Characterisation of a propane soot generator
A-48	Dal Maso	Aerosol Particle Formation Events at Two Siberian Stations
A-49	Ceburnis	Chemical Composition, Regional Sources And Seasonal Patterns Of TSP Aerosols At Mace Head
A-50	Dupuy	The Formation of Radiatively-Active Aerosol From Coastal Nucleation Events
A-51	Megner	Funneling Of Meteoric Material Into The Polar Winter Vortex
A-52	Partridge	The Implications of Changing Land Use Type on Parameterising Dry Deposition for Modelling the Development of an Aerosol Population
A-53	Lammel	Gas-particle Partitioning of Polycyclic Aromatic Hydrocarbons – a Global Modelling Study
A-54	Lammel	Wash-out of Aerosol Trace Components at an Urban Site in the Subtropics
A-55	Engling	Observations of Molecular Tracers for Biomass Burning in Ambient Asian Aerosols
A-56	Leigh	Mechanistic Studies of the Reactions of Diarylgermylenes and Tetraaryldigermenes in Solution

A9-A10

Number	Lead Author	Abstract Title
A-96	Sinreich	Retrieval of Aerosol Distributions by Multi-Axis Differential Absorption Spectroscopy (MAX-DOAS)
A-97	Hasan	Variations of desert dust optical properties over solar village, KSA
A-98	Hasan	Atmospheric aerosol optical properties and climate
A-99	Evgenieva	Aerosol optical depth determination by combination of lidar and sun photometer
A-100	Kaloshin	Aerosol Impact on Remote Sensing in Coastal Environment
A-101	Mulcahy	Validation of Satellite Retrieved Aerosol Optical Depth with Ground-Based Measurements at Mace Head, Ireland
A-102	Martin	Cloud Condensation Nucleus Activity of Secondary Organic Aerosol Particles Mixed with Sulfate
A-103	Hudson	Particle Size Critical Supersaturation Relationships
A-104	Bauer	Aerosol Microphysics in the GISS Climate Model
A-105	Eyglunet	Secondary Organic Aerosol Formation And On-Line Chemical Composition Analysis By Thermal Desorption Chemical Ionisation Aerosol Mass Spectrometer (TDCIAMS)
A-106	Kuwata	Cloud Condensation Nuclei Activity at Jeju Island (Korea) in Spring
A-107	Ekström	CCN Properties of Water-Soluble Organic Compounds Produced by Common Bioaerosols
A-108	Pindado Jiménez	An annual study of organic atmospheric aerosol from a rural site of Madrid (Spain)
A-109	Lelpo	Fine Particulate Matter In Apulia (South Italy): Chemical Characterization

