



SCAN ME

MUOAA

2024

Molecular-Level Understanding of Atmospheric Aerosols

April 1st - 5th 2024

Cargèse

	Monday	Tuesday	Wednesday	Thursday	Friday
09:00	Meeting opening George Christian	Summary of the previous day by the students	Summary of the previous day by the students	Summary of the previous day by the students	Summary of the previous day by the students
09:15	Session Introduction: Garmash Olga	Session Introduction: George Christian	Session Introduction: Daële Veronique	Session Introduction: Garner Natasha	Session Introduction: Toubin Céline
09:20	Laskin Alexander <i>Molecular Insights into Atmospheric Brown Carbon: Optical Properties, Gas-Particle Partitioning, and Viscosity Assessment.</i>	Ammann Markus <i>The mystery of light induced reduction of nitrate in aqueous particles</i>	Zimmerman Ralf <i>Air pollution and health: Novel concepts for characterization of the toxicological impact and the organic composition of ambient aerosols and emissions</i>	Rudich Yinon <i>Transformations of biomass burning aerosol components and the effects on oxidative potential and cytotoxicity</i>	Kurten Theo <i>Peroxy radical recombination leads to an unexpectedly complex mixture of low-volatility products</i>
09:55	Schobesberger Siegfried <i>Retrieval of composition-resolved organic aerosol properties from thermal desorption measurements and inverse modeling</i>	Kong Xianrui <i>Adsorbed Water Promotes Chemically Active Environments on the Surface of Sodium Chloride</i>	Berkmeier Thomas <i>Beyond Oxidative Potential: Multiphase Kinetic Modelling of Aerosol Health Effects</i>	Borduas-Dedekind Nadine <i>The production of singlet oxygen from brown carbon cooking organic aerosols (BrCOA) under indoor lighting.</i>	Besel Vitus <i>Generation of High-level Oxygenated Organic Molecule Data</i>
10:15	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
10:35	Nizkorodov Sergey <i>Approaching Quantified Volatility Distributions</i>	Krieger Ulrich <i>Iron-catalyzed Photochemical Degradation of Organics on Mineral Dust Aerosol Particles</i>	Reid Jonathan <i>Aerosol Particle Drying, Deposition and Resuspension</i>	Perraudin Emilie <i>Where and how to study SOA formation and ageing at the molecular level and on the field ?</i>	Louis Florent <i>In silico studies of the atmospheric reactivity of organic contaminants</i>
10:55	Khare Peeyush <i>Molecular-Level Chemical Composition of the Sources of Fine Airborne Particulate Matter in Two Megacities of North and South India</i>	Kiselev Alexei <i>Water on alkali feldspar: the role of crystalline structure, ion exchange, and the implication for atmospheric ice nucleation</i>	Wingen Lisa <i>Characterization of the Surface Layers of Organic Particles with Matrix Assisted Ionization in Vacuum-Mass Spectrometry (MAIV-MS) and a Little Magic</i>	Worsnop Doug <i>Atmospheric Aerosol Chemistry: Climate and Air Quality</i>	Wang Chia <i>Water Plays Multifunctional Roles in Formation of Secondary Organic Aerosols in Ozonolysis of Monoterpenes: A Combined VUV Photoelectron Spectroscopy, Mass Spectrometry and DFT Study</i>
11:10	Jie Chen <i>Ice Nucleation and Chemical Characteristics of Biomass Burning Aerosols Generated with Different Biomass Types and Burning Conditions</i>	Garner Natasha <i>Impact of Fe on the formation and aging of a-pinene secondary organic aerosol</i>	Joblin Christine <i>Interaction of PAH-based species in the gas phase with ultraviolet radiation</i>	Heinlein Laura Marie Dahler <i>Contribution of Particle Photooxidants to Winter Secondary Organic Aerosol Formation in a Subarctic City</i>	AbouHaidar Rawan <i>Reaction of Maleic Acid with Ozone at the Aqueous Interface</i>
11:25	Shahin Marwa <i>Gas-particle partitioning of xylene and naphthalene oxidation products: temperature and NOx influence</i>	Eliet Sophie <i>TeraHertz spectroscopy for aerosols studies</i>	11:40 Group Discussion	Gerritz Lena <i>Mechanistic Insight into Radical Formation During the Photochemical Aging of Secondary Organic Aerosols</i>	Wang Pengcheng <i>Gas-phase kinetics of Criegee intermediate reactions with implications for aerosol formation in the atmosphere</i>
11:40	Group Discussion	Group Discussion		Group Discussion	Group Discussion
	Lunch	Lunch	Lunch	Lunch	Lunch
14:00	Session Introduction: Boréave Antoinette	Session Introduction: Meroni Cesare		Session Introduction: Angelaki Maria	Session Introduction: Villenave Éric
14:05	Prisle Nonne <i>Water - the dark matter of atmospheric aerosols</i>	Monod Anne <i>Atmospheric multiphase chemistry of organic species</i>		Signorell Ruth <i>Accelerated and unexpected in-particle chemistry</i>	Abbatt Jonathan <i>Multiphase Oxidation Chemistry in Indoor and Wildfire-Impacted Environments</i>
14:40	Ault Andrew <i>Dropping Acid in the Atmosphere: Does It Matter for Secondary Organic Aerosol?</i>	Raff Jonathan <i>Hidden Complexities of Chromophore Photochemistry in Aerosol Aging and Heterogeneous Nitrogen Oxide Chemistry</i>		Jones Stephanie <i>Determination of the viscosity and surface tension of levitated droplets at supercooled temperatures</i>	Bilde Merete <i>Properties of secondary organic aerosol from oxidation of monoterpenes at different temperatures</i>
15:00	Kleinheins Judith <i>Effect of surface tension on aerosol particle critical supersaturation: a bottom-up modelling study</i>	Petersen-Sonn Emma Amalie <i>Excited triplet states from aerosol extracts competing with OH radical and singlet oxygen</i>		Hoffman Thorsten <i>Chemistry in nanometer aerosol particles: Flow tube experiments with Diels-Alder reactions as a model system</i>	Pouyes Pauline <i>Limits of the molecular tracer approach in the understanding of SOA formation and fate processes</i>
15:15	Coffee break	Coffee break		Coffee break	Coffee break
15:35	Koop Thomas <i>Experimental studies on the activity of molecular ice nucleators</i>	Angelaki Maria <i>Spontaneous H2O2 formation at the interfaces of salt-containing aqueous droplets: A mechanistic study</i>		David Gregory <i>Sea-salt hygroscopicity and crystallization of their mixture with oxalic acid</i>	Kenseth Christopher <i>Particle-Phase Accretion Forms Dimer Esters in Pinene Secondary Organic Aerosol</i>
15:55	Bzdek Bryan <i>Surface-Area-to-Volume Ratio Determines Surface Tensions in Microscopic, Surfactant-Containing Droplets</i>	Sobanska Sophie <i>Molecular-scale view of the interaction of water and ice with organic species of atmospheric interest</i>	14:00 Excursion	Meroni Cesare <i>Investigation of the Spontaneous Formation of Molecular Iodine at the Air/Water Interface with Optical Tweezers</i>	Gratien Aline <i>Molecular composition of secondary organic aerosol using chromatography and mass spectrometry</i>
16:15	Freedman Miriam <i>The role of surface features in promoting heterogeneous ice nucleation</i>	Garmash Olga <i>Molecular cluster composition and aerosol formation over Siberian boreal forest</i>		Bain Alison <i>Investigating the Dynamic Surface Composition of Aerosol Droplets</i>	Perraud Veronique <i>Impact of carbon storage technology alkanolamines on new particle formation in air</i>
16:35	Lin Jack <i>Concentration profiles of an organosulfate surfactant in a liquid microjet</i>	Prophet Alex <i>Oxidation of Ions at the Air-Water Interface: Towards a General Classification of Surface and Bulk Reaction Kinetics in Aerosol</i>		Wallace Brandon <i>Accelerated Keto-Enol Tautomerization of Aqueous Malonic Acid in Micron-Sized Oil Emulsions</i>	Zhang Yue <i>Quantifying the Mass Loading, Aging, and Cloud Properties of Polystyrene Nanoplastic Particles in the Atmosphere</i>
16:50	Group Discussion	De La Puente Miquel <i>Neural-Network-based Simulations of Acidity at the Surface of Aqueous Aerosols</i>		Group Discussion	Group Discussion
17:05		Poster Session		Poster Session	Conclusion & Evaluation
19:00	Welcome Cocktail		Dinner at the port	BQQ at the Institute	