

APT2026 Program

MONDAY, May 11

TUESDAY, May 12

WEDNESDAY, May 13

THURSDAY, May 14

09.00 - 09.15

Opening of APT2026
Greetings from the Organizers

MONDAY, May 11		TUESDAY, May 12		WEDNESDAY, May 13		THURSDAY, May 14	
09.15 - 10.00	PLENARY 1 Aerosol-made nanomaterials for diagnostics and therapy Speaker: Inge Herrmann	09.15 -10.00	PLENARY 3 Real and virtual particle and aerosol transport in wildfires: the underlying science and the Speaker: Epaminondas Mastorakos	09.15 -10.00	PLENARY 4 Nanoparticle and Surface Engineering with Aerosols for Chemical Sensors Speaker: Andreas Guentner	09.15 - 10.00	PLENARY 5 Hetero aggregates – building blocks for many applications Speaker: Lutz Maedler
10.00 - 10.45	PLENARY 2 Flame-made high-value nanoparticles for biomedicine Speaker: George Sotiriou		Session V1 - Venturing: From the Lab to the Market Track: Venturing in APT Chair: Oliver Bischof		Session F4 - Particle Transport, Deposition & Dynamics Track: Fundamentals of APT Chair: Eirini Goudeli		Session H1b - Aerosol Sensors & Detection Technologies Track: High Value Applications of APT Chair: Ralf Zimmermann
10.45-11.45	Coffee Break Exhibition/Poster Session Area	10.00-10.15	V1.1 - Numerical simulations of ns pulsed laser cavity-based aerosol gold nanoparticle size reduction and necking control via evaporation and sintering Speaker: José Morán	10.00 - 10.15	F4.1 - Diffusion dynamics of tiny nanoparticles in air Speaker: Sotiris Pratsinis	10.00 - 10.15	H1b.1 - Measuring Urban Aerosol Volatility Fractions with a Catalytic Stripper at an ACTRIS Aerosol Observatory: Characterization and Implementation Speaker: Maximilian Dollner
	Session F1a - Gas-Phase Synthesis & Aerosol Nanoparticle Formation Track: Fundamentals of APT Chair: George Sotiriou	10.15 - 10.30	V1.2 - Single-Droplet Techniques for Analysis of Evaporation Kinetics and Particle Morphology in Spray Dryers Speaker: Jonathan Reid	10.15 - 10.30	F4.2 - Electrodynamic Particle Suspension in a Gap Between Grid Electrodes Speaker: Karim Mehrabi	10.15 - 10.30	H1b.2 - Microwell Aerosol-to-Vapor Conversion for Rapid Mass Spectrometric Analysis Speaker: Igor Novosselov
11.45 - 12.00	F1a.1 - Closing the loop: Processing End-of-Use Photovoltaic Silicon in a Gas Phase Reactor for Application in Additive Manufacturing Speaker: Sophie Marie Schnurre	10.30 - 10.45	V1.3 - Thermally stable and spherical silver particles as a calibration transfer standard for nanoparticle measurement technologies Speaker: Paulus S. Bauer	10.30 - 10.45	F4.3 - New slip model for spherical particle-wall rolling detachment by airflow Speaker: Francois Gensdarmes	10.30 - 10.45	H1b.3 - Towards Real-Time Pollen Monitoring in Southern Europe: A Novel Automatic Classifier Speaker: Cyril Charriaud
12.00 - 12.15	F1a.2 - Eco-friendly Fast-facile Synthesis of Single-phase Hydroxyapatite Nanoparticles for Biomedical Applications Speaker: Alireza Charmforoushan	10.45 - 11.00	V1.4 - Gilbert Smart Precision Inhaler For Tunable, Monodisperse Aerosol Generation in Pulmonary Drug Delivery Speaker: Fatemeh Jahanmard	10.45 - 11.00	F4.4 - On the relation between turbulent parameters and aerosol deposition Speaker: Jeanne Malet	10.45 - 11.00	H1b.4 - Efficient Butanol Vapor Removal Eliminates Measurement Cross-Sensitivity and Health Risks Speaker: Hans-Joachim Schulz
12.15 - 12.30	F1a.3 - Gas-Phase Engineering of Heterogeneous Metal Nanoaggregates Speaker: Cyprien Jourdain	11.00 - 11.15	V1.5 -The Influence of Hydrodynamic Parameters on Bioaerosol Emissions in Vortex-Driven Motion Speaker: Maheen Shafiq	11.00 - 11.45	Coffee Break Exhibition/Poster Session Area	11.00 - 11.30	Coffee Break Exhibition/Poster Session Area
12.30 - 12.45	F1a.4 - Generating Nanoparticles from Tellurium, Bismuth, Gallium, Gold, Iron and Various Salts Using the Silver Particle Generator Speaker: Vinicius Berger	11.15 - 12.00	Coffee Break Exhibition/Poster Session Area		Session F4b - Particle Transport, Deposition & Dynamics Track: Fundamentals of APT Chair: Epaminondas Mastorakos		Session H4a - Energy, Combustion & Industrial Aerosol Applications Track: High Value Applications of APT Chair: Luis Modesto-Lopez
12.45 - 14.00	Lunch		Session H3a - Advanced Materials & Nanofabrication via Aerosols Track: High Value Applications of APT Chair: Benedetta Franzelli	11.45 - 12.00	F4b.1 - Physicochemical characterization and vapor adsorption behavior of jet-like soot particles Speaker: Yiheng Liang	11.30 - 11.45	H4a.1 - Determination of the mass of particles generated by explosions in contact with concrete Speaker: François Gensdarmes
	Session F1b - Gas-Phase Synthesis & Aerosol Nanoparticle Formation Track: Fundamentals of APT Chair: George Kelesidis	12.00 - 12.15	H3a.1 - Aerosol Metal-Organic Frameworks (MOFs) Synthesis Speaker: Igor Novosselov	12.00 - 12.15	F4b.2 - Inhalable carbon fibres – CF aerosol generation, characterisation, and numerical simulation of deposition on cell surfaces exposed at air-liquid interface Speaker: Sonja Mülhopt	11.45 - 12.00	H4a.2 - Gas-phase chemistry and soot formation during shock-tube pyrolysis of methane at high fuel loadings Speaker: Reza Kholghy
14.00 - 14.15	F1b.1 - Predicting aerogel formation in aerosol phase nanowire synthesis Speaker: Nabil Abomailek Rubio	12.15 - 12.30	H3a.2 - Flame Spray Pyrolysis Engineering of Interfacial Quantum States in H2- Photocatalytic Semiconductors: control of Photophysics via Precision Engineering Speaker: Yiannis Deligiannakis	12.15 - 12.30	F4b.3 - Resolving Particle Size Distributions into Biomass-Burning and Fossil-Fuel Sources in Subarctic Alaska Using Integrated Observations and Machine Learning Speaker: Lorena Albuquerque Zanandreis	12.00 - 12.15	H4a.3 - Gas-solid particle dynamics in fluidized bed solar receivers for Concentrated Solar Power applications: Experimental investigation and CFD-DEM modelling Speaker: Dimitrios Tsaoulidis
14.15 - 14.30	F1b.2 - Spark ablation of Ti and Au for Au@TiO2 hetero-aggregate nanoparticle formation and characterisation Speaker: Benjamin Gfeller	12.30 - 12.45	H3a.3 - Aerosol synthesis of carbon nano onions and its role as sensing layer in In2O3/CNOs composite for sensitive H2S detection at room temperature Speaker: Muhammad Tanveer	12.30 - 12.45	F4b.4 - Bridging Measurement and Theory with a General Aerosol Microphysical Model Speaker: Fraser Crawford	12.15	Closure

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14.30 - 14.45	F1b.3 - The effect of inductance-controlled energy release rate on the plasma resistance and size distribution of copper nanoparticles generated by spark-discharge discharge ablation Speaker: José Morán	12.45 - 14.00	Lunch	12.45 - 14.00	Lunch		
14.45 - 15.00	F1b.4 - Time-resolved composition of CuZn nanoparticles generated by spark ablation Speaker: Linnéa Jönsson		Session F3a - Aerosol Measurement & Instrumentation Track: Fundamentals of APT Chair: George Biskos		Session F5a - Modelling & Digital Tools for Aerosol Processes Track: Fundamentals of APT Chair: José Morán		
	Session F1c - Gas-Phase Synthesis & Aerosol Nanoparticle Formation Track: Fundamentals of APT Chair: Joan Rosell-Llompart	14.00 - 14.15	F3a.1 - A novel on-line single aerosol-particle laser mass spectrometer for simultaneous inorganic and molecular organic chemical aerosol characterization: Technology and application Speaker: Ralf Zimmermann	14.00 - 14.15	F5a.1 - CarbonX: A Process Design Tool for the Gas-Phase Synthesis of Metal Nanoparticles and Carbon Nanotubes Speaker: Hossein Rahbar		
15.00 - 15.15	F1c.1 - Time-Resolved Laser Diagnostics of Metal Cluster Formation from Spark Ablation Speaker: Thomas Krinke	14.15 - 14.30	F3a.2 - A Real-World Benchmarking Method for Intercomparing Airflow Cytometer Coarse Particle Concentration Measurements Speaker: Cyril Charriaud	14.15 - 14.30	F5a.2 - First steps towards the development of a digital twin for flame spray pyrolysis systems Speaker: Benedetta Franzelli		
15.15 - 15.30	F1c.2 - SPES approach to characterizing nano-hetero-aggregates produced by spray synthesis Speaker: Philipp Rembe	14.30 - 14.45	F3a.3 - Better Accuracy & Automation of the CERMES for Calibrating Black Carbon Mass Analysers Speaker: Jonathan Symonds	14.30 - 14.45	F5a.3 - The VERT GPF retrofit program within the Horizon Europe AeroSofd project: Overview and Final results Speaker: Lauretta Rubino		
15.30 - 15.45	F1c.3 - Template-Free Tuning of Magnetic Nanoparticle Self-Assemblies through External Fields Speaker: Mehran Sedrpooshan	14.45 - 15.00	F3a.4 - Comparison of ELPI+ with SMPS and APS on various laboratory generated aerosols Speaker: Anssi Arffman		Session F6a - Carbon, Soot & Surface Phenomena Track: Fundamentals of APT Chair: Reza Kholghy		
15.45 - 16.00	F1c.4 - Forced charge transfer to nanoparticles in particle-wall collisions to produce functional hetero-aggregates Speaker: Alexander Plack	15.00 - 15.30	Coffee Break Exhibition/Poster Session Area	14.45 - 15.00	F6a.1 - Microstructural Evidence of Soot Compaction and Sulfate Coating in Urban Aerosols of the Indo-Gangetic Basin: A FESEM Study Speaker: Vaishnav Bartaria		
16.00 - 16.30	Coffee Break Exhibition/Poster Session Area		Session F3b - Aerosol Measurement & Instrumentation Track: Fundamentals of APT Chair: Lauretta Rubino	15.00 - 15.15	F6a.2 - The impact of particle size on the light absorption of carbonaceous aerosol emissions from wood combustion Speaker: George Kelesidis		
	Session F2a - Electrospays, Droplets & Particle Formation Track: Fundamentals of APT Chair: Pedro Garcia-Ybarra	15.30 - 15.45	F3b.1 - Experimental Validation of High-Efficiency Stairmand and Swift Cyclones Using Optical Particle Spectrometry Speaker: Paolo Maria Tronville	15.15 - 15.45	F6a.3 - Nucleation, Surface Growth and Coagulation of Soot by Hierarchical Modeling Speaker: Eirini Goudeli		
16.30 - 16.45	F2a.1 - Cone Jet Stability and Surface Morphology of Electrospayed Titania Films Speaker: Arianna Parisi	15.45 - 16.00	F3b.2 - Mass, Size and Density Fingerprints of Engineered Particles Speaker: Jonathan Symonds	15.45 - 16.15	Coffee Break Exhibition/Poster Session Area		
16.45 - 17.00	F2a.2 - Cone-Jet Mode in Bipolar Electrospays Speaker: Jose L Castillo	16.00 - 16.15	F3b.3 - SEMS Transfer functions for accurate signal inversion Speaker: Mark Kanaparthi		Session H2a - Biomedical Aerosols & Drug Delivery Track: High Value Applications of APT Chair: Inge Herrmann		
17.00 - 17.15	F2a.3 - Controlled Morphology of Microparticles Formed by Evaporation of Aerosol Droplets Containing Nanoparticles with Varying Glass Transition Temperatures Speaker: Sorrel Haughton	16.15 - 16.30	F3b.4 - Solid or Liquid? Substances to use in a CPC to make ultrafine particles detectable Speaker: Patrick Weber	16.15 - 16.30	H2a.1 - Nanoparticles for Drug Delivery: Predictive Manufacturing and Translation Speaker: Maryam Parhizkar		

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17.15 - 17.30	F2a.4 - Electro-Assisted Flow Blurring for High-Throughput Generation and Charging of Newtonian Droplets Speaker: Luis Modesto- Lopez	Session H1a - Aerosol Sensors & Detection Technologies Track: High Value Applications of APT Chair: Arantzazu Eiguren		16.30 - 16.45	H2a.2 - Nitrogen-assisted particle fluidization for dry coating of high-dose inhalable powders: Impact on particle micrometrics Speaker: Haia Al-Assaf		
	Session F2b - Electrospays, Droplets & Particle Formation Track: Fundamentals of APT Chair: Jose Castillo	16.30 - 16.45	H1a.1 - A new single-channel portable water CPC Speaker: Lucia Bustin	16.45 - 17.00	H2a.3 - Novel High-Efficiency Cyclone Collector Using a 15 mL Falcon Tube for Bioaerosol Collection and Molecular Detection Speaker: Richard Baxter		
17.30 - 17.45	F2b.1 - Evaporation kinetics and dried microparticle morphology of aqueous aerosol droplet containing nanoparticles Speaker: Jonathan Reid	16.45 - 17.00	H1a.2 -Methodology for Quantitative Analysis of Particle Deposition and Resuspension on Cylindrical Surfaces under Dynamic Wind Loading Speaker: Nikoleta Ioannidou	17.00 - 17.15	H2a.4 - Scalable microfluidic production of drug loaded microparticles: Controlled synthesis, characterisation, and CFD-assisted design Speaker: Dimitrios Tsaoulidis		
17.45 - 18.00	F2b.2 - Nanoparticulate Coatings by Electro spray Speaker: Joan Rosell-Llompart	17.00 - 17.15	H1a.3 -Fabrication of filter paper-based SERS substrates via spark ablation and their applications Speaker: Attila Kohut		Session H3b - Advanced Materials & Nanofabrication via Aerosols Track: High Value Applications of APT Chair: Yiannis Deligiannakis		
18.00 - 18.15	F2b.3 - Nucleic acid-marked nanoplastics produced by electrohydrodynamic atomization (EHDA) for applications in water technology Speaker: Kelly Moreira	17.15 - 17.30	H1a.4 - Key aspects of sizing and counting particles using a Time-Of-Flight technique Speaker: Amel KORT	17.15 - 17.30	H3b.1 - Highly porous carbon blacks for supercapacitors and electrochemical energy storage Speaker: Georgios Kelesidis		
18.15 - 18.30	F2b.4 - Wet Electrostatic Scrubbing for fine and ultrafine particulate matter control in industrial and engine exhausts Speaker: Francesco Di Natale	17.30 - 17.45	H1a.5 - Forensic Aerosol and Particle Technology: Can PDMS Droplets Cause a Fireball? Speaker: Athanasios G. Konstandopoulos	17.30 - 17.45	H3b.2 - Large-scale silicon nanowire paper fabrication via aerosol- catalysed CVD Speaker: Isabel Gómez-Palos		
18.30 - 19:00	Exhibition/Poster Session Area	17.45 - 18:30	Reflections on 40 Years under the Flag of APT A presentation and roundtable discussion Coordinated by: Athanasios G. Konstandopoulos with Sotiris Pratsinis, Jose Castillo, Pedro Garcia-Ybarra, Oliver Bischof and others	17.45 - 18:30	Exhibition/Poster Session Area		
		18.30 - 19:00	Exhibition/Poster Session Area				
		20:00-22:00	APT 2026 Dinner Bus leaves 19:30 from Venue				

APT2026 Posters - Exhibited on all days

Fundamentals of APT	
F1	Spark ablation of Ag and Cu mono-elemental electrodes: effect of the current tuning on the properties of the resulting AgCu bimetallic nanostructures Presenter: Maria Assunta Signore
F2	Functionalization of bacterial cellulose with Ag NPs obtained by spark ablation for use in wound dressings Presenter: Luciano Velardi
F3	An interdisciplinary consortium on FSP at Université Paris-Saclay: optimizing the operating conditions to tailor the size of iron oxide nanoparticles Presenter: Benedetta Franzelli
F4	Diffusive Transport of Linear Aggregates of Nano-spherical Particles Presenter: Pedro L. Garcia-Ybarra
F5	Development of a UV-Based Ion Source for Iodide Chemical Ionization Mass Spectrometry Presenter: Andrea C. Wagner
F6	Field-Driven Particle Harvesting in Flames for Morphology and Wettability Control of Carbon Coatings Presenter: Francesco Di Natale
F7	Antimicrobial activity of pristine and mixed nanoparticles produced by atmospheric-pressure spark ablation Presenter: George Biskos
F8	Assessment of total and thermally resolved PM-bound water using Kark Fischer titration in areas with contrasting emission profiles Presenter: Kamila Widziewicz-Rzońca
F9	Synthesis of metal nitride and metal oxide nanoparticles by atmospheric-pressure spark ablation Presenter: Dimitrios Gounaris Nikolaidis
F10	Advances in Fluorescence Probe Spectroscopy to Characterize Viscosity, and Other Physicochemical Properties of Aerosols Presenter: Angel Gibbons
F11	Titania Nanoparticles from Organometallic Precursors by Electrospray Presenter: Joan Rosell-Llompарт
F12	Field evaluation of the Spider-MAGIC mobility sizer in the Los Angeles area Presenter: Arantza Eiguren-Fernandez
F13	Breath of Health: Brine Aerosols under Controlled Sanatorium Conditions Presenter: Patrycja Rogula-Kopiec
F14	The content of potentially toxic chemical components and health risk assessment of submicron particulate matter from polluted urban atmosphere Presenter: Patrycja Rogula-Kopiec
F15	Reactive Indoor Atmospheres: Volatile Compounds and Ozone Chemistry in Beauty Salons Presenter: Magdalena Żurawka
F16	Variability in the Physicochemical Composition of PM10 in a Municipality near Kraków, Poland (2024) Presenter: Magdalena Żurawka
F17	From Computation to Synthesis: Validating the Magnetic Properties of Pt ₂ FeNi Presenter: Mohammad Pourhossein

High Value Applications of APT	
HV1	A Study on the Internal Dose Assessment of Workers due to Radioactive Aerosol Inhalation Presenter: Hyeun Downon
HV2	Electrical-Field-Focused Aerosol Assembly of Embedded 3D Ag Nanostructures for Flexible Transparent Electrodes Presenter: Geon Kim
HV3	Electrospray Deposition of Gold-Doped Carbon Films for Energy and Sensing Applications Presenter: Arianna Parisi
HV4	Aerosol Nanoparticle Synthesis by Inductive Heating Presenter: Nikolas Sochorakis
HV5	Sub-ppm methane sensing by spark-ablation-synthesized nano-SnO ₂ Presenter: Dimitrios Gounaris Nikolaidis
HV6	Multiplexed Coaxial Electrospraying for Continuous Production of Crosslinked Chitosan Nanoparticles Presenter: Joan Rosell-Llompарт
HV7	Synthesis of Spray-Dried Iron and Iron-Zinc Based Catalysts for Catalytic Graphitization of Kraft Lignin Presenter: Muhammad Tanveer
HV8	Computational generation and discrete mechanics simulation of three-dimensional fibrous structures Presenter: Ioannis-Pantelis Bamichas