

CCQM Particle Metrology Workshop

All times given as Paris time

DAY 1 Plenary Part A (25 October 2022)

12:00	Welcome and introduction	Michael Winchester (NIST)
12:15	Topical overview 1: Developments, Challenges, and the Need for Standards Related to Airborne Bioaerosol Measurements	Fiona Tummon (Federal Office for Meteorology and Climatology Switzerland)
12:45	Topical overview 2: Analytical Challenges for Characterization of Nanoparticle Dispersions Posed by Polydispersity	James Ranville (Colorado School of Mines)
13:15	Break	
13:30	Topical overview 3: Towards Optimising Characterisation of Metal Nanoparticles in Complex Matrices; Method Selection, Comparisons and Challenges	Paul Gunning (Smith & Nephew)
14:00	Questions, observations, and brief discussion	Moderated by Michael Winchester (NIST)
14:30	Close of Day 1	Michael Winchester (NIST)

DAY 2 Breakout Groups (26 October 2022)

Begin in Main Session

12:00	Welcome and instructions	Caterina Minelli (NPL)
12:15	Transfer to breakout rooms*	Steven Westwood (BIPM)

*Registered participants may proceed to the breakout session of their choice

Breakout Group for Topic 1: Particles suspended in air or other gases

12:20	Welcome and any further instructions	Richard Brown (NPL)
12:25	NMI/DI perspectives and activities: Overview of NMI/DI Measurement Capabilities and Activities	Konstantina Vasilatou (METAS)
12:40	Invited presentations (15 min each, with questions deferred to discussion at the end of the breakout session) Challenges of Measuring PM_{2.5} in the Next Decade Metrology for Aerosol Emissions from Hydrocarbon Sources Calibration Procedures and Challenges in the Automotive Field PM Emissions from Residential Wood Combustion Appliances: Why and How to Characterize Condensables?	Gary Fuller (Imperial College) Greg Smallwood (NRC) Barouch Giechaskiel (JRC) Isaline Fraboulet (INERIS)
13:40	Break	
13:55	Discussion and formation of recommended actions	Richard Brown (NPL)
14:40	Rejoin main session*	

*Participants from all three breakout rooms rejoin the main session

Breakout Group for Topic 2: Particles suspended in water or other liquids

12:20	Welcome and any further instructions	Paola Fiscaro (LNE)
12:25	NMI/DI perspectives and activities: Measurands and Method Dependency: Can One Size Fit All for Particles Suspended in Liquid?	Victoria Coleman (NMIA)
12:40	Invited presentations (15 min each, with questions deferred to discussion at the end of the breakout session) Identification and Characterization of Environmental Micro- and Nanoparticles	Karin Mattsson (University of Gothenburg)

	Nanoparticle Measurements and Applications in Semiconductor Manufacturing	Wei-En Fu (ITRI)
	Accurate Measurement of Particle Number Concentration in Liquid at NMIJ: With Applications for Biomedical and Cellular Analyses	Hiromu Sakurai (NMIJ)
13:40	Break	
13:55	Discussion and formation of recommended actions	Paola Fiscaro (LNE)
14:40	Rejoin main session*	

* Participants from all three breakout rooms rejoin the main session

Breakout Group for Topic 3: Particles in biological materials and pharmaceuticals

12:20	Welcome and any further instructions	Jonathan Campbell (LGC)
12:25	NMI/DI perspectives and activities: Characterisation of Nanomaterials in Complex Biological and Medical Samples: Advances and Challenges Imposed by Regulation	Heidi Goenaga-Infante (LGC)
12:40	Invited presentations (15 min each, with questions deferred to discussion at the end of the breakout session) Physicochemical Characterization of Nanomedicines: Characterization Considerations and Challenges One Size Does Not Fit All: Challenges of Particle Size Measurement in Pharmaceutical Applications Analytical Characterization of LNP-RNA Nanovaccines	Jeffrey Clogston (Leidos Biomedical Research) Xiaoming Xu (US FDA) Luigi Calzolari (JRC)
13:40	Break	
13:55	Discussion and formation of recommended actions	Jonathan Campbell (LGC)
14:40	Rejoin main session*	

*Participants from all three breakout rooms rejoin the main session

Continuation of Main Session

14:45	Questions, observations, and brief discussion	Moderated by Caterina Minelli (NPL)
15:00	Close of Day 2	Caterina Minelli (NPL)

DAY 3 Plenary Part B (27 October 2022)

12:00	Welcome and instructions	Michael Winchester (NIST)
12:10	Report from breakout group for topic 1 Questions for clarification	Richard Brown (NPL)
12:25	Report from breakout group for topic 2 Questions for clarification	Paola Fisicaro (LNE)
12:40	Report from breakout group for topic 3 Questions for clarification	Jonathan Campbell (LGC)
12:55	Break	
13:20	Discussion and formation of globally recommended actions	Moderated by Michael Winchester (NIST)
14:20	Closing comments	Michael Winchester (NIST)
14:30	Close of workshop	Michael Winchester (NIST)