

BNASS 2024 Programme

Time	Wednesday 11 th September: Main Programme
12:30-13:30	Registration and Lunch
13:30-13:40	Welcome address: BNASS 2024 Organising Committee
Session 1: Laser Ablation and Instrumental Advances	
13:40-14:20	Keynote: Thibaut van Acker, Ghent University, Belgium The occurrence and drawbacks of two-phase aerosol transport upon ablation of soft biological matrices using nanosecond laser ablation-inductively coupled plasma-mass spectrometry
14:20-14:40	Nathan Westwood, Loughborough University, United Kingdom The application of LA-ICP-MC-MS for quantified, high spatial resolution imaging of Pb-Pb isotope ratios in ferromanganese crusts
14:40-15:00	Amy Lovejoy, Imperial College London, United Kingdom The effect of histological processing on indigenous elemental content and distribution in breast tumour tissue sections
15:00-15:30	Refreshment break
15:30-15:50	Phil Shaw, Nu Instruments, Wrexham, United Kingdom “Please sir, can I have some more?” – more elements, more dynamic range, more pixels, more samples! Getting the most out of time of flight ICP-MS and kHz laser ablation systems.
15:50-16:10	David Price, PerkinElmer, Seer Green, United Kingdom Overcoming High-Complexity ICP-MS Tasks
16:10-16:30	Raimund Wahlen, Agilent Technologies, Stockport, United Kingdom Aerosol or liquid? A comparison of different dilution strategies for high-matrix ICP applications, including new automation approaches to reduce manual tasks in the lab.
16:30-17:00	Flash poster presentations
17:00-18:00	Poster session with refreshments
19:30	Evening Social Event – Paradiso on the South Bank



Time	Thursday 12 th September: Main Programme
Session 2: Spectroscopy in Aquatic Systems	
09:30-10:10	Keynote: Susan Little, University College London, United Kingdom Metal stable isotopes in the marine realm
10:10-10:30	Hui Xu, Imperial College London, United Kingdom Isotopic constraints on the biological and atmospheric controls of cadmium distribution in the Tropical North Atlantic
10:30-10:50	Bankole Walter Osungbemi, University of Strathclyde, Glasgow, United Kingdom Effect of different weathering processes on the adsorption of arsenic, cadmium, chromium and lead on polyethylene, poly(ethylene terephthalate), polypropylene and poly(vinyl chloride) microplastics
10:50-11:20	Refreshment break
11:20-11:40	David King, British Geological Survey, Nottingham, United Kingdom and Nottingham Trent University, United Kingdom A novel, robust field-sampling method for preserving mercury species associated with waters related to artisanal gold mining
11:40-12:00	Abayneh Ataro Ambushe, University of Johannesburg, South Africa Speciation of mercury in sediments using high performance liquid chromatography hyphenated to inductively coupled plasma-mass spectrometry and a thermo-desorption technique
12:00-12:20	Shaun Lancaster, Montanuniversität Leoben, Austria An unconventional approach to the determination of oxygen isotope ratios in water using inductively coupled plasma – tandem mass spectrometry
12:20-13:20	Lunch and poster session
13:20-14:10	Roundtable Discussion – Sustainability in the Laboratory
Session 3: Single Particle and Single Cell ICP-MS	
14:10-14:50	Keynote: David Clases, Universität Graz, Austria Gaining new perspective on the nano- and microscale: Combining elemental mass spectrometry and optical methods to characterise single particles
14:50-15:10	Elizabeth Leese, HSE, Buxton, United Kingdom Biomonitoring for respirable crystalline silica: the determination of Si-containing particles in exhaled breath condensate using single particle inductively coupled mass spectrometry.
15:10-15:30	Refreshment break
15:30-15:50	Ariane Donard, Nu Instruments, Wrexham, United Kingdom When is a particle of interest? Single particle time of flight ICP-MS as a tool to determine particle numbers and true compositions.



15:50-16:10	Antonio Bazo, University of Zaragoza, Spain Revisiting single-particle ICP-mass spectrometry (SP-ICP-MS) approaches for micro/nano quantification of discrete entities
16:10-16:30	Rob Clough, University of Plymouth, United Kingdom A fish tissue reference material certified for Ag nanoparticles? Progress so far.
16:30-16:50	Philip Holdship, University of Oxford, United Kingdom Precise quantification of metal uptake in cells by single cell ICP-MS
16:50-17:10	Refreshment break
17:10-18:00	Roundtable Discussion – Equity, Diversity and Inclusion in Science
19:00	Evening Social Event - Conference Dinner at Neon 194



Time	Friday 13 th September: Main Programme
Session 4: Environmental Analysis	
09:30-10:10	Keynote: Tea Zuliani, Jožef Stefan Institute, Slovenia High-precision analysis of non-traditional isotopes in environmental research
10:10-10:30	Emma Braysher, National Physical Laboratory, Teddington, United Kingdom Isotope ratio measurements using ICP-MS/MS for source attribution of priority pollutants in air
10:30-10:50	Pierre Couture, Surrey Ion Beam Centre, Guildford, United Kingdom Passive air quality investigation of leaves, moss and trees using Ion Beam Analysis techniques
10.50-11.30	Refreshment break
11.30-11.50	Julian Cardini, Technical University of Denmark, Kongens Lyngby, Denmark Advancements in Multi-Element Speciation: A Novel Approach for the Identification of Chelating Compounds Using SEC-ICP-MS/MS and SEC-QTOF-MS with a Focus on Cadmium in Plant-Based Foods
11.50-12.10	Hau Lam Jody Cheong, National Physical Laboratory, Teddington, United Kingdom Characterising chemical composition in brake wear using tandem inductively coupled plasma mass spectrometry (ICP-MS/MS)
12.10-12.30	Saskia Burke, National Physical Laboratory, Teddington, United Kingdom Measurement of cosmogenic Silicon-32 using inductively coupled plasma tandem mass spectrometry
12.30-12.50	Emma Braysher on behalf of Ben Russell, National Physical Laboratory, Teddington, United Kingdom Investigating inductively coupled plasma tandem mass spectrometry for measuring challenging radionuclides in steel samples as part of an interlaboratory comparison exercise
12:50-13.00	Close and Final Remarks: BNASS Organising Committee
13:00	Lunch and depart