RSC INTEREST GROUP
ATOMIC SPECTROSCOPY

BNASS 2024 Draft Programme (July 2024)

Note that this is a preliminary programme and is subject to change. For latest details please check the website.

Time	Wednesday 11th September: Main Programme
12:30-13:30	**Registration and Lunch**
13:30-13:45	**Welcome address:** BNASS 2024 Organising Committee
Session 1: Laser Ablation and Instrumental Advances	
13:45-14:25	**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
14:25-14:45	**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
14:45-15:05	**Amy Lovejoy, Imperial College London, United Kingdom** The effect of histological processing on indigenous elemental content and distribution in breast tumour tissue sections
15:05-15:40	**Refreshment break**
15:40-16:00	**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.
16:00-16:20	**David Price, PerkinElmer, Seer Green, United Kingdom** Overcoming High-Complexity ICP-MS Tasks
16:20-16:50	**Lightning poster talks**
16:50-18:00	**Drinks reception and poster session**
19.00	**Evening Social Event – Paradiso on the South Bank**

Time	Thursday 12th 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 Osungbemiro, 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	**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
11:40-12:00	**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
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**
13:20-14:10	**Roundtable Discussion – Topic TBC**
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	**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.
15:30-16:00	**Refreshment break**

16:00-16:20	**Antonio Bazo, University of Zaragoza, Spain** Revisiting single-particle ICP-mass spectrometry (SP-ICP-MS) approaches for micro/nano quantification of discrete entities
16:20-16:40	**Rob Clough, University of Plymouth, United Kingdom** A fish tissue reference material certified for Ag nanoparticles? Progress so far.
16:40-17.00	**Philip Holdship, University of Oxford, United Kingdom** Precise quantification of metal uptake in cells by single cell ICP-MS
17:00-18:00	**Roundtable Discussion – Topic TBC**
18:00-19:00	**Drinks reception and poster session**
19:00	**Evening Social Event - Conference Dinner at Neon 194**

Time	Friday 13th 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	**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**