

Analytical Research Forum 2012
2 – 4 July 2012, Durham University, UK

Programme

Monday 2 July 2012

12:00	Registration
13:45	Welcome and Introduction Dr Ritu Katakya (Conference Chair) <i>Durham University, UK</i>
Session 1	Session Chair: <i>Dr Hendrik Nahler, Durham University, UK</i>
14:00-14:45 K02	KEYNOTE: Bio-Integrated Sensors and Electronics Professor John Rogers <i>Beckman Institute, University of Illinois at Urbana-Champaign, USA</i>
14:45-15:05 O01	Improving the sensitivity of proton transfer reaction-time of flight-mass spectrometry: Hadamard transform mass spectrometry and radio frequency funnel technology Shane B Barber*, Robert S Blake, Iain R White, Christopher Whyte, Kevin P Wyche, Paul S Monks and Andrew M Ellis <i>University of Leicester, UK</i>
15:05-15:25 O02	Quantitative nanosensing of multiple biomolecule interactions in real time Derek Craig *, Duncan Graham and Karen Faulds <i>University of Strathclyde, UK</i>
15:25	Afternoon Tea
16:00-16:20 O03	The analysis of gunshot residue and biological fluids with capillary-scale ion chromatography and suppressed conductivity detection Elizabeth Gilchrist*, Norman Smith and Leon Barron <i>King's College London, UK</i>
16:20-16:40 O04	Impedimetric detection of MRSA from clinical isolates Damion K Corrigan*, Holger Schulze, Grace Henihan, Ilenia Ciani, Gerard Geraud, Jonathan G Terry, Anthony J Walton, Ron Pethig, Peter Ghazal, Jason Crain, Colin J Campbell, Andy R Mount and Till Bachmann <i>University of Edinburgh, UK</i>
16:40	Poster session and wine reception
18:30	Close of sessions
19:00 – 21:00	Dinner

Tuesday 3 July 2012 (morning)

Session 2	Session Chair: <i>Dr Jackie A. Mosely, Durham University, UK</i>
09:00-09:45 K01	KEYNOTE: Discovery of biomarkers for clinical science: Finding, validating and understanding? Dr Don Jones <i>University of Leicester, UK</i>
09:45-10:05 O05	Electroanalysis at junction electrodes Grace E. M. Lewis*, Sara E. C. Dale, Barbara Kaprzyk-Hordern and Frank Marken <i>University of Bath, UK</i>
10:05-10:25 O06	Surface enhanced Raman scattering investigation of hollow gold nanospheres Hai-nan Xie*, Iain A. Larmour, Karen Faulds and Duncan Graham <i>University of Strathclyde, UK</i>
10:25-10:45 O07	Electrochemical Impedance Characterisation of Self Assembled Monolayer at Gold Electrode Surface for Chiral Discrimination and DNA Immobilisation Alice Delcourt-Lançon*, Ritu Katakya and David Wood <i>Durham University, UK</i>
10:45	Morning Coffee
11:20-11:40 O08	Mass spectrometry analysis of synthetic polymers from the solid state using a direct ambient ionisation technique Michael J P Smith*, Jackie A Mosely, Neil R Cameron, David Parker, Peter Stokes and Aruna S Prakash <i>Durham University, UK</i>
11:40-12:00 O09	Porous graphitic nano-templated carbon monolith: preparation, characterisation and application as extraction sorbent Xiaoyun He*, Ekaterina P Nesterenko, Brett Paull, Pavel N Nesterenko and Dermot Brabazon <i>Dublin City University, Republic of Ireland</i>
12:00-12:10 O10	Olex 2 demonstration Dr Horst Puschmann <i>Durham University, UK</i>
12:10	Lunch and poster session

Tuesday 3 July 2012 (afternoon)

Session 3	Session Chair: <i>Dr Ritu Katakya, Durham University, UK</i>
14:00-14:45 K03	KEYNOTE: New Directions in Nanoscale Electrochemical Imaging Professor Patrick R. Unwin*, Stanley C. S. Lai, Kim McKelvey, Aleix G. Güell, Neil Ebejer, Anisha N. Patel, Michael E. Snowden, Michael A. O'Connell, Hollie V. Patten, Katherine E. Meadows, Julie V. Macpherson, Robert A. Lazenby, Massimo Peruffo, Barak D. B. Aaronson, Changhui Chen and Alexander W. Colburn <i>University of Warwick, UK</i>
14:45-15:05 O11	Detection of protein biomarkers for disease diagnosis using dip-pen nanolithography and resonance Raman spectroscopy Stacey Laing*, Eleanore Jane Irvine, Aaron Hernandez-Santana, Karen Faulds and Duncan Graham <i>University of Strathclyde, UK</i>
15:05-15:25 O12	Role of MTHFR gene mutation and altered homocysteine levels in predisposition to hepatobiliary anomalies Manab Deka* and Bharati Barua <i>Gauhati University, India</i>
15:25	Afternoon Tea
16:00-16:20 O13	The effect of ethanol ingestion on the reliable detection of testosterone doping in sport Joana Lobo Vicente*, Chris J Walker, Alfonso M Lostia, Andrew T Kicman and David A Cowan <i>King's College London, UK</i>
16:20-16:40 O14	Determination of opium alkaloids in harvested and thermally processed poppy seeds Michelle Carlin*, Jennifer M Ames and Justin J Perry <i>Northumbria, UK</i>
16:40-17:00 O15	Bilayer lipid membranes modified with bio-electroactive molecules Rui Campos* and Ritu Katakya <i>Durham University, UK</i>
19:30	Pre-dinner drinks at Durham Castle
20:00	Conference banquet at Durham Castle
22:00	Cash bar

Wednesday 4 July 2012

Session 4	Session Chair: <i>Professor David Parker, Durham University, UK</i>
09:15-10:00 K04	KEYNOTE: Cancer diagnosis using Raman spectroscopy Professor Simon Herrington <i>University of Dundee, UK</i>
10:00-10:20 O16	Developing a mass spectrometry based assay to monitor protease activity in plasma to predict a patient's response to cancer treatment David N Potier*, John R Griffiths, Michael J Walker, Richard D Unwin, Duncan Smith, Yvonne Connolly, Ralf Hoffmann and Anthony D Whetton <i>University of Manchester, UK</i>
10:20	Morning Coffee
11:00-11:30 A01	The JPAG Geoffrey Phillips Analytical Science Award winner 2012 Investigating drug-micelle interactions using titration calorimetry Laura Waters <i>University of Huddersfield, UK</i>
11:30-12:00 A02	The Ronald Belcher Award winner 2012 Novel tools for polymer monolithic capillary column production and chromatographic application David A. Collins*, Ekaterina P. Nesterenko, Dermot Brabazon and Brett Paull <i>Dublin City University, Republic of Ireland</i>
12:00	Conclusion and poster prize
12:30	Close of Conference

* Denotes presenting author