

ANALYTICAL MATTERS



ISSUE 5 – SUMMER EDITION

UPCOMING EVENTS

A selection of analytical events coming up in the next few months

Analytical Research Forum

7th July 2017, London

[more information](#)

7th EuCheMS Chemistry Congress

26th-30th August 2017, Liverpool

[more information](#)

Bright Spark Symposium

11th September 2017, Bath

[more information](#)

Electrochem 2017

11th-12th September 2017,

Birmingham

[more information](#)

AVAILABLE RESOURCES

Analytical Methods Committee Technical Briefs

Technical information on a wide range of analytical techniques, found [here](#)

RSC online CPD

[Log](#) your continuing professional development

Welcome to the fifth issue of Analytical Matters, the e-newsletter of the Analytical Division of the Royal Society of Chemistry. Analytical Matters aims to showcase the wide range of analytical science activities being run across the Royal Society of Chemistry Analytical Division by the various analytical member groups as well as linking with parts of the UK analytical community beyond our membership. Please send your feedback and any content for the next issue by September 30th by emailing the Editor [here](#).

With my very best wishes,

Melissa Hanna-Brown FRSC

President, RSC Analytical Division



NEWS

One for the diary: Glasgow to host Spring SciX 2018

[Spring SciX](#) is a UK-based meeting of the successful SciX series, covering a wide range of analytical chemistry research, with a focus on early career researchers. Join leaders in the analytical sciences as they present progress on emergent topics, meet with exhibitors, and network over four days in Glasgow. The event will run from April 17-20th 2018, with registration and abstract submission to open Fall 2017.



HTC-15

24th - 26th January 2018
Cardiff, UK

15th International Symposium on Hyphenated Techniques in Chromatography and Separation Technology



15th International Symposium on Hyphenated Techniques in Chromatography and Separation Technology

[HTC-15](#) will be the premier conference in hyphenated separation techniques in 2018 hosted at Cardiff City Hall in Wales and will welcome international leaders, early career researchers and exhibitors in the field to cover all fundamental aspects, instrumental developments and applications of hyphenated techniques.

FEATURED EVENT

Analytical Research Forum 2017



The Analytical Research Forum (ARF) provides a high impact scientific meeting for the UK analytical community with both high profile speakers and opportunities for younger researchers to present their work.

Subjects covered will include the use of techniques from mass spectrometry and separation science through to Raman spectrometry, sensors and microfluidics, in applications ranging from biologically and medically related challenges to environmental analysis, art and archaeology.

Our one day format includes keynotes and invited talks plus additional oral papers selected by the Scientific Committee from the submitted abstracts. The flash poster session enables yet more participants to share their work in this exciting interdisciplinary meeting for the analytical science community. In addition to opportunities during lunch and refreshment breaks to view the posters and exhibition, additional networking will be possible during an extended evening event which will include a buffet and end with a wine reception.

The Scientific Committee look forward to welcoming you to Burlington House, Piccadilly, London on 7 July. Register [here](#).

Schools Analyst Competition – First ever heats in Ireland

The inaugural heat in the Republic of Ireland for the Schools Analyst Competition was run on the 25th April 2017 at Dublin City University. A total of 7 Schools participated on the day in a practical competition that concerned the analysis of a new fizzy drink, 'Orangerina'. The students used wet chemistry, spectrometric and liquid chromatographic methods. Drs Pat O'Malley (DCU), Eric Moore (UCC) and Aoife Morrin (DCU) were the judges of the competition. The winner of this heat was a strong team from Patrician College. Second place and third place were awarded to Colaiste Eanna, and Rathfarnham and Dominican College, Glasnevin, respectively. All students received RSC goodie bags (courtesy of John O'Donoghue) and certificates and the top three teams were awarded Schools' Analyst prizes.



DCU Heat (pictured left): Photograph (L-R): Mary Ross, John O'Donoghue, George Marston, Michael Martin, Dr Kieran Nolan, Kieran Slavin, Dr. Pat O'Malley, Veronica Dobbyn, Dr. Eric Moore, Aisling McCarthy, Dr. Aoife Morrin.

A second heat was run at University College Cork (UCC) on the 27th April. Similar to Dublin, the competition was well run, again with strong support from the technical and academic teams. Five teams competed in this competition heat. The winning team in this heat was Coláiste an Chroí Naofa, Cork. Second and third places were given to Christ the King Secondary School and Coláiste na Toirbhirte (Bandon). All students who participated received certificates and an RSC goodie bag.

UCC Heat. Photograph (L-R): Noel Browne, Dr. Anna Hogan, Dr. Eric Moore, Niamh O'Sullivan, Michael Condon, Sean Lyons, Tristan Guichard, Dr. Aoife Morrin, Dr. Elizabeth Gilchrist, John Meehan.



The overall winning team, from each heat, went forward to represent the Republic of Ireland in the Schools' Analyst Final in Sussex were selected to be Coláiste an Chroí Naofa, Cork and Patrician College, Monaghan.

RSC analytical Award at Pittcon

Kirsty Penkman from the University of York was presented with the 2016 RSC Joseph Black Award during this year's Pittcon meeting in Chicago in March.



Kirsty pictured left centre with other participants (L-R): Becky Brodie (RSC Publishing), Mak A. Saito (Woods Hole Oceanographic Institution), Ariel Anbar (Arizona State University), Leslie Hicks (University North Carolina Chapel Hill), and Duncan Graham (Strathclyde University and AD President elect)

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FEATURED EVENT

The Analytical Science Network's

Bright Spark Symposium 2017

CALL FOR ORAL AND POSTER PRESENTATIONS

The Analytical Science Network invites you to the second Bright Spark Symposium on the 11th of September 2017 at the University of Bath. The 1-day event aims to provide a low-pressure, friendly platform for early career analytical scientists to present their work to like-minded individuals and provide networking opportunities.

The event is **free** to attend, but spaces are limited. Please register/submit an abstract as soon as possible to avoid disappointment. Register at:

<https://www.analyticalsciencenetwork.co.uk/bssregistration>

Or, for more information email Jack Rice at asnenquiries@hotmail.co.uk

REVIEWS

Schools Analyst Competition – The Final

The 28th Final of the National Schools' Analyst Competition was held on the 21 / 22 June 2017 at Sussex University. All attendees were welcomed to the Competition by the Pro-Vice-Chancellor (Learning and Teaching) Professor Clare Mackie, Dr Shane Lo Fan Hin (Competition organiser) and Professor John R Dean (on behalf of the RSC/AD and ACTF). For this year's final, Dr Shane Lo Fan Hin devised a programme of experiments around an environmental and pollution theme. The teams had to carry out four experiments: determination of the concentration of copper using UV-visible spectroscopy; determination of the concentration of salicyladoxime using high performance liquid chromatography with UV detection; determination of sulfuric acid concentration by titration; and, identification of plastics from their densities.

The winning team of year 12 students came from Sir John Deane's College, representing the North West Region of the Analytical Division.



The photograph above shows the winning team comprising Amelia Whitehead, Ben Mayoh and Alison Hutchinson accompanied by their teacher Anne Thomas with the local organiser (Dr Shane Lo Fan Hin) and Prof. John R. Dean (on behalf of the RSC/AD and ACTF). (L-R): Prof. John R. Dean, Dr Shane Lo Fan Hin, Amelia Whitehead, Ben Mayoh, Alison Hutchinson and Anne Thomas.

The School received a prize of £3000 together with Amazon Vouchers of £75 to each of the three team members. The School was presented with an engraved glass trophy on behalf of the sponsors the Analytical Chemistry Trust Fund.

The runners-up were the team from Withington Girls' School, representing the North West Region. The school received £2000 with the team members (Lorna Mayo, Isobel McIntyre and Georgia Yiasoumi) receiving £50 vouchers each. The team coming third was Strode's College, representing the South East Region, and they received £1000 and £25 vouchers to each of the team members (Willow Rolls, Joshua Passey and Kerry Turcsi). The judges for this year's competition were Dr Ian Crossley, Mr Kevin Clark, Prof. John Newberry (RSC AD South East Region) and Prof. John R. Dean (on behalf of the Royal Society of Chemistry Analytical Division), who also chaired the judging panel and awarded the prizes.

Thank you for making the 2017 competition the most successful ever with 306 schools' participating. Thank you to the 918 year 12 students for their enthusiasm in actively engaging in analytical chemistry, and the teachers who have supported their students in attending the competition. I hope that some of the year 12 students who participated in the competition, either during the heats and the final, will have been enthused by their experiences to go on to study Chemistry at University, and maybe choose Analytical Science as a future career.

Finally, heats of the competition start again in early 2018 throughout each of the Analytical Division Regions and culminate in the final. In 2018 we are delighted that Bangor University has agreed to host the final on Wednesday 20 & Thursday 21 June 2018.

Report by John R. Dean

Professor of Analytical and Environmental Sciences, Northumbria University.

Coordinator for the National Schools' Analyst Competition on behalf of the RSC/AD and ACTF.

Email: John.Dean@northumbria.ac.uk

Emerging Analytical Professionals (EAP) 2017 – The Theory of Everything

The 22nd annual conference of the Analytical Science Network (ASN), Emerging Analytical Professionals (EAP), was held in Kettering from the 12th - 14th May 2017. Under the banner of 'The Theory of Everything' EAP 2017 showcased a variety of analytical techniques used for detecting all types of compounds. Keynote talks included "Molecule to Medicine – Analytical challenges and opportunities" by Dr Melissa-Hanna Brown (Pfizer Technology and Innovation Lead) and "Sex, drugs and water quality" by Professor Rachel Gomes (University of Nottingham).

70 delegates from both industry and academia attended the conference from universities across the UK and companies such as AstraZeneca, Eurofins, GSK, the Home Office, LGC, National Physical Laboratory (NPL) and Pfizer, showcasing over 30 posters on their work.

The conference consisted of a programme packed with general interest talks, specialist technique lectures and professional training with respected invited speakers. Dayna Mason from the Royal Society of Chemistry (RSC) gave training on Public Outreach and Achieving Chartered Status to provide interactive 'soft-skills' training for career enhancement.

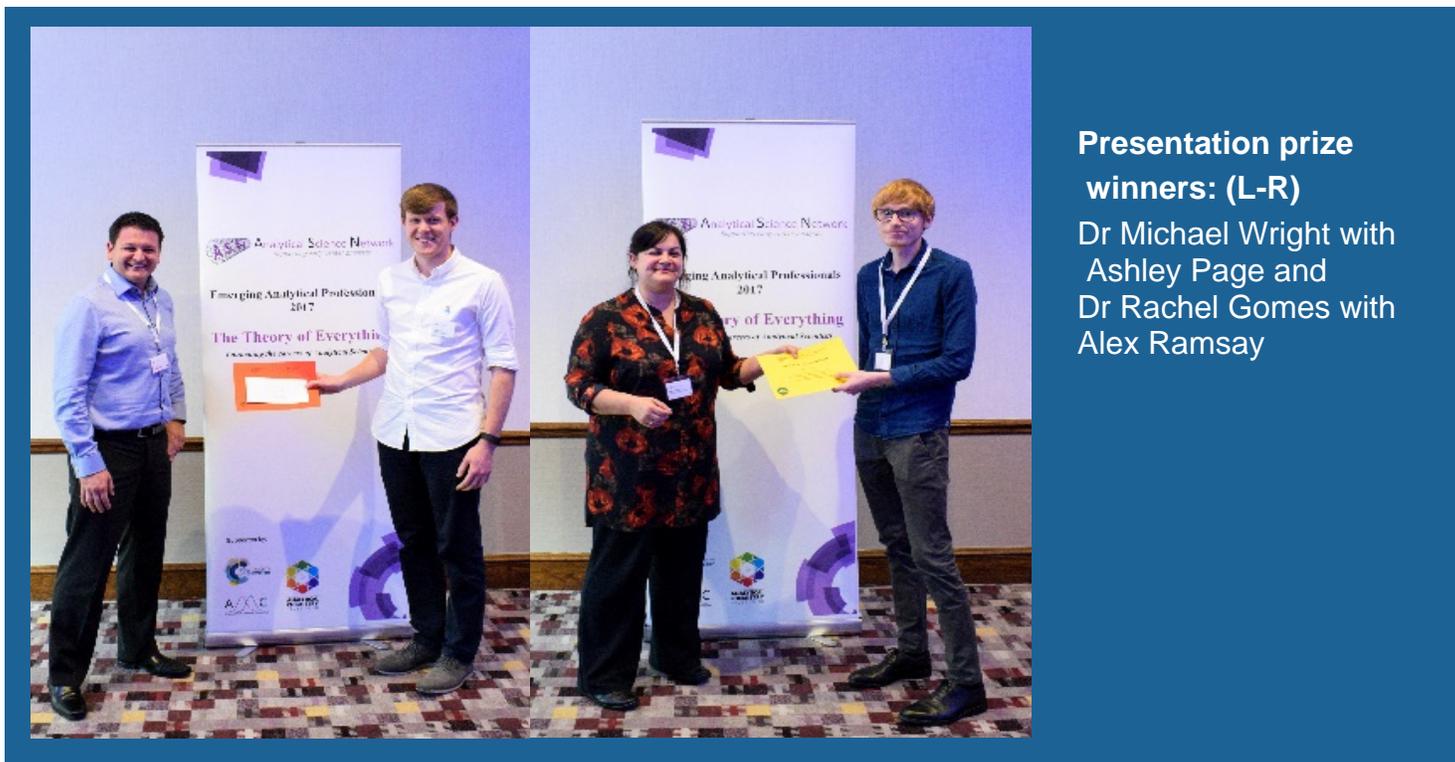
Thanks to numerous sponsors, a number of prizes were awarded to early career delegates on the final day of the conference. Poster pitch prizes were sponsored by the Analytical Chemistry Trust Fund (ACTF). The winner of the Peoples' Choice Award was Amelia Thomas-Wilson from the Home Office (CAST). The ASN prize was awarded to Megan Evans from LGC by ACTF representative, David



Poster prize winners: (L-R) Amelia Thomas-Wilson (Peoples' Choice Award), Megan Evans (ASN Award), Caitlin Harding (ACTF Prize) and David Olivenza-Leon (Analytical Methods Committee Prize)

Ferguson. Invited speakers Professor Robert Hillman from the University of Leicester and Dr Stanislav Strekopytov from the Natural History Museum judged delegates posters. The ACTF sponsored prize was awarded to Caitlin Harding from LGC and David Olivenza-Leon from the University of Birmingham was awarded the Analytical Methods Committee sponsored prize.

Six Bright Spark oral presentations were given by early career delegates and were judged by Rachel Gomes from the University of Nottingham and Michael Wright from LGC. Ashley Page from the University of Warwick was awarded the SSG sponsored prize and also won the opportunity to attend the 2018 SciX conference. The LGC sponsored prize was awarded to Alex Ramsay from LGC.



The next Emerging Analytical Professionals Conference will be held on the 11th-13th of May 2018 in Knutsford.

For more details on the EAP 2017 conference and future ASN events, visit our [website](#) or follow us on [Facebook](#), [Twitter](#) and [LinkedIn](#).

Website: <https://www.analyticalsciencenetwork.co.uk/>

Facebook & LinkedIn: Analytical Science Network

Twitter: @ASN_EAP

Report by Mike Skinner

Analytical Science Network Committee

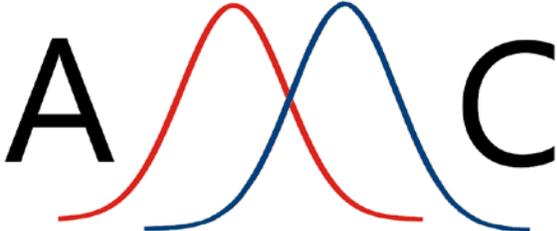
ANNOUNCEMENTS

Analytical Methods Committee Update

New Analytical Methods Committee (AMC) Technical Brief, No. 77, [X-ray fluorescence \(XRF\) analysis of porcelain: Background paper](#) released.

This technical brief outlines how X-ray fluorescence (XRF) can be used for the investigation of cultural heritage objects made of porcelain. It discusses the types of questions that can be answered with XRF and provides an overview of how the method works.

AMC Technical Briefs
are produced by the Analytical Methods Committee (AMC) - the branch of the Analytical Division that handles matters of technical importance to the analytical science community.
Find out more at: www.rsc.org/amc



The Analytical Methods Committee

Analytical Chemistry Trust Fund Update



**ANALYTICAL
CHEMISTRY**
TRUST FUND

ACTF, an independent charity (Reg. No. 268893) was established in 1974. It is closely associated with the Analytical Division of the Royal Society of Chemistry. Its primary task is to support analytical science in the UK and abroad. It uses the returns from its capital investments to spend a significant sum supporting PhD programmes, summer studentships, research fellowships and support for analytical conferences as well as educational initiatives. For further details please see the Analytical Chemistry Trust Fund [webpage](#).

AWARDS

The Analytical Division congratulates the most recent winners of the Royal Society of Chemistry Awards with analytical science focus.

Royal Society of Chemistry – Sir George Stokes Award Winner 2017

Professor Tony Cass
Imperial College London

Awarded for translating research in biomolecular engineering and nanotechnology into new analytical devices and reagents to improve human and animal health

Find out more about Tony [here](#).



Royal Society of Chemistry – Joseph Black Award Winner 2017

Dr Nicholle Bell
University of Edinburgh

Awarded for innovative developments in the teaching and practice of spectroscopy

Find out more about Nicholle [here](#).



Royal Society of Chemistry – Ronald Belcher Award Winner 2017

Mr Matthew Wallace
University of Liverpool

Awarded for development of novel NMR methods for characterisation of gel fibres in NMR invisible soft materials

Find out more about Matthew [here](#).





Royal Society of Chemistry –Theophilus Redwood Award Winner 2017

Professor Christopher Elliot

Institute for Global Food Security, Queen's University Belfast

Awarded for the development, application and promotion of analytical chemistry in protecting the global food supply

Find out more about Chris [here](#).

Time to get nominating...Gordon F. Kirkbright Bursary Award, 2018

The Gordon F. Kirkbright bursary award is a prestigious annual award that enables a promising student/non-tenured young scientist of any nation to attend a recognised scientific meeting or visit a place of learning.

The fund for this bursary was established in 1985 as a memorial to Professor Gordon Kirkbright in recognition of his contributions to analytical spectroscopy and to science in general. Although the fund is administered by the Association of British Spectroscopists (ABS) Trust, the award is not restricted to spectroscopists.

Applications are invited for the 2018 Gordon Kirkbright Bursary. To download an Application Form or for further information visit, <http://www.abstrust.org/> or contact abstrustuk@gmail.com

The closing date for entries is 31 December 2017.

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