

ANALYTICAL MATTERS

ISSUE 13 – AUTUMN EDITION 2019

UPCOMING EVENTS

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

Joint Lecture of the RSC Analytical Division Scottish Region and the Andersonian Chemical Society

13th November, Glasgow
[more information](#)

Rapid Confirmation using MALDI-TOF III conference

10th December 2019, London
[more information](#)

7th Analytical Biosciences Early Career Researcher Meeting

5th March 2019, Cambridge
[more information](#)

Visit the [webpage](#) for more Analytical Events

CPD 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 thirteenth issue of Analytical Matters, the e-newsletter of the Analytical Division of the Royal Society of Chemistry (RSC). Analytical Matters aims to showcase the wide range of analytical science activities being run across the Royal Society of Chemistry Analytical Division as well as linking with parts of the UK analytical community beyond our membership.

The RSC 2020 prizes and award nominations are now open. There are a range of analytical awards available, including those for early career analytical scientists (Joseph Black and Ronald Belcher awards), industrial analysts (Industry award) and the Robert Boyle prize for outstanding contributions to analytical science for those established in the field. The Theophilus Redwood award aims to celebrate those promoting analytical science through science communication, and the Anne Bennett Award celebrates service to the RSC Analytical Division. We urge you to nominate the outstanding analytical scientists that you work with to ensure that their contributions are recognised. Nominations close 15 January 2020.

The 2019 L S Theobald Lectureship recipient, Dr Lucia Burgio, will be giving the Theobald Lecture in early 2020, which promises to be an exciting event exploring "*Between Science and Art: investigating, understanding and protecting our cultural heritage.*" We hope to see a large portion of our community there. More details inside.

We also take this opportunity to wish our community a great Christmas and a Happy New Year.

Please send your feedback and any content for the next issue by January 31st by emailing the Editor [here](#).

With my very best wishes,

Duncan Graham FRSC

President, RSC Analytical Division



NOMINATIONS FOR THE 2020 PRIZES AND AWARDS ARE NOW OPEN

Who do you know that's deserving of some recognition?

Making a nomination is your chance to help recognise the outstanding work happening in analytical science. The analytical chemistry awards open for nomination in 2020 are:

Early Career Awards	<ul style="list-style-type: none">• Joseph Black Award - for an early career scientist in any field covering the practice and teaching of analytical science.• Ronald Belcher Award - given for work on an analytical topic, by a graduate of a British or Irish university.
Science Communication Award	<ul style="list-style-type: none">• Theophilus Redwood Award – given to a leading analytical scientist who is an outstanding communicator
Established Practitioner Award	<ul style="list-style-type: none">• Robert Boyle Prize for Analytical Science - awarded for outstanding contributions to analytical science.
Industry Award	<ul style="list-style-type: none">• Industrial Analytical Science Award – recognises the work of industrial analytical scientists and given for outstanding contribution to analytical technology or methodology in industry.
Voluntary Service Award	<ul style="list-style-type: none">• Anne Bennett Memorial Award for Distinguished Service - recognises exceptional voluntary services over a period of years to the RSC Analytical Division.

Visit the [webpage](#) to find out how you can nominate individuals and teams who are making a positive impact for analytical science.

Not sure how to write a nomination? Read our [guidance for nominators](#) to find out more.

Nominations close 15 January 2020!

FUNDING AVAILABLE FROM THE ANALYTICAL DIVISION

Travel Grants for PhD Students and Early Career Scientists

Members can apply to the Analytical Division for a competitive travel grant to attend any scientific conference or workshop anywhere in the world. Grants are available to cover domestic (up to £200), continental (up to £400) and intercontinental (up to £800) travel to meetings where applicants give oral or poster presentations (we will also consider applicants not intending to present if their attendance will be a significant benefit to their career). Applications are assessed on a monthly basis – apply online [here](#).

Scientific Meetings Grant

You can apply to the Analytical Division for up to £2000 to support your scientific meeting, including (but not limited to) scientifically enhancing your own existing meetings (international speaker expenses, for example) or fully supporting a "no frills" research meeting or workshop. Applications are judged every 3 months and the next closing date is **30 November 2019** – apply online [here](#).

OTHER RSC FUNDING OPPORTUNITIES

RSC Grants for Carers

The RSC has recently launched Grants for Carers. These grants have been introduced following the *Breaking the Barriers* report which found that 78% of chemists working in UK academia felt that managing parenting and/or caring responsibilities had an impact on women's retention and progression. Open to anyone with caring responsibilities, you can apply for up to £1,000 per year to support attendance at chemistry-related meetings, conferences or workshops or professional development events. For more details please visit the [Grants for Carers page](#), and please support us in spreading the word about these grants within your networks.

OTHER FUNDING OPPORTUNITIES

Analytical Chemistry Trust Fund (ACTF)

ACTF, an independent charity (Reg. No. 268893) was established in 1974. 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 programs, summer studentships, research fellowships and support for analytical conferences as well as educational initiatives.

Applications for Analytical Chemistry Summer Studentships close 25 January 2019.

For further details please see the Analytical Chemistry Trust Fund [webpage](#).



Cancer Research UK seeking multi-disciplinary research proposals for cancer early detection



Earlier detection of cancer is vital to improving patient outcomes and survival. To advance the science and technology that enables us to detect cancer, CRUK has dedicated funding for programme, project and pilot proposals in the area. Our broad remit includes early cancer cell biology, biomarker discovery and validation, and technology development with a line of sight to clinical and population impact.

Of particular interest to the Analytical Division, we are keen to receive proposals in:

- Advanced imaging technologies for cancer detection including novel modalities, novel probes, novel contrast agents
- Circulating marker detection technology: enhancement of sensitivity/specificity of detection technologies for ultra-low concentration circulating markers e.g. cells, DNA, proteins, exosomes
- Advanced detection technologies (nanotech, photonics, synthetic markers): engineering and physical science to enable novel methods of detection of very low-concentration markers

More information about our funding committee and award schemes can be found on our [website](#). Please feel free to contact us at early.detection@cancer.org.uk with any questions.

THE BRITISH MASS SPECTROMETRY SOCIETY

BMSS Summer Studentships 2020

- ★ Summer Studentships provide funding for a research project typically lasting 6-8 weeks.
 - ★ Up to £2000 per Research Project.
 - ★ Complimentary 5-Year BMSS membership offered to each selected student.
 - ★ Complimentary registration for one BMSS Introduction to Mass Spectrometry Training Course offered to each selected student.
 - ★ Complimentary registration for one BMSS Annual Meeting offered to each selected student.
 - ★ Travel assistance offered to each selected student to facilitate their attendance at one BMSS Annual Meeting/Training Course.
- ★ Students accepting complimentary registration for an Annual Meeting are expected to make a scientific contribution to that meeting.
 - ★ Applications must be made by research project supervisors.
 - ★ Research project applications may be submitted before a student is identified.
 - ★ The call for applications will open on Friday 15th November 2019 and close on Friday 17th January 2020.
 - ★ ENQUIRIES: The BMSS Education Officer
M.P.Barrow@warwick.ac.uk



COMMUNITY EVENTS OF INTEREST

BMSS Ambient Ionisation SIG Meeting February 6, 2020, University of Surrey

The Ambient Ionisation Special Interest Group was set-up to promote the development of new ambient ionisation techniques and the application of ambient ionisation to solve analytical challenges. Our previous meetings have attracted delegates from across Europe and as far away as the USA and Mexico. We have also had some of the key leaders in the ambient field, such as Professor Zoltan Takats, Professor Sarah Trimpin and Dr Chip Cody, deliver the most interesting lectures.

Our next meeting will be on the 6th February 2020 at the University of Surrey. There will be a series of exciting lectures covering a range of ambient ionisation related work, a poster session which will be an excellent opportunity for great discussions, and an exhibition to find out the latest commercial products. As always, early career researchers and students will be encouraged to deliver lectures and posters, with the Pete Ryan prize awarded to the best presentation." Find more information [here](#).



COMMUNITY EVENTS OF INTEREST

Theobald Lecture, Dr Lucia Burgio

Between Science and Art: investigating, understanding and protecting our cultural heritage

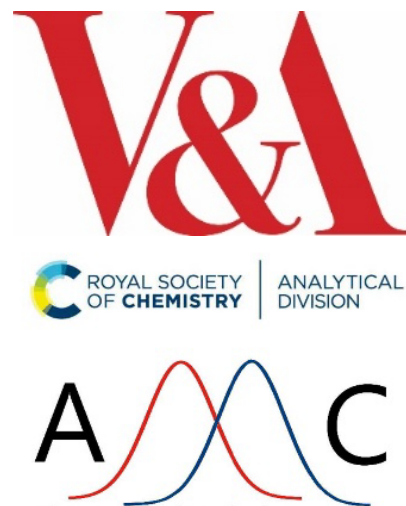
February 17, 2020, Hochhauser Auditorium, Victoria and Albert Museum

Join us at the Victoria and Albert Museum (V&A) for an afternoon with heritage scientists who work at the frontier of science and art, examining, analysing and preserving museum objects for future generations.

As part of the work championed by the Royal Society of Chemistry's Heritage Science Expert Working Group, Dr Lucia Burgio, Senior Scientist at the V&A, will give the 2019 LS Theobald Lecture, exploring a range of scientific investigations that take place at the V&A and revealing some of the most recent scientific discoveries about our collections. Presentations by a number of other heritage scientists will discuss environmental monitoring, the use of scientific methods in identifying artists' materials and dating porcelain, and some of the challenges involved in preserving modern materials such as plastics.

Organised in collaboration between the V&A Research Institute and the Royal Society of Chemistry's Analytical Methods Committee and the Analytical Methods Trust.

Further information available on the [webpage](#).



Join us and learn - What exactly does a Museum scientist do?

7th Analytical Biosciences Early Career Researcher Meeting

March 5-6, 2020, Glasgow



The Royal Society of Chemistry Analytical Biosciences Group Early Career Researcher Meeting (ECRM2020) will take place at the University of Strathclyde. The meeting is open to everyone and aims to engage early career researchers in debate and discussions about all areas of analytical biosciences, and provide the opportunity to network with other researchers in the field.

Keynote speakers will begin each session with an exciting founding perspective and vision of a technique, followed by peer-reviewed papers from early career researchers. Together, this will provide an overview of current research into new technologies and applications.

We aim to give delegates a broad overview of the current state of the art for analytical techniques, with detailed examples of their applications in biosciences. As such, each contribution will aim to demonstrate the quality and value of each methodology.

The oral abstract deadline is 20th December 2019. For more information or to submit an abstract visit the link [here](#).

COMMUNITY EVENTS OF INTEREST

Spring SCiX 2020

April 6-9, 2020, Liverpool, United Kingdom

SpringSciX is a European-based meeting of the successful SciX series, covering a wide range of analytical chemistry research, with a focus on early career researchers (ECRs). There will be opportunities for oral and poster presentations with the aim to establishing career mentors. The RSC's Analytical Division Council is sponsoring the meeting for ECRs.

The event will be held at the University of Liverpool, UK in early April, and the co-chairs are Roy Goodacre and Howbeer Muhamadali.

Three plenary speakers have been announced, including Sir Prof. Ian Gilmore, Dr Oliver Sutcliffe and Assoc. Prof. Hatice Altug where topics include the harm of alcohol, on-site drug testing and nanophotonics and biosensors will be discussed.

The meeting is arranged into two parallel sessions and including the plenaries there will be eighty speakers – many of them ECRs. The scientific sessions include Infrared and Raman spectroscopies, SERS, SORS, imaging spectroscopy: nano-IR & Coherent Raman, Mass Spectrometry, Metabolomics, Proteomics, Volatilomics, Lipidomics and Machine Learning.

Please make a note of the date and we hope to see you in Liverpool next year. **Further information available [here](#).**



Emerging Analytical Professionals (EAP) 2020

May 15-17, 2020, Kettering (Midlands), United Kingdom

The aim of the EAP weekend is to provide presentation, networking and continuing professional development (CPD) opportunities for early career researchers (ECRs) across all disciplines, open to both industry and academia. Each year we include general interest talks as well as specialist lectures, CPD and back-to-basics sessions, as well as our legendary fancy dress disco. Join us for our special 25th year of EAP!

ECR abstracts for oral presentations must be submitted by **31st January 2020** – [submit online here](#).

The poster for Emerging Analytical Professionals 2020 features a central yellow lightbulb on a dark blue background with a network of white nodes and lines. The text inside the lightbulb reads "2020 VISION: VIEWING ANALYTICAL SCIENCE IN A NEW LIGHT". Surrounding the lightbulb are various analytical chemistry terms: "spectrometry", "pharmaceuticals", "environmental", "safety & security", "electrochemistry", "spectroscopy", and "sport science".

EMERGING ANALYTICAL PROFESSIONALS 2020
15 - 17th May 2020. Kettering Park Hotel & Spa, Kettering
An all inclusive weekend conference aimed at early career analytical scientists and researchers in industry and academia

**2020 VISION:
VIEWING ANALYTICAL
SCIENCE IN A
NEW LIGHT**

Deadlines for abstract submission:
oral presentations - 31.01.2020
poster presentations - 31.03.2020

Bursaries available

ANALYTICAL CHEMISTRY TRUST FUND

ASN Analytical Science Network
Supporting early career analysts

To register visit:
www.analyticalsciencenetwork.co.uk
For enquiries email:
info@analyticalsciencenetwork.co.uk

ROYAL SOCIETY OF CHEMISTRY

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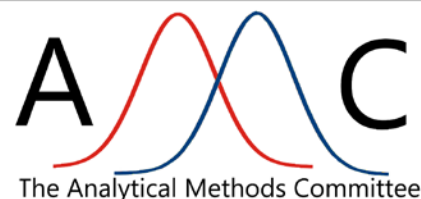
Analytical Methods Committee Technical Briefs

Technical Briefs published by the AMC are prepared by experts in the field to highlight recent information on topics of interest to the analytical chemistry community. In this edition we would like to highlight our latest technical briefs.

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

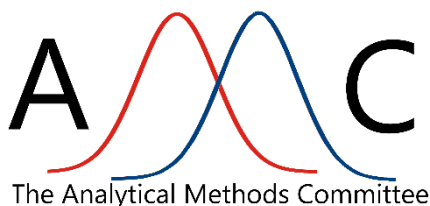


Technical Brief number 90: The role of accreditation in ensuring sampling quality. Available [here](#).

This Technical Brief explains how accreditation and certification of sampling is already in place in certain application sectors, and the potential benefits it can bring as it is applied to new sectors. Accreditations provides the framework within which both samplers and analytical chemists can demonstrate appropriate quality.

Abstract reads: Accreditation has proved effective in ensuring the quality of analytical measurements but is now increasingly being applied to primary sampling, as the first part of the measurement process. Several international standards relevant to accreditation of sampling are available, either for organisations undertaking the sampling (ISO/IEC 17025 or 17020), or for the certification of the sampler (i.e., the person who takes the samples) (ISO/IEC 17024). Achieving and demonstrating the fitness-for-purpose of chemical measurements requires a holistic approach to ensuring the quality of the sampling, sample preparation and analytical measurement. Accreditation provides the framework within which both samplers and analytical chemists can demonstrate appropriate quality.

For a related Technical Brief check out number 51: **Quality control of routine sampling in chemical analysis.** Available [here](#).



Looking to gain chartered status? The Analytical Methods Committee (AMC) provide Technical Briefs, ideal for supporting continuing professional development.

The Analytical Methods Committee (AMC) is the Committee of the Analytical Division (AD) that handles matters of technical importance to the Analytical Science Community. Made up of expert Sub-Committees and designated representatives, the broad aim of the AMC is to participate in national and international efforts to establish a comprehensive framework for appropriate quality in chemical measurement, often working alongside numerous accreditation services and governing bodies, such as DEFRA and UKAS.

To do this, we assist in the development and establishment of suitable performance criteria for methods and instruments; advise on the use and development of appropriate statistical methods and are deeply involved in identification and promulgation of best analytical practice, including aspects relating to sampling, instrumentation and materials.

The AMC produces Reports and regular Technical Briefs (TBs) on a wide range of analytical topics, published in the RSC journal *Analytical Methods*. We are also proud to support the overall AD aim of supporting Continuing Professional Development (CPD) with our TBs which can be used towards CPD certification.

Find more information and our Technical briefs at www.rsc.org/AMC
or follow us @RSC_AMC



L S Theobald Lectureship

Closing date for nominations: 15 January 2020

Nominations are invited for the L. S. Theobald Lectureship. The Lectureship is awarded by the Analytical Methods Trust to someone who has made significant contribution to analytical chemistry in an area of interest to the work of the Analytical Methods Committee (a committee of the RSC Analytical Division) and its Expert Working Groups. The award is open to all academic, industrial and public service scientists. It is not a requirement that the recipient should have been a member of AMC or have contributed directly to the work of the AMC.

The Analytical Methods Trust provides an honorarium of £500, together with a certificate, and covers reasonable expenses incurred in presenting the award lecture.

Further information on the [Lectureship and the nomination procedure](#) is available on the AMC website.

In Memoriam – Professor Stanley Greenfield CChem FRSC



It is with great sadness that we announce the death of Professor Stanley Greenfield earlier this year.

Stan was an active member of the Analytical Division and served as President from 1982 – 1984 and later served two further terms as a member of AD Council. His longest lasting contribution to the Analytical Division was in his role as the Founding Chairman of the Instrumental Criteria Sub-Committee of the Analytical Methods Committee. Stan's most famous achievement was his development of a high frequency inductively coupled plasma (ICP) as a high temperature source for emission spectrometry. You can read more about his life and work [here](#).

Competition to Design a New Logo for the Analytical Chemistry Trust Fund

Closing date for entries: 17th December 2010



The ACTF has been supporting analytical chemistry and measurement science in the UK and ROI since 1974.

We fund internships, studentships, travel grants, attendance at conferences, outreach, fellowships including to people from developing countries, and in partnership with CAMS-UK and Universities Lectureships, Post-Docs and Chair posts in Analytical and Measurement science. Our small group of trustees who are elected members of the RSC Analytical Division Council work to make the trust fund reach parts of Analytical Science that other funding does not reach.



We need a new logo to represent us and what we do and to help promote our activities in the UK and beyond. We are running a competition, closing date December 17th 2019 to design a new logo for the ACTF. A prize of £500 will be awarded to the winning entry, which will form part of our web presence and our written material.

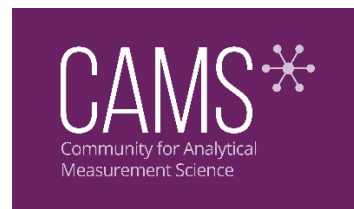
Terms: You must supply a high-quality image which should be recognisable and distinctive. It will be used as a letter head and on other marketing literature. You will give all rights to the image to the ACTF in perpetuity, but we will certainly celebrate the award winner.

High resolution images should be emailed to ruth@rhearn.net by 5 PM on the **17th December 2019**.

Community for Analytical Measurement Science (CAMS) Update

CAMS in the NEWS

There was an [article](#) by Dr Julian Braybrook (The Government Chemist) in the September edition of The Analytical Scientist. The piece emphasizes the importance of overarching institutions (such as CAMS) in supporting the development of frameworks to support the role of analytical science in business, society and science and technology. A second [article](#) by The Analytical Scientist focused specifically on the creation of CAMS and its aims with further comments by Julian and Melissa Hanna-Brown.



CAMS Membership Benefits

Whether you are an individual, a University, an SME, an instrument manufacturer or a multi-national organization there is a CAMS membership for you! The CAMS Membership Benefits have been formalized and added to the CAMS website – see [here](#) for further details. Our entry level option for individuals is Community Membership. It is free and all you need to do is to register via the [website](#).

CAMS Fellowship Awards 2019

The CAMS fellowship awards for 2019 have been announced. The purpose of the award is to assist early career analytical chemists within 5 years of their first full-time junior academic appointment at a UK or Irish HEI to establish their own independent analytical science research identity. Congratulations to this year's recipients:

- Dr Alice Bowen, University of Manchester, Optical control of spin-labels for dipolar EPR of multi-spin systems.
- Dr Zoe Hall, Imperial College London, Mapping cancer metabolism in time and space.
- Dr Niamh O'Boyle, Trinity College Dublin, Analysis of Skin Lipids in Contact Allergy by Mass Spectrometry.
- Dr Nuria Tapia-Ruiz, Lancaster University, Operando EXAFS studies on battery materials.
- Dr Maya Al-Sid-Cheikh, University of Surrey, Tracking nanoplastic particles in biological tissue

Thank you to the Analytical Chemistry Trust Fund for supporting these fellowships.

To promote relevant upcoming events on our website please send details to the secretariat. We also welcome contributions in the form of training materials, best practice guides or webinars.

Please stay connected, share your views and follow us on Twitter [@CAMS_UK](#) and LinkedIn <https://www.linkedin.com/company/cams-uk> Individuals or organizations interested in CAMS membership should please contact the secretariat at secretariat@cams-uk.co.uk.

Bright Spark Symposium 2019

The Bright Spark Symposium (BSS) took place on the 13th of September 2019, at the Huxley building in the University of Brighton. This annual meeting, hosted by the Analytical Science Network, is a free event designed 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 AMC and AMT, in their continued effort to support young emerging analytical scientists, sponsored prizes for best oral presentation and best poster.

This year we were proud to host speakers and poster presentations from a wide variety of analytical specialties such as electrochemistry, mass spectrometry, forensics, material sciences and many more from across the UK, covering both academia and industry. Delegates found the relaxed environment of the symposium very beneficial and offered a great opportunity for networking between early career researchers. They also greatly enjoyed voting for the oral presentation and poster that they found most novel and exciting.

The best oral presentation award was given to Georgia Wood from the University of Warwick for her spectacular work under the supervision of Professor Julie Macpherson on 'High Pressure High Temperature Synthesis of Highly Boron Doped Diamond Microparticles for electrochemical Applications'. The best poster was awarded to Mareike Herrmann from the University of Brighton, for her outstanding poster titled 'Development and characterisation of carbon nano disk electrodes for monitoring extracellular vesicles' which she worked on under the supervision of Professor Bhavik Patel.

Report written by Aya Abdalla, University of Brighton



A selection of pictures from BSS 2019, showing Georgia Wood (Winner of best oral presentation) Warwick, presenting her talk 'High Pressure High Temperature Synthesis of Highly Boron Doped Diamond Microparticles for electrochemical Applications' (top left); Professor Bhavik Patel presenting Mareike Herrmann, University of Brighton, best poster award (bottom right).