

# ANALYTICAL MATTERS



ISSUE 10 – WINTER EDITION 2019

## UPCOMING EVENTS

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

### Biomonitoring – human and environmental perspectives

22<sup>nd</sup> January 2019, London  
[more information](#)

### Latest Advances in the Analysis of Complex Environmental Matrices

22<sup>nd</sup> February 2019, London  
[more information](#)

### Breathomics 2019

1<sup>st</sup> March 2019, Manchester  
[more information](#)

### Emerging Analytical Professionals 2019

10<sup>th</sup>-12<sup>th</sup> May 2019, Leeds  
[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 tenth 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 March 30<sup>th</sup> by emailing the Editor [here](#).

With my very best wishes,

**Duncan Graham FRSC CChem**

President, RSC Analytical Division



## CALLS

### Spring SciX 2020

Following the success of the inaugural Spring Scix Meeting in 2018 in Glasgow, FACSS have agreed to run this on a biennial basis and to be hosted in the UK for the time being. We are looking for interested parties to host Spring Scix in 2020 and anyone interested should contact Duncan Graham at [Duncan.graham@strath.ac.uk](mailto:Duncan.graham@strath.ac.uk) for further information by 25th of January.



## EVENTS

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### Analytical Research Forum 2019

**25 June, Royal Society of Chemistry, Burlington House, London, United Kingdom**

Abstract submission and registration are now [open](#) for the RSC Analytical Research Forum 2019. The event will take place on the **25 June** at the RSC in Burlington House, London.

This flagship event of the Analytical Division will showcase cutting-edge analytical chemistry and applications to stimulate new research, collaboration and engagement between researchers based in academia and industry.

The one-day format includes keynote and invited talks, a panel discussion about careers in analytical chemistry plus additional oral contributions selected by the Scientific Committee from the submitted abstracts.

Along with numerous networking opportunities, the poster session enables yet more participants to share their work in this exciting interdisciplinary meeting for the analytical science community.

For more information about keynote speakers, to register or to submit your abstract please visit: <http://www.rsc.org/events/detail/36987/analytical-research-forum-2019-arf19> or email [events@rsc.org](mailto:events@rsc.org) for more information.

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### RSC Twitter Competition

**5<sup>th</sup> March, The World Wide Web**

The #RSCPoter Twitter Conference is an online event held entirely over Twitter to bring members of the scientific research community together to **share** their research, **network** and **engage** in scientific debate.

We are excited to announce that the 2019 event will be held: **Tuesday 5 March 2019, 09:00 GMT – Wednesday 6 March 2019, 09:00 GMT. Get involved:**

- **Share** a poster of your research
- **Network** with researchers by following #RSCPoter
- **Engage** in scientific debate by commenting on posters

With subject hashtags spanning the core chemical sciences and related fields, whatever your field, connect and showcase your research:

|                                |                                   |
|--------------------------------|-----------------------------------|
| Analytical                     | <u>#RSCPPoster #RSCAnalytical</u> |
| Chemical and Biology Interface | <u>#RSCPPoster #RSCChemBio</u>    |
| Catalysis *                    | <u>#RSCPPoster #RSCCat</u>        |
| Education                      | <u>#RSCPPoster #RSCEdu</u>        |
| Energy & Sustainability *      | <u>#RSCPPoster #RSCEnergy</u>     |
| Environmental                  | <u>#RSCPPoster #RSCEnv</u>        |
| Inorganic                      | <u>#RSCPPoster #RSCInorg</u>      |
| Materials                      | <u>#RSCPPoster #RSCMat</u>        |
| Nanoscience                    | <u>#RSCPPoster #RSCNano</u>       |
| Organic                        | <u>#RSCPPoster #RSCOrg</u>        |
| Physical                       | <u>#RSCPPoster #RSCPhys</u>       |
| Engineering                    | <u>#RSCPPoster #RSCEng</u>        |

\* New for 2019

### Submit a poster:

- **Register** to submit a poster in advance – [registration](#) will open February 2019
- **Tweet** your poster image with a title, #RSCPPoster and relevant subject hashtag(s) – during the 24h conference beginning 5 March 2019, 09:00 GMT
- **Discuss** and engage – throughout the 24h conference make sure to answer the questions from the community, committee and comment on other #RSCPosters



Thursday 7th February 2019  
**Accelerated  
development and  
approval**

Royal Society of Chemistry, London  
 More information [here](#).

# Emerging Analytical Professionals Conference

10th - 12th May 2019, Thorpe Park Hotel and Spa, Leeds

The Analytical Science Network presents:

## Elementary: Exploring the analytical sciences

### CALL FOR ABSTRACTS - EARLY CAREER SPEAKERS & POSTER PRESENTERS

Building on the success of previous events, the EAP weekend provides networking and Continuing Professional Development (CPD) opportunities for early career analytical scientists 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. Our 2019 theme, '**Elementary: Exploring the analytical sciences**' explores the wide breath of analytical sciences, including topics such as general analytical techniques, Clinical Science, Environmental, Forensic, pharmaceuticals and much more. **This conference aims to facilitate sharing of knowledge and experience between a diverse group of analytical scientists.**

We are excited to announce our 2019 Keynote speakers:



#### KEYNOTE SPEAKER

**Professor Simona Francesca**  
Sheffield Hallam University

Fighting crime with lasers

Emerging Analytical Professionals 2019

#EAP2019 #AnalyticalMatters



#### KEYNOTE SPEAKER

**Dr David Peggie**  
National Gallery, London

The element of art:  
Analytical chemistry at the  
National Gallery, London

Emerging Analytical Professionals 2019

#EAP2019 #AnalyticalMatters



#### KEYNOTE SPEAKER

**Professor Karen Faulds**  
University of Strathclyde

Multiplexed and Quantitative  
Bioanalysis using Surface  
Enhanced Raman Spectroscopy (SERS)

Emerging Analytical Professionals 2019

#EAP2019 #AnalyticalMatters

We are currently looking for **early career speakers**, from both industry and academia to present 'Bright Sparks' talks (20-minute talk, including questions on analytical topics pertaining to their current research or job role). The 'Bright Spark' category is for early career industry professionals or researchers (including PhD students) who might not have presented to a large audience before. We also encourage delegates to present posters detailing their work or research.

**Standard registration fees apply but we do have several bursaries that can be applied for.**

**Deadlines:**

**Oral abstract - 31st January 2019**

**Poster abstract - 31st March 2019**

**Submit a talk or poster abstract at:**

[www.analyticalsciencenetwork.co.uk](http://www.analyticalsciencenetwork.co.uk)

**For general enquiries email:**

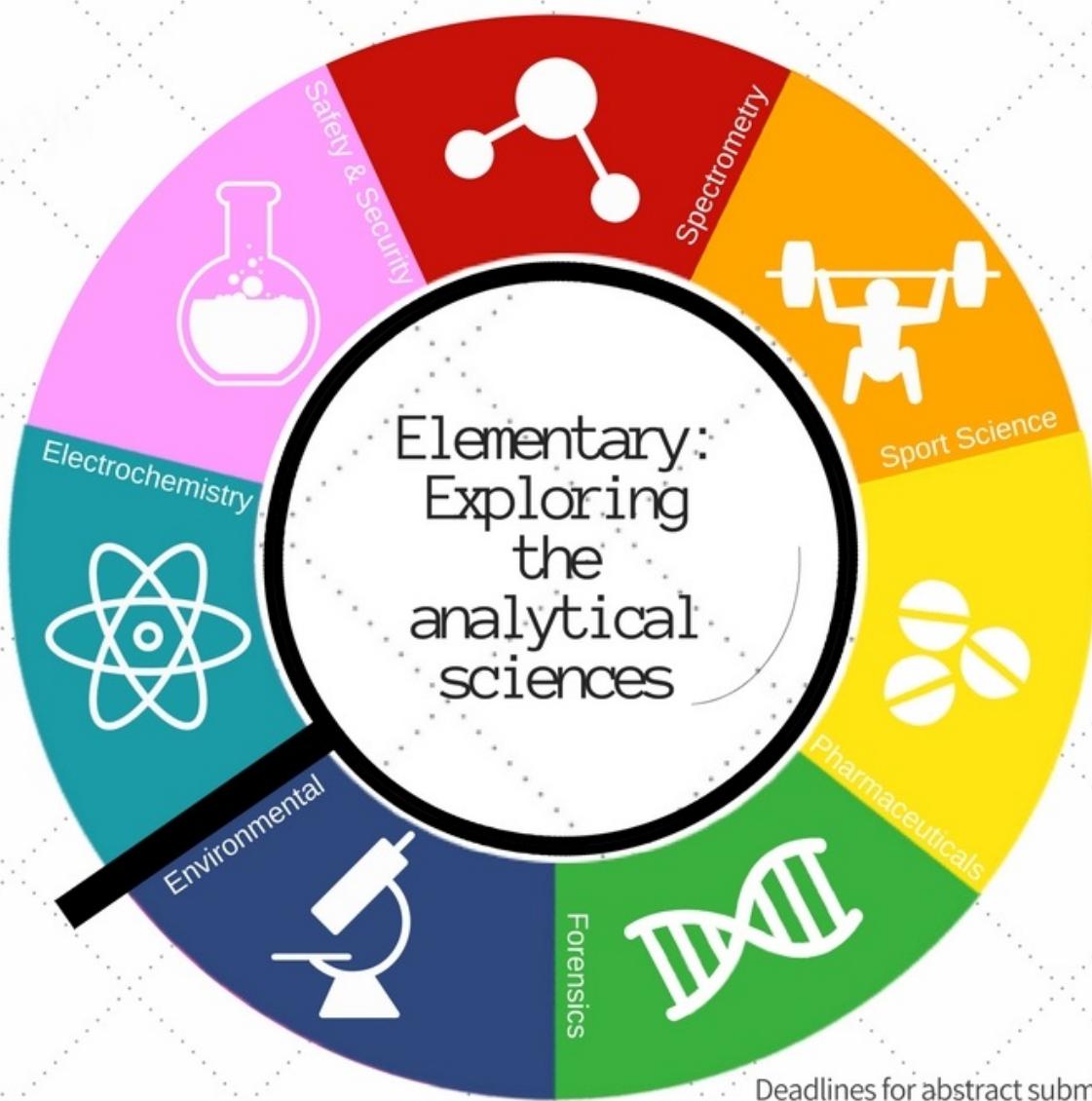
[info@analyticalsciencenetwork.co.uk](mailto:info@analyticalsciencenetwork.co.uk)

# EMERGING ANALYTICAL PROFESSIONALS 2019

10 - 12th May 2019

Thorpe Park Hotel and Spa, Leeds

An all inclusive weekend conference aimed at early career analytical scientists and researchers in industry and academia



Deadlines for abstract submission:  
oral presentations - 31.01.2019  
poster presentations - 31.03.2019  
Bursaries available

With emphasis on continual professional development activities, back-to-basics technique workshops and general interest presentations, alongside networking opportunities

## UPDATES

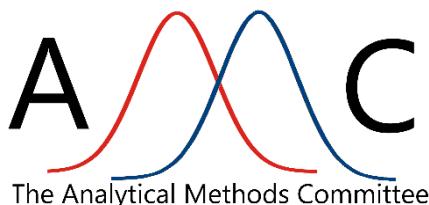
### Analytical Division Council Elections

We are currently accepting nominations for the following vacancies on Analytical Division Council.

- President of the Analytical Division to serve as President Elect for one-year from the AGM in July 2019 and take office as President for a three-year term until the AGM in July 2023, followed by one-year as Immediate Past President until the AGM in July 2024.
- Honorary Treasurer of the Analytical Division Council to take office from the AGM in July 2019, for a three-year term, until the AGM in July 2022.
- Two elected members of Analytical Division Council to take office from the AGM in July 2019, for a three-year term, until the AGM in July 2022.

President, Honorary Treasurer and Elected Members of Analytical Division Council are expected to act as a Trustee of the ACTF. Further Information about the nomination process, the electoral regulations and full role descriptors are available online at: <https://www.mi-nomination.com/rsc>

The closing date for nominations is **5 pm on Friday 08<sup>th</sup> February**, with the ballot taking place in May. If have any questions about the roles or the work of the Analytical Division, please do not hesitate to contact [analyticalmatters@rsc.org](mailto:analyticalmatters@rsc.org)



**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 with 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](http://www.rsc.org/AMC)  
or follow us @RSC\_AMC

## UPDATES

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### Community for Analytical Measurement Science (CAMS) Update

We are pleased to announce the following have been awarded 2018 CAMS fellowships:

**Mercedes Vázquez, Dublin City University**

- *Coupling of mobile phone camera-based detection systems with microfluidic analytical platforms for on-site analysis of herbicides*

**Anna Regoutz, Imperial College London**

- *Advancing hard X-ray photoelectron spectroscopy*

**Anisha Wijeyesekera, University of Reading**

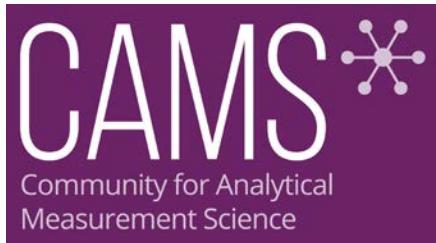
- *Novel analytical strategies for characterising the functionality of the microbiome*

**Robert Weatherup, The University of Manchester at Harwell**

- *Expanding soft X-ray spectroscopies to atmospheric pressures and above for probing the chemistry of working catalyst surfaces*

**Emma Richards, Cardiff University**

- *Time-resolved EPR facility for light-induced chemical processes*



CAMS Fellowships, funded by the Analytical Chemistry Trust Fund (ACTF), assist early career analytical chemists at UK or Irish Higher Education Institutes to establish their own independent analytical science research identity.

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### Allan Ure Bursary - applications invited

The Allan Ure Bursary is awarded on an annual basis, alternately by the Atomic Spectroscopy Group of the Analytical Division of the Royal Society of Chemistry (ASG, AD, RSC) and the Atomic Spectrometry Updates (ASU) Editorial Board.

This award is in memory of Dr Allan Ure, a distinguished analytical chemist who spent many years working with both ASU and ASG. Allan championed the fields of environmental analytical chemistry, atomic spectrometry and speciation and was a pioneer in the development of sequential extraction methods to soils and sediments. His encouragement and support of young scientists be they undergraduates, postgraduates or post-doctoral fellows and lecturers was well known. It is therefore fitting that to honour Allan's achievements and the contribution he has made to our science, this bursary be given to help start a scientist's career.

The award is presented to a scientist, at the start of their career, who the adjudicators believe has made a significant contribution to knowledge in the area of the application of atomic spectrometry to environmental science. The successful applicant will receive £500 to help with any expenses that may

be of benefit to their career. For example, this could be to travel to or attend a conference, so that they may present their work.

Applicants need not be specialised analytical chemists and may come from fields as diverse as geology, biology, oceanography, geography and environmental science. They will, however, have to demonstrate that they use atomic spectrometry on a regular basis for their work. The scope of the *Atomic Spectrometry Update – Environmental Analysis*, published each year in the February issue of the *Journal of Analytical Atomic Spectrometry* may be taken as guidance.

Applications should be made electronically and consist of the applicant's Curriculum Vitae plus a covering letter which clearly states how the bursary will be used and how the applicant believes this will benefit their career. The name of one referee (normally the applicant's line manager) who is familiar with the applicant's recent work should also be provided.

Applications should be submitted by the 22nd February 2019 to Dr A Fisher, Secretary ASG, ([a.fisher@plymouth.ac.uk](mailto:a.fisher@plymouth.ac.uk))

## TRAINING

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### Statistics for Analytical Scientists - Training Course

13<sup>th</sup> February, 2019, LGC, Queens Road, Teddington, Middlesex, TW11 0LY

The one day training course is aimed at analysts who need to evaluate data or carry out tasks such as method validation and uncertainty estimation. Call **+44 (0)20 8943 7631** or email **training@lgcgroup.com** for more information, quoting TRSTAT46.

The course focuses on the practical application of statistical techniques and is suitable for those with limited or no prior experience of statistics.

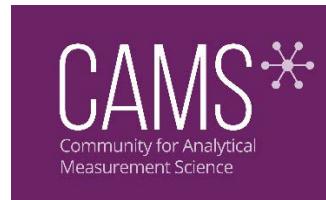
- **This course will help you:**Understand some of the most important statistical concepts used by analytical scientists
- Calculate the most commonly used statistical parameters
- Carry out significance tests to identify differences between sets of data
- Use linear regression in calibration
- Use Excel functions for the analysis of data

#### **The course will cover:**

- Introduction to statistics
  - Significance testing: t- and F-tests
  - Analysis of variance (ANOVA)
  - Linear regression
  - Control charts
-

## UPDATES

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### Official Launch of CAMS

CAMS “The Community for Analytical Measurement Science” will be officially launched on the 9<sup>th</sup> of April at RSC Burlington House. Details of the launch meeting and how to register will appear on the CAMS website <https://cams-uk.co.uk/>.

### Update on CAMS:



Bringing the analytical community together



Providing world-class analytical training



Facilitating innovation industry-led research

Since our last update on CAMS, we have been very busy engaging with the Analytical Measurement Science community below are some key highlights:

1. Five CAMS Fellowships have been awarded.
2. Invitations to apply for CAMS Co Funded Lectureships and Postdoctoral Researchers have been advertised on the CAMS Website and details sent to UK and Irish Universities.
3. Application for 2019 CAMS Membership have been sent to UK based industry and instrument companies.
4. Application for 2019 CAMS Membership have been sent out to UK and Irish Universities
5. The first Executive Board Meeting will take place on the 1st March.
6. Work is progressing on Basic Skills “E learning packages” and they will be ready for member access by the end of March.
7. The Website is now being actively used by a number of interest groups to promote measurement related meeting, if anybody has a meeting they wish to publicise please contact the CAMS Secretariat [secretariat@cams-uk.co.uk](mailto:secretariat@cams-uk.co.uk)
8. The 2019 online Webinar Program for CAMS-UK is currently being drawn up. If you have any suitable webinar(s) that you may wish to be considered for inclusion in the program, please contact the CAMS secretariat.
9. The CAMS Website now includes a number of best practice guidance documents <https://cams-uk.co.uk/measurement-best-practice>. If you have any suitable documents that you feel would help promote measurement best practice, please contact the CAMS Secretariat.

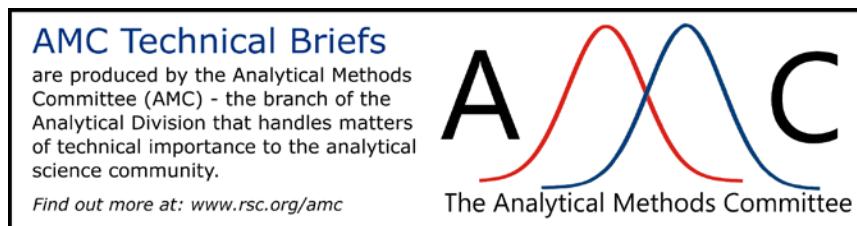
## ANNOUNCEMENTS

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### Analytical Methods Committee Update

New Analytical Methods Committee (AMC) Technical Brief, No. 85, [Analytical pyrolysis in cultural heritage](#) has been released.

This technical brief abstract is as follows: Analytical pyrolysis (Py), especially when coupled with gas chromatography and mass spectrometry (Py-GC-MS), is a powerful technique for the characterisation and identification of organic materials used in artwork. The thermal degradation of macromolecules (for example, resins, lacquers, proteins, polysaccharides, oils, modern synthetic polymers, etc.) using heat (thermal energy) generates smaller molecules (pyrolysis products) which are easier to identify and study. Some of these pyrolysis products are molecular markers allowing the identification of a specific material despite the sample's complexity. A micro-sample (50–100 µg) is destroyed during the analysis but the lack of sample preparation makes Py-GC-MS a very attractive technique with a much reduced analytical time and cost compared to other chromatographic methods.



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### Analytical Chemistry Trust Fund Update



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 programs, 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](#).

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