

Points of interest:

- Water factoid
- Bursaries
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“Promoting the professional and scientific interests of members to safeguard the public interest in the application of chemical sciences in water-related industries.”

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Regulation affecting chemists & chemists influencing regulation

Mindy Dulai

More than ever, chemistry as a discipline is crucial to forming and enforcing regulations, particularly those that protect the environment and human health

Regulation, particularly originating from the European Union, also affects all of us who practice as chemists in some way. Regulations such as the European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) could affect the range of available chemicals in the future, while regulation on the classification, labelling and packaging (CLP) of chemicals has introduced new ways of informing those who work with chemicals every day about potential hazards. To read the full article please visit:

<http://www.rsc.org/news-events/features/2016/05-may/regulation-regulation/>



Gavin Mills retires from committee

Treasurer, Gavin Mills, is retiring from the committee and is seen here with an award from the WSF for his distinguished service to the committee in recent years.



Conference announcement: Tastes and odours in tap water—anticipating, analysing, acting

The WSF are delighted to announce the upcoming conference “**Tastes and odours in tap water—anticipating, analysing, acting**” will be held on 7th July 2016 at Burlington House, London. Speakers include leading experts from industry and academia. For further information please visit:

<http://www.rsc.org/events/detail/22598/tastes-and-odours-in-tap-water-anticipating-analysing-acting>

Royal Society of Chemistry Conference
Burlington House, London W1J 8BA
7th July 2016

Tastes and Odours in Tap Water
- anticipating, analysing, acting



AIMS
Taste and odour are perceived by the public as the primary indicators of the safety and acceptability of drinking water. These parameters (along with colour) are evaluated by consumers every time they take a drink of water and are frequently the cause of complaints. More importantly, customer complaints may provide the earliest indication there is a problem and potential health risk requiring investigation. Reports of taste and odour problems must be taken very seriously by water providers as they can indicate public trust in drinking water and lead to considerable media attention on utilities. It is therefore an issue which continues to be of daily concern to all water companies. Despite this fact, there have been few if any conferences addressing this important topic in recent years. This event aims to fill this gap by inviting experts to present the latest advances in locating and identifying taste and odour problems, and via water company representatives sharing their experiences in managing and responding to real incidents.

ICChemE

This edition's water factoid:

“The biggest known cloud of water vapour was discovered by Nasa scientists. It is around a black hole around 12 billion light years from Earth. It contains an estimated 140 trillion times more water than there is in all the oceans on Earth.”

Water Science Forum bursaries

Please consider applying for the Alan Tetlow and WSF bursaries. They are open to all WSF members from any country and the money available can be used for a wide range of activities from conference and research lab visits for example to research projects in a range of topics including the water quality area. Up to £2000 is available per applicant. If you are unsure of eligibility please still apply and your application will be given full consideration.

Initial findings from members survey

Adrian Clark

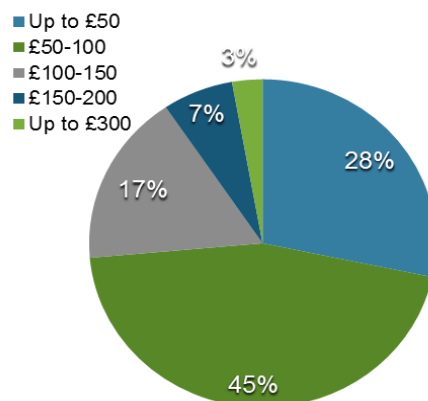
WSF Committee conducted an online "SurveyMonkey" opinion survey just before Christmas in order to seek our members' views on current and future activities. RSC Member Networks Specialist Marie Chapman, who assisted, told us the response rate was excellent for this type of survey, with >130 submissions received.

Our survey questions included the financing of bursary awards, views on future events (support for, cost, and preferred topics), interest in attending training/CPD events, and favoured locations in which to hold our meetings and seminars. The preliminary findings of the survey were reviewed at a meeting held on 26th January.

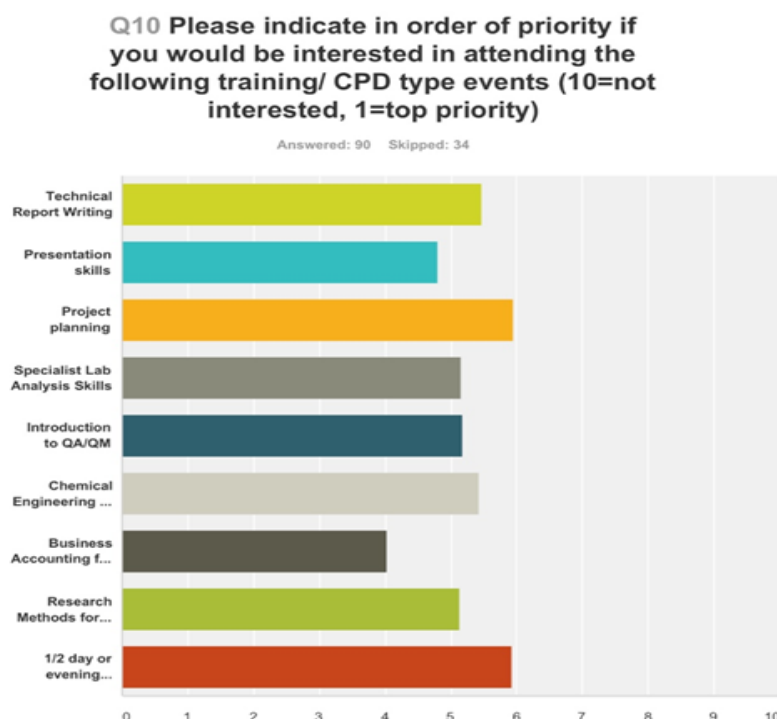
Our committee were surprised that ~60% of members were unaware of the WSF bursary awards, and 50% unaware of poster prizes (Q1). Even so, there was good support for maintaining this financial assistance on behalf of members. We therefore plan to continue helping members develop their careers by whichever route they choose to take. The committee regularly reports on past recipients of the awards in the WSF newsletter, and has also notified members of bursaries at events and via MyRSC website. However, the survey makes it clear that we need to make further efforts to promote bursary applications. A majority 62% supported a continuation with printed versions of the newsletter for those without access to electronic versions (Q4). For further information on bursaries please go to:

<http://www.rsc.org/Membership/Networking/InterestGroups/WaterScience/bursaries.asp>.

The organisation and running of technical meetings inevitably costs money and the committee work hard to keep these costs down to encourage attendance. Members were asked how much they would be prepared to pay to attend half-day and full day events (see pie chart). The recovery of costs and aiming for surpluses where possible were well supported (Q5&6). Most felt willing to pay between £10-50 for a half day or evening technical seminar (Q7), and up to £150 to attend a full day event (Q8). We always try to help fund events by seeking sponsorship and other forms of financial support. Venue hire is a significant expense which needs to be covered, and we would welcome offers to host events at little or no cost (paying only for refreshments), especially in the case of holding regional events.



The topics of recent events, particularly CPD ones, were well received by our members (Q9,10 - see chart), together with the idea of organising more CPD events of a regional nature, although London remains a popular choice (Q12). London was also the overwhelmingly popular choice for holding our main scientific meetings (Q11). This is probably due to its transport links. We believe this may also reflect our large membership based in SE England. Some concerns were however expressed at the higher cost of overnight accommodation in London when needed. The major cities Birmingham, Cardiff, Edinburgh and Manchester were equally favoured (Q11). Other suggested locations we received were Bristol, Oxford, York, Newcastle and Southampton. Several Scottish members suggested we should try to reach out beyond the Central Belt of Edinburgh and Glasgow (Perth was mentioned as readily accessible by train).— continued on page 3.



Overseas locations were least favoured (although Lille, Brussels and India were suggested). We have however previously organised some very successful 2-3 day international conferences in Mülheim and Lille. Assistance with travel costs for early career researchers is available through the main RSC travel grant programme <http://www.rsc.org/ScienceAndTechnology/Funding/TravelGrants/>. WSF will also consider travel grant applications from low income members not eligible for the main RSC schemes. Ireland was put forward as a location for regional events and will be considered, although we currently have relatively few members based there. Opportunities for co-sponsorship of events might open up possibilities, as was recently the case in Scotland with the very successful Priority Substances event which received generous financial support from the Highlands and Islands Enterprise Agency.

We have recently organised repeat events around the UK, starting with our Member Engagement meetings, with scope to do the same for other events including CPD training, popular workshops, and conferences on hot topics (for example plans are already well-in-hand to run a follow-up on two meetings at other venues: monitoring and control of priority pollutants; and microbiological water analysis methods).

General support for the listed conference/seminar topics suggests we have understood our member concerns and interests fairly well. However, the committee is always open to new suggestions. A topic submitted by several members was use of water by industry and someone else suggested domestic waste and drainage, together with business domestic, potable and trade effluents. There is always scope for us to organise events with other RSC interest groups (e.g. Environmental Chemistry Group as well as other societies (e.g. SCI, IChemE, SWIG) in the same way as we have done before. There was also a suggestion we might think about incorporating site visits into regional events. This activity might best be co-ordinated with local RSC groups. We received strong support for online webinars, and it is something we want to investigate further with the assistance of RSC where appropriate.

The conference sub-group has been tasked with analysing the outcome of the survey in greater detail, and to report back to the next committee meeting in May. We have been requested to give particular focus to regional meetings and webinars. Ways in which we can promote greater diversity and inclusivity when organising events will also be discussed in recognition of RSC policy (please see the link below for further details).

<http://www.rsc.org/diversity/175-faces/>

Forthcoming WSF events in 2016

WSF are organizing a number of events for 2016. Please check out the website for further details:

<http://www.rsc.org/Membership/Networking/InterestGroups/WaterScience/ForthcomingEvents.asp>

Famous water quotes!

"Every drop in the ocean counts."

Yoko Ono

"Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all."

Ban Ki-moon

"Thousands have lived without love. Not one without water."

W. H. Auden

"The water you touch in a river is the last of that which has passed, and the first of that which is coming. Thus it is with time present."

Leonardo Da Vinci

The Newsletter of the Royal Society of Chemistry Water Science Forum

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The views expressed in the newsletter are those of the authors and do not necessarily represent the views of the RSC, the Water Science Forum or the author's organisation

Alan Tetlow Bursary

In memory of Alan Tetlow the Water Science Forum bursary will help post graduate students, young (under 35) or professional water scientists during the first 10 years of their career.

Contact: Hon Sec, RSC Water Science Forum, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK

Join the Committee

We are always keen to recruit new personnel to the Committee. All Water Science Forum members are eligible. Vacancies usually arise at the end of each year and elections are held if necessary. The Water Science Forum fully support the Royal Society of Chemistry's policies regarding equality and diversity.

If you wish to be considered for election to membership of the WSF Committee please contact the Hon. Secretary who will advise you accordingly.

Humpty-Dumpty Words

Adrian Clark

"When I use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean — neither more nor less."

"The question is," said Alice, "whether you can make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master — that's all."

— Lewis Carroll, Through the Looking Glass (1)

As scientists, we pride ourselves on the accuracy and precision of our work; after all, it is the basis of the scientific method. But do we all mean the same thing when we communicate with one another? For example, it is widely assumed everyone understands the meaning of the scientific terminology in widespread everyday use. Indeed, as scientists, we often use these terms as short-hand to refer to more complex concepts. But we are at risk of creating greater misunderstanding if we do not use them in the correct context or fail to correct their misuse.

We are all well-aware that the tabloid media regularly misuse technical terms, especially when seeking to give stories greater impact. The same applies to advertisers' claims for their products, most notably those that are supposed to miraculously reverse the effects of ageing. This is not new, but sloppy terminology now seems to be permeating increasingly into scientific reports, particularly in articles published online which may not be subject to the same rigorous peer-review process of old. This lack of precision impedes a proper critical analysis of the original data (assuming it is provided) and can distort the relevance of the work being presented. Examples of so-called "Humpty-Dumpty" words proliferate in the environmental and health sectors. These include pseudo-scientific words such as "Green" and "Detox" as well as more technical terms and concepts such as "Toxic", "Biodegradable", "Persistent" and "Sustainable" which can be made precise if suitably qualified, but otherwise can be very misleading.

Of course there is often a difficult balance which needs to be struck between public accessibility and academic rigour, and authors cannot be held responsible for independent science blogs which distort the facts, present misleading headlines, or make erroneous claims which are not born out in the original paper. Nor should brevity be a substitute for inaccuracy. Authoritative source references and links to primary research should be included where appropriate (2). The issues should be objectively set out where scientific understanding is incomplete or there are clear differences in scientific opinion (but not merely to reflect opposing views which can be mistaken for balance).

In cases where there is continuing scientific debate it is better to present the key questions still to be answered and provide authoritative sources to aid the reader in coming to their own assessment, based on the latest available evidence. Differing views often relate to evidence surrounding the human safety or ecological impact of chemical substances, often including materials in common use (e.g. phthalate plasticisers, nanomaterials, and nicotinoid pesticides). Other uncertainties derive from unintended reactions and/or limitations in removal or treatment (e.g. disinfection-byproducts and endocrine-disrupting compounds). The RSC publishes a range of peer-reviewed notes which aim to dispel some of the current misconceptions and promote a balanced understanding of the possible risks and benefits associated with chemicals (3).

The RSC plays an important role in providing briefings and advice to government and public bodies. Thus RSC submitted a response to the House of Commons Science and Technology Select Committee inquiry into Water Quality, which was informed by input from member groups with relevant expertise, including the Water Science Forum (4). Recently, interest groups and networks were invited to submit written evidence in response to the House of Lords Science and Technology Committee inquiry into the influence of EU membership on science, research and innovation in the UK (5). RSC Groups also contribute to European Commission consultation exercises, while individual members represent the RSC on external committees including the British Standards Institute and the UK Chemicals Stakeholder Forum (6,7).

As part of a wider outreach, the RSC recently conducted a survey into public attitudes to chemistry (8) and generated a communications toolkit to assist members in overcoming stereotypes and misunderstanding among general public (9). We can all help in dispelling myths, communicating how chemistry relates to the real world, and the important contribution we as chemists within the RSC are making every day to issues of significant public concern (such as water quality, energy efficiency and resource recovery).

1. The Humpty-Dumpty Principle in Definitions. Definitions in Semantics. See <http://definitionsinsemantics.blogspot.co.uk/2012/03/humpty-dumpty-principle-in-definitions.html>
2. The RSC has a particular interest in ensuring scientific accuracy of Internet submissions, whether it is for scientific reporting, Wikipedia entry, or information intended for the general public (see "Digital defenders", Chemistry World, January 2016, pp68-69).
3. For example notes on health and safety issues published by the Environmental Health & Safety Committee intended to provide background information for members on subjects which are not their speciality, available as brochures or online at <http://www.rsc.org/Membership/EHSC/environment-health-and-safety-issues.asp>
4. <http://www.rsc.org/globalassets/04-campaigning-outreach/realising-potential-of-scientists/research-policy/global-challenges/water-quality-response.pdf>
5. <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee-lords/relationship-between-eu-membership-and-the-effectiveness-of-uk-science/written/24813.html>
6. See WSF Newsletters and Chairman's Annual Report for further details of activities <http://www.rsc.org/Membership/Networking/InterestGroups/WaterScience/index.asp>.
7. <https://www.gov.uk/government/groups/uk-chemicals-stakeholder-forum>
8. <http://www.rsc.org/campaigning-outreach/campaigning/public-attitudes-chemistry/>
9. <http://www.rsc.org/globalassets/04-campaigning-outreach/campaigning/public-attitudes-to-chemistry/public-attitudes-to-chemistry-toolkit.pdf?id=849>