

A Farewell to Alms

It shouldn't have been a problem to meet targets, but it was. As mainly industrial chemists they were successful and well organised, and I was pleased to be invited to join them to represent the RSC Manchester & District Local Section. The financial target for our operations was to break-even. Coming from industry not to do so was an anathema to us all.

We were the Committee for the North West Region of the Industrial Division, created at a time when regionalisation was flavour of the month. The region extended from North Wales, through Liverpool, Manchester and Lancaster up to Cumbria, region that could be said to have been the cradle and was then a powerhouse of industrial chemistry in the country. The industrial base of our support included such leading companies as Akzo, Anchor Chemicals, AP Chemicals, BTP, Ciba-Geigy, Contract Chemicals, Harcros, ICI, Magnesium Electron, Peboc, Unilever, and Zeneca. In 1990, the then President of the Industrial Division, Paul Ogden, said "Of the nine regional committees, the North West Region is the largest, the strongest and the most active". The committee enthusiastically organised events, symposia on such diverse topics as surfactants, radiation curing, chemicals in the oil industry (still going strong), and additives for water based coatings, as well as quality assurance and surface analysis. These and exhibitions on contract manufacture and services (later to become the internationally renowned Chemsources), were all well supported by members and non-members of the RSC alike. So – what was the problem? We couldn't break-even and rarely made a loss.

We made a surplus – time after time; even though we told ourselves it was OK to make a loss occasionally, we couldn't break the instincts of a lifetime. In a very good year for events, 1988 for instance, turnover could reach £80,000 with a resultant rise in reserves of over £23,000.

The committee used the funds that were accumulating to further the understanding and support for industrial chemistry and related educational activities, and for the benefit of members in the North West. In particular financial support was provided to all the Local Sections in the North West Region for their events. As our contribution to the celebration of the 150th Anniversary of the RSC in 1991, over £13K was provided to restore John Dalton's papers damaged in Manchester in the war. These papers are now housed in the John Rylands Library in Manchester. In addition financial support was given to Catalyst Museum (now Science Discovery Centre) over many years. NW Chemistry News (NWCN) was started as a service to all RSC members in the NW, the first issue of 20 pages edited by Judith Hart, appearing in June 1990. And so the Committee, under the Chairmanship of Harold Fielding, with members Gerry Davison, Bill Hoyle, Barry Hunt, Alan James, David Karsa, Paul Ogden, Don Randell, Alf Williamson, and Steve Wilson, carried on enthusiastically making surpluses and furthering these charitable activities. Over the next few years, they were joined by Peter Bamfield, Tony Bastock, Judith Hart, Alan Heaton, Stan Higgins, Stan Moore, Scot Owens and Roger Whittacker. Prizes for degree students studying chemistry part-time were initiated in 1992 in

memory of one of our most active members, Alfred Williamson.

After several years of relative stability, the committee in 1993 entered what was to prove a more turbulent period. Judith Hart resigned as Chairman Elect and editor of NWCN to take up a new job in Norway. I was appointed to chair the committee at the 1993 AGM and Steve Wilson offered to edit NWCN, which he did for a year before work pressures led him to resign. Then in 1994, Peter Bamfield, the then Vice President of the Industrial Division, reported that the Division was exploring plans to scrap the regional committees, as only two were effective (the North West and South East), in favour of a subject sector group structure (NWCN, March 1995).

In our response to the consultation exercise, we expressed the wish to

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retain our regional support activities and at the same time form a Speciality Chemicals Group, based in the North West but operating nationally. It was not a foregone conclusion that our wishes would be realised. A Fine Chemicals and Medicinals Group based in London had existed for years, however I knew, having been a founder member and committee member for many years, that its prime interest was medicinal chemistry and that it had struggled to make progress with any events in the fine chemicals area, and I felt that there was a good chance that they would be prepared to relinquish that particular role to us. Regarding our support for activities in the NW, I proposed that we establish a separate NW Trust, affiliated to the new Sector. I was able to cite the RSC Manchester Charitable Trust (NWCN Sept 2008), of which I was Honorary Treasurer, as a precedent. One or two of the NW Region Committee had doubts as to whether this would work out, and particularly that we might lose our accumulated funds, nevertheless it was agreed to submit this plan. At a Division Meeting of Regional and Group Chairs at Burlington House, I presented our plans and they were accepted. Subsequently we filled out the detail, drafted rules and divided the closing reserves between the Speciality Chemicals Sector (£20K) and the NW Trust (£70K) and appointed interim officers and committee members.

Both were up and running by the end of 1995 – we had successfully retained responsibility and funds to continue all that we had been doing previously. Early on it was decided to limit annual expenditure of the NW Trust to no more than 15% of capital reserves and that income would come from 50% of any surplus realised on continuing symposia/exhibitions taken over by the Speciality Chemicals Sector. We expected a life of the NW Trust of at least seven years, maybe ten. In the event, it has survived twenty years!

At the end of 1996, Alan James retired as Honorary Treasurer as he was relocating to the USA, and Paul Ogden took it on in addition to the secretary role. The Officers were set on a more solid footing by 1999 when David Karsa was elected Chairman to replace me on completion of my term of office, and Grahame Stanley had earlier stepped in to take on the roles of Secretary and Treasurer for both the Sector and Trust when Paul Ogden

resigned due to ill health. At last the Trust was set for a period of stability and achievement in which, over the next fifteen years, it continued to support regional activities. In total, £234K has been donated and 46 issues of NWCN published, at a cost of £142K, over the life of the Trust as David Karsa has well described (NWCN September 2013 & 2012). Sadly, the Trust has come to the end of its funds and will be closed at the end of the year, and this is the last issue of NWCN. It is possible that some activities may continue to be supported by the Sector, but it should be borne in mind that the Sector has national responsibilities.

Finally, a big thank you is due to David Karsa who has chaired the Trust, and to Grahame Stanley who has been a pillar of strength as Secretary and Treasurer over the last 15 years, not to mention Editor of NWCN for 10 of them. It remains to thank all those who also served the NW Trust, Chris Adams, Andrew Derham, Harry Eccles, Angela Holden, Eddie Howells, Pat Keen, Bruce Lane, Adam McCudden, Stan Moore, Rajesh Salkar and Katherine Thompson for all their support and hard work.

Bill Hoyle, RSC NW Trust

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North West Chemistry News going forward

**Will you miss NW Chemistry News?
Do you want to keep in touch?**

The Speciality Chemicals Sector group will be deciding in September whether to continue with a Speciality Chemicals Sector News either in print form or on-line, which will have as its content the sort of articles that currently appear in NW Chemistry News – namely, sector conference reports, information on future events, and educational project reports on grants and subsidised schemes that the Sector hopes to continue supporting in the future.

If you want to receive this future publication, then please register with the Speciality Chemicals Sector, by ticking as one of your 3 free sector/interest groups ‘Speciality Chemicals Sector’ when you return your RSC membership this year. We will be in touch.

Finally, a big ‘Thank you’ goes to all the contributors of past editions of North West Chemistry News – without your input and support, the paper would not have been as interesting or as successful as it has been. If past contributors are interested in submitting articles and diary dates for a newsletter in the future – please let us know.

Contact Pat Keen: patricia.keen@virgin.net

Chemicals Northwest welcomes in 2014

Since the last edition of North West Chemistry News, the team at Chemicals Northwest have held 3 Chemical Elements events, 3 breakfast events, welcomed 1 commercial officer visiting the region, held our annual conference, started a supply chain forum, held a REACH User Group meeting, published 2 editions of Elements magazine and started planning for the 2015 Awards Dinner.... 'non-stop 6 months' being the operative words!

Planning stages are just getting started for the 2015 Awards; the date has now been confirmed as the 19th March 2015 at the Hilton Deansgate, Manchester. Please keep an eye on our website, LinkedIn group and also e-bulletins for further details. Or if you are interested in being part of the dinner or sponsoring an award please contact:
alex.heys@chemicalsnorthwest.org.uk

Our Chemical Elements events have still been going strongly. Topics we have featured in the last few months include; **A Showcase of Good Practice**. This event, sponsored by award winner FMC Chemicals was held on the 28th November 2013. The event featured a roundup of the 9 Award winners from the Chemicals Northwest Awards Dinner held in October 2013. Plus a selection of the Innovation award entries, which were particularly strong as a category in general.

A Legal Update event held on the 30th January 2014 was kindly sponsored by Harrison Goddard Foote and featured speakers from our legal side of membership giving delegates some useful legislation updates.

A Bridging the Science & Engineering Skills Gap event held on the 22nd March, in conjunction with newly joined member, the University of Chester, who are launching some new Chemistry courses.

In conjunction with UKTI, on the 12th March we hosted Mr Mohammed A. Alazzaz from the Sadara Chemical Company in Dhahran. Mohammed gave a presentation on Sadara Chemical Company which is a new Joint Venture established in October 2011 between the Saudi Arabian Oil Company 'Saudi Aramco' and the Dow Chemical Company. This new undertaking by the two giants in their businesses is a \$20 billion investment with a product mix that is highly specialized.

On the 4th June, we held our annual conference which was on **REACH**. The event in conjunction with the Royal Society of Chemistry, hosted over 50 delegates and featured speakers from membership and also from ECHA in Brussels who specialise in REACH and gave case study advice to the attendees. For further details of all of these events please see our Elements events write ups on the website:
www.chemicalsnorthwest.org.uk/news/newsletters-elements/

Our new Supply Chain Forum has also had 2 meetings since the last edition was published. This forum is being run in conjunction with Brabners Stuart and was the follow on to month's worth of interviews with some of our member companies on what issues they can foresee and have to deal with on supply chains etc. The inaugural event was held on the 22nd March and the follow on was held on the 11th June. We are planning for the next event to be in November – keep a look out for further details.

Our breakfast events are still continuing bi-monthly. Over the last 6 months we have held breakfast networking events on the 31st January which was sponsored by BakerRisk Europe. On the 27th March sponsored by Perry Process Equipment and also on the 8th May sponsored by Siemens. Further details of these and the speakers involved can be found in Elements magazine or in 'Past events' on the website.

John Roche, Head of Responsible Care Cell at the Chemicals Industries Association and Operations Manager for Chemicals Northwest also continues to Chair the North West and Wales Responsible Care Cell meetings at the Heath.

The Chemicals Northwest LinkedIn group now has over 900 members and is active on a daily basis. If you are connected to the chemical industry in the UK and want to join the group then please join our group on LinkedIn.

Our REACH User Group is also still going strong and we held a meeting for the participants on the 15th April which was lead by Richard Roy from the CIA ReachReady Team. This group is open to our member companies - so if anyone has any REACH queries and would like to join and listen to presentations and join in round table discussions please

contact:
alex.heys@chemicalsnorthwest.org.uk

Membership of Chemicals Northwest has increased over the current year which is a good indication that our message is spreading and there is interest in the sector from across the region and beyond. For further details please see the membership section of the website www.chemicalsnorthwest.org.uk/membership/membership_benefits/

Our quarterly Elements magazine has continued to grow in size both in pagination and circulation. We are still working in conjunction with Distinctive Publishing to deliver a more industry focused publication with a roundup of the latest industry news, advertising features, charity stories, interviews plus our regular features, such as members spotlight, skills, innovation and sustainable development features. If anyone would like information on prices to advertise, to contribute a good news story or has any other ideas for the Chemicals Northwest newsletter, then please contact:
alex.heys@chemicalsnorthwest.org.uk for further details.

Our 2014/15 Chemicals Northwest Sector Directory is in the pipeline ready for circulation in October/November and work is commencing on this in the next few weeks. Feedback we receive is always very positive for the directory. People enjoy reading about the issues and challenges faced by the industry plus enjoy the comprehensive resource of information relating to the largest regional cluster of manufacturers in the UK. Copies are available free to individuals from member organisations and at a small charge to non-members.

Finally we would like to thank the publishers of the North West Chemistry News for allowing us space in the magazine to publish our latest updates. We would also like to thank the readership of the newsletter - we hope you have enjoyed hearing about what is happening at Chemicals Northwest and will continue to keep up to date with our latest developments via our website, e-bulletin and Elements magazine.

Alex Heys, Chemicals Northwest

Out and about with the RSC's NW Regional Coordinator

January to July is a very busy time of year (although I think it is only August that isn't considered a busy time of year in this job!!). A lot of meetings have been taking place which will result in a number of new activities happening across the North West.

New for 2014 from Royal Society of Chemistry is the Learn Chemistry Partnership. Over 700 schools in NW signed up before end of June and will (if they haven't already) received a 2A0 periodic table wall chart for their schools. Learn Chemistry Partnership is a free programme that connects a teacher and their school with the world's leading chemistry community - and all the RSC's tools and resources to help you bring chemistry to life in your classroom. By registering as the advocate for chemistry in your school or college, they'll become part of a national network of teachers and institutions. Through Learn Chemistry Partnership, the RSC will support you to shape and inspire future generations of chemical scientists. The advocate (head of chemistry/chemistry teacher/technician) you will receive complimentary membership to RSC (or membership reimbursed if they are already a member) and their own subscription to Education in chemistry and the Mole magazine. To sign up please visit: www.rsc.li/lc-partnership. Only one person per school can sign up, so please check the PDF document on the website listing all the current Learn Chemistry Partnership schools.



One of the big events that happened in North West was the 'Modern Alchemist Tour' which came to Manchester in June. Dr Peter Wothers presented a demonstration lecture based on his Royal Institution Christmas Lectures from 2012. Nearly 500 school students were awed by his show in the afternoon

and this was followed by a public lecture in the evening with some lucky audience members getting to taking part in the show.

The Museum of Science and Industry also were honoured enough to host the 'Inspiring Progress' event which saw the presidents of Royal Society of Chemistry, Society of Biology, and Institute of Physics take part in a Q&A panel session on careers in science for students ranging from 17-26 years old. This event was special as at that time all three presidents were female and that was the first time that has ever happened. The Royal Society of Chemistry also got involved with Threshold Festival in Liverpool for the first time this year, taking part in the science hands-on session that happened alongside 'Science Grrl' members and 'Big Bang Fair North West' at Aintree with support from University of Liverpool.

'Chemistry at Work' is as strong as ever in the region with successful events being run by MerseySTEM and University of Manchester. Cumbria STEM is in the process of organising their first 'Chemistry at Work' event with support from the Cumbrian Local Section for this autumn and I am in talks with Chester University to run one there next year. Local ChemNet events that have taken place have included an AS and A2 revision master class run by Dr Kristy Turner and a laboratory day at the University of Manchester. Plans have begun to have a repeat of all three of these events in the next academic year, as well as a careers event in both Liverpool and Manchester in the autumn term. ChemNet is free to students 14 - 18yrs old and all ChemNet events are free for members to attend.

As well as working with universities, I have also been meeting with industry to determine a way to provide insight into the chemical industry for school students. Whilst it's still early days, Victrex, near Blackpool, are keen to find a way to get involved with local schools and hopefully opening its doors to show the reality of a real chemical plant. If you work within a company and want to get involved with your local schools, please get in touch with me and I will provide you with a link. If you would like to meet with me to brainstorm some ideas to create an activity relating your company's work that is accessible to students - again, please let me know.

So, as well as ChemNet events both old and new - coming up, the University of Manchester and RSC will be providing a workshop as part of the 17-week exhibition called 'Colours, Community and Chemistry'. The workshop will also be part of Manchester Science Festival, which this year is running from 24th October to 2nd November. For more information regarding 'Colours, Community and Chemistry' please visit: www.artificialsilk.org, and for information regarding this year's Manchester Science Festival, please visit www.manchestersciencefestival.com.

As you may know, I run the Spectroscopy in a Suitcase (SIAS) kit for the University of Manchester. Consequently, I was asked to provide two training sessions for teachers attending teacher conferences in Glasgow and St. Andrews this year. Due to there being only 1 piece of kit for Scotland, the university is unable to provide workshops for schools. Therefore, teachers must be trained on how to use the machines at events such as this, so that when the kit is delivered to them by courier, they have both ideas of activities as well as knowledge of using the equipment. Schools that have access to SIAS workshops from universities across England, Wales and N. Ireland are lucky as these workshops are delivered by university students who can answer questions about chemistry courses and general university life. This is a great bonus for the students as they can include this experience in their personal statements when applying for a range of higher education courses. Bookings for next year are already coming, so if you are interested in having a SIAS visit, then please look at www.rsc.org/sias.

Finally, due to the success of the Education Co-ordinators (formally called Regional Co-ordinators) role over the past few years, the Royal Society of Chemistry has decided to expand the programme. This began with programme managers being appointed for Scotland, Ireland, North & Midlands, Wales & South West, and South East & East of England regions. The second stage of the expansion will be the appointment of a second Education Co-ordinator for each region near the end of this year/early next year.

If you wish to know more about anything in this article, please email me: katayune.presland@manchester.ac.uk

Kat Presland, RSC NW Coordinator

Impact of the RSC NW Trust's support at Catalyst

As this is the very last NW Chemistry News, the staff at Catalyst Science Discovery Centre would like to show our appreciation for the huge amount of support we have received over the years from the RSC NW Trust. Your continued support has enabled us to purchase a new liquid nitrogen dewar, a dry ice crate, a class set of electricity kits, numerous pieces of equipment for our discovery laboratory and, more recently, a class set of hydrogen powered car kits with two remote controlled hydrogen powered cars for a new workshop that will be added to the programme in September 2014. This support over the years has enabled our education programme to grow and develop and has provided much needed equipment that would have been impossible to fund without your help.



Hydrogen powered car kits

We are also grateful for the opportunity the Trust gave Catalyst to be involved (with 'Chemistry with Cabbage') in the launch of a DVD for primary science teachers. Under the leadership of Professor Alan Heaton (former Trustee of Catalyst), a DVD was created to illustrate a range of simple science experiments that teachers could perform in the classroom using everyday ingredients and simple kitchen equipment. We have been proud to have helped distribute thousands of these DVDs, not only across the North West, but to Scotland, the South West, the South East, and even internationally.

Over the years, we have met many colleagues and made many friends from the NW Trust and with your help, we have excited and inspired a huge number of pupils and teachers about the wonders of chemistry. So "Thank You!" Although the NW Trust may be folding, we hope that members will still keep in touch via other RSC special interest groups – please pop in to Catalyst if you are passing – you know you will always be welcome.

Meryl Jameson, Catalyst

Catalyst Trustee awarded an MBE

Dr Diana Leitch, Trustee of Catalyst has been awarded an MBE for services to chemistry in the Queen's Birthday Honours List.



Dr Diana Leitch and Dr Peter Wothers (also awarded MBE for services to chemistry) at 'Modern Alchemist' lecture, June 2014

Originally from Runcorn, Dr Leitch attended the Queens School in Chester before graduating from the University of Edinburgh, School of Chemistry in 1969 (BSc) and 1972 (PhD). Dr Leitch is an independent consultant who is internationally respected for her work as an academic librarian and information professional. As Treasurer of the RSC's Chemical Information and Computer Applications Group, she has played a leading role in numerous outreach activities, including the Origins project with Catalyst which won nationwide acclaim.

Catalyst 'Chemistry at Work' Event

From the 24th to 27th June, just over 400 school pupils visited the 'Chemistry at Work' event, hosted by Catalyst with funding from the RSC. The pupils spent 25 minute sessions with employees from local industries learning how chemistry is used in their everyday lives and the various career paths available within these industries, before taking part in various hands-on activities.



Staff from Croda with their 'beach scene' about the science of sun protection

Companies taking part: BASF, Croda Europe, Novartis Vaccines, Perstorp, RS Clare, SSE Fiddlers Ferry, Solvay, STFC Daresbury Labs and Veolia. Help towards transport costs was gratefully provided by Novelis Recycling UK Ltd.

Catalyst launches Outbreak!



Phill Day, Catalyst Education Manager, and Prof. David Phillips at the launch

On Friday 14th February, Catalyst welcomed Professor David Phillips CBE FRCS and invited guests, to the launch of a brand new education project called 'Outbreak!'. Outbreak! has been designed to promote team building skills in a chemistry context, where teams of pupils work together to discover what the source of the Outbreak is, and how to prevent it spreading. In 2012, Catalyst worked with two RSC special interest groups, namely, the Chemical Information Computer Applications Group and the Historical Group, to develop the project with the prize money of £10,000 won from the RSC IYC Challenge Fund.

Professor David Phillips, Immediate Past President of the RSC, said it was a personal pleasure to finally visit Catalyst and launch Outbreak! as he had been the President of the RSC when the IYC Challenge was initiated.

Catalyst takes part in the Festival of Business

The Heath Business and Technical Park hosted an International Festival of Business on Thursday 26th June, when BBC Breakfast Show presenter, Steph McGovern, made a keynote speech before chairing a 'Question Time' style business debate discussing the skills needs of the science, technology and advanced manufacturing sector with an audience of more than 120 delegates. The Heath opened its doors to local schools, colleges and further education establishments, who also attended science workshops throughout the day, provided by Catalyst Science Discovery Centre.

Meryl Jameson, Catalyst

Pensby High Schools' Federation visit Catalyst Museum

On Wednesday May 21st 2014, 25 students each from Pensby High School for Girls and Pensby High School for Boys, spent the day at The Catalyst Museum. The purpose of the visit was to enable a KS3 trial for the new workshop 'Outbreak!'. This brand new collaborative learning styled project pits pupils against a hypothetical viral outbreak. With pupils split over two locations, they needed to work together to save the day!



I was involved in an early concept/ ideas workshop in Summer 2013, Phill Day presented his ideas at a think-tank with the North West Education Forum. This unique opportunity to trial the workshop before release was then offered to The Pensby High Schools Federation where I teach. I couldn't believe how lucky we were to be offered the opportunity. Our students were so keen to get involved that the trip was fully booked, including all of the necessary documentation, within three days!



Our students knew that their feedback was important and they were delighted to be asked for their own opinions in the final development stage. Feedback from the students has been very constructive and reflected an overwhelmingly positive experience. Quotes included, "I think that the staff are very friendly and helpful, they didn't just answer my questions, they made me think hard about it" and "We were so busy, we didn't even have time to go around the Museum!"

Phill Day, Education Manager at Catalyst commented, "It was rewarding to see pupils from Pensby High Schools engaged in the Outbreak trial, thinking

for themselves and working well together. I thought that pupils handled some challenging tasks very well and should be proud of the progression that they made. There are still things we need to do to improve the experience further and so the feedback from the pupils will be extremely valuable."



As a teacher, I found it wonderful to see the pupils immersing themselves in time consuming, challenging activities. They needed to show resilience to work out what to do and had the opportunity to discuss and present their findings. The students developed their own ideas and worked together to link ideas and draw conclusions over the course of the day. It was wonderful to enable the learning process without the constraints of time and I look forward to taking groups to experience the workshop when it is launched.

Megan Mountford, KS3 coordinator at The Pensby Schools Federation commented "Scenario based learning is definitely the way forward for school visits. Too often the children are passengers on a trip to a museum. This felt real and challenged the students to apply and link their knowledge from school".

*Sharon Tharme, Science Teacher,
RSC Liverpool Section*

Nobel Prize Winner visits Catalyst

On Thursday 10th July, Nobel Prize Winner, Professor Sir Harry Kroto visited Catalyst to inspire school pupils about science.

Sir Harry Kroto was knighted in 1996 for contributions to Chemistry, and later that year, together with Robert Curl and Richard Smalley, received the Nobel Prize for Chemistry for the discovery of C60 Buckminsterfullerene, a new form

of carbon. He is a Fellow of the Royal Society, former President of the Royal Society of Chemistry, and is currently, Professor at Florida State University. As a Patron of Catalyst, Professor Kroto has accepted our invitation to visit during a brief visit to the UK.

The day began with a presentation from Professor Kroto, before approximately 100 pupils aged 8-9, took part in workshops to build their own 'Buckyball', ably assisted by local 6th form students from Liverpool Life Sciences UTC.

Meryl Jameson, Catalyst

Schools Science Festival 2014

The RSC North West Trust again kindly sponsored 'Acid Fizz!' and 'DNA' for three days each in March 2014.

'Acid Fizz!' was unchanged except for an improvement in one experiment which resulted in many children being very surprised when watering sodium bicarbonate and citric acid mixed dry and packed into a balloon. Failure to close the neck quickly resulted in squeals as the frothing mixture shot out!



Steve and Christine Conway presented 'Acid Fizz!' to a total of 140 children at St. Bedes, Weaverham, Northwich; Nant y Coed, Llandudno Junction, and Ysgol Deganwy, Deganwy. As usual it was very well received.

'DNA' was new and took a significant time to produce, the stumbling block being a simple reliable DNA extraction for use in a primary class. Eventually, after trying several vegetables and fruits, strawberries were chosen as they have a larger DNA content and for the ease of crushing in a bag by children.

Classes split into teams to separate DNA as the main experiment. They were given strawberries, bags, salt and detergent, and a coffee filter. Teams' filtrates were collected and I poured

Continues on the next page

ice-cold propanol over the strawberry filtrate. Both teachers and children were amazed how much faintly pink DNA 'goo' could be spooled from the interfacial layer. It is the only experiment I've seen where many primary teachers were genuinely fascinated by the result.

Letting primary children use chilled propanol was ruled out as you can never be sure there isn't one in the class who will not drink it or get it into their eyes with the resultant over-the-top response, ironic when it is a safe experiment for your own children or grandchildren carrying out all stages. These 'unsafe' children are sometimes easily spotted as I stopped one about to jump off a chair onto the strawberries and chemical mixture in the bag to make sure they were squashed! One child tasted the mixture and after loudly announcing 'it was quite nice', the whole class had to be warned not to taste it.

The children also enjoyed using DNA code to make a 141 amino acid section of haemoglobin using post-it notes for the residue chain. Strictly, I should have used RNA code but with primary knowledge what it is, I skipped that complication.

The detection of blood by using haem and the 5-aminophthalhydrazide chemiluminescent reaction was a problem in some sunlit classrooms, but carrying it out under a table surrounded by a light shielding crowd of juniors made it seem more spectacular. It linked in well to forensic work and DNA. Due to the hazardous nature of the ingredients the experiment was not carried out by the children. In fact, accidentally spilling hydrogen peroxide on my hand and forgetting to quickly wash it off, nearly provoked an accidental profanity in class, when the sharp stinging arrived suddenly many minutes later in a totally different part of the presentation!

Overall, DNA was presented to a total of 163 children at Bryn Deva, Connah's Quay, Flintshire and Gwynedd Primary School, Flint and was very successful. However, this presentation takes an hour lead-in time through atoms, molecules, amino acids and proteins before DNA could be introduced.

*Steve Conway,
Schools Science Festival Organiser*

A History of the North West Trust's Involvement with the Schools Science Festival

The Schools Science Festival (SSF) sprang from the Wrexham Science Festival's education arm. In 2001, I was contracted to create and run the programme for two weeks each March at NEWI. The RSC at that time supported chemistry in the public arm.

The original funding was external, from Career's Wales, for the educational arm. NEWI provided the facilities, with Wrexham CBC supplying some funds and office support. All children came into NEWI for short 45 minute demonstrations with up to six sessions per day. By the time this had reached 3000 children, the site was overwhelmed and by then the new Techniquet northern base needed the site. The science presentations were then rewritten for longer one-hour presentations to be delivered by outreach in primary schools and also using high schools as centres.

The programme peaked at 8600 children and 35 presenters delivering a programme over two weeks, but when Wrexham CBC suddenly stopped funding, the remaining sponsorship from Careers Wales and smaller sponsors such as the RSC's North West Trust (NWT) saved the programme from complete collapse. The SSF name was then used and although it came into competition with Techniquet, the SSF concentrated on non-curriculum science. Occasionally mistakes were made in creating the wrong presentation. For example 'Why Planes Crash' had zero take-up and appeared to have spooked teachers, while Airbus, then sponsoring 'Flight', naturally declined to support it!

By 2006, much of the funding was from Careers Wales and the ICE, but in 2007, the NWT started funding 'Dyes' and 'At Home with Chemistry'. Soon, Careers Wales withdrew half the funding due to a poor response from secondary schools. This was partly caused by apathy from senior science teachers but also from the difficulty in getting presenters to work with often sullen teenagers that would frequently damage expensive kit.

After four years of helpful support, the ICE ran out of funding and the NWT continued with steady support for two or three presentations each year. The chemistry presentations' development costs were paid for by Careers Wales. Both Careers Wales' Dave Fitzsimmons

and the NWTs' Grahame Stanley understood the problems that face an organiser and I now have endured more than a few moans about the educational system from myself! However, both having a chemistry background helped enormously and without their support, the SSF would have been stopped years earlier. When Dave Fitzsimmons stopped working for Careers Wales, his replacements had no science background, and so the partnership ceased.

As the SSF shrank from 35 presenters to a handful and then to just myself and my wife, I made little effort to gain new funding, as small gains in funding meant a large workload. Even so, it has reached over 40,000 children, and I, personally, have been into 350 schools working with 12,000 children in practical science workshops.

As an organiser, I found funding the events' start-up costs a problem at times with up to £5,000 needing to flow from my own bank account until I was reimbursed much later. Here, once again, the NWT committee and their Treasurer, Grahame, were always helpful with a clear-cut decision on funding and prompt payment. In contrast, I had to chase the giant, Airbus, for £500 for 8 months until someone in Germany said, "Yes we have paid it into the wrong account" and released the funds owed!

From 2007 to 2014, the NWT has funded nine presentations in primary schools throughout North Wales and the surrounding area, namely 'Dyes'; 'At Home with Chemicals'; 'Fullerine Fun'; 'Hot Earth, Nice Cakes' (Global warming and carbon dioxide uses); 'Acid Fizz!'; 'Elements and Materials'; 'Supermarket Chemistry' (Chemicals in food); 'Biochemistry'; 'DNA'.

It is the support and trust of organisations, such as the RSC's North West Trust and Careers Wales, and their experienced individuals, that makes it possible to organise these events. As sponsors, the North West Trust's committee via Grahame Stanley, have been a pleasure to work with and have given such positive support for primary science in our schools.

*Steve Conway,
Schools Science Festival Organiser*

RSC North West Region Analytical Division Long Service Members Lunch

Some 70 members and their guests from across the region attended the 2014 Long Service Members Lunch held at Vicars Cross Golf Club, Chester on 12th June. This was the 29th consecutive year of this highly successful annual event which enables members to renew acquaintances, make new contacts, catch-up on news and share reminiscences from their careers in analytical chemistry. Despite a reduced income stream resulting from the withdrawal of the annual grant to our region from the Analytical Division in recent years, we are able to maintain the lunch as a free event for our Long Service Members, mainly because of income generated from our highly successful biennial chromatography meeting organised in conjunction with the Chromatographic Society.



Following a very enjoyable three-course meal served in the golf club's spacious dining room, Peter Bolt, assisted by his wife Gillian, presented an illustrated talk on Thomas Brassey, a local and highly successful civil engineering contractor and building material manufacturer who was responsible for building much of the world's railways during the 19th century. Prior to his talk, Peter conducted a quick poll to see how many members knew of Brassey and it was clear that, in contrast to other very successful contemporary engineers such as Telford, Brunel and the Stephensons, very few of those present had ever heard of him. This is even more surprising given that Brassey was educated in Chester, set-up his business on the Wirral, and built around one-third of the railways in Britain and a significant proportion of those in France, Canada, Australia, South America and India. Moreover, Brassey was also active in the development of steamships, mines, locomotive factories, marine telegraphy, and water supply and sewage systems. All members left the meeting with a

much better understanding of Brassey's major contribution to the industrial revolution, and several were planning to find out more about this remarkable but rather unknown man.

Many thanks are due to Ted Adlard and Alan Handley for organising the lunch, which was enjoyed by all who attended. The 30th Long Service Members Lunch will be held in the summer of 2015 and further information will appear on our website www.nwad.org. Invitations will be sent automatically to our long serving members, but any member who would like to participate and does not receive an invitation should contact Stuart Forbes (stuart@sfanalyticon.com), for further information.

Stuart Forbes,

RSC N.W. Region Analytical Division

National Schools Analyst Competition 2014

The 2014 Schools Analyst Competition National Final was held at the University of Central Lancashire (UCLan) on the 23rd and 24th June. The event, which is sponsored by the Analytical Division of the RSC with help from the NW Region Analytical Division, involved all the regional finalists with some 20 schools contesting the final.



Winning student team from Charterhouse School with Brian Woodget (left), National Organiser of the Schools Analyst Competition, & Alan Handley (third from left), President of the Analytical Division.

The competition was won by Charterhouse School, with joint second prize winners Down High School and Holyhead High School (one of four teams representing the NW Region), and Vandean College coming in third.

The event was a great success with much positive feedback from the participating teams and teachers. A special mention should be given to the UCLan staff that helped put on the event and provided great support and organisation throughout the competition.

Alan Handley,

RSC N.W. Region Analytical Division

Emerging Analytical Professionals Conference

The Emerging Analytical Professionals Conference 2014 was held on 4-6th April at the North Lakes Hotel in Penrith. 71 delegates attended another excellent analytically focused programme organized by members of the Analytical Science Network, the younger members branch of the Analytical Division. This year's theme centred around 'A World Goal, Celebrating Analytical Achievements' highlighting how analytical science is being used to tackle worldwide issues in disciplines including environmental science, forensic science and pharmaceuticals. A highlight of the programme was the closing keynote speaker, Professor David Perrett from BARTS -his talk described developing a simple way of detecting protein contaminants on surgical equipment and the reasons why this is so important.

The NW Region AD sponsored the Friday evening 'icebreaker' session. During the evening, a meal was followed by a quiz prepared and delivered by Tony Bristow from Astra Zeneca. The social programme continued with the light-hearted fancy dress conference dinner, delegates shown sporting outfits for this year's theme the Brazilian World Cup.



NWR-AD also sponsored a poster prize.



The winner, Alison Woodward, second from the left, is pictured here with other prize winners and conference chair, Charlie Davies from the University of Cardiff.

EAP 2015 will be held on 8-10th May at the Aztec Hotel in Bristol. For more details of upcoming events join the Analytical Science Network groups on LinkedIn, My RSC and Facebook.

Clare Rawlinson-Malone,
N.W. Region Analytical Division

DIARY

RSC GROUPS

SPECIALITY CHEMICALS SECTOR

For details contact:
Sector Secretary
Dr Grahame Stanley
Tel: 07792 056515
Email: g.l.stanley@btinternet.com
or www.rscspecialitychemicals.org.uk

24 - 25 June 2015 **RSC Speciality Chemicals Sector Symposium** **RIGHT ON TARGET - DIRECTED DELIVERY IN 2015**

This event will run alongside 2015 Chemspec Europe and Chemsources Exhibitions organized by Quartz Media.

Venue: Cologne, Germany
Contact: Pat Keen.
Tel 01606 888005
Email: patricia.keen@virgin.net
See page 19 for further details

2 – 4 November 2015 **CHEMISTRY IN THE OIL INDUSTRY XIV:** **CHEMISTRY – CHALLENGES AND RESPONSIBILITIES**

This biannual conference will focus on Unconventional Resources and New Chemistry in the Oil Industry.
Venue: Hilton Deansgate, Manchester, M3 4LQ
Contact: Laura Dickinson.
Email:
Laura.Dickinson@rscspecialitychemicals.org.uk
See page 20 for further details

NORTH WESTERN REGION

7 – 8 November 2014
RSC GENERAL ASSEMBLY
Venue: The Midland, Peter Street. Manchester M60 2DS
The annual General Assembly for governance committees and active members, including the Prizes and Awards ceremony. Invitation only event - any queries, please contact.
Contact: Dr Fiona McMillan.
Tel: 01223 432269
Email: networks@rsc.org

CUMBRIA SECTION

For information contact:
Section Secretary
Dr Kevin Webb
Website: www.rsc.org/cumbria

LANCASTER & DISTRICT SECTION

For Local Section information:
Section Secretary
Mr Alex W T Livesey
Tel: 01282 818741 (work)
Website: www.rsc.org/lancaster

For events details contact:
Programme Secretary
Mr Harry Clarke
Tel: 01995 640003
Email: hclarke906@btinternet.com
Website: www.rsc.org/lancaster

Below is a programme of forthcoming events. All lectures will take place at the University of Central Lancashire, Preston - the actual lecture theatre to be confirmed near the time.
Refreshments available from 7.00pm, prior to the lecture starting at 7.30pm.

Tuesday 30 September 2014
THE STARS ARE OURS
Speaker: Prof. D W Kurtz, UCLan.
Another exploration of our Galaxy and the Universe by an entertaining speaker who brings us the latest information, illustrated with some mind blowing photographs.

Tuesday 21 October 2014
MOLECULAR ONCOLOGY - PAST, PRESENT AND FUTURE CHALLENGES
Speaker: Dr Michael Waring, Astra Zeneca.

First in a series of 6 lectures over the next 12 months from Dr Waring, first recipient of a new award from the RSC, a Lectureship from the Biological and Molecular Chemistry Section.

Tuesday 25 November 2014
PHOTODYNAMIC THERAPY
Speaker: Prof. Mark Wainwright, John Moores University, Liverpool.
Latest developments in this new field using light to activate dyes in the treatment of a variety of diseases.

Tuesday 13 January 2015
NANOTECHNOLOGY IN OUR DAILY LIVES
Speaker: Dr. Tapas Sen, UCLan.

Latest research in this field.

Tuesday 10 February 2015
SCIENCE, SCIENTISTS AND CINEMA
Speaker: Dr. David Kirby, Manchester University.

A look at the work of scientists in advising film & TV producers and directors about the correct use of science in Science Fiction and other productions.

LIVERPOOL SECTION

For details contact:
Section Secretary:
Dr Ingeborg Buschmann
Tel: 0151 9499304
Email: ibuschmann.rsc@gmail.com
Website: www.rsc.org/liverpool

For events details, contact:
Dr Bob Lee
Tel: 0151 3347875
Email: drboblee@msn.com
www.rsc.org/liverpool

Wed 24 September 2014 12.00pm
Retired Members' Lunch UNDERNEATH THE BANDAGES
3 course meal followed by a talk on Forensic Egyptology by Dr. Jacky Finch, KNH Centre for Biomedical Egyptology, Manchester University.
Venue: The Bridge Inn. Port Sunlight CH62 4UQ
Open to RSC Members and Guests.

Tuesday 2 December 2014 12.00pm
BENEVOLENT FUND RETIRED MEMBERS' LUNCHEON
Venue: Eilan Vannin Hotel. Loch Promenade. Douglas. Isle of Man IM1 2LY
Open to RSC Members and Guests.

Wed 10 December 2014 12.00pm
RETIRED MEMBERS' CHRISTMAS LUNCH
Venue: The Mill Hotel. Milton Street. Chester CH1 3NF
Open to RSC Members and Guests.

December 2014
'TOP OF THE BENCH' COMPETITION
The annual heats for the school competition for Yr 9-11 students to be held at 3 locations:
1 December, Isle of Man
10 December, Liverpool University
12 December, Wirral Metropolitan College. Further information: ibuschmann.rsc@gmail.com

MANCHESTER & DISTRICT SECTION

For information contact:
Section Secretary
Dr Francis Mair, Manchester
University
Tel: 01942 768801 ex 254 or 07800
532585
Email: francis.s.mair@manchester.ac.uk
Website: www.rsc.org/manchester

24 October - 2 November 2014

MANCHESTER SCIENCE FESTIVAL

A variety of interesting activities for all ages at different venues across the city. More information via:
www.manchestersciencefestival.com/

NORTH WALES SECTION

For information contact:
Section Secretary
Dr. Hongyun Tai, Bangor University
Tel: 01248 351151
Email: h.tai@bangor.ac.uk
Website: www.rsc.org/nwales

NORTH WEST REGION ANALYTICAL DIVISION

For details contact:
NW Region AD Honorary Secretary
Dr Stuart Forbes
Tel: 01606 883188 or 07500 848727
Email: stuart@sfanalyticon.com
Website: www.nwad.org

Full details of forthcoming events are found on the website.

4 December 2014

CHRISTMAS LECTURE AND DINNER

The lecture theme will be Chemistry in Art - details to follow.
Venue: Manchester Metropolitan University.

RSC MICRO-ANALYTICAL DIVISION

Contact: Sue Lewis
Tel: 0161 488 3667
Email: sue.lewis@isoprime.co.uk
Web: www.isoprime.co.uk
Web: www.elementar.de/en/home

AROUND THE REGION

BANGOR UNIVERSITY SCHOOL OF CHEMISTRY

Full details of forthcoming events are found on the website home page of www.bangor.ac.uk/chemistry

For further details on the extensive School Outreach Programme:
www.bangor.ac.uk/chemistry/documents/Chem%20Sch%20events%20prog%20Oct%202013%20web.pdf;

The following activities take place throughout the year:

Spectroscopy in a Suitcase; Interactive Periodic Table; School Lecture Series; Private School Visits.

Tel: 01248 382375
Email: chemadmin@bangor.ac.uk
For details & to book places on line contact: www.bangor.ac.uk/chemistry/schools

November - December 2014

TOP OF THE BENCH COMPETITION

Regional heats of the RSC's national chemistry competition. Bookings via School of Chemistry.

March 2015

BANGOR SCIENCE FESTIVAL

The Festival, held during National Science & Engineering Week, will have entertaining and thought provoking activities for all ages. For more details, see the Bangor Science Festival website www.bangor.ac.uk/bangorsciencefestival

March 2015

ECOSCIENCE DAYS

A free hands on science event aimed at KS4, that focuses on environmental issues in science.
Contact: r.l.robinson@bangor.ac.uk to book places

April 2015

RSC'S SCHOOLS ANALYST COMPETITION

Regional heat of this national contest for Year 12. Bookings via the School of Chemistry.

June 2015

CHEMISTRY PHARMACEUTICAL

A popular & practical workshop for Year 12 students on the synthesis and analysis of Aspirin, the world's oldest and largest produced painkiller.

An opportunity to use specialist techniques not used in school.
Bookings via the School of Chemistry.

June and July 2015

THE TALENT OPPORTUNITIES PROGRAMME

The TOP programme of hands-on workshops, aims to give pupils from schools across N. Wales, an insight into Higher Education and the opportunities available, and hopefully, stimulate an interest to continue studying post-GCSE. For more information, contact Manon Williams on 01248 383536 or manon.williams@bangor.ac.uk

1-8 August 2015

NATIONAL EISTEDDFOD OF WALES

This year's event will be in Meifod, Montgomeryshire - it is likely that the Science Pavilion will have all sorts of fun chemistry experiments. More information via:

www.eisteddfod.org.uk/english/2015/
www.eisteddfod.org.uk/uploads/publications/1193.pdf

BRITISH ASSOCIATION FOR CHEMICAL SPECIALITIES (BACS)

For details contact:
Jackie Hall
Tel: 01423 700249
Email: enquiries@bacsnet.org
Website: www.bacsnet.org

Further details on BACS meetings, conferences & courses can be found at: www.bacsnet.org/news/ or from the BACS office at enquiries@bacsnet.org

Wednesday 10 September 2014

Training Course AN INTRODUCTION TO SURFACTANTS

Venue: Lymm

A course designed to provide a basic understanding of surfactants, how they work and how they are used.

Thursday 11 September 2014

SUSTAINABLE SUPPLY CHAINS IN COSMETICS

Venue: Lymm

A meeting, run jointly by the BACS Personal Care Group & CTPA (Cosmetics & Toiletry Products Association).

Thursday 25 September 2014

**Training Course
AN INTRODUCTION TO
MICROBIOLOGY**

Venue: Stockport

A course designed to provide a basic understanding of microbe types, the problems they cause and how they may be resolved.

Wednesday 1 October 2014

**Training Course
SURFACTANTS AND THEIR
APPLICATIONS**

Venue: Stockport

An advanced course intended for chemists with a working knowledge of surface chemistry, which provides an overview of surfactants, including their functions and applications.

Thursday 20 November 2014

**Training Course
AN INTRODUCTION TO
REGULATORY AFFAIRS FOR THE
SPECIALITY CHEMICALS SECTOR**

Venue: Lymm

A course designed to provide a basic overview for those either not routinely involved in regulatory affairs or new to the Sector.

Thursday 27 November 2014

FORMULATION DESIGN

Venue: Lymm

A meeting, run jointly by the BACS Surfactants Formulation Group and the RSC Formulation Science & Technology Group.

**BRITISH MASS
SPECTROMETRY SOCIETY**

For details contact:

Dr Peter J Baugh

Tel: 0161 9737032

Email: peterbaugh682@hotmail.com

Website:

www.analyticalmethodologycentre.co.uk

For BMSS news & further information:

www.bmss.org.uk, or

bmssadmin@btinternet.com

**BRITISH SCIENCE
ASSOCIATION NW REGION**

Local events and activities take place across the North. For more information about all the North West local branches, email: Northregions@britishscienceassociation.org
Website:

www.britishscienceassociation.org/
north-of-england

1st weekend October 2014

**DARESBURY SCIENCE MINI
FESTIVAL**

Annual event organised by NW BSA at Science & Technology Facilities, Daresbury Laboratory, Warrington Cheshire WA4 4AD

More details nearer the time.

BOLLINGTON SCIBAR

For details contact:

Email: bollingtonscibar@hotmail.co.uk

Website: www.bollingtonscibar.co.uk

Events take place at The Vale Inn, Adlington Road, West Bollington on the second Monday every month at 6.30pm.

DIDSBURY SCIBAR

For details contact:

Mark Hillen

Email: scibar@gmail.com

Website: www.scibar.info

Meetings take place at The Albert Club, 41 Old Lansdowne Road, West Didsbury, on the third Monday every month at 6.45pm.

CHESTER SCIBAR

Meetings take place at The Ship Inn, Handbridge on the last Tuesday of the month at 7:30pm.

CONGELTON SCIBAR

For details contact:

www.congletonscibar.co.uk/
index.html

Meetings take place at The Young Pretender, Lawton Street, Congleton on the second Tuesday of the month at 7:30pm.

KNUTSFORD SCIBAR

For details contact:

Dave Thompson

Tel: 01565 632845 or 07768 355814

Email: knutsford.scibar@ntlworld.com

Website: www.knutsford-scibar.co.uk

Meetings take place in the Knutsford Sports club, Mereheath Lane, Knutsford, on the first Monday of the month at 7.30pm.

MACCLESFIELD SCIBAR

For details contact:

Website: www.macclesfieldscibar.co.uk

Events take place at The Park Tavern, 158 Park Lane, Macclesfield, every fourth Monday at 6.30pm, followed by the regular pub quiz at 8.30pm. Food available.

Student SciBar 'The Science Club', where we open the floor to local students to discuss topics of intrigue. The Science Club starts at 5:30pm on the same night of SciBar (fourth Monday of the month)

**CATALYST SCIENCE
DISCOVERY CENTRE**

For more information about the Centre, contact:

Meryl Jameson

Tel: 0151 4201121

Email: meryl@catalyst.org.uk

Website: www.catalyst.org.uk

For further information on the extensive Education Programme for 2014: www.catalyst.org.uk/download/Education/EducationProgramme2013-14.pdf

Every Saturday and Sunday
FAMILY WEEKEND WORKSHOPS

http://catalyst.org.uk/download/Marketing/WeekendWorkshops.pdf
Tickets £1 per person, in addition to the normal admission charge.

Every day during School holidays
FAMILY WORKSHOPS

Workshops lasting 35 - 45 minutes and aimed families with children between 6 and 14 (though all ages are welcome). Tickets £1 per person, in addition to the normal admission charge.

Second Saturday every month
(except August & September)

SATURDAY SCIENCE CLUBS

Free series of Science Clubs for 11-14 year olds from 11.00 - 13.00. Also, OATS Club: Science Club for Over Age Teenage Scientists! Please ring 0151 4201121 for details.

14 September 2014

HERITAGE OPEN DAY

Visit Catalyst free of charge, explore the galleries and watch some rarely seen local archive films. In glorious black and white, our archive films

come from the Brunner Mond Film collection and include clips from local industries like ICI. Catalyst is open from 10am – 5pm with film shows at 1pm, 1.45pm and 2.15pm.

22 October 2014

RSC HISTORICAL GROUP MEETING – CHEMISTRY AND WORLD WAR 1

This meeting will take place at Burlington House with live streaming to Catalyst Science Discovery Centre. With a worldwide host of speakers, the meeting will open at 10.15am, and will close at 5.30pm. The cost of the live streamed event at Catalyst is £20 per person (including lunch). To register, please send a cheque for £20 made out to RSC Historical Group, to Dr Diana Leitch, 11 Wingate Drive, Didsbury, Manchester M20 2RT. Please give your name, address and email, and state if you require an acknowledgement. Diana's email is diana.leitch@googlemail.com

FRIENDS OF CATALYST

For details contact:
Ian Campbell.

40 Tuson Drive, Widnes WA8 9EZ
Email: friends@catalyst.org.uk
Website: www.catalyst.org.uk/friends/friends.htm

WIDNES SCIBAR

Organised by 'Friends of Catalyst' and Catalyst Science Discovery Centre, Widnes SciBar meets on the second Wednesday of each month at the Hillcrest Hotel, Widnes.

CHEMICALS NORTHWEST

For details contact:
Alexandra Heys
The Heath Business and Technical Park, Runcorn, WA7 4QX
Tel: 01928 515678
Email:
alex.heys@chemicalsnorthwest.org.uk
Website: www.chemicalsnorthwest.org.uk

18 September 2014

BEHAVIOURAL SAFETY AND DEVELOPING A GOOD EHS CULTURE IN THE WORKPLACE

Venue: Heath Business Park, Runcorn
An interactive seminar - more information available via the website.

19 March 2015

CHEMICALS NORTHWEST AWARDS 2015

Venue: Hilton Deansgate, Manchester
More information available via the website.

MANCHESTER UNIVERSITY SCHOOL OF CHEMISTRY

For more information on a wide range of outreach activities ie demonstration lectures, talks, careers information and hands-on science activities to primary and secondary schools, as well as colleges and the general public. Contact:
Meriel Barham
Tel: 0161 2754686
Email: outreach.chemistry@manchester.ac.uk
Website: www.chemistry.manchester.ac.uk/outreach/

MUSEUM OF SCIENCE & INDUSTRY (MOSI)

For more information contact:
MOSI, Liverpool Rd, Castlefield, Manchester M3 4FP
Tel: 0161 832 2244
Website: www.mosi.org.uk

PI - PLATFORM FOR INVESTIGATION

Monthly contemporary science programme showcasing cutting edge research, live experiments and art and science collaborations. For more information look at the website.

EXPERITOTS

Activity sessions for under 6s in the hands-on science gallery. First Friday every month 10 - 11.30am. £3 for one adult and one child. Each additional child or adult £2. Booking essential - call 0161 833 0027 or 0161 606 0156, or email: education@mosi.org.uk

23 October – 2 November 2014

MANCHESTER SCIENCE FESTIVAL 2014

Manchester Science Festival, organised through MOSI, is a free ten day, city-wide, multi-venue festival that engages people with science, in exciting and creative ways. Check the website for details:
www.manchestersciencefestival.com

SCI - LIVERPOOL AND NORTH WEST GROUP

For general enquiries, contact:
Marie Connor
Tel: 0151 3485742
email: marie.connor@innospecinc.com
Website: www.soci.org/Membership-and-Networks/Regional-Groups/Liverpool-and-North-West-Group/Group-Events

WEAVER HALL MUSEUM AND WORKHOUSE (FORMERLY THE SALT MUSEUM)

For details contact:
162 London Road, Northwich CW9 8AB
Tel: 01606 271640
Email:
cheshiremuseums@cheshirewestandchester.gov.uk
Website: www.cheshirewestmuseums.org
For details of all events:
www.cheshirewestmuseums.org/wp-content/uploads/2014/06/Weaver-hall-leaflet-20141.pdf

TEA AND TALKS

Talks on a variety topics, start at 3pm on the last Wednesday of each month, except December. £1 entry includes tea or coffee.

SCHOOL HOLIDAY EVENTS

A variety of activities during school holidays - all included in the museum admission price. Workshops run from 10am to 4pm on Wednesdays and Thursdays and usually take about an hour to complete. Drop in any time you like between those times. Children must be accompanied by an adult.

WEEKEND EVENTS

Special events take place throughout the year - bringing the museum's collections to life. Dates, times and themes can be found on the Museum website.

THE FRIENDS OF WEAVER HALL MUSEUM

The Friends organise regular events at the Museum and at outside venues. Contact the museum on 01606 271640 or via the 'Friends' website: www.fowhm.org.uk

School pupils synthesise drugs at Bangor University

100 school pupils from north Wales and the North West of England took part in two days of Pharmaceutical chemistry at Bangor University recently.



The ChemPharma event aims to give year 12 pupils an experience of chemistry in a University setting and an understanding of how pharmaceuticals are made, illustrating the amount of analysis and testing work done before a drug can be made available. Students attended a pharmaceuticals themed workshop held in the Chemistry laboratories where they were synthesising aspirin. The experiment set for the schools is similar to one conducted by our first year Chemistry Undergraduates.

Dr Nigel Lord, the Analytical Technical Manager at Quay Pharmaceutical, Shotton, gave a presentation to the students about the Pharma Industry and

the costs and logistics of getting drugs to market. They learnt about the structure of the pharmaceutical industry, current and future research and development areas, and the range of careers available for chemistry and life science graduates. Nigel said, "It's been really great to see the next generation of scientists working in the laboratory and I hope that after today, some of them will consider working in the Pharma industry in the future."

"Chempharma provided an excellent opportunity for students to experience independence in a University laboratory. The day really encouraged them to think for themselves and should give them confidence in the A2 practical next year." said Hayley Evans from Mold's Alun School.

"This was an amazing opportunity for young people to get stuck into real chemistry. Synthesising a chemical they are all familiar with, and using equipment and processes they only tend to study in theory. A real hands-on experience." said Helen Williams, Coleg Cambria, Deeside.

Dr Andrew Davies, Senior Tutor at the School of Chemistry said "The support we receive from companies like Quay

Pharma enables us to host events that not only complement the school curriculum but hopefully show local pupils that there are study and subsequent employment opportunities available locally. We also received very generous sponsorship from the RSC North West Trust, who have been supporting us for many years now. This money enabled us to purchase laboratory consumables used over the two days."



Nigel Lord, Quay Pharma, and Dr Andrew Davies, Bangor University

The University's School of Chemistry added the ChemPharma event to their lively school engagement programme 6 years ago and have kept the in the calendar ever since. For further information on chemistry events for schools please see the web site www.bangor.ac.uk/chemistry

Stevie Scanlan, Bangor University

Primary Schools Outreach



The School of Chemistry at Bangor University recently visited a local primary school to conduct a workshop on 'Chromatography and the Molecules in Chocolate'. Dr Enlli Harper, lecturer, and Charlotte Jones, Senior Demonstrator, delivered a workshop to a group of year 6 pupils at Llandegfan School, Anglesey.



Dr Harper said "It was great to be able to deliver a bilingual workshop to primary age pupils. We want to spark an interest in science early, so that by years 7, 8 and 9, they understand what science is about and are encouraged to join in with other events at the University. It is part of our strategy to include younger children so that science becomes something they are familiar with. It was great to work with younger children, especially when you teach them how to make slime!"



Stevie Scanlan, Bangor University

29th Young Scientist Symposium 2014

The Young Scientist Symposium is an annual event in which gives young scientists from industrial and academic backgrounds the opportunity to present their research to their peers, as either an oral or poster presentation. This year's event took place at Bangor University on the 2nd July, and was hosted by the RSC North Wales Section and organised by Charlotte Jones, Phd student and Senior Demonstrator.

The varied presentations included Micolic acids for TB detection, sugars in breastmilk, and pro-drugs for cancer therapy.

The event was sponsored by National and Local Sections of the RSC, Warwick Chemicals (Mostyn), and Sigma Aldrich with contributions from SGS Ltd.

The day ended with prizes for the best poster and best presentation.

Stevie Scanlan, Bangor University

Lion Salt Works Restoration



The Lion Salt Works is an historic open-pan salt making site that is being restored and transformed into a unique heritage attraction. Located in the village of Marston, close to the town of Northwich, the site lies adjacent to the Trent and Mersey Canal and is close to the historic Anderton Boat Lift. A substantial part of the site is a Scheduled Monument.



The £8million restoration led by Cheshire West and Chester Council, will see the site reborn as a fascinating destination for tourists, day visitors and families and a valued resource for local communities, businesses and heritage interest groups. Funding has been provided by the Cheshire West and



Chester Council, the Heritage Lottery Fund, and Manage+. Restoration work is nearing completion by Wates Construction, with an expected opening in Spring 2015.

During the restoration period, a number of events and Open Days will be held. In September, a Heritage Open day will take place - details will be announced in July.

Report & photographs courtesy of Lion Salt works website: lionsaltworks.org

Boys win Silver in 'Top of the Bench' Chemistry Competition 2014

Four pupils from Bolton School Boys' Division were finalists in this year's Royal Society of Chemistry 'Top of the Bench' competition. Having won the regional heats, they went on to represent Manchester and District Local Section in the national final. Year 11 student Niall Woodward, Jack Virgin from Year 10, and Year 9 pupils Akshay Pal and Ross Percy made up the Boys' Division team. They travelled to the University of Loughborough to go head-to-head with 29 teams from across the UK and Belgium.

Their knowledge of Chemistry was tested by an individual 30-minute written test followed by a practical task, for which the teams were split down into pairs. Akshay and Ross extracted caffeine from tea and analysed their mixture with high-performance liquid chromatography apparatus. Niall and Jack were faced with a very different analysis problem: they were asked to identify 3 unknown chemicals. With over 30 solutions at their

disposal, they were able to establish the results of known reactions, and used their findings to solve the problem.

The boys' combined efforts won them a second place in the competition overall, with Ardingly College just beating them to the trophy. The boys were awarded the runners' up plate by Professor Ray Jones, President of the Royal Society of Chemistry's Organic Division and Professor of Organic and Biological Chemistry at Loughborough University.



The Bolton Schools Boys' Division team with their trophy, and Prof. Ray Jones

Report & photograph courtesy of the School's website

SCI DSA honour for Marie Connor

Each year, at its AGM, SCI presents Distinguished Service Awards. The awards celebrate the hard work and goodwill of longer-serving members from all component parts of the Society. The award recognizes the time given as volunteers to organise conferences, edit or peer-review the material published in our journals, share enthusiasm, or give leadership and support to regional or technical group activities.



This year in May, the Society presented a Distinguished Service Award to Mrs Marie Connor, for her contribution to the promotion of SCI in the Liverpool and North West region, in particular for her contribution to the committee since the start of her career.

Report taken from SCI website

'Harvesting Sunlight' at Macclesfield Scibar

On July 28th, Dr Darren Graham from the Photon Science Institute of Manchester University, joined Macclesfield Scibar and led the discussion into the requirements of a sustainable energy source, reviewing current solar technologies and introducing promising new directions being explored in laboratories around the world.

Dr Graham's research is primarily concerned with developing a new generation of solar-harvesting nano-cells, which are based on nanoparticles: clumps of atoms that are a billionth of a metre in size, and which promise to increase solar cell efficiency and reduce cost.

Dr Graham uses ultrafast laser facilities at Manchester University to investigate the mechanisms of electricity generation in prototype solar cells. Through this research, Dr Graham and his colleagues, are optimising the design of these novel solar nano-cells, which they hope will soon enable their widespread implementation.

Report taken from the Scibar webpage

Continuous Flow Technology in Industry 2 Symposium, March 2014



Robinson Collage, Cambridge

This conference was held at Robinson College in Cambridge from 17 to 19 March 2014, with CMAC (Continuous Manufacturing and Crystallisation) as our silver sponsor. It followed on from the first conference with this title held in York two years earlier. Incredibly, we had 132 attendees in total, far in excess of our expectations for what was our 4th conference on Continuous Flow, a field which shows no sign of reaching saturation or maturity. Full details of the programme can be viewed on www.rscspecialitychemicals.org.uk/previous-conferences/continuous-flow-technology/continuous-flow-technology-in-industry-ii/. Printed Proceedings were distributed to all delegates on arrival. Copies of the Proceedings can be purchased (£30 inc. postage & packaging) either via the web-link above or by emailing Pat Keen: patricia.keen@virgin.net, expressing your interest.

Registration opened at 2pm on the Monday after Pat Keen's team of herself, Ruth and Bruce Lane and Isaac Frampton, who had all arrived the night before, had packed the delegate bags and set up the facilities. An optional Workshop was attended by many later in the afternoon, led by the two workshop sponsors Jag Srai (Cambridge Institute for Manufacturing)



Jag Srai & Simon Rushworth, leaders & sponsors of the workshop session

and Simon Rushworth (Knowledge Transfer Network) whilst the exhibition stands were being set up and the poster display organised. A welcome reception followed which introduced delegates to

each other and the 17 exhibitors before everyone went their separate ways for dinner.



Prof Steve Ley opens the event with his plenary lecture

The next day started in the excellent main lecture theatre at Robinson with a plenary lecture from Steven Ley on 'New Tools for Molecule Makers' - which was as good and as well received as the one he gave in York 2 years ago at the first Continuous Flow in Industry Conference. The structure for this conference however was different - invited lectures were interspersed with shorter exhibitor perspectives, a format that we planned based on the delegate feedback forms received in York.



Refreshment breaks and lunch breaks were held in the exhibition hall at Robinson, and the delegates were able to interact with the exhibitors and the poster presenters - indeed, it was always difficult to get the delegates back into the lecture theatre on time. The gong provided by Robinson was used to great effect.

Under Gareth Jenkins chairmanship, the Session on 'Continuous Flow at Production Scale' which followed the plenary, enjoyed talks from Dominique Roberge of Lonza, Charlotte Wiles of Chemtrex BV, Antonio Quintieri of Proctor and Gamble, Massimo Bertoldi of La Mesta, Dirk Kirschneck of Microinnova, and Stephanie Peschke of Ehrfeld. This was the first time La Mesta

had ever presented on their Raptor Continuous Manufacturing Technology - quite a coup for the conference. In contrast to 2 years ago, many speciality chemicals are now being made continuously at full scale.

After an excellent lunch from Robinson college catering, Mark Bratt chaired a Session on 'The Diversity of Continuous Flow Chemistry', with talks by Jaeyon Yoon of SK Life Science, Jasbir Singh of HEL, Christian Hornung of CSIRO, Mike Hawes of Syrris and Carsten Damerau of HNP Mikrosysteme. These talks were followed by a keynote lecture by Jag Srai of the Cambridge Institute for Manufacture on the 'Implications of Continuous Flow Technologies on Pharma Supply Chains'.

Craig Johnston chaired Session 3 on 'Continuous Crystallisation' which opened with a single lecture at the end of day 1 by Alistair Florence of Strathclyde University, and the session continued the next day.

The conference dinner was held in the magnificent Old Courts Dining Room at Gonville and Caius College, which is over 500 years old, in the centre of Cambridge - quite a contrast to Robinson which is the newest of the Cambridge Colleges built in the late 1970s.



This was a magnificent evening - excellent food and wines served in a fantastic environment and atmosphere - the delegates were entranced by the evening.

Continued overleaf



Paul Sharratt, keynote speaker on Day 2

The next morning however was back to work with a keynote address from Paul Sharratt from ICES Singapore on 'Developing Continuous Processes – from Ad hoc to Advanced'. Paul was the second keynote lecturer from the York conference from 2 years ago, and it was great to have him back. He was followed by the rest of the session 3 speakers, namely, Amy Robertson from AstraZeneca, James Holloway of Fulbrook Systems, and Gilda Gasparini from AM Technology.

Session 4 on the 'Comparison of Batch and Continuous Processes', chaired by Bruce Lane filled the time between morning refreshments to lunch, with talks by Jörg Schrickel of CABB, Leon Geers of TNO, Angelina Prokofyeva from Bayer, Franz Schaper of cetoni and Aki Tomita of Saida and

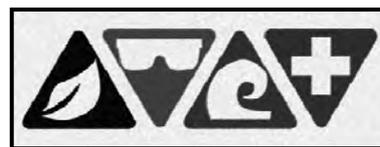
Pacific Microwave Technologies.

Following another excellent lunch from the Robinson college team, the final session was chaired by Simon Rushworth on 'Continuous Flow Technology for the Fine and Pharma Industries'. Ollie Tames of Intensichem was followed by Peter Poechlaer of DSM, and the conference was closed by Alexi Lapkin from the University of Cambridge.

This high powered conference with a very full programme received good ratings from the delegates and the exhibitors. The choice of venue was also highly praised. The sector is considering repeating the conference in March 2016 as the field still seems to be advancing rapidly.

Our thanks go particularly to Pat Keen, the conference secretariat, Ruth Lane the conference treasurer, and Isaac Frampton the IT man, as well as to our sponsors, and the rest of the organising team – Bill Hoyle, David Karsa and Tom Porter along with the 5 session chairmen.

Bruce Lane,
RSC Speciality Chemicals Sector



18 – 20 NOVEMBER 2014
INVERNESS - SCOTLAND

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All Fired up in Preston - Fire Retardant Technologies 2014 (FRT14)

Following on from the very successful Fire Retardant Conference in 2009, it was decided that it was time that the subject was revisited and updated in 2014. Again, the conference was held at the University of Central Lancashire (UCLan) in Preston, with Prof. Richard Hull and Dr Anna A Stec (UCLan), Prof. Baljinder Kandola (University of Bolton) and Dr John Liggat (University of Strathclyde) along with Drs Bruce and Ruth Lane being the organising committee. The conference was part of



L-R: Prof. Richard Hull, Dr Anna A Stec, Prof. Baljinder Kandola

COST Action MP1105 on Flame Retardancy which aims to disseminate information on recent research in flame retardancy throughout Europe. As a result, there were a large number of European attendees, many producing



L-R: Dr John Liggat, Dr Ruth Lane, Dr Bruce Lane

posters to show their latest work on flame retardancy and toxicity which greatly enhanced the conference. In addition, speakers from Europe, China and America were sponsored by COST Action MP1105, to lecture at the conference.

So – what happened at the conference? Over 180 people attended the Conference and Workshop and there were 7 exhibitors and 35 posters. On the afternoon of Monday 14th April, there was a tour of Exova Warringtonfire for those interested in seeing their fire testing facilities, which was followed later by a Welcome Reception sponsored by Solvay. This was held in the Darwin Lecture Theatre Foyer in the midst of all the exhibition stands and posters and was a great networking opportunity and

chance for everyone to hear about the latest research in the area and talk with manufacturers of fire testing equipment.

On Tuesday 15th April, the conference began with an overview by Richard Hull of fire retardants and the warning that the same fire retardant can work in different ways depending on the exact way in which a material is made. Ulrike Braun of the BAM Federal Institute for Material Testing in Germany, then went on to describe techniques for understanding fire retardant behaviour before Baljinder Kandola talked of fire retardant behaviour in composites and John Liggat spoke on the important effect fire retardants can have on the physical properties of polymers. Everyone soon understood that the whole area of fire retardancy is very complex and most research into understanding fire retardancy and the preparation of new fire retardants is being carried out in research institutions and universities, not in industry.

A session on the use of different fire retardants in different situations was

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opened by Sergei Levchik of ICL-IP, USA, who talked on gas phase flame retardants; and followed by José-Marie Lopez Cuesta of the Centre des Matériaux des Mines d'Alès, on the use of new aluminium based fillers in ethylene vinyl acetate; John Ebdon, University of Sheffield, on phosphorus compounds as condensed phase flame retardants for polymer based material; Giovanni Camino, Politecnico di Torino, Italy, on novel nanocomposite fire retardants; Yuan Hu, University of Science and Technology of China, on silica gel microencapsulated flame retardant and its migration mechanism; and concluded with Jenny Alongi, Politecnico di Torino, Italy, talking on 'layer by layer assembly' which is an emerging technique for conferring fire retardancy.

After a full day of lectures which had been interspersed with poster sessions and excellent guided tours of UCLan's fire laboratories by the graduate students, everyone was eagerly looking forward to the conference cocktail reception and dinner at Hoghton Tower sponsored by ICL-IP.



The weather was kind and it was breathtakingly beautiful to come up the long straight drive to Hoghton Tower which was built in the sixteenth century by the de Hoghton family. The de Hoghton's are one of the oldest English families and have owned the lands around Hoghton Tower since the Norman Conquest.



Bruce Lane toasts the occasion in the Upper Courtyard outside the Great Hall

Dinner was held in the spectacular Great Hall, where in 1606, King James 1 so enjoyed the beef that he ate there that he



Speakers John Ebdon & Baljinder Kandola enjoy the reception inside the Kings Hall

knights it "Sir Loin". This ceremony was re-enacted before our eyes before all the guests feasted on 'Sir Loin'.



The morning of Wednesday 16th April was devoted to applications of fire retardants with Andrew Taylor, Sherwin Williams, UK, talking of the development of intumescent coatings for structural steel in an offshore environment; Sabyasachi Gaan, Empa, Switzerland on Empa's recent work on the activity of hybrid organophosphorus fire retardants in the condensed phase and gas phase irrespective of the polymer used in textiles and fibres; Martin Klatt, BASF, Germany, on industrial applications of flame retardants in thermoplastics; and concluded with Franck Gyppez, Nexans Research, France, talking of the importance of flame retardants in cables when considering fire safety in buildings.

Before the afternoon session the awards for 'Best Student Poster' were made. The standard was so high that the judges, John Liggat and Bruce Lane, had spent hours reaching a decision. Finally, they decided that Antony Christou, UCLan,



'Best Student Prize' 1st prize winner, Laura Lowden, receives her award from John Liggat

'Best Student Prize' 3rd prize winner, & recipient of Richard Hull's Achievement Award, Antony Christou.



got the third prize, Mfiso Mngomezulu, CSIR Materials Science and Manufacturing, South Africa, the second prize, and Laura Lowden, UCLan, the first prize. All the students were congratulated on the high standard of their research and the wide range of subjects studied.

The afternoon session on 'Testing, Toxicity and the Environment' was a sobering experience. Jürgen Troitzsch, Fire and Environment Protection Service, Germany, discussed fire safety regulations and testing and their impact on the use of polymers and flame retardants; Anna Stec, UCLan, talked of the fire smoke toxicity of fire retardants and Heather Stapleton, Duke University, USA, concentrated on environmental concerns regarding chemical flame retardants especially in relation to young children.

Many delegates stayed on to attend an optional workshop on Thursday 17th April on 'Flammability Regulation for Upholstered Furniture' where there was vigorous, if not to say 'heated' discussion between regulators, industrial product providers and researchers on the subject.

Very many thanks are due to UCLan for its excellent hospitality and the helpfulness of all UCLan students at all stages in the conference.

A more detailed description of the content of the talks can be found in an article by Andrew Warmington in July's Speciality Chemicals Magazine, p12-13.

Ruth Lane,
RSC Speciality Chemicals Sector

RSC's Speciality Chemicals Sector Symposium 2014 in Budapest

'Waste not Want Not' was the title for the RSC Speciality Chemicals sector symposium this year at Chemspec in Budapest from 18 to 19 June. We were located at Hungexpo just outside Budapest, in a 70 seat lecture theatre provided by the Chemspec organisers towards the back of the main exhibition hall. The lecture theatre was excellent – not too noisy and with good views of the screen from all seats.



Photo L-R: Dr Bruce Lane, and Pat Keen, RSC Speciality Chemicals Sector, at the start of the Symposium

Your conference team led by Pat flew out from Manchester, most of us on the Monday night, spent Tuesday afternoon setting up, and ran the symposium on the Wednesday and Thursday. Many thanks to the team under Pat which did a great job – Pat, Ruth and Pat's daughter, Louisa, provided the basic structure, with David Karsa, Simon Rushworth, Tom Porter and Bruce Lane chairing the 5 sessions between them.

Over the two days, 15 lectures were presented in all and we are most grateful to the speakers for their time and their presentations. All the lectures were delivered – the Johnson Matthey planned speaker dropped out a couple of weeks before the symposium, and we were particularly grateful that Pasi Kauppinen from Johnson Matthey Finland was able to come instead and make the presentation. Paul Kriekemans from DNCP Belgium was also unable to be there due to a family death, but sent his talk which was delivered by his colleague, Johan Buaert. Pat had done an excellent job of getting signed copyright releases so the overheads from the presentations will appear shortly in the archive on the Chemspec web site – <http://www.chemspecevents.com/europe/chemsource/downloads>. We felt the speakers had done such an excellent job getting their presentations to us ahead of

the event that we invited them all out to a dinner on the Spoonboat, moored in downtown Budapest on the Danube with a super view from the Pest bank to Buda castle and fortress and the Fisherman's Bastion on the other side.



Speaker dinner on the Spoonboat

This made the end of the first day quite busy for the organising team, as the exhibitor party took place at 5pm as well. Here we found out next year's event will be in Cologne in June 2015. We expect to be there with a theme of 'Right on Target - Directed Delivery in 2015', and David Karsa scoured the exhibition looking for suitable speakers for this theme for next year (see <http://www.rscspecialitychemicals.org.uk/future-conferences/royal-society-of-chemistry-symposium-2015-right-on-target/>).



We were pleased that attendance numbers averaged 30+ to the lectures – hence in total we had over 450 lecture attendees – though this is by no means 450 different people attended. Some came to 1 or 2 lectures, but many attended either day 1 or day 2, and some even both days. Chemspec was quieter than last year's record attendance being about 5% down overall, though there were more exhibition stands than ever before. Quieter is only a relative term – many thousands of attendees can't be described as quiet. The lecture attendees were a lively bunch with probing questions for the speakers, so the session chairmen had their work cut out to keep to the lecture schedule.



L-R: Dr David Peck, Dr Janet Scott, Dr Hywel Jones

Session 1, chaired by David Karsa, focussed on the Design for a Circular Economy with presentations from David Peck of Delft University, The Netherlands, Janet Scott from Bath University UK and Hywel Jones from Sheffield Hallam, UK. This was our academic starter to the industrial applications that followed.



L-R: Dr Charlotte Wiles, Dr Jörg Schrickel, Dr Pascal Duenkelmann

Session 2, chaired by Bruce Lane, on Sustainable Processes with 6 speakers in total came next – Charlotte Wiles from Chemtrix, Jörg Schrickel from Evocatel, Pascal Duenkelmann from Phosphonics, Boris Bosch from Saltigo, and Peter Saling from BASF.



L-R: Dr Sophie Purser, Dr Boris Bosch, Dr Peter Saling

Through the presentations, one became aware that improving sustainability also meant reducing cost and increasing profitability – waste involves cost – both of making it and disposing of it, and there were many examples of proven the win-win situations – improving sustainability was not about increasing cost to reduce environmental impact.

Late in the first day, we started session 3, chaired by Simon Rushworth with 3 speakers, the session spilling over into day 2. This session focused on Scarce Element Recovery, with speakers Pasi

Continues on the next page

Kauppinen from Johnson Matthey, Catherine Joce from KTN UK, and Matti Rahko from Nokia.



L-R: Dr Pasi Kauppinen, Dr Catherine Joce, Dr Simon Rushworth



L-R: Dr Matti Rahko, Dr Andrew Crowther, Dr Adisa Azapagic

Tom Porter chaired the last 2 sessions – session 4 on Waste Valorisation which consisted of a single but fascinating talk by Allan Jensen of Chemoxy, and session 5 on Solvent recovery and recycling with talks by Johan Buyaert of DNCP Belgium, and the European Solvents Recycler group, represented by Andrew Crowther and Adisa Azapagic from Ethos Research UK.

The detailed programme and talk titles can be viewed on <http://>

www.rscspecialitychemicals.org.uk/previous-conferences/chemspec-europe-symposia/chemsource-2014/

Overall another successful RSC Speciality Chemicals Sector conference, and a very informative one, which tried to tackle a major societal concern. Roll on next year.

*Bruce Lane,
RSC Speciality Chemicals Sector*

Innovate 2014

Innovation is a key success factor for UK companies to ensure ongoing competitiveness in their market space through new product introduction and utilisation of advanced fabrication processes. In the chemical industry, enhanced processing can significantly increase efficiency and sustainability to reduce costs, however change is viewed as high risk. To support the adoption and deployment of new technologies the Technology Strategy Board offers financial support as the UK Innovation Agency and Innovate UK 2014 is its annual event to showcase the opportunities available. This key event will allow NW companies to access a

wide range of potential partners from across the UK and to discuss their plans with other businesses, academics and government officials.

Whilst the NW possesses a highly skilled and vibrant chemical using environment, to fully develop and translate new technologies into commercial products, access to a wider pool of talent can speed up the process and lead to higher potential R&D projects. Identifying and working with key collaborators in a full supply chain activity can open up exciting market potential and the Innovate UK 2014 event provides an ideal opportunity to find new connections that could enable step changes in company performance with government funding.

Innovate UK 2014 will be held on the 5 - 6 November in London and representation from the NW chemical sector is highly encouraged to ensure full advantage can be taken of the UK innovation support ecosystem.

Further details of the event can be found at <https://www.events.ukti.gov.uk/tsb-innovate>

*Simon Rushworth, KTN UK &
RSC Speciality Chemicals Sector*

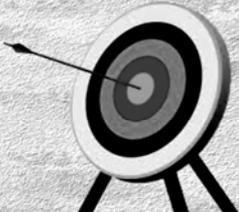
RSC Speciality Chemicals Sector Symposium

24-25 June, 2015
Cologne, Germany

Performance Chemicals
Personal Care
Agrochem
Pharma
Biocides

Right on Target

Sector Specific Formulation



Directed Delivery for Performance Optimisation and Control

This two day international symposium organised by the Royal Society of Chemistry and in association with The Knowledge Transfer Network will be held in conjunction with the 2015 Chemspec Europe and Chemsource Exhibitions organised by Quartz Chemicals. It will explore approaches to the control and targeting of chemical delivery to optimise the effectiveness of speciality chemicals in agrochem, biocide, performance chemical, personal care and pharma applications.

Topics to be covered include:

- * Innovation in Delivery Systems
- * Control of Effects
- * Formulation for Success
- * Outsourcing Delivery
- * Controlled Release
- * Structured Liquids
- * Coacervation
- * Nanotechnology
- * Compatibility Enhancers
- * Encapsulation

Contact: Pat Keen Tel: +44 (0)1606 888005 E-mail: patricia.keen@virgin.net www.rscspecialitychemicals.org.uk



Chemistry in the Oil Industry XIV Chemistry: Challenges and Responsibilities

2nd – 4th November 2015

at the Hilton Manchester Deansgate, UK

CALL FOR PAPERS

As always we are accepting papers where chemistry is the main focus. This time it is intended that the symposium will focus on Unconventional Resources and New Chemistry to enhance the profitability of new fields or to extend the economic life of mature wells. The industry's responsibility to do this safely whilst protecting the environment is paramount.

- Chemistry applied to Unconventional Resources e.g. Shale Oil & Gas
- Hydraulic Fracturing (new fluid design and remediation technologies)
- Drilling
- Geology and Geochemistry
- New and Green Chemistry
- Enhanced Oil Recovery (EOR / IOR)
- Scale and Corrosion Inhibition
- Regulation and Economics

Student bursaries will be offered

There will be posters and an exhibition

Diary of Events

1 February 2015	Abstracts of offered papers and posters should be submitted to Laura.Dickinson@rscspecialitychemicals.org.uk
March 2015	Programme will be finalised and speakers notified
1 August 2015	Speakers required to submit full text versions of their papers and presentation slides

Symposium Organising Committee

Steve Cliffe	MI-SWACO
Henry Craddock	HC Oilfield & Chemical Consulting
Laura Dickinson	Conference Secretariat
Jack Dunlop	JD Horizons Ltd
Harry Frampton	BP Upstream Technology
Kevan Hatchman	Novecare Oil and Gas, Solvay
Steven Jackson	Baker Hughes Incorporated
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This International Symposium is organised by the Royal Society of Chemistry Speciality Chemicals Sector and the European Oilfield Speciality Chemicals Association

