

news

Speciality Chemicals Sector

Industry
and
Technology
Division

Spring 2011

Get involved!

I was reminded recently of the wonder of chemistry – the joy of watching a pure, clear liquid distill out from a murky, coloured sample. And how the work we do contributes to the well being of us all, but also makes better cosmetics. Seen through the eyes of 8 and 9 year olds, chemistry still holds a magic that is more long lasting than any Harry Potter has come up with, especially if it hides skin blemishes (at least that's what the girls were interested in!). If you don't already know, 2011 is International Year of Chemistry and the site where I work in Holywell, North Wales, has already hosted 3 groups of school children with more to come over the next few months. It is hard work to organise and deal with colleagues who would rather we didn't bother, but the questions from the children show that they really are interested and want to know more.

In the current climate of cuts and cutbacks, it is increasingly difficult to find the time and justification for getting involved in promoting chemistry – not only to school children and the general public, but also to others in the industry through attending or organising scientific meetings. The people I meet who do get involved all say the same – chemistry started as a passion very early and the wonder has never stopped. It is easy to get involved and it doesn't require much time.

I've always been driven to apply the chemistry I learn to real products and real processes in industry. That's what the Speciality Chemicals Sector is all about. We organise meetings where we invite speakers to talk about the latest application of chemistry in an industrial, real world, context. Our industry is huge and we cover the chemistry itself and the performance of the materials it produces, spanning markets as

diverse as the oil industry, automotive, personnel care, surfactants, agrochemicals, pharmaceuticals, and printed electronics to name just a few. It is very easy to get involved – we only meet a few times a year at the Holiday Inn, Runcorn (Google WA7 3HA) to brainstorm ideas for future meetings. The next two meetings are Tuesday 3rd May and Tuesday 6th September at 6pm. Come along and join in.

The Catalyst Museum in Widnes is the UK's only museum dedicated to chemistry and it is looking for volunteers and guides to tell visitors a little about the exhibits and bring the underlying chemistry to life – if this idea is of interest to you, and you would like some more information the key contact is Sue Halliday (sue@catalyst.org.uk).

Finally, just a short note of thanks to Grahame Stanley who, after 14 years, has recently passed on the task of sector treasurer to Chris Drew. And to Terry O'Neill who is hanging up his typewriter after this edition of our annual newsletter.

Gareth Jenkins
Chairman

MyRSC

MyRSC has been the subject of intensive 'marketing' since it's inception and readers could be forgiven for assuming that the space given to it in this issue is a consequence of the wishes of its protagonists in the RSC. Such is not the case. The committee has, for some time, sought to increase it's membership and to expand the range of topics for our conferences. Unfortunately we have not been successful. The advent of MyRSC provided another mechanism for interaction and we set up a group for our members to communicate not only with the committee but also amongst themselves. However we have not been able to attract members to

participate in this group for reasons which are not apparent to us.

In an attempt to try to remedy the situation I have asked Adam Turner, the Member Networks Specialist who helps to run MyRSC, to contribute an article to our newsletter (page 6) which details the functions and capabilities of the utility as it applies to members of the RSC. While much of this will most probably be self evident to a number of our readers there may be those who are reluctant to engage with social networks for many reasons. Therefore Adam has addressed matters such as security of information and personal privacy which may be a cause of concern to some members.

I hope that everyone will find the article both interesting and useful and will encourage you to take the first step to join the network and our group so that you can have your say. You can be assured that we will certainly be listening.

Terry O'Neill
Editor

Forward Programme

Wednesday-Thursday 15-16 June
Royal Society of Chemistry
Symposium to be held at Palexpo,
Geneva, Switzerland.
Contact: Dr Ruth Lane
Tel: 01928 788071
Email: ruth@cowlane.co.uk

Monday-Wednesday 7 - 9
November 2011
Chemistry in the Oil Industry XII:
Innovative Chemistry: Value, Risks
and Rewards

Organised jointly with EOSCA
Venue: Manchester Conference
Centre
Contact: Dr Ruth Lane
Tel: 01928 788071
Email: ruth@cowlane.co.uk
www.rscspecialitychemicals.org.uk

Chemspec Europe 2010

Chemspec europe
The fine & speciality chemicals connection

RSC Advancing the Chemical Sciences

ROYAL SOCIETY OF CHEMISTRY SYMPOSIUM 2010
ELEMENTS OF SUCCESS - F, S, B AND Li

WEDNESDAY 9 JUNE

FLUORINE SESSION

- 10.30 Efficient Synthesis of Fluorinated Intermediates for the Agrochemical and Pharmaceutical Industry
Michael Quirnbach, Solvias AG, Switzerland
- 11.15 Access to Poly-Fluorinated Building Blocks via ElectroChemical Fluorination
Andrea Missio and Maurizio Bertola, Miteni SpA, Italy
- 12.00 Recent Advances in Fluorination Technology for Custom Synthesis at Saltigo
Andreas Stolle, Saltigo GmbH, Germany

SULFUR SESSION

- 13.30 Sulfur – eSSential for Life
Gert De Coster, Sumitomo Chemical Europe representing Sumitomo Seika Chemicals, Japan
- 14.15 Sulfur Trioxide Amine Complexes: Versatile Reagents in Organic Synthesis
Jörg Schrickel, CABB AG, Switzerland
- 15.00 Success with Sulfur-based Compounds and Reactions
Thomas Wirth, Cardiff University, UK
- 15.45 Sulfur Chlorides & Derivatives - Technical & Commercial Success Factors
Bernd Dill, Transpek, UK

THURSDAY 10 JUNE

LITHIUM AND BORON SESSION 1

- 10.00 Lithium and Boron – Two Elements of Success in High-Performance Fine Chemicals Production
Sven Schroeter, Archimica GmbH, Germany
- 10.45 Tools for Organic Synthesis - New Reagents for Lithium Assisted Deprotonation and Addition Reactions
Jens Carsten Röder, Chemical GmbH, Germany
- 11.30 Cryogenic Lithiation Reactions for the Production of Starting Materials for Transition Metal Catalyzed Reactions
Adriano Indolese, Rohmer AG, Switzerland

LITHIUM AND BORON SESSION 2

- 13.00 Lithiation from Lab to Commercial Scale - in the Field of Hazardous Chemistry
Urs Brandli, Dillion Exclusive Synthesis AG, Switzerland
- 13.45 Boronic Acids Manufacture at Industrial Scale
Dominique Delbrayelle, Walsden, France
- 14.30 End

Chemspec 2010 was held this year at the Messe in Berlin on June 9 and 10. The exhibition was bigger than ever, covering Halls 21, 22 and 23 in this enormous complex at the western edge of Berlin. Down the centre of the exhibition halls were 4 lecture theatres. The one in the middle was the 70 seater RSC Lecture Theatre where the Speciality Chemicals Sector Group was staging a 2 day conference during the exhibition. The lecture theatre this year followed last year's plan of being open at the sides and back to encourage delegates to come in without them feeling trapped. This year we were returning to the theme of a few years ago of the 'Elements of Success', though this time we were featuring on the first day fluorine and sulfur, and on the second day lithium and boron.

The conference organising team of Gareth Jenkins, Bill Hoyle, David Karsa, Ruth Lane and myself, Bruce Lane, had started work last September and had put together an exciting programme of 12 lecturers – one more than usual – for the two days. Three lectures on fluorine on the first morning were to be followed by 4 on sulfur on the first afternoon, including the first ever lecture in our symposia from an Indian company, with 5 lectures on day 2 covering the lithium and boron topic. The team to run the symposium of David Karsa, Bruce Lane and Ruth Lane arrived at the Messe the afternoon before the symposium to set up the lecture theatre, distribute symposium fliers, and prepare for the next day. Our first speaker on fluorine was to be Michael Quirnbach of Solvias – but he had e-mailed on the Monday to say a fire in his apartment block at the weekend had led to himself and his family being moved to a hotel for the week, and he had cancelled all his appointments for the week, so our first speaker was a 'no show'. This was not an auspicious start to the event!

Fortunately all the other speakers turned up on the first

day and we enjoyed 6 presentations. I chaired the first session – now of only 2 fluorine talks. We welcomed back Andrea Missio from Miteni who entertained us with a talk on 'Access to Poly-Fluorinated Building Blocks via ElectroChemical Fluorination'. This was followed by Andreas Stolle from Saltigo who spoke on 'Recent Advances in Fluorination Technology for Custom Synthesis at Saltigo'. Both talks were well attended by some 25 delegates, and a further 10 delegates at each talk called for copies of the overheads and listened from the back but never took a seat. Following the talks I had the pleasure of taking the speakers and the late afternoon speakers to the Funkturm for lunch. This was a radio mast built in the Messe grounds, with a restaurant 50 meters up the tower with truly magnificent views of Berlin. We enjoyed a great lunch and made it back in good time to hear even the second afternoon speaker.

David Karsa chaired the afternoon sulfur session. Gert de Coster spoke first on behalf of Sumitomo Seika on 'Sulfur – eSSential for Life', followed by Jörg Schrickel of CABB on 'Sulfur Trioxide Amine Complexes – Versatile Reagents in Organic Synthesis'. One of my lunch guests, Thomas Wirth from Cardiff University, followed with a talk titled 'Success with Sulfur-based Compounds and Reactions'. The talk was mainly on organo-selenium chemistry rather than sulfur – which I found very interesting having worked on selenium in my own research days. The afternoon was rounded off with a talk from another of my lunch guests, Bernd Dill, on behalf of Transpek India on 'Sulfur Chlorides and Derivatives – Technical and Commercial Success Factors'. With over 150 attendees overall, and a further 50+ standing in the wings, we felt the first day of the symposium had been a great success. We went on to the exhibitor party, organized by Chemspec, feeling buoyant. I sought out the new owners of Chemspec,

Quartz Business Media, in the form of Peter and Keith at the party and assured them of our continuing support for the event.

Day 2 opened bright and early with the networking breakfast in Hall 23, before the first session chaired by David Karsa. Sven Schroeter of Archimica opened the day speaking on 'Lithium and Boron – Two Elements of Success in High Performance Fine Chemicals Production', followed by Jens Röder from Chemetall on 'Tools for Organic Synthesis - New Reagents for Lithium Assisted Deprotonation and Addition Reactions'. Both were excellent talks, and I had to take the two afternoon speakers off for a quick lunch in the Hall 23 restaurant – no time for the Funkturm tower - and unfortunately had to miss the third talk by Adriano Indolesi of Rohmer on 'Cryogenic Lithiation Reactions for the Production of Starting Materials for Transition Metal Catalyzed Reactions'.

I chaired the afternoon session of 2 talks that brought our symposium to a conclusion. Urs Brändli of Dottikon spoke on 'Lithiation from Lab to Commercial Scale – in the field of Hazardous Chemistry'. The final slot was taken by Dominique Delbrayelle of Minakem who spoke on 'Boronic Acids Manufacture at Industrial Scale'. I was impressed – the last lecture on the second day is often poorly attended, but Dominique packed them in with a good lecture. Again on day 2 over 125 delegates attended, with a further 50+ standing at the back - another successful day. For those of you that failed to make it to the lectures, the presentations can be downloaded from

<http://www.chemsourcesymposia.org.uk/members.html> once you have registered and received your password to the symposium presentations. For the first time at this year's Chemspec we had decided on next year's



David Karsa and Bruce Lane at the Venue

symposium theme and had produced fliers. We were able to sound out potential speakers for our 'Continuous Flow Technology' theme, and were overwhelmed with potential speakers, so we are already looking forward to Geneva in June next year for the 2011 symposium.

Bruce Lane



The Lecture Theatre



Chemistry in the Oil Industry XII: Innovative Chemistry – Value, Risks and Rewards

7th – 9th November 2011 at Manchester Conference Centre, UK

DRAFT PROGRAMME

available at

http://www.rscspecialitychemicals.org.uk/conferences/Innovative_chemistry.cfm

Keynote Speakers:-

**Oliver Mullins, Schlumberger and
Albert T Lebedev, Moscow State Lomonosov University**

In 2013 it will be thirty years since the first Chemistry in the Oil Industry symposium and so it seemed pertinent to take a brief look back at the chemistry applied in the oilfield in the 1980s and compare it with chemistry and chemicals in use now and prospects for the future. Influences like "risk" and "impact" assessment which are both strong HS and E (legislative) subjects and are highly influential now were barely considered 30 years ago. Today assessments of "risk" and "impact" often affect product selection, deployment, measurement (instrumentation) and monitoring (techniques/case studies)

The symposium will focus on exciting 'new' innovative chemistry showing that the future is bright for the application of chemistry and chemicals to extend the economic life of mature wells or to enhance the profitability of new fields in spite of the implementation of REACH.

There will be posters and an exhibition.

Student bursaries will be offered.

Those who should attend include personnel from oil companies, service companies, chemical manufacturers, independent research organisations, academics and students from universities, environmental testing laboratories and laboratory equipment suppliers.

Symposium Organising Committee			
Henry Craddock Jack Dunlop Harry Frampton	Roemex Ltd JD Horizons Ltd BP Exploration & Production Technology Group Consultant Rhodia Novocare	David Karsa Ruth Lane Graham Payne Dick Weare	TensioMetrics Ltd & RSC Speciality Chemicals Sector RSC Speciality Chemicals Sector Briar Technical Services & EOSCA Baker Hughes Incorporated & RSC Speciality Chemicals Sector

Hazards XXII - process safety and environmental protection

11-14th April 2011

Britannia Adelphi Hotel, Liverpool, UK

Making the case for sustained investment in process safety can be difficult in the current economic climate. Nevertheless, history reminds us that the financial and human costs of a major incident will far outweigh any savings that might be made when finances are tight.

As we enter a new decade, cost control is not the only challenge preoccupying the process sector. In the developed world, political pressure for tougher action on carbon emissions is driving a demand for ever greater operational efficiency and lower energy consumption. At the same time, the shift to alternative feed stocks and new, more sustainable processes prompts a need for fresh thinking among safety professionals.

Rapid growth in the developing world presents a different set of challenges. Expanding markets, lower labour costs and a less tightly regulated operating environment represents both a challenge and an opportunity for multinational companies. But the lack of training and knowledge, which can be a characteristic of new labour markets, can render organisations vulnerable. Cultural issues are also a major factor in an era where human factors are a key consideration in the management of process safety.

The impact of new and complex supply chains, a burgeoning SME sector, escalating energy demand and the increasing importance of biochemical engineering to the process industries poses additional headaches.

It is clear that the need to demonstrate 'duty of care' and the best possible arrangements for knowledge sharing in the sphere of safety and environmental protection is more important than ever.

IChemE's 'Hazards' symposium continues to provide an important forum to debate the latest developments in process safety and environmental protection. First staged in 1960, and now set to convene for the twenty second time, Hazards offers the ideal stage for international experts and process safety practitioners to present and discuss the latest developments in safety and environmental management.

Contributions suitable for oral presentation or in poster format were invited under the following broad topic headings:

- New developments and the latest research findings (including 'work in progress') in process safety and environmental protection
- Best practice in process safety leadership and safety and environmental management systems
- Inherently safer design
- Engineering for resilience and sustainable process operation
- Improvements in safety performance measurement and reporting, corporate safety

knowledge retention, and the development and management of a learning culture

- Effective risk and consequence assessment for major hazards and project design evaluation
- Securing plant integrity and the safer management of ageing assets
- Managing reactive chemical hazards
- Human factors in process safety including considerations of contract labour, staff competency and retention, and the challenges of globalised operations
- Aspects of hygiene such as COSHH, bio containment and genotoxic intermediates (hard piped systems and building facilities)
- Safety and environmental management within SMEs
- Public awareness and perceptions of safety
- Regulatory compliance in practice

In addition, accident case studies and investigation reports from recent process safety incidents were welcomed for inclusion in the programme.

The technical committee particularly welcomed papers that examine the application of established best practice in process safety in new and emerging technologies, including: new nuclear build and decommissioning, Hydrogen and LNG installations, biofuels manufacture, carbon dioxide capture, transportation and storage, renewables, nanotechnology and nano-materials, biological agents, micro reactors and new control systems.

Full details of the Conference and the exhibition can be found on the website

<http://conferences.icheme.org/hazardsxxii/>

Location and venue

Hazards XXII will be hosted in Liverpool at the Britannia Adelphi Hotel.

The hotel is well located within walking distance of Liverpool Lime Street railway station and within easy reach of the M6 and M62 motorways. Liverpool's John Lennon airport offers regular flights to many European destinations including Schipol airport (Amsterdam).

Britannia Adelphi Hotel
Ranelagh Place
Liverpool
L3 5UL

Telephone 0871 222 0029

www.britanniahotels.com/hotels/liverpool



MyRSC – The professional network for the chemical sciences

MyRSC is an online professional network which allows members and non-members to interact and connect over important issues in the chemical sciences and engage with RSC related activities. It also provides an excellent opportunity to get involved with interest groups, local sections and other RSC networks related to your own work in scientific community.

The community has really flourished over the past 6 months and now has over 9000 members. As a user of MyRSC you can join specialist groups, read the latest blogs, share files and information, find RSC content and, for RSC members, explore benefits such as the virtual library and the careers service.

Ways to interact with MyRSC:

1. Online conferences and fairs

MyRSC ran the RSC's first online event in November 2010 - ChemCareers 2010; a week-long online careers fair, featuring interest days devoted to different areas of careers. The event had over 2000 unique visitors and almost 10000 pageviews on the careers pages alone and was deemed to be a success by both users and exhibitors.

ChemCareers has helped pave the way for further online events and highlighted the uses of MyRSC to staff as well as members!

2. Groups, forums and debates

MyRSC is both a place to discuss issues within the chemical sciences and a private workspace. In 2011 MyRSC has been used successfully for policy responses, online meetings and the work of committees and working groups (internally and externally).

The groups function on MyRSC is widely used due to its flexibility. MyRSC offers varying degrees of privacy to groups, which allows for a greater number of uses; for example, one user may be involved in the "hidden group" of an interest group committee (working and discussing specific issues with specifically invited people), while also being involved in a "public group" of chemical scientists where discussions are highlighted to other MyRSC users to help expand the community. It is this flexibility that has helped make groups useful and active areas of MyRSC. For example, the Speciality Chemicals Sector has set up a group with the specific aim of having group members communicate with their colleagues and the Committee to enable them to influence the running of the sector.

The RSC Forum is another place for users to debate matters relating to the chemical sciences. Last month saw the RSC press office introduce the RSC Debate within the forums on MyRSC. Users are invited to comment on pressing matters within the world of science – topics such as the effects of Pfizer closure, the immigration cap and Scottish General election have all recently been discussed.

3. Blogs

Whether you log on to read or write on one of the MyRSC blogs, there are plenty to choose from. They provide a voice for a wide range of members giving advice on careers, personal perspectives and an insight into the daily life of a handful of our members. If you want to get involved with our blogs and write for one you can email myrsc@rsc.org with your ideas.

4. Resources

There is a large amount of information held on MyRSC including our video section. Much of this is held in the Knowledge Centre where anyone can upload a video for others to view. They can be related to chemistry or perhaps something careers related.

Additionally, if you are an RSC member you can find webinars and presentations to watch anywhere and at anytime in the careers section.

New ideas and comments are welcome on all of these resources and there are plenty of opportunities to boost your own profile and networks. It is the continued support and participation of the MyRSC community and its users that have helped make the platform grow to what it is today.

So what does the future hold? MyRSC has a lot of exciting the projects coming up in 2011, including a number of the online events and competitions, highlighting the International Year of Chemistry and working with other areas of the RSC to support more of our physical networks and events with an online presence.

If you are yet to join the MyRSC community then please go to <http://my.rsc.org> and fill out the short registration form to create your account. Once you have activated your account, you can put in as much or as little personal information as you want and control what information people can see and who contacts you using the security settings in MyRSC Account. If privacy is a particular concern, then take advantage of the private messaging system and the hidden and closed group's discussions and file sharing. The latter is of great use for committees, as hidden group's often provide a secret, private workspace.

MyRSC is a professional network which allows members and non-members to interact and connect over important issues in the chemical sciences and engage with RSC related activities. It also provides an excellent opportunity to get involved with interest groups, local sections and other RSC networks related to your own work in scientific community.

Adam Turner

Member Networks Specialist (MyRSC)

Royal Society of Chemistry

Go with the flow in 2011

Royal Society of Chemistry Symposium

Continuous Flow Technology

15 - 16 June, 2011

Area N Hall 1, Palexpo, Geneva, Switzerland

This two day international symposium on continuous flow technology is being organised by the Speciality Chemicals Sector of the Royal Society of Chemistry. It will be held in conjunction with the 2011 Chemspec Europe and Chemsources Exhibitions organised by Quartz Business Media in Hall 1 at Palexpo, Geneva, Switzerland in June 2011. The exhibitions and symposium will attract a broad range of visitors from across the fine and speciality chemicals industry.

The symposium will highlight recent advances in continuous flow technology and its application in the scale up and production of speciality chemicals. Topics to be covered include: continuous flow reactors for pilot plant and production scale manufacture, microreactor technology, process design and intensification and comparison of batch and continuous processes.

Free Attendance

Delegates will be able to pick and choose which lectures they attend.

Programme

Morning Session, June 15

- 10.30 Comparison of Batch and Continuous Processes
Sergio Pissavini, Coming S.A., France
- 11.15 Azide Synthesis in Microstructured Flow Systems
Gregor Wille, Sigma-Aldrich, Switzerland
- 12.00 Chemical Synthesis and Efficient Scale-up in Flow Reactors
Paul Watts, Chemtrix, UK

Afternoon Session, June 15

- 13.30 Industrial Production using Continuous Flow Technology
Peter McDonnell, Genzyme Ltd., UK
- 14.15 Multi-stage CSTRs: Shaken, not Stirred
Robert Ashe, AM Technology, UK
- 15.00 Continuous Manufacturing: How do we make it Succeed in the Pharmaceutical Industry
Clive Badman, GSK, UK
- 15.45 Continuous Processing to Make Better Particles
Ian Laird, NiTech Solutions Ltd., UK

Morning Session, June 16

- 10.00 Comparison of a Continuous Flow Process Versus a Batch Process
Beat Weber, Siegfried, Switzerland
- 10.45 Growth of Continuous Flow Technologies in Pharma
Dominique Roberge, Lonza, Switzerland
- 11.30 Continuous Processes of Hazardous Reactions from Lab to Commercial Scale
Günter Weingärtner, Dottikon, Switzerland

Afternoon Session, June 16

- 13.00 Flow Chemistry – Modular, Flexible, and Efficient Production in the Chemical and Pharmaceutical Industry
Sigurd Buchholz, Bayer Technology Services GmbH, Germany
- 13.45 Manufacturing Concepts for Microreactors and Continuous Flow Chemistry
Dirk Kirschneck, Microinnova Engineering GmbH, Germany
- 14.30 End

Contact: Dr. Ruth M. Lane Tel/Fax: +44 (0)1928 788071

E-mail: ruth@cowlane.co.uk

www.rscspecialitychemicals.org.uk

RSC | Advancing the
Chemical Sciences

Chemsource
exhibition

Chemspec
europe
The fine & speciality chemicals exhibition

Registered Charity Number 207890

Royal Society of Chemistry, Industry & Technology Division, Speciality Chemicals Sector

Receipts and Payments 1st January 2010 - 31st December 2010

<u>Receipts</u>	£
Interest : RSC Deposit Account	139.73
Subscriptions	1,615.00
Meetings & Conferences	21,359.25
VAT Refunds	618.97
Total Receipts	<u><u>23,732.95</u></u>

<u>Payments</u>	
Meetings & Conferences	6,000.00
Advertising in NW Chemistry News	967.00
North West Trust	10,000.00
Committee Expenses	1,009.96
Secretary/Treasurer Expenses	612.52
Auditor	250.00
Sector Newsletter	321.50
Website Fees	225.00
VAT Paid	1,842.00
Bank Charges	73.68
Total Payments	<u><u>21,301.66</u></u>

Surplus/(Deficit) for the year **2,431.29**

Balance Sheet

Balance at 1st January 2010	<u>47,377.70</u>
Surplus/(Deficit) for 2010	<u>2,431.29</u>
Balance at 31st December 2010	<u><u>49,808.99</u></u>

Balance Represented by Deposits in the Bank

Balance in NatWest Current Account	10,780.47
Balance in RSC Deposit Account	<u>39,028.52</u>
Balance at 31st December 2010	<u><u>49,808.99</u></u>

Hon Treasurer	Dr G L Stanley
Chairman	Dr G N Jenkins
Auditor	Mr S J Collens

This newsletter is edited by Terry O'Neill, BSc BA CChem MRSC and published on behalf of the Speciality Chemicals Sector of the Industry and Technology Division of the Royal Society of Chemistry, Registered Charity Number 207890.