UNIVERSITY of York

Chemistry Update

Newsletter 269, 29th January 2016

Inside this Issue

Calendar of Events

UCAS Days
Date: 1, 2, 9, 15, 16, 18 & 23 February
Time: 12.30pm—4pm

Organic Chemistry Seminar
Speaker: Prof. Andrew Whiting, University of Durham
Date: Wednesday 3 February
Time: 4pm—5pm
Location: A101

Physical and Atmospheric Chemistry Seminar
Speaker: Prof. Paul Seakins
Date: Thursday 4 February
Time: 2pm—3pm
Location: A128

Ionic Liquids Mini Symposium
Date: Friday 5 February
Time: 1.30pm—6.30pm
Location: BS/005 Bowland Auditorium, Berrick Saul Building

McCamley Lecture
Speaker: Dr Alex Cowan, University of Liverpool
Date: Wednesday 10 February
Time: 2pm—3.30pm
Location: A101

Green Chemistry Seminar
Speaker: Prof. Mark Mascal, University of California, Davis
Date: Friday 12 February
Time: 11am—12pm
Location: F106

Chemistry Anniversary Lecture "Changes of State and Mind"
Speaker: Prof. Dame Carol Robinson, University of Oxford
Date: Tuesday 16 February
Time: 6.15pm
Location: NSLC

Departmental Seminar
Speaker: Prof. John Sutherland MRC, Cambridge
Date: Wednesday 17 February
Time: 1pm—2pm
Location: A101

Physical and Atmospheric Chemistry Seminar
Speaker: Dr Francis Pope
Date: Thursday 18 February
Time: 1.30pm—2.30pm
Location: A122

Green Chemistry Seminar
Speaker: Dr Chenyu Du, University of Huddersfield
Date: Friday 19 February
Time: 11am—12pm
Location: F106

RSC Award Symposium
Speaker: Prof. David O'Hagan, University of St Andrews
Date: Wednesday 24 February
Time: 1pm—2pm
Location: A101

Johnson Matthey Poster Competition
Date: Friday 18 March

Date of Next Issue:
26th February 2016

Prof. John Goodby Awarded 2016 Freedericksz Medal

Professor John Goodby, FRS, has been awarded the 2016 Freedericksz Medal of the Russian Liquid Crystal Society for his “Outstanding Research in the Field of Chemistry of Liquid Crystals”.

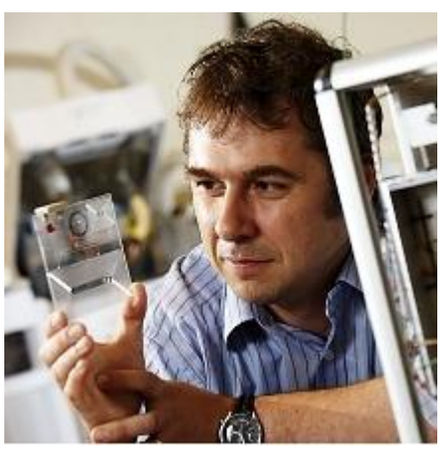
The medal is the highest award made by the Russian Liquid Crystal Society.

Vsevolod Konstantinovich Freedericksz (1885-1944) was a founding member of liquid crystal research in Russia. Through the 1920-30s Freedericksz and his co-workers investigated many of the fundamental effects observed for nematic and smectic liquid crystals in the presence of electric and magnetic fields, such as reorientation, now called the Freedericksz transition (taught in MW1), electro-hydrodynamic instabilities, and dynamic scattering of light. Much of his work underpinned modern display device technologies.

Other winners of the Freedericksz Medal include Martin Schadt who invented the twisted nematic display (TNLCD) found in watch and computer displays, and Kyoto Laureate George Gray FRS, who’s invention of cyanobiphenyl liquid crystals underpinned the development of the displays industry.

Prof. Alastair Lewis Performs Research on BBC Programme

Professor Alastair Lewis of the National Centre for Atmospheric Science has performed research for the BBC science programme Trust Me I'm A Doctor into whether chemicals released from scented candles pose a danger to health.



The research investigated whether there was any danger from volatile chemicals released from scented candles. After measuring the amount of volatile organic compounds in a number of houses in York, he concluded that the major component released from scented candles was limonene. In itself limonene poses little threat to health, however after reacting with ozone, which is present in our homes, it produces formaldehyde. The link between cancer and formaldyhyde has been know since the 1980s and it has been listed as a known carcinogen since 2011.

View further details about the Trust Me I'm a Doctor programme — http://www.bbc.co.uk/news/magazine-35281338

Leverhulme Trust Award

Investigating the factors controlling coral biomineralisation

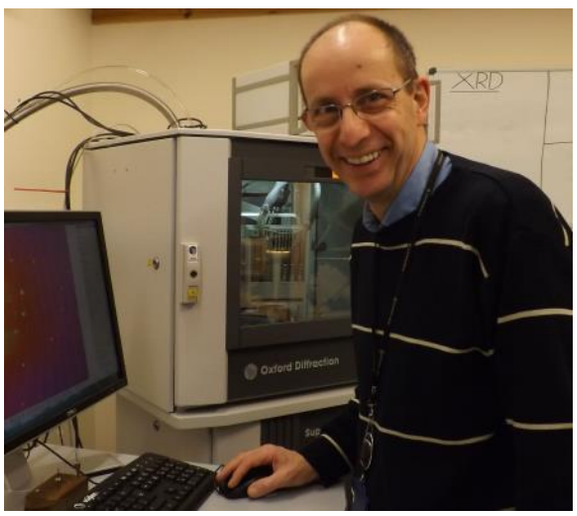
Dr Kirsty Penkman from the Department of Chemistry is part of a team, led by the University of St Andrews, which has been awarded a research project grant from the Leverhulme Trust. The award will employ a postdoc for 3 years to investigate the control of coral biomineralisation. How corals form mineral skeletons, which serve as the building blocks of coral reefs, is poorly understood. Three key factors are implicated in the control of biomineralisation, namely the dissolved inorganic carbon and magnesium chemistry of the fluid used for coral calcification and the presence of skeletal organic materials which act as templates for crystallisation. This project will resolve how each of these factors influences aragonite crystallisation and will determine how they interact to control biomineralisation.

Suggestion Box

Reminder: There is a online anonymous suggestion box for staff under the Equality and Diversity section of the intranet: http://www.york.ac.uk/chemistry/internal/ and a physical suggestion box located outside Room K167 for YSBL staff. Suggestions from staff are most welcome. All suggestions are discussed by the appropriate departmental committee.

Dr Adrian Whitwood Awarded BEM

Adrian Whitwood has been awarded a British Empire Medal (BEM) in the 2016 New Year Honours List.



His citation reads:

For longstanding services to scientific research and education within the Chemistry department at the University of York, and for the training of young people in the Selby St John Ambulance cadet scheme.

Dr Adrian Whitwood is recognised for his outstanding contribution to the Department of Chemistry for over 30 years. He manages the small-molecule X-ray crystallography service and supports computing throughout the Department, resulting in two University of York Rewarding Excellence awards. But his work also includes web management, undergraduate admissions, student supervision, safety, first aid, exams data processing and timetabling.

For more than 10 years Dr Whitwood has been a stalwart of the Selby St John Ambulance group, both as active first aider and youth leader.

He said: “I'm delighted and somewhat humbled to be awarded the British Empire Medal in the New Year’s Honours. I would like to thank all my colleagues especially the Chemistry support staff for making the Department such a pleasant and rewarding place to work and my wife and family for all their support and for persuading me to join them in St John Ambulance.”

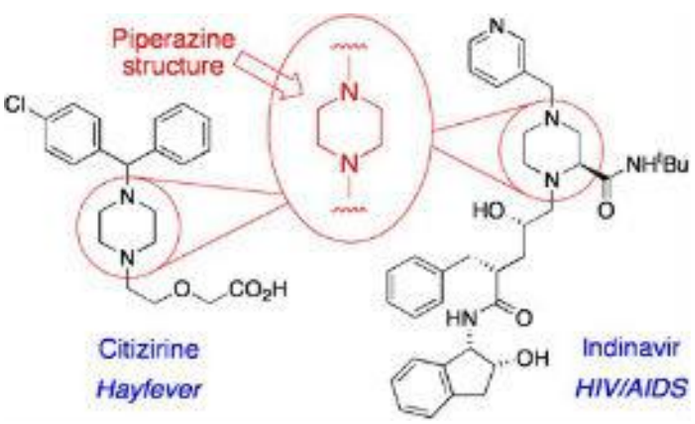
Adrian will be presented with the BEM by the Lord Lieutenant for North Yorkshire, Barry Dodd CBE, on 20th April in Northallerton. He has also been invited to attend the Royal Garden Party in May.

Green Chemistry Centre Welcomes Yiping Luo

The Green Chemistry Centre has welcomed Yiping Luo from Sichuan University, China. She will be working as visiting scientist for one year with Dr Alice Fan and Dr Vitaly Budarin in the Microwave Technology Platform on the controlled decomposition of bamboo so as to provide new routes to bio-based chemicals. The visit is part of the developing special relationship between Sichuan University in Chengdu, which is one of China’s top universities and location of the Key Laboratory of Green Chemistry and Technology.

York Chemists Develop New Drug Synthesis Method

Scientists from the University of York have developed a new approach for the synthesis of piperazines – drug compounds used to treat hay fever and HIV.



Piperazines are among the most common structures found in modern-day drug compounds. They are found in the anti-histamine, Citizirine, which is used to treat hay fever, and Indinavir, one of the first antiretroviral therapies developed to combat HIV/AIDS.

However, there has been a major bottleneck in the development of new piperazine drugs. Piperazines with groups attached to the carbon backbone, rather than nitrogen atoms, are particularly challenging to synthesise in a laboratory.

To address this key limitation, PhD student James Firth in York's Department of Chemistry developed a new method for the functionalisation of the piperazine structure so it can be chemically modified at will.

Funded by the Engineering and Physical Sciences Research Council (EPSRC) in collaboration with pharmaceutical company AstraZeneca, the project utilised organolithium chemistry and involved an in-depth mechanistic study of the reaction pathway, including the use of infra-red spectroscopy.

Ultimately, an efficient method was optimised and proven to work in a formal synthesis of Indinavir.

Professor Peter O'Brien, supervisor of James Firth's project, in the Department of Chemistry, said: "Our new approach simplifies the synthesis of single enantiomers of substituted piperazines and this could find numerous applications in the pharmaceutical industry.

"It should be stressed that only a blue-sky fundamental mechanistic study coupled with James' tenacity and creativity allowed the development of this new practical synthetic method."

The research is published in the *Journal of the American Chemical Society*.

Athena SWAN Award Ceremony in December 2015

Helen Coombs, Ruth Purvis and Derek Wann travelled to Oxford in mid-December 2015 to attend the Athena SWAN Award Ceremony held at the University Examination Schools building. The venue was very impressive (although the portraits on the walls were rather biased in favour of one gender!) but it was hard during the buzz of the award presentations to imagine the rooms being filled with nervous Oxford undergraduates taking their finals. York Chemistry was the only department to pick up a gold award.

The ceremony featured presentations from Dr Stephen Goss (PVC for Personnel and Equality at Oxford), David Ruebain (CE for the Equality Challenge Unit), Professor Tiantian Zhang (Head of the Graduate School, Bournemouth University), Professor Dame Julia Higgins (Athena SWAN patron), Professor Jane Norman (Vice Principal for People and Culture at the University of Edinburgh) and Derek, representing the York Chemistry Athena SWAN submission team (see Wann Group News). Interest in Derek's talk was high with attendees taking photos and scribbling down notes throughout.

We are now moving forward with our Athena SWAN work but the remit of the Departmental Equality and Diversity Group has expanded to include many areas of diversity and to try and ensure equality for all staff and students.

Graduation

The Chemistry Graduation ceremony took place on Friday 22nd January followed by a drinks reception in the Department. Graduates and their guests joined staff for drinks to celebrate their achievements.

Congratulations to all the students who graduated:

Doctor of Philosophy in Chemistry

Thomas Attard
Kirsty Davey
Cheng Ding
Alexander Hooper
Tengyao Jiang
Jobie Kirkwood
Christiana Kitsiou
Thomas Ronson
Guangmao Tian
Yuan Yuan

Bachelor of Science in Chemistry

Thomas Bacon
Rosa Clubley
Zachary Gorley
Evelyn Sigley

Bachelor of Science

Robert Prior

Master of Science in Green Chemistry and Sustainable Industrial Technology

Matteo Borgioli
Adrienne Gallant Lanctot
Maria Magro
Max Moseley
Alberto Orsini
David Pocs
David Ramsay
James Shannon
Charlott Stawicki
Hao Xia

Master of Science (by research) in Chemistry

Alexander Hawes
Gareth Rees

Bachelor of Science in Chemistry, Resource and the Environment

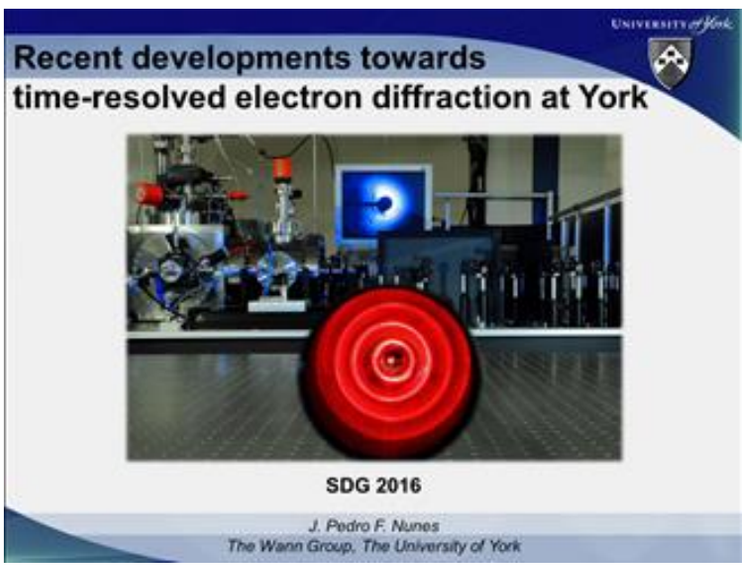
Rosemary Tuthill

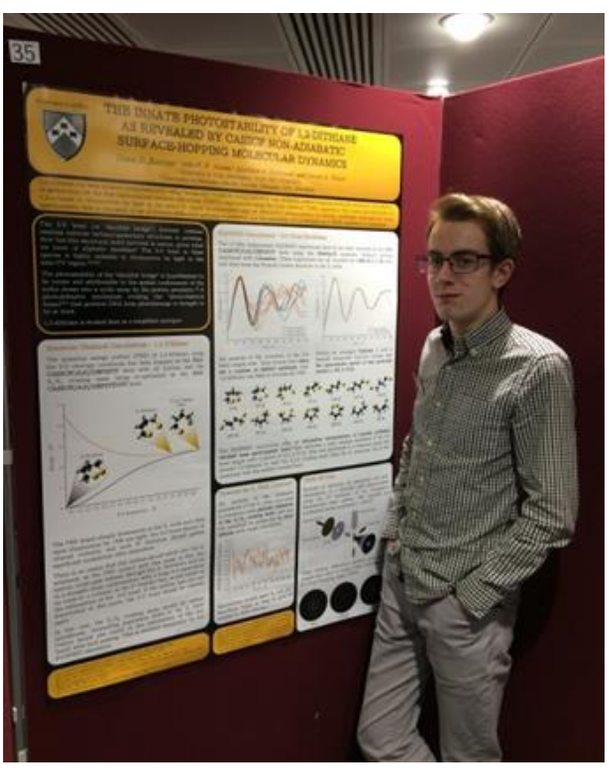
Wann Group News

RSC Spectroscopy & Dynamics Group Meeting

It was a clean sweep of awards for the Wann group at the RSC Spectroscopy & Dynamics Group (SDG) meeting on 5-7 January at the University of Warwick. The meeting, which saw a record attendance of over 150, saw researchers from across the UK as well as some from overseas gather to discuss their work. From York, DAW and CED and members of their groups were flying the flag.

Year 2 student, João Pedro Nunes, won one of two talk prizes for his oral presentation (photo right) about the recent results from the Wann group's time-resolved electron diffractometer.



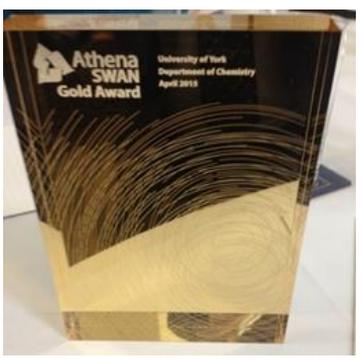


Meanwhile Conor Rankine, a first year student in Derek's group, won the poster prize for his computational work on the dynamics of the molecule 1,2-dithiane (photo left). He even managed to get the Departmental colour scheme into his poster!

Both of these achievements were then eclipsed when Derek joined forces with old friends Ken McKendrick and Matt Costens from Heriot Watt University to storm the traditional SDG pub quiz. Here we can see Ken titrating 1 M NaOH to determine the concentration of an unknown sample of HCl – using red cabbage as an indicator. We suspect the risk assessment didn't account for the many bottles of wine that were consumed before this task…

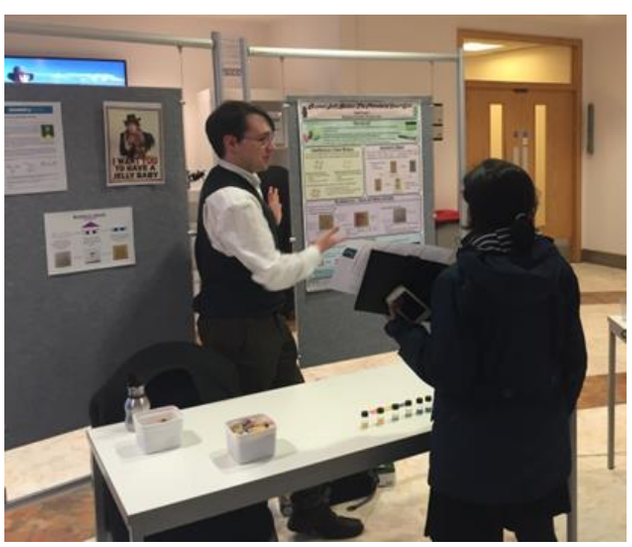
Athena SWAN Award Collection

Just before Christmas, Derek was privileged to give a talk to the representatives from across UK and Ireland who had gathered in Oxford to receive their Athena SWAN awards. Derek's talk "*York Chemistry – Renewing our Gold award…and looking towards the future*" was very well received.



Afterwards, with Helen Coombs and Ruth Purvis, we collected the Gold renewal on behalf of the Department.

PhD Research Spotlight Competition Winner – Daniel Cornwell



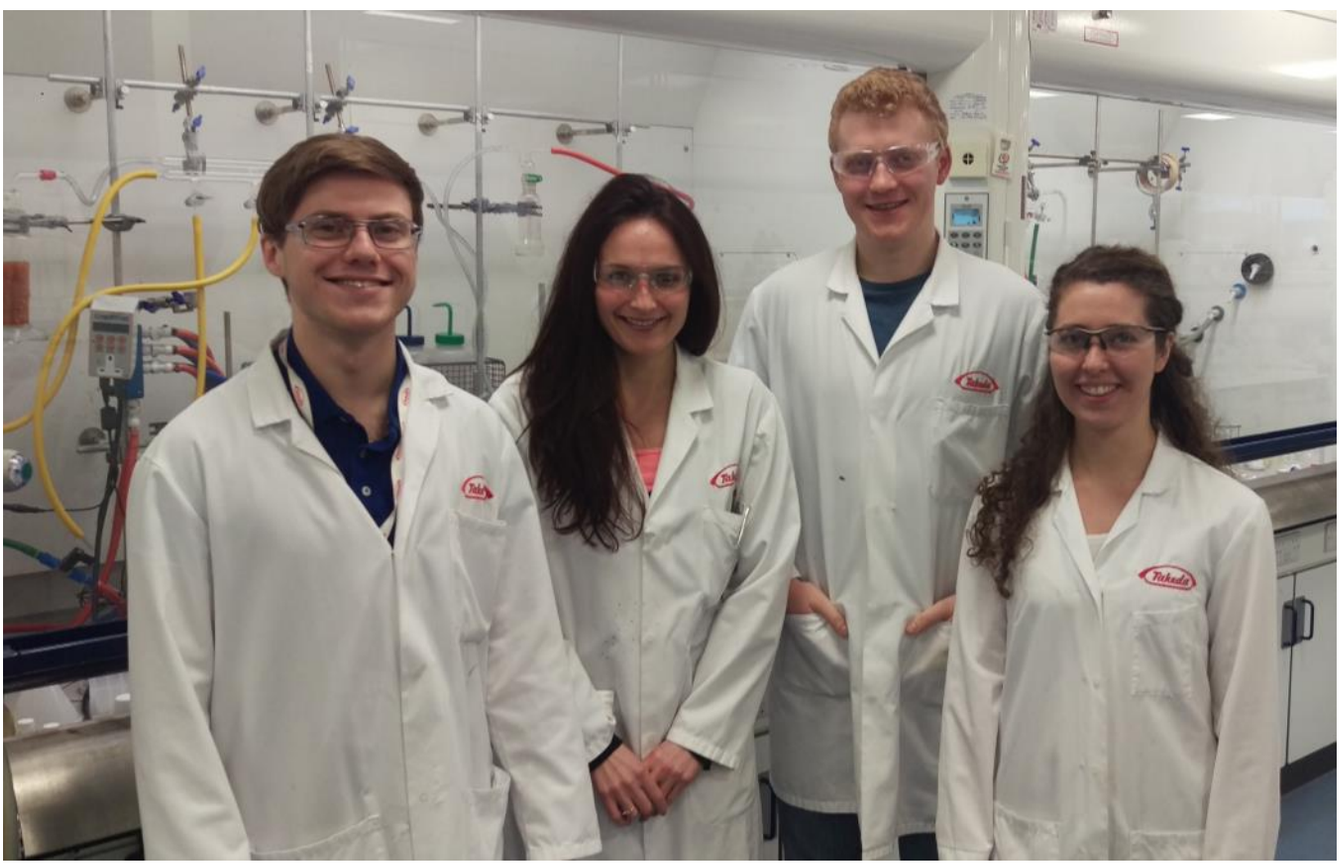
Daniel Cornwell, a PhD student in the research group of Professor David Smith, won a prestigious University of York award in the PhD Research Spotlight competition at the 'York Talks' Event on 6 Jan 2016. York postgraduate research students competed to showcase their research at the event, with nine finalists being selected to present their posters, three from each faculty. Throughout the day the University's research champions and the Chancellor viewed the showcase and recommended the winning entries, with Dan's poster being recognised as 'Best in Science Faculty'. The Vice-Chancellor Professor Koen Lamberts presented the prizes, and all nine finalists received certificates.

Dan's poster was titled "Beyond Jelly Babies: The Potential for Smart Gels" and explored the fascinating properties of gels, as well as demonstrating how his own research is generating unique new self-assembled gel-phase materials with potential high-tech applications. Dan said "I really enjoyed the opportunity to present my research to a non-specialist audience - it was an interesting challenge to strip-out the hardcore chemistry from my project but retain the key discoveries and goals". Some of Dan's cutting-edge research in which he uses light to 'write' one patterned gel inside another, forming a multi-domain gel, can be found in his recent publication: *J. Am. Chem. Soc.* **2015**, 137, 15486-15492 (http://pubs.acs.org/doi/abs/10.1021/jacs.5b09691).

O'Brien Group News

O'Brien Group News Research Lecture at Takeda, Cambridge, 12th January

Professor Peter O'Brien recently visited Takeda in Cambridge to give a research talk entitled "Exploring 3-D Pharmaceutical Space: Asymmetric Synthesis of Nitrogen Heterocycles". Whilst visiting, it soon became apparent that Takeda have a lot of York chemistry connections – see below!



Left to right: David Hamilton, Charlotte Fieldhouse, Greg Barker, Chloë Bartlet

David Hamilton: "As part of my MChem industrial placement at Takeda Cambridge, I work within the medicinal chemistry team. The main research focus is on Central Nervous System therapeutics and small molecules therapies, and my specific role is to synthesise novel compounds that contribute towards a high quality CNS-focussed screening library. The transition between academia and industry has been very challenging, but it has also been incredibly rewarding, in that I now am actually able to apply what we learn in lecture courses, on a daily basis. I am now also considering a PhD in Europe within the same field."

Charlotte Fieldhouse: "I graduated from the University of York in 2006 with a First Class Masters Degree in Chemistry having spent my final year of University gaining industrial experience at GlaxoSmithKline. I then spent two years at GlaxoSmithKline in the Neurology department as an Associate Scientist . In October 2008, I began my career with Takeda Cambridge. In my current role,

as a Senior Scientist, I work on Central Nervous System projects within the medicinal chemistry department, designing and synthesising novel compounds to treat diseases such as Alzheimer's disease and schizophrenia. I have also had the opportunity to mentor several industrial placement students and work in the scale-up group in Japan for a two week secondment."

Greg Barker: "After working in Peter O'Brien's group during my Masters year, I secured a job at Takeda. I started in the Analytical Group as an Associate Scientist for the first year, then applied for a Medicinal Chemistry job when a position became available. I am now involved in drug design and synthesis in the Medicinal Chemistry group as a Research Scientist. Over the last 6 years in Medicinal Chemistry I have worked in multiple therapeutic areas such as Central Nervous System (CNS), Cardiovascular and Metabolism (CVM) and Gastrointestinal (GI) areas making orally bioavailable small molecule drugs."

Chloë Bartlet: "During my industrial placement at Takeda, my primary role has been within the analytical ADME (absorption, distribution, metabolism and excretion) group, to undertake the microsomal stability assay which assesses the phase I hepatic metabolism of the compounds synthesized by the medicinal chemists."

And last but not least, Senior Director of Chemistry, Andy Ayscough, is the father of one of our year 4 students, Sophie Ayscough!

Organic News

The 11th J-NOST Conference, NISER, Bhubaneswar, India, 14th–17th December, 2015

Michael James from the Taylor and O'Brien groups attended the above meeting.

The J-NOST (Junior National Organic Symposium Trust) conference was first established in 2004 to provide a platform for Indian postgraduates to present their work in the field of organic chemistry. Since its inception the RSC has supported the J-NOST community by sending ~8 UK postgraduates each to present their results.

The 11th J-NOST conference was held at the newly/partially formed NISER (National Institute of Science Education and Research) campus near the city of Bhubaneswar. The conference consisted of nearly 80 oral presentations and >100 poster presentations, necessitating a somewhat frenetic pace!

The majority of the chemistry presented focused on heterocycle and natural product synthesis, with

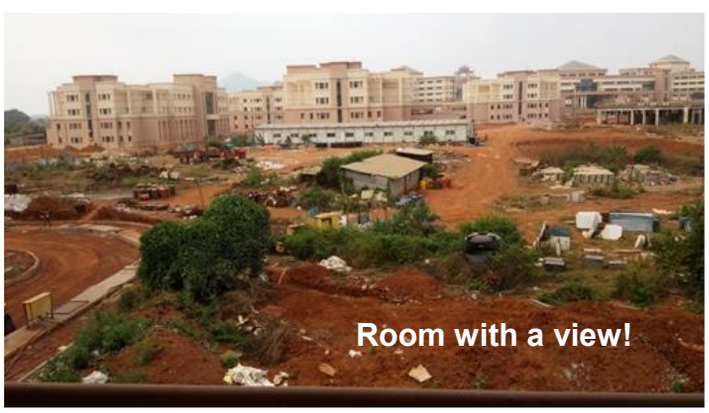
particular attention paid to the use of natural products as a driving force for medicinal chemistry in India. I presented some of my PhD work on the metal catalysed alkyne activation for the synthesis of spirocyclic heterocycles. The other UK postgraduates attending presented some excellent talks on topics ranging from the transition metal free coupling of boronic esters (Marcin Odachowski, Bristol) to photolytic aromatic amination (Sebastian Cosgrove, Leeds). The German Chemical Society has also begun to support the J-NOST conference and sent a contingent of postgraduates who were notably disappointed in the lack of beer provided.

In addition to the numerous chemistry talks, entertainment was provided, including a surprisingly good 'cup and balls' magician (who received the loudest applause of the conference) and a trip to the local Konark Sun Temple, decorated with numerous sculptures depicting the Karmasutra (not pictured!).

The conference as a whole was an excellent opportunity to meet people and learn chemistry in unique surroundings. I'd particularly like to thank Ray Jones (RSC) for selecting me and the conference host, Dr. S. Peruncheralathan (Peru) and his group, who were always friendly and willing to help.

Michael James (PhD student)

Supervised by Prof. R. J. K. Taylor & Prof. P. O'Brien


Room with a view!


Labs at NISER

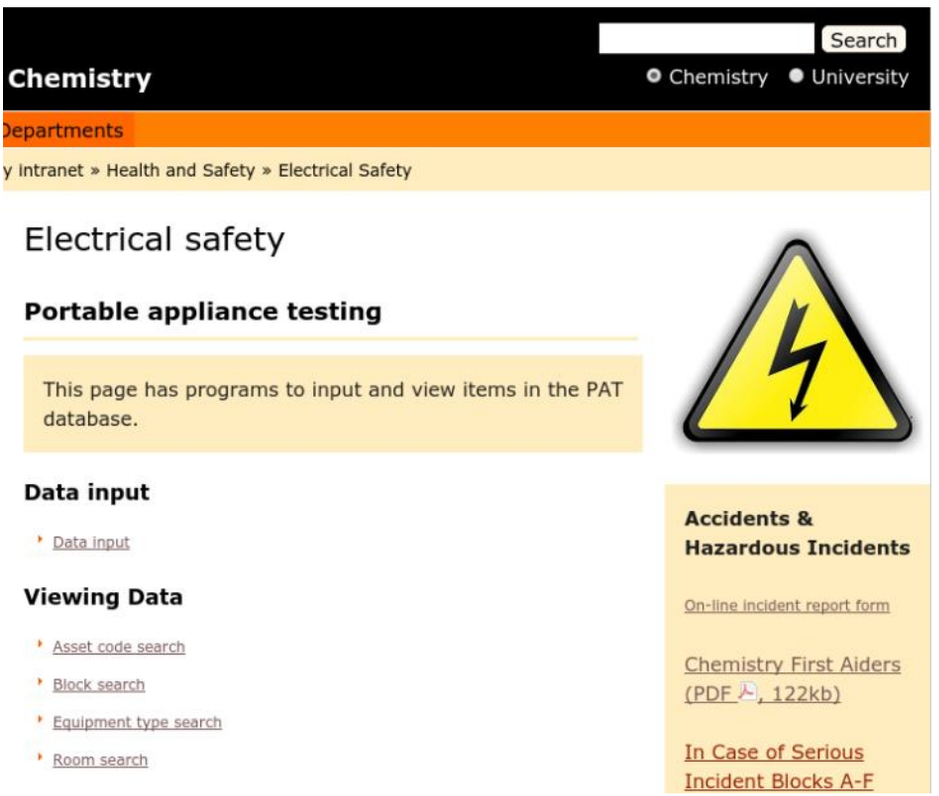
Good advice


Konark Sun Temple

In Chemistry WD40 is a Gas Chromatograph

The in-house database for recording Portable Appliance Testing (PAT) data is now live. This data had previously been stored on Google Sheets, databases associated with dedicated testing software (often giving restricted user numbers) and dedicated testing equipment (again with restrictions).

The new database is IT Services based and accessed through the Departmental website.



The web based access means that there is no restriction to the number of users at any one time and testers can input data on any computer, tablet or even a mobile phone. The viewing data options are available to anyone in Chemistry, while the data input is restricted to trained testers. The application has been designed to minimise the amount of typing involved with drop-down and click boxes to select testing parameters. For the database the Department has been divided into various areas based on location or activity in the Department. Searches by type of equipment, location or room number, the latter having a wildcard facility, give a wide range of search options.

The database now contains testing data on over 4300 items of electrical equipment comprising over 87400 pieces of data. The facility may also be used to view the numbers of a particular type of electrical equipment in the Department.

And the title of this article – every electrical item in the Department has an asset code. The asset code WD40 is not a penetrating oil and water-displacing spray but a Gas chromatograph in Teaching Labs.

Tim Elsworth

Ligands in Macromolecular Crystallography: CCP4 Study Weekend 2016

This year's CCP4 study weekend in Nottingham (8-10 January) dealt with the topic of ligands in macromolecular crystallography. The interest in the subject was overwhelming, as shown by the huge number of delegates from academia and industry - more than 400 people which, in an unprecedented move, forced the organisers to close registration earlier than planned. Within the two days of the meeting, all important steps from ligand design, complex preparation, data collection, ligand building and structural analysis were covered. A special emphasis was given to fragment screening and ways to deal with the huge amount of data generated throughout such a project - in the order of thousands of gigabyte-sized datasets collected in less than an hour.

A fantastic lecture was given by Dr Jon Agirre about carbohydrate model building, validation and re-refinement using his program Privateer. Jon showed how we can build carbohydrates in, correct errors and prevent conformational anomalies, thereby improving the quality of our crystallographic models. Several high-profile publications (including Nature Chemical Biology and Nature Structural & Molecular Biology, and a news piece on Science - see http://tinyurl.com/q4y5edf) are proof of how much impact this program has generated already in a very short time since its release.

The meeting also marked the release of the new CCP4 graphical user interface (CCP4i2), which has been actively developed in YSBL (York) as well as in Newcastle. The YSBL team of developers consists of Dr Liz Potterton, Dr Stuart McNicholas, Dr Jon Agirre and Dr Kevin Cowtan, with additional input from Professor Eleanor Dodson FRS and Dr Johan Turkenburg, under the overall leadership of the indomitable Professor Keith Wilson. The team is assisted by dozens of PhD students and postdocs at YSBL, who have bravely adopted CCP4i2 early on and thus have shaped the developments with their feedback. The new interface, with its streamlined tasks and underlying database system, is sure to make the workflow of structure determination and analysis easier. Together with the fresh look and easy, intuitive way of use, this new software will transform how we deal with crystallographic data.

YSBL developers also presented other software throughout the conference, and gave hands-on introductory sessions for interested users. The friendly and relaxed atmosphere of this event is always a key factor in developing new friendships and networks between crystallographers, and a great environment in which existing friendships and collaborations can flourish. Overall, the meeting was a great success, emphasising again the huge contribution and impact YSBL method developers continue to have for the worldwide crystallographic community.

New Starters

Dr Stuart Young, Research Technician
Room: WACL, G116; Extension: 4178; Email: stuart.young@york.ac.uk

Claire Seeley, Advisory Teacher, CIEC
Extension: 8276; Email: claire.seeley@york.ac.uk

Stewart Barker, Receptionist
Location: Reception; Extension: 2529; Email: stewart.barker@york.ac.uk

Stargazing Live Party at St Peter's School: CHEMISTS IN ACTION!!

To coincide with the BBC's 2016 Stargazing Live, St Peter's School in York held a Stargazing Live Party on Friday 8th January and a few of us from CHyM (Amy Ruddlesden, Barby Procacci and Marta Rosello-Merino) went along. We first met the school's Head of Science, David Morris, back in September at Yornight, when he thought our photochemistry and light exhibit was so good he invited us along to present a stand at the school!

So after gathering all our exciting chemical reactions, luminescent compounds and everything that glows we made our way to the school and rapidly set up our equipment, with the challenge of finding enough plug sockets for all our UV lamps! We were particularly glad to have extra support (and extra hands-on supplies) from Dr Annie Hodgson and her son Ben, who were also there with Spectroscopy in a Suitcase, bolstering the chemistry side of what was quite a physics dominated event!

Over the evening we spoke with many different people, ranging from primary aged youngsters to grandparents, opening their eyes to the UV active components in many everyday items, from tonic water to washing powder. Kids really enjoyed writing secret messages with the security pens and turning glowsticks into bracelets! They were also impressed with UV active beads in a whole range of colours! As ever, everyone found the liquid nitrogen cool (!) but thankfully were also impressed by some fluorescent copper clusters made by Hussni Nakeshbandi that exhibited temperature dependent colour changes under UV.

One piece of our high tech equipment went down very well, with lots of people recognising that we were using a UV nail curer! It worked perfectly to demonstrate reversible reactions involving the UV induced transformation of some colourless sulfonated anthraquinone derivatives to their conjugated dihydroxyanthracene versions. People were impressed with the resulting colour changes but we saw some really amazed responses when, on brief exposure to oxygen and a quick shake, the solutions turned colourless again! Some even claimed it was magic!

Throughout the evening, we all enjoyed showing off our photochemical reactions to members of the public at a very well organised and enjoyable event. We were even supplied with buffet tea beforehand, so had some brainfood to fuel all our chemistry explaining! According to feedback from David, everyone at the school had a brilliant evening, so much so that we've been invited back next year!

Amy Ruddlesden

Amy, Barby and Annie in action!!

Ionic Liquids Mini Symposium

Date: Friday 5th February 2016

Time: 1.30pm

Location: BS/005 Bowland Auditorium, Berrick Saul Building

Programme

13:30 - 14:15: Professor Tom Welton (Imperial College London): “Single Molecule Fluorescence Spectroscopy in Ionic Liquids: What is it telling us?”

14:15 - 15:00: Dr Matthew Costen (Heriot-Watt University): “A New Probe of IL Surface Structure and Composition: Reactive Atom Scattering”

15:00 - 15:30: Dr Lucia D’Andrea (University of York): “Adventures with binary ionic liquid mixtures: towards a better understanding of the surface and bulk-phase structure.”

15:30 - 16:00: Tea and Coffee break

16:00 - 16:45: Professor José Nuno Canongia Lopes (IST & ITQB, Lisbon) “Probing the Complex Structure of Ionic Liquids: Scorpions, Macaws, Portuguese men-of-war, and Tigers.”

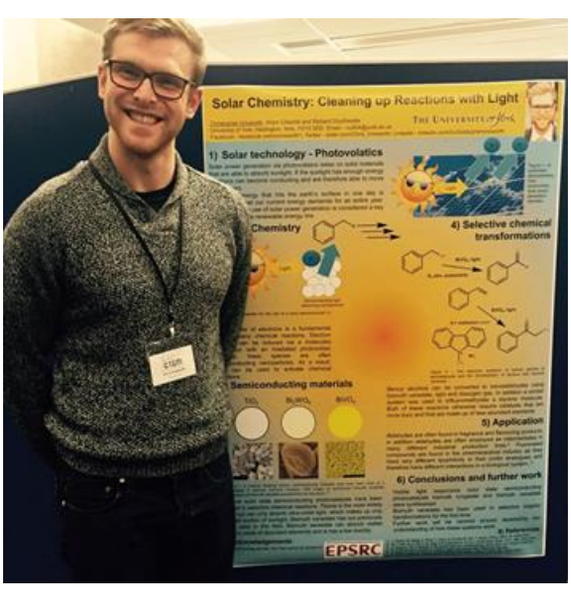
16:45 - 17:30: Dr Karen Edler (University of Bath): “Micellization in Deep Eutectic Solvents”

17:30 - 18:30: Wine reception in the Department of Chemistry

York Chemists Attend Inaugural LGBTSTEMinar in Sheffield

A group of York Chemists attended the first UK LGBTSTEMinar in Sheffield on 15th January. The day was full of presentations of the highest standard from a wide variety of subject areas, such as wildlife conservation, colliding galaxies, cardiac remodelling after a heart attack and crowdsourcing cancer research. The University of York's own Dr Derek Wann presented his groups work in a presentation entitled "Making Molecular Movies", discussing studying kinetics at a molecular level. Chris Unsworth and Robin Brabham both presented their ongoing PhD work in the form of posters. The talks and posters were a great display of the scientific achievements of those who are LGBT in STEM.

Beyond this however, several talks discussed the issue of hidden diversity around being a LGBT member in STEM. Professor Dave Smith opened the day with his Keynote speech entitled "No sexuality please – We're Scientists". Dave discussed many topics that are associated with being LGBT and a scientist such as hidden diversity, how attitudes can vary in differing locations and what can be done to create an inclusive working environment. Dave also highlighted the good work done at York with regards to creating a positive and encouraging work environment with regards to diversity and the Chemistry Department's Gold Athena SWAN award. Travel for PhD students to attend the event was funded from the departmental Equality and Diversity budget



Other speakers included Dr Calvin James Smith from the University of Reading who discussed what he does to demonstrate the idea of unconscious bias to students and the effect that it has on working environments. In addition, Professor Elena Rodriquez-Falcon from the University of Sheffield discussed being LGBT in engineering. She also discussed the stigma she has faced with being a woman and international in her places of work in a deeply personal final Keynote.

The seminar created a great hub for networking. On twitter the hashtag #LGBTSTEMinar was trending by the middle of the day. The conference appeared to break down traditional academic hierarchical allowing all in attendance to create discussion with anyone. In all, the day was a great success, with many commenting saying it was the best conference that they had attended.

Chris Unsworth

CIEC Enjoys a Productive Time at the ASE Annual Conference

Three of the CIEC team delivered primary workshops at the Annual ASE Conference held this year at Birmingham University at the start of this term.

Clare Warren gave a practical session exploring different approaches for engaging students with science entitled Teaching Science or Teaching Scientists?

Enjoying practical science in Gayle's session

Gayle Pook's session Working Scientifically with Real Scientists explored how CIEC harness the expertise and goodwill of industry to engage primary children with both science and the possibility of industry as a career.

Jane Winter had notable success with her session Get out more: Inspiring Science in the Outdoor Classroom which explored exciting and manageable ways to go outside as much as possible and to use the potential of the 'outdoor classroom' to engage and motivate children and to maximise their science learning. Jane delivered her talk to a packed lecture theatre and has received great feedback since the event.

Left: one of the Primary Pop-Up activities

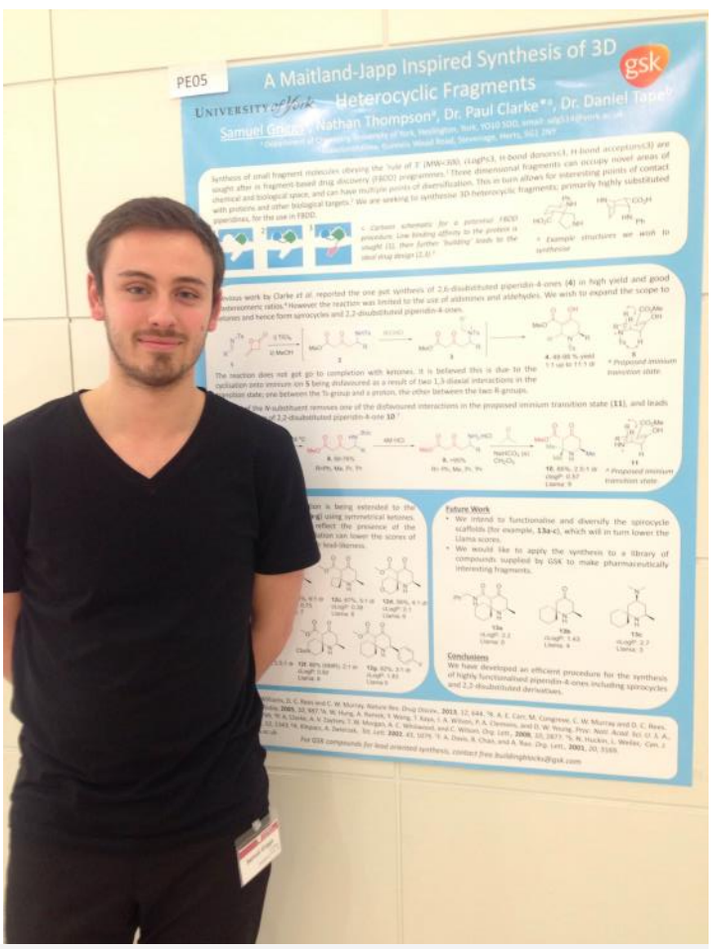
Gayle and Clare also demonstrated a range of practical science activities in the Primary Pop-Up session held during one of the lunchbreaks.

Gayle pronounced the conference to be a rewarding few days for CIEC, "It is such a good event each year for meeting new educators, for showcasing the work of CIEC and engaging in really useful CPD for the team. This year there was a great atmosphere with everyone keen to improve their skills in order to engage children with science."

Chemistry Learnings and Achievements Meeting

The European Lead Factory (ELF) is a collaborative public-private partnership aiming to deliver innovative drug discovery starting points. It relies on chemists submitting their innovative ideas to a fragment database (acceptance of a scaffold will get the uploader between €500-5000! There's an incentive!).

The ELF hosts an annual 'Chemistry Learnings and Achievements Meeting' where representatives from both academia and industry meet to show off and exchange their chemistry to other members of the collaboration – this year it was held in Barcelona.



Sam Griggs with his poster

In the past, these events have been exclusive to just members of the ELF, however this year, adding to the current 64 participants, the event was open to select external early career researchers. I was fortunate enough to have success with my application, and so quickly found myself on a plane to Barcelona! There were 18 others like me, representing 13 countries across Europe.

The conference featured 20 talks from post-docs and industry representatives, and in general, there was some really elegant chemistry on show. Ranging from spiroindolinepiperidine Ugi reactions to [3+2] nitrone cycloadditions, there really was some fantastic work. Although, if I see one more m/z vs cLogP plot I might scream!

As an external to the conference, I had the opportunity to give a 3 minute flash presentation, as well as presenting a poster. Thankfully, they were both well received, and I got a nice ego-boost in return!

I met lots of new people, made new friends, and caught up with old friends too. I would do it all again if I could!

The event will be on again in a years time, I recommend anyone in the related fragment field to apply, it's definitely well worth it!

- Sam Griggs

Twenty20 Cricket

For many years the Department of Chemistry has had a team in the University Staff Twenty20 cricket league (affectionately known as the 'Tin Pot Trophy'). The league consists of weekly evening matches against other departments and runs from late May until August. This year there is a new league organiser who has even setup a proper website for it (www.tinpottrophy.co.uk). So anyone who fancies a game for a couple of hours after work this summer please send an email to James Lee (james.lee@york.ac.uk) so you can be added to the email list. The team is open to all staff and research students, male or female. It should be pointed out that enthusiasm is much more important than too much cricketing ability and the game is usually followed by a trip to the pub! As you can see from the photo no equipment or special clothing is required! We just really want to make sure we can field 11 players for each match. We will try to arrange a get together for all interested players nearer the start of the season and maybe even some practise sessions!

Arrival of Baby Duckett

The Department was very pleased to hear the news that Simon and Alice's baby daughter, Hazel Mary, was born at 18.26 on Friday 18th December weighing 7lb 3oz.

We wish them all the very best with the new arrival.

'Time to Talk' Day

4th February is **'Time to Talk'** day when Mind are encouraging everyone to talk about mental health:
http://www.time-to-change.org.uk/

To mark the day we are inviting staff and students to come along to A137 (known as the Quiet Room until we can think of a better name) for a chat and a cake / biscuit.

The Quiet Room is a designated area where chemistry staff can have a break from the noise of shared offices and laboratories to work or relax or sit and chat quietly with colleagues. We have a 'Do not Disturb' sign for the door for times when staff really need to be uninterrupted (for example for confidential conversations) but the hope is that a number of staff will be able to use it at the same time without disturbing each other.

(NY)3 Fundraising

Friday 5th February kicks off the Chemistry (NY)3 Fundraising activities and we are starting with the **Wear it. Beat it** campaign for the British Heart Foundation:
https://wearitbeatit.bhf.org.uk/about/

We are asking all staff and students in Chemistry to take part in the campaign and you can do so in a number of ways:

- Wear **red** and make a donation (all red or items of red; t-shirt, socks etc.)
- Bake some cakes or biscuits with a **red** theme and deliver to any member of the admin team or the UG office on Thursday or Friday Morning
- Make a donation for cakes and biscuits from the Chemistry foyer and D block coffee room

There is still time to pledge to an activity for (NY)3, just reply with your commitment to chem-comms@york.ac.uk.

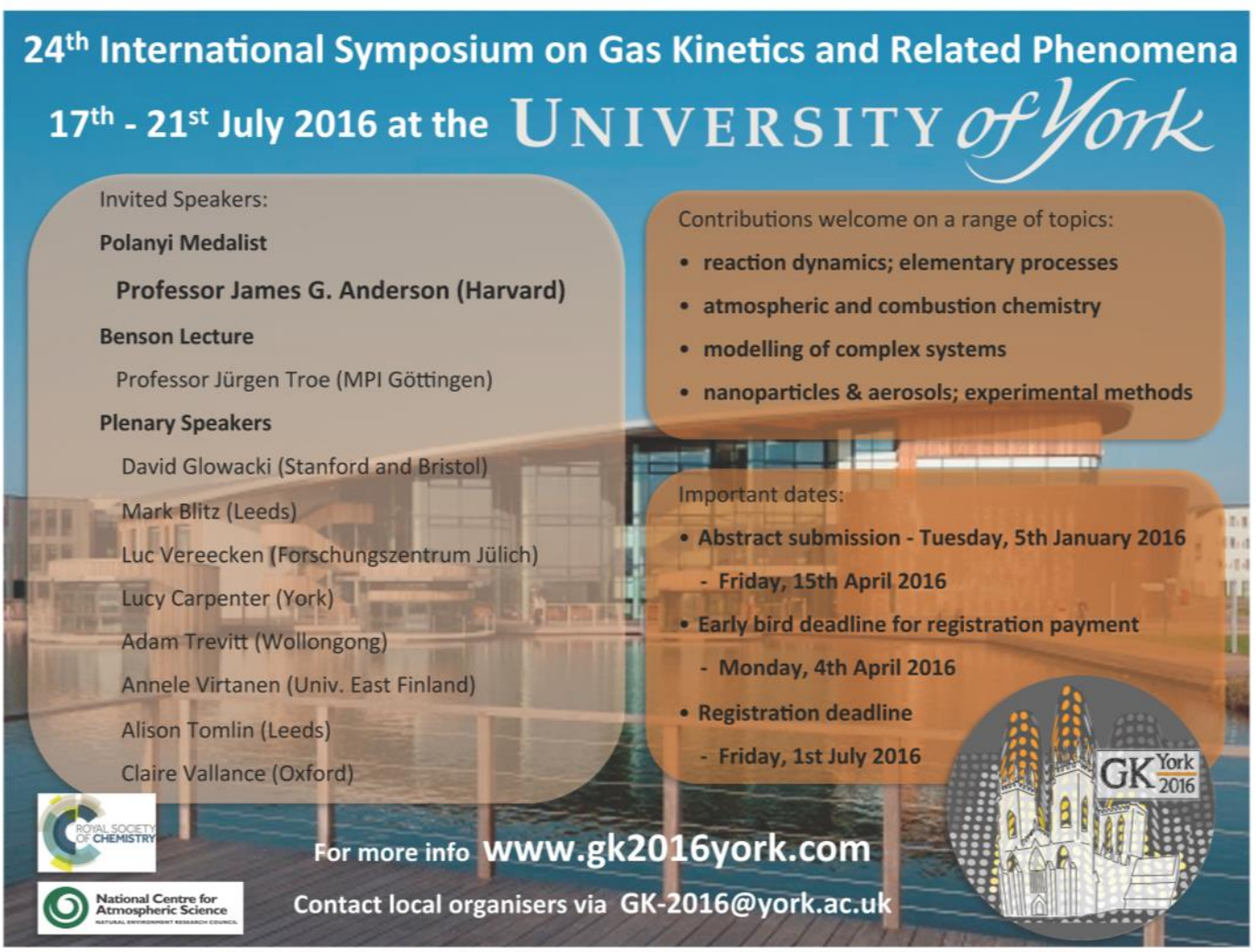
https://www.justgiving.com/teams/YorkChemistryNY3

Johnson Matthey Poster Competition

The annual PhD Poster Competition will be taking place on **Friday 18th March 2016**. Following several years of support from Bruker, we now welcome Johnson Matthey as our new sponsors of the event.

The poster competition involves all our 3rd year PhD students who are required to produce a poster about their research, and answer questions on it during the judging session. A panel of judges are involved in scoring all the posters, with the winners receiving cash prizes courtesy of Johnson Matthey. We will also be joined by a guest from JM who will deliver a seminar that afternoon as well as announcing our winners.

To run successfully, the competition requires members of staff to join the judging panel and we still have some spaces to fill. If you are available on 18th March and would like to get involved, please email chemgrad@york.ac.uk to find out more. This is a great opportunity to get involved in a departmental event and find out about all the different research taking place. Post-docs are very welcome to be on the judging panel as well as academic staff so do get in touch if you are interested.



University Reuse Policies

Please use the recycling bins around the department instead of throwing rubbish in the bin (as the vast majority can be recycled). See the following webpage for more information:

http://www.york.ac.uk/admin/estates/operations/waste_management/recycling/

Do you have enough recycling bins?

As part of the Green Impact Scheme, we are currently looking at whether or not there are enough paper recycling bins throughout the department. As a guideline, there should be at least one paper recycling bin per 10 desk-based members of staff. If you or your research group would like another paper recycling bin, please let Nick Abbott know at nick.abbott@york.ac.uk.

Students - please email Nick on nick.abbott@york.ac.uk if you have any queries or requests for extra recycling facilities in the department.

See below to read about the University's waste and recycling policies.

http://www.york.ac.uk/about/sustainability/recycling/

See the links on the left under 'Sustainability'.

For Staff - furniture reuse scheme - instead of getting rid of your office furniture, please advertise here first, there is a good chance someone will take it off your hands!!

http://www.york.ac.uk/admin/supplies/fru/index.cfm

Also check to see if you can use any of the goods offered - for free!

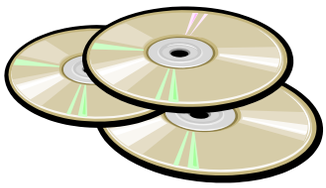
You can also subscribe to receive emails when things are advertised!

Staff and Students - Small Ads - there is also a 'Small Ads' webpage where you can advertise your second-hand goods and pick up a bargain!

http://www.yorkgsa.org/site/forums/

There are also red BHF clothes banks situated at every college.

Please Recycle Unwanted CDs!



Please send any CDs to be recycled to the Post Room, Car Park South. For more than a few CDs, please place them in CD/DVD confidential waste bags, available from the mail room at mail-room@york.ac.uk.

Switching Off

Reminder to all staff and students

- Monitors - these need to be turned off when you are not using them (they use up to 50% of energy of both monitor and computer combined!)
- Equipment not being used - please switch off any equipment when you finish using it especially before you go home (apart from computers in the computer rooms which are automatically switched off at the end of each day)
- Lights - ask yourself before you use the lights "Do I really need all the lights on?" Use part-lighting where applicable.

  Please turn off the lights when you have finished using them!

  If you see an empty room with lights on (and there is nothing in there, please turn the lights off!
- Heating - turn down where applicable and especially at the end of the day (see below).

Heating

As part of our green initiative with Green Impact, we would like to encourage all members of the department to wear appropriate clothing for the weather. This helps us to avoid unnecessary heating or air conditioning throughout the year. We would like to keep cooling to no lower than 24° degrees and heating to no more than 21° degrees. By layering up with thick jumpers in the winter months and wearing light, loose clothing in the summer, we can avoid wasteful energy use!

University's Flexible Working Policy

The University's comprehensive flexible working policy can help staff reduce the number of miles they travel when commuting to work. For more information visit
http://www.york.ac.uk/admin/hr/flexible-working/

See also the Department's webpage on flexible working:
http://www.york.ac.uk/chemistry/internal/staffinfo/hrinfo/flexwork/

We also operate a family-friendly policy, see: http://www.york.ac.uk/chemistry/department/family/

Photocopying/Printing

ASK yourself before you print, "Do I really need to print this, can I read on screen and make notes where necessary?".

Pease print and photocopy double-sided! York Print Plus machines should already be set to print double-sided by default.

Access your print preferences' and select 'duplex' or similar to print both sides of the paper. Please also consider printing 2 sides to a page.

Yellow Trays

These have been set up next to relevant photocopiers (Library, Photocopier room and other select locations). Please put anything printed off on one side in these so that people can reuse for scrap paper.

You can also use the paper to print in the photocopiers:

1. When printing to the photocopier, please select 'print on both sides' = NO or change to "print one sided" and select a particular tray, for example tray 2. Please put the paper in FACE UP i.e. print side up in whichever tray you are using.

2. When photocopying onto scrap paper from the photocopier, please do the same as the above.

Dripping Taps

Staff - please report any dripping taps in the department or other water wastage on Planon - go to Staff home page > Repairs and Maintenance > Log in > 'Report a problem... under 'FIX IT'. A dripping tap can waste up to 5,000 litres of water a year.

Students - please can you go to reception and let the receptionist know.

Dual-flush Toilets – these are next to Reception in A block, please use the button with the SMALL circle on it (on the left) to save water. Only if absolutely necessary can you use the right hand button with the large circle on it.