Sussex gets an Oscar
Dr Oscar Navarro joins chemistry at Sussex

The University continues to invest in its Chemistry department with the appointment of Dr Oscar Navarro who joins us from the University of Hawaii at Manoa. Oscar graduated with a BSc (Hons) in Chemistry in 2001 from the UK and completed a PhD and postdoctoral studies in the USA before moving to Hawaii to take up a position as Assistant Professor. His research focuses on the development of novel organometallic complexes of late transition metals and their application as catalysts in polymerization and domino reactions. Oscar says of his move: ‘If you do organometallic chemistry, you can find only a handful of places in the whole world with the tradition and excellence of Sussex. Research carried out in this department shaped my research interests when I was a graduate student and therefore my professional career. It is exciting to be part of this institution now.’

Inorganic photochemistry catalysed by TSB

Sussex chemists secure funding for clean energy research

Funded by the Technology Strategy Board and PpTek Ltd. (a company that leads the UK market in biogas purification), the Clean Energy and Fuels group at Sussex will work with PpTek to advance current approaches to gas purification using inorganic nanocatalysts powered by the clean, cold energy in light. Dr Qiao Chen and Dr John Turner, together with PpTek, applied to the Technology Strategy Board in order to develop pilot scale purification units based on inorganic photocatalysts. The grant, worth £546,000 in total, was approved at the beginning of September. In this collaboration, PpTek will engineer new prototypes while the inorganic and physical chemistry necessary to further develop the nano-structured catalysts will be performed by the Clean Energy and Fuels group in the Chen and Turner laboratories.

2012 Sussex Teaching Award
... for Chemist Dr Hazel Cox

Dr Hazel Cox, who was nominated by students and staff from the School of Life Sciences, was awarded a 2012 teaching award. Head of Chemistry Prof Geoff Cloke said, “it is particularly appropriate that Hazel has been given this Award. It is a tribute to her inspirational teaching and her really positive engagement with current students.” On hearing the news of her success, Hazel commented: “it’s an absolute pleasure to be able to work with such wonderful students and to help them achieve to their highest potential.” She will be presented the award on the 24th October 2012.

News in brief...

Prof Simon Ward was invited to present his work in September at the international ‘Chemistry for Health’ conference in Athens, Greece on ‘Modulating glutamate receptors to enhance cognition’. This presentation is part of an active research project within the university to identify potential new medicines to help improve the learning and memory process of patients with schizophrenia.

Prof Simon Ward has been invited to be the academic representative on a panel at an event at the Royal Society of Chemistry in London entitled ‘Chemistry for Tomorrow’s World 2012: Discovery of Abiraterone - UK Discovery Excellence’ for a public meeting discussing the future of drug discovery within the UK.

Hot off the press


This paper from the Crossley lab extends their study of compounds based on late transition metals with bidentate sulfur ligands. It describes an unprecedented fragmentation-recombination reaction of these ligands on platinum, to afford an adduct between the Lewis basic platinum centre and acidic boron. Compounds of this type are of considerable current interest in challenging traditional models of bonding in transition metal complexes.


This paper from the Spencer lab investigates the influence of microscopic properties (regiochemistry and substituents) on the macroscopic structural properties (intermolecular hydrogen bonding) of a series of biphenyls. It was a very rewarding paper as the molecules were easy to synthesise using microwave chemistry and most were very easy to crystallize.
Student Prizes

Outstanding academic performances 2011-12

Congratulations to the following students. Former school or college in parentheses.

The Chall Prize (£100) – Charles Readman (Truro & Penwith College)
The Johnson Prize (£200) – Joseph Newcombe (Dame Alice Owen’s School)
The Louise Gross Prize for Best BSc Third Year Performance (£150) – Anthony Fitzroy (St Wilfrid’s Catholic School)
The Louise Gross Prize for Best MChem Third Year Performance (£150) – Melvyn Ansell (Chaucer Technology College)
The RSC Downland Prize for Best BSc Finalist Project (£75) – Simon Bailey (Brockenhurst College)
The Bader Prize for Organometallic Chemistry (£1000) – Tom Moore (Norton Knatchbull School)
The RSC Downland Prize for Best MChem Project (£75) – Gavin Roffe (Royal Forest of Dean College)
The Subject Chair’s Prize for Best MChem Performance (£150) – Jessica Dwyer (Colchester County HS for Girls)
The Murrell Prizes for Best Physical Chemistry Performance (£100) – Luke Rhodes (Weald of Kent Grammar School), Year 1; Natasha Aylett (Sandringham School), Year 2; Marketa Suvova (Int. School of Florence) and James Pankhurst (Hailsham Community College), Year 3
The Murrell Prize for Best Theoretical Chemistry Performance at Masters level (£200) – Helen Kimber (Tonbridge Grammar School)

PG colloquium

Best poster awarded to Chemist Chris Gallop

The Second Postgraduate Research colloquium was held on 3rd and 4th September 2012. Almost 30 third year students gave a talk on their doctoral research projects and 20 second year students presented a poster. The colloquium was attended by a wide audience including current and new postgraduate research students, research fellows and faculty members. The colloquium is an essential requirement of the postgraduate training programme which the School of Life Sciences is committed to delivering. Chris Gallop, 3rd year chemistry postgraduate student, won the prize for the best poster.

Flexible course design

… facilitates BSc to MChem transfers

A record number of students have decided to switch from the three year BSc to the four year MChem. The first three years of the MChem course is identical to that of the BSc so that students can delay making the final decision as late as year three. At the start of this academic year several 2nd year and 3rd year students, on achieving the grade requirements, have successfully applied to transfer to the MChem programme and experience cutting edge research first-hand.

Life as a Sussex Chemist

What strikes me most when looking back at first year was the juggling act of how to balance work and play. Going forward as we enter second year, I would say everyone is nervouslly anticipating that all our academic efforts are now going to count towards our degree. Although some people will always be more blasé than others, there is definitely a more identifiable sense of drive throughout our class – a general feeling as though this year may be possible (just don’t ask if we still feel like that during summer assessments!) In addition, second year brings with it more independence to make our own choices – in our degree and also in our lives. Most of us now live in houses off campus and this has allowed us to choose people who we really want to live with, and as we get closer to the third year of our course we will start to be able to make our own choices in what we want to study.

So to end I may just keep it to this: first year was so good that the thought of graduating in only two years’ time seems far too soon, and so instead I have now decided to stay and do the MChem. The longer I live and study in Brighton the better. If this does not prove how much of a blast we all had last year then I really don’t know what will. To any Freshers reading this – you really have no idea of how much fun you are about to have!

Follow Charlie through her undergraduate degree in future issues.

Sudoku

…with a Chemistry twist

Fill in all the squares of the grid so that every row, column and 3x3 square contains each of the elements below.

```
  C  Ca  Cd  Ce  Cl  Co  Cr  Cs  Cu  
  Cl  Cd  Cr  
  Co  C  Cu  Cl  
  Cu  Cs  Co  
  Cs  Co  C  Cd  
  Ce  Cs  Cd  C  
  Cr  Ca  Co  
  Co  Cr  Ca  Cs  
  Ce  C  Cu  Cl  
  Cs  
  Cr  
```

Thanks to the C60 Chemical Society!

Solution in the next issue.

PhD student

Chris Gallop describes his work within Dr Eddy Viseux’s research group on the winning poster.

Sussex Chemistry News is produced by the Chemistry Office with contributions from Chemistry students and faculty, and edited by Dr H Cox, email h.cox@sussex.ac.uk. If you prefer to receive an electronic copy please email la.thomson@sussex.ac.uk or download at www.sussex.ac.uk/chemistry.