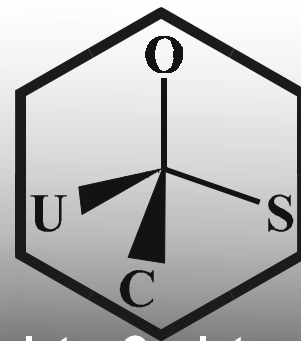


November 1999

Touch-Paper



The Newsletter of the Open University Chemistry Society

OUCS Aye - The Noo! Report from Valerie Rutherford

On April 11th a group of members from Region 11 (that's Scotland) enjoyed an afternoon in Edinburgh during the Edinburgh International Science Festival.

We viewed "Periodic Landscapes" organized by the Royal Society of Chemistry at the Royal Museum of Scotland. The exhibition is a stunning series of computer generated video sequences and prints based on the relationships and patterns within the Periodic Table.

The Chemist's Pub Crawl - Revisited.

It's been some time since we had an entry for this section. But, while I was in Strasbourg this summer, I came across The Alchemist. A walk down



Rue des Freres from the Cathedral is worth it just for the sheer number of wonderful old bars in the region.

We gave the demonstration on "How to stuff a cat" a miss!

After a break for tea, we headed over to the Old College lecture theatre where Dr Stephen Drury gave a presentation on his latest book "Stepping Stones". Dr Drury is a member of the OU Earth Sciences course team. His book interweaves evidence from geology, physics and chemistry to tell the story of the Earth's evolution. This was the first outing for OUCS in Scotland. Hopefully there will be many more. All suggestions and ideas are welcome.

Howlers

by Kathy Yeowell

Hints for answers you shouldn't give in next year's exams...

The alimentary canal is situated in the northern part of Indiana

Equator: A menagerie lion running around the Earth through Africa.

Magnets: Something you find crawling over a dead cat.

The pistol of a flower is its only protection against insects.

Germinate: To become a naturalized German.

A fossil is an extinct animal. The older it is, the more extinct it is.

The skeleton is what's left after the insides have been taken out and the outsides have been taken off. The purpose of the skeleton is something to hitch meat to.

TouchPaper - an editorial

You may have noticed that it's been some time since the last TouchPaper. This has been due to many reasons, but mainly it's because I've not been able to find the time to put it all together. Illness and the pressure of two jobs means that TP has to take a back seat to many other demands on my time.

However, even if I had had the time to bring out four issues in 1999 I would not have been able to, as the material to fill it is just not being supplied.

The OU Chemistry Society is just that - a society, an organization of like-minded individuals who work together for a common goal.

However, OUCS has been, and still is, run by just a few unpaid volunteers who give a lot of their time and effort into keeping it going. Often it seems a thankless task (often it *is* thankless) and the lack of support from the membership can get very depressing.

I'm not asking that every member should spend several hours a week doing OUCS work (although I'm sure that Paul, Carole and Carol, at least, could do with such help). But there must be a few dozen members - out of a total of over five hundred - who could volunteer their time to help with marketing at Summer Schools, or with helping the regional reps, or writing bits for TouchPaper. The whole of this issue was written by the committee (and Neil Creamer - thanks Neil) despite many calls for some sort of feedback from members.

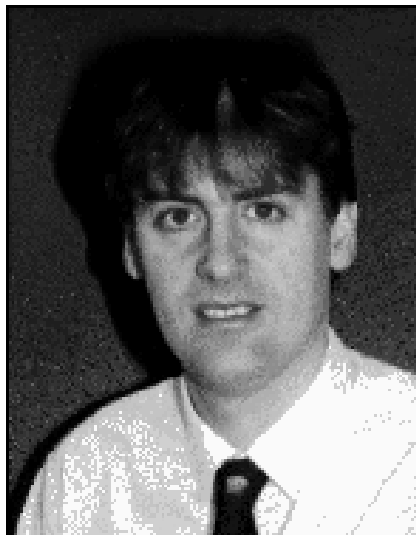
Well, that's my rant over. Please note that these opinions are mine and do not necessarily represent the views of any member of the committee.

Frank Hollis

The Litmus Test

Subject: Dr Paul Baker

Interviewed by Jan Davidge and Neal Creamer



Paul Baker has been a valued and enthusiastic member of Chemistry Department Summer School tutoring team for the last fifteen years.

Where did you go to school?

Syon School, West London where I gained A levels in music, chemistry, physics and pure maths. In those days it was touch and go whether I became a chemist or a musician.

Did you go to university straight from school?

Yes, I went to Bristol where I gained my degree and became fascinated with organometallic chemistry. I completed my studies in 1979 obtaining my Ph.D. with my thesis entitled "The Synthesis and Reactions of Cationic Organotransition-metal Complexes".

Where do you work now?

For the last fourteen years, I have been working at the University of Wales in Bangor, where I both teach and carry out research. I'm fortunate to be able to combine these aspects of my work, as they are both very important to me. Since arriving in Bangor in January 1984 as a lecturer in Inorganic Chemistry, I have been promoted, firstly, to Senior Lecturer (in 1984) and then to Reader in Chemistry, in 1994. I enjoy working at Bangor, and last year, I was extremely proud to be awarded the Teaching Fellowship for the Faculty of Science at Bangor, which is a great accolade from both staff and students.

What are you outside interests and hobbies?

I have a great interest in music. I play the trumpet and write my own compositions. In fact, I wrote the world's longest piece of music entitled "Crotchet Equals Infinity" in 1979. I like to listen to jazz and classical music. I love the passion and fire of Gustav Mahler's music, and find it most inspirational.

What books do you read for pleasure?

I read mainly biographies and autobiographies, especially ones written by musicians or people associated with music.

What is your favourite TV programme?

My favourite programs are wildlife programmes, particularly the ones made by Sir David Attenborough.

Why did you choose chemistry?

As a small boy I loved chemistry (probably due to the chemistry set bought by my mum and dad), and was lucky enough to have excellent teachers who nurtured my interest.

How did you become involved with the OU?

I saw and advert in the paper for Summer School tutors, was crazy enough to apply and have been going to Summer School ever since. Of course, the highlight of my OU career has to be making the S343 Laboratory Techniques video with Stuart Bennett.

What is your current project?

This may come as a great surprise to everyone who has studied S343 but my research involves using compounds of molybdenum and tungsten as catalysts for making new materials. I am the co-author of over 180 research publications on the subject of molybdenum and tungsten organometallic chemistry, and have given lectures on my research in over 40 UK universities. I have travelled extensively, visiting Australia, Belgium, Canada, France, Germany, Holland, Hong Kong, Italy, Poland, Portugal, South Africa, Spain and the USA, giving lectures on various aspects of my research.

What would you like to do next?

As far as my research goes, I see my work moving towards the applications side of complexes $[M_2(CO)_3(NCMe)_2]$ ($M = Mo$ or W) and their derivatives, towards homogenous catalysis and into Bioinorganic Chemistry. I'd like to become involved in the media: TV and radio to promote chemistry and to show the world what a fascinating and important subject it is to study. Failing that – winning the Nobel Prize for chemistry wouldn't go amiss.

Throughout your career, who has been your biggest inspiration?

When I was in school I was lucky enough to have a teacher, Mr Clark, who steered me in the direction of chemistry even though he was my physics teacher. At the University of Bristol, I was inspired by my supervisors: Prof. F.G.A. Stone FRS, Prof. M. Gren and Prof. N.G. Connelly who not only made chemistry interesting, but great fun as well. While at Bangor, I have received a lot of support and inspiration from Prof. A.E. Underhill.

What are your thoughts on the future of chemistry?

I feel that chemistry has a very bright future. There are an infinite number of new molecules to be made, some of which will have important uses in all our lives. The possibilities for research are endless.

Who would you like to see take the Litmus Test?

Send your suggestion for possible future candidates to Frank Hollis (address on back page). Or, even better, send in a set of answers to the standard Litmus Test questions.

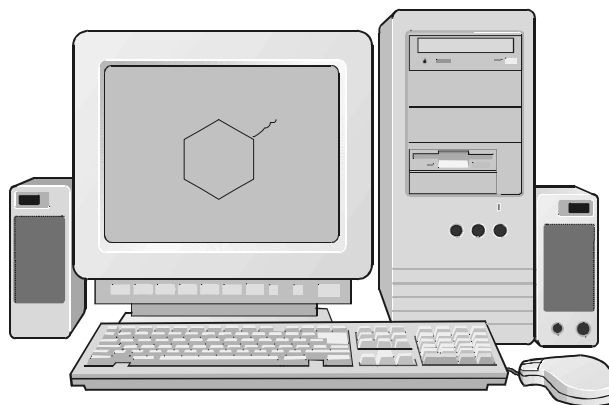
Xmas Dinner

The second annual OUCS Xmas dinner will be at the Great Barr Hotel, Birmingham on Jan 15th.

Contact Paul Everett for details.

Chemical Computing

By Frank Hollis



Chemistry Macros - Autocorrect A problem

One of the most useful programs on the OUCS CD-ROM is Pascal Dietzel's Chemistry Macros for MS Word. These programs are all shareware – you can use them for a short time, but you need to register them with the author to carry on using them. It's fairly common for shareware authors to have 'nag' screens to remind you to register and to have the program refuse to run after a certain time limit. Pascal has chosen to implement both procedures on his programs.

Normally this would cause no problems. Either the program is worth paying for – and you register it, or it's not as good as you hoped and you remove it from your system. Unfortunately Autocorrect both cases have problems in this case.

Try as I might, I've not been able to contact Pascal. I've tried email to at least three addresses, snail mail – I've even sent him a Eurocheque for the registration fee. The emails and letter remain unanswered, the cheque remains uncashed. So it seems to be impossible to actually register this program.

This wouldn't be too bad if the only result was that you couldn't use the macros. But, in my case at least, when the macros refused to work any longer – so did the normal superscript and subscript functions. Luckily, it's not too difficult to fix the problem. All you need to do is delete the file chemistry.dot from the startup folder of either Program Files\Office or Program Files\Winword – depending on which version of word you're using.

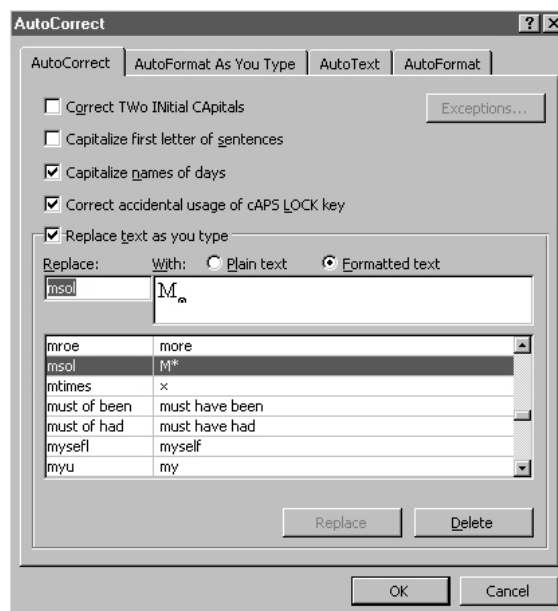
If anybody out there knows the whereabouts of Pascal Dietzel, formally of Bonn University, then tell him that there are a lot of people out here who want to give him some money in exchange for a password.

Easy shortcuts in Word

Users of MS Word will probably have encountered the AutoCorrect function. This was designed to fix common errors in one's typing – so it automatically changes common errors like 'teh' into 'the'. But it's not just handy for

Now, to type M_{\odot} , all I need to is type the letters 'msol' and Word thinks I've made a mistake and 'corrects' it.


You can be more adventurous if you like. I've set up $4/3\pi$ to be autocorrected to $\frac{4}{3}\pi$ using the equation editor. And you can paste any object as the replacement text. Using ISIS/Draw I pasted a benzene ring in. Now AutoCorrect will change the letters IDbenzene to .



correcting your typing, you can use it to develop your own short cuts.

I shall demonstrate by showing how I've set Word up so I can easily enter M_{\odot} (indicating the mass of the Sun – used a lot in S281).

The desired symbol combination has to be typed once – M_{\odot} . Then you need to select it. Now, in the Tools menu, choose AutoCorrect. You should find your selected symbol combination in the box labelled 'With:'. Ensure that the button "Formatted Text" is selected. Now all you need to do is enter the combination of letters that you wish to be replaced by those symbols. For the mass of the sun I chose Msol. Make sure you use a combination of letters that you're not gonna be using elsewhere.

I'd be  interested in other ways that people find to exploit the potential of AutoCorrect.

Many thanks to Eileen Kercher who first pointed me in this direction by pointing out how AutoCorrect could be used to simplify chemical formulae like H_2O , CO_2 , etc. and scientific units like replacing Gunits with $N m^2 kg^{-2}$.

The OUCS CD

New members may not be aware of the fact that OUCS have put together a collection of chemistry related software on a CD-ROM.

The star program is ISIS/Draw – which is essential for any chemistry student who uses a word-processor to produce their TMAs.

The CD-ROM costs £5, including P&P. For your copy send a cheque, payable to OUCS, to Frank Hollis (address on back page). There may be some delay as we switch production to a commercial CD replicator in the new year, rather than trying to keep up demand with a home operation.

Who's Who in OUCS

President

Ruth Williams
5 Devonshire Place
Exeter
EX4 6JA

Chair

Bob Matthews
Hamilton House
The Street
Bungay
Suffolk
NR35 21Z
jrm29@student.open.ac.uk

Secretary

Pat Wilson
106 Coronation Road
Southville
Bristol
B53 1AX
hpw2@student.open.ac.uk

Membership

Paul Everett
14 Masefield Road
Droylsden
Manchester
M43 6QR
pe2@student.open.ac.uk

Marketing

Carol Houghton
385 Liverpool Road
Hough Green
Widnes

TouchPaper

Frank Hollis
92 Little Pynchons
Harlow
Essex
CM18 7DE
fjh4@tutor.open.ac.uk

Treasurer & Events

Debby Deputy
71 Allerton Road
Woolton
Liverpool
L25 7RF
dmd26@student.open.ac.uk

Revision Weekend

Carole Arnold
51 Paddock Lane
Halifax
HX2 ONT
ca22@tutor.open.ac.uk

Region 02

Jan Williams
Kempsford Cottage
Steeple Aston
Oxon.OX6 3AR

Region 04

Denise Ingram
Aston University
Birmingham
B4 7ET
d.s.ingram@aston.ac.uk

Region 06

Janet Smith
27 Fairford Crescent
Downhead Park
Milton Keynes
MK15 9AJ
jes39@student.open.ac.uk

Region 07/08

Margaret Lister
21 Elston Place
Selby
Y08 OES

Region 10

Jan Davidge
19 St Mary's Close
Griffithstown
Pontypool
Torfaen
NP4 5LS

Region 11

Valerie Rutherford
4 Wright Way
Newstevenson
Motherwell
ML1 4LB

Open Day - Volunteers Needed

June 24th, 2000. Put that date in your diary now. It's time for the biennial OU Open Day at Walton Hall.

Once again the chemistry department will be putting on a grand show for visitors. And, once again, OUCS members will be playing a vital part in helping out.

The more members we can get to help - the less work each member has to put in. Most of the work will involve manning a stall, or display. Anything from making molecular models with sweets or ice cream with liquid nitrogen, to helping with the masses of little (and not-so-little) kiddies desperate to get their allocation of home-made slime.

There should be a deal made with the Hilton Hotel (just across the road from



campus) for special rates over the weekend. And it's not just the chemistry department that put on a show. Have a look at the work being done by other groups within the University, check out some fantastic stuff they're doing with computers, ride in a hot air balloon and much more. So why not bring the whole family along for a very enjoyable day?

If you are planning on coming along - and you can give up an hour during the day - then please let Janet Smith (address above) know. She'll then be able to set up a rota.

p.s. A warning to football fans. The last two Open Days have clashed with England in the World Cup and Euro '96. So be prepared to miss them getting beaten by Germany this time.