



# Historical Group

## NEWSLETTER

and

## SUMMARY OF PAPERS

**No. 63 Winter 2013**

**Registered Charity No. 207890**

### **COMMITTEE**

**Chairman:**

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| **Dr N G Coley** (Open University)

**Dr C J Cooksey** (Watford, Hertfordshire)

**Secretary:**





### **Do-it-yourself lunches at Burlington House**

Most members will know that they can drop in for free tea and coffee in the reception area just outside our Library, though it is always sensible to telephone in advance as sometimes the space is 'booked' for conferences and thus would not be available.

I have always been uncertain as to whether we were allowed to bring in sandwiches and enjoy them with our coffees. I'm happy to report that the issue has been clarified. Helen Pain, Executive Director, Membership, Operations and Organisational Development, confirms "we are more than welcome to take sandwiches into the coffee area – it is always very rewarding to see members using the facilities".

As to nearby places to purchase sandwiches, there's Boots the Chemists further along Piccadilly, close to Green Park tube station!

Alan Dronsfield

### **The RSC Biographical Database**

Over the past few years, the RSC Library has developed an sr2.7-93Ccal Datbrary

Winter 2012). Diana is both a member of the HG and also Treasurer of the Chemical Information and Computer Applications Group (CICAG). Catalyst is the only Science Discovery Centre in the country devoted to chemistry. Around 12,000 schoolchildren attend every year to learn about chemistry and perform hands-on experiments and activities, and 14,000 members of the general public visit as well. Diana and I toured Catalyst and met some of the staff. We were very impressed with the work they were doing.

When the IYC Challenge was announced, Diana and I decided that the two Groups should

problems and their solution; Diana Leitch on the people who worked there, plus others to be announced. Details in the **Winter 2013 Newsletter**.

**The History and Chemistry of Fluorine** Thursday 21 March 2013 at 10.30 am, Council Chamber, Burlington House, organised by Alan Dronsfield and Bill Griffith. More details and a registration form appear in the **Winter 2013 Newsletter**.

**Robert Woodward** ~~Chemist~~ **Extraordinary** Friday 17 May 2013 at 1.30 pm, Council Chamber, Burlington House. An afternoon meeting with talks by Bill Brock, Henry Rzepa

otherwise have entered industry. The political class, it seems would rather waste money on Millennium Domes and foreign wars.....

Nigel Jopson

Postscript to “[What Analytical Chemistry owes to Silent Spring](#)”

From Derry W. Jones: Two small supplements to Anthony Travis’s fine article on Mass Spectrometry and Gas Chromatography developments at institutions including the National Institute of Medical Research.

1. The career of James Lovelock is briefly summarized in an essay review [Contemp. Phys., 2010, **51**(3) 273-276] of his biography by the Gribbins [1].

2. In 2001, the RSC Central Yorkshire Section held a considerable Chemical Landmark event at ‘Torridon’, the site of the Wool Industries Research Association (WIRA) laboratories, to celebrate the award in 1952 of the Nobel Prize to Archer John Porter Martin and Richard Synge, mentioned in Anthony Travis’s article. The site in Headingley, Leeds, is now occupied by Bass Brewers plc, in whose reception area the plaque is positioned. WIRA became part of the British Textile Technology Group following the merger with the merged Shirley Institute (British Cotton Industry Research Association) and British Rayon Research Association; I had links with all three component institutions. With the aid of a video, Professors Keith Bartle and Peter Meyers described the inception of partition chromatography and later developments. As well as the RSC Past President, Tony Ledwith, and representatives of the RSC (including its Chief Executive, David Giarchi), the Society of Dyers and Colourists, and the Chromatographic Society, participants at the event included members of the families of both Martin and Synge and chemists who were employed at WIRA at the time of the award.

#### Reference

John and Mary Gribbin, *He knew he was right: the irrepressible life of James Lovelock and Gaia* (London: Allen Lane, 2009).

Derry W. Jones

## MEMBERS’ PUBLICATIONS

If you would like to contribute anything to this section please send details of your publications to the editor. Anything from the title details to a fuller summary is most welcome.

#### Recent publications by Historical Group Committee Members

Chris Cooksey, “Health concerns of heavy metals and metalloids”, *Sci. Prog.* 2012, **95** (1), 73-88, doi: 10.3184/003685012X13286247093244

This article is based on a talk given by the author at a joint meeting of the RSC Historical and

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The value of the award is £2300. Applications are due 7 April 2013. For more information or to make an application, please go to:

<http://www.chemheritage.org/research/fellowships-and-travel-grants/beckman-center-fellowships/index.aspx#FellowshipsandTravelGrants>

### **News from the Chemical Heritage Foundation (CHF)**

The Chemical Heritage Foundation would like to encourage applications for long-term and short-term fellowships in residence at CHF for the academic year 2013-14. These fellowships are for scholars working in some area of the history of science, technology, medicine, or related industries in all periods and geographical areas. All fellowships should be in topics appropriate to the collections in the CHF library and museum. The deadline for applications, which are to be completed online, is 15 February 2013. There are 3 basic types of fellowships being offered: Postdoctoral, Dissertation, and Short-Term. The CHF are also currently offering two additional special fellowships: Société de Chimie Industrielle Fellowship (3 months in residence) and Ulliot Scholarship (2 months in residence). These fellowships are designed to stimulate public understanding of the importance of chemistry and the chemical industries. Applications are encouraged from writers, journalists, educators, and historians of science, technology, or business. For further information visit [www.chemheritage.org](http://www.chemheritage.org)

Monthly during the academic year, a vignette of a prominent chemist is announced in the Chemist of the Month Newsletter that is sent to students, alumni and faculty of the Catholic University of America, Washington DC and to staff at other institutions. To read about the Chemist of the Month, go to the History Corner:

<http://faculty.cua.edu/may/history.htm>

**The Commission on the History of Modern Chemistry (CHMC)**

[www.chmcweb.org](http://www.chmcweb.org)

**The European Association for Chemical and Molecular Sciences (EuCheMS)**

<http://www.euchems.org/>

**The Society for the History of Alchemy and Chemistry**

[www.ambix.org](http://www.ambix.org)

For details of how to join the Society, please see the on-line form (follow the links from the main page), or contact the Treasurer and Membership Secretary: John Perkins, 19 Nethercote Road, Tackley, Oxfordshire, OX5 3AW ([shacperkins@googlemail.com](mailto:shacperkins@googlemail.com)).

**The Society for the Propagation of the Music of the Chemist Composers**

This is an informal association that has been formed to publicize the music of chemist composers.

<http://faculty.cua.edu/may/SPMCC.htm>

**The Working Party on History of Chemistry (WP)**

Information on the activities of the WP can be found on its website:

<http://www.euchems.org/Divisions/History/index.asp>

**Walter Sneader's website 'Sources of information about drugs and medicine'**

<http://historyofdrugs.net>

**Website for the history of science and technology in Europe**

<http://histsciences.uniparis1.fr/>

**Website of the Max Planck Institute for the History of Science (Berlin)**

<http://www.mpiwgberlin.mpg.de/en/index.html>

**Selection of English language papers relevant to the history of chemistry**

<http://web.lemoyne.edu/~giunta/papers.html>

**Website for the Nobel Prizes**

<http://nobelprize.org/>

**SHORT NOTICES**

**Bonding Beyond Borders: The Tetsuo Nozoe Autograph Book** rr5 TJ ET Q q 0.240000 0 0 0.240

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## **SHORT ESSAYS**

### **The Great Stink**

This is not about the parliamentary experience in the summer of 1858, but about some of the personal encounters that the author has had with historic stinks and some more recent ones, which have enlivened what might otherwise have been a dull day. tert-

sure and researchers seem reluctant to investigate, but suggestions are propane-2,2-dithiol and 4-methyl-4-sulfenylpentan-2-one.

I was unaware of this notoriety when, many years ago, a young lecturer asked me to make some of the trithiane so that he could study the low-temperature NMR spectrum. The recipe seemed quite straightforward. Take some acetone, add a teaspoon of  $\text{ZnCl}_2$ , bubble in  $\text{H}_2\text{S}$ . It all seemed to go well. Meanwhile, in the outside world, the London Fire Brigade and Gas Board officials were searching for a massive gas leak extending from Tottenham Court Road to Euston station. The first I knew was when the LFB appeared at the laboratory door, equipped with axes, looking for the source of the smell. "Is this it?" I asked, offering them a sniff. They were not amused.

#### **4-Methoxy**





the way to manufacturing what became known as UAN solutions formulated at a range of concentrations depending on the ambient temperatures likely to be encountered.

Although urea was available on a worldwide basis enabling large quantities to be imported, ammonium nitrate was more problematical. However it was possible to transport hot ammonium nitrate liquor by road tanker and this became the norm at several of the Chafer plants. An alternative was the local production [14] of ammonium nitrate liquor which was introduced at Chedburgh in the late 1960s. This involved reconstructing a nitric acid plant



Much of the standard spray equipment on agrochemical duty in the

involved in the production of garden and household fertilizers [22] in 1977 and a year or so later in the formulation of the animal feed supplement, "Granstock", plus a new forestry product to control disease in tree stumps. Both of the latter products were based on urea solutions. Technical support for these new ventures was readily provided "in house".

### **References**

1. Basic Soil Analysis (CTR3868).
2. Chemical Analysis at the Doncaster Laboratory (CTR9980).
3. The Corrosion of Mild Steel by Liquid Fertilizers (CTR0165).
4. Physical Compatibility in Pesticide Mixtures (CTR0266).
5. Factors affecting the Potential of Dry Sprays (CTR3469).
6. Factors affecting Dust Formulations (CTR0766).
7. Flow Conditioning of Dustox Products (CTR1167).
8. The Potential of "Cleaned-up" Phosphoric Acids (CTR6170).
9. The use of Condensed Phosphates in Liquid Fertilizers (CTR1467).
10. Polyphosphates in Fertilizer Practice (CTR2067).
11. Liquid Fertilizer Developments in the USA (CTR6071).
12. Nitrophosphate Slurry Fertilizers (CTR3369).
13. Improved Suspension Fertilizers (CTR9478).
14. The Chemistry of Ammonium Nitrate Production at Chedburgh (CTR2667).
15. Field Research and Development Unit (CTR4268).
16. Combined Applications of Avadex and LF for wild oat control (CTR2367).
17. Combined Applications of SWK and LF (CTR2467).
18. Combining LF and Pesticides in One Application (CTR2567).
19. Handling Concentrated Phosphoric Acid (CTR7272).
20. P.O.P. Catalyst Damage at Chedburgh (CTR6872).
21. Nitrogen Loss at Upton (CTR9678).
22. Nutrient Solution Plant at Doncaster (CTR9177).

### **The Chafer Archive**

The former applicator design and manufacturing department, staffed by some of the original Chafer employees from Doncaster, continues to operate within what is now a wholly independent company, Chafer Machinery Ltd, at Upton by Gainsborough.

Because J.W. Chafer Ltd was founded in Doncaster in 1901 and conducted its business in the town for almost a century, it seemed singularly appropriate to arrange for the company archives to be finally deposited in the Doncaster Archives Repository at Balby. In 2006, arrangements were made for the permanent transfer of the collection from Bury St Edmunds to Doncaster.

All the items have been catalogued and it is possible for them to be consulted at the Repository in King Edward Road, Balby, Doncaster, DN4 0NA.

<http://library.doncaster.gov.uk/web/arena/archives>

There is also an entry in the National Register of Archives which may be consulted online where there is a link to the Doncaster Archives. Some other Chafer material is held by the Museum of English Rural Life at Reading University, details of which are also available online.

Derek Palgrave  
Former Chief Chemist and Technical Director of  
J.W. Chafer Ltd of Doncaster

## BOOK REVIEWS

Robert G.W. Anderson and Jean Jones, eds, *The Correspondence of Joseph Black* (Barnham: Ashgate, 2012), £300.00 (or £270 for website orders). ISBN: 978-0-7546-0131-9, Pp 1564.

First, some statistics: the two massive volumes weigh in at 1.9 kg (803 pp) and 1.8 kg (729 pp) respectively. The editors have transcribed and printed a total of 835 letters and documents, comprising 355 from Black himself, and 408 from his correspondents who include important contemporaries such as William Cullen, Lorenz Crell, Thomas Beddoes and James Watt. Oddly, there are no letters to or from Priestley, though Black was kept well informed of Priestley's activities by Watt. There are a further 72 reports, notes and accounts that have a connection to Black. A statistical analysis of the letters' frequency implies that only some 25 per cent of Black's letters have survived or been identified to date. Those included in the edition can be classified into scientific-medical, medical diagnoses (diagnosis by mail was an eighteenth-century practice), letters to and from landowners and industrialists, family letters, and finally letters of a purely domestic and social character. The family letters are quite significant since Black's father, uncle and six brothers were engaged in commerce, bleaching and glass-making in France, London, Belfast, Trinidad and the Isle of Man. As the theologian John Henry Newman once said: such a collection of letters enables us to get "inside of things".

Four introductory essays by the editors (pp. 1-73) provide the historical context for the exchanges; a brief life of Black; an account of the dissipation and present location of the documents and analysis of the historical significance of the collection; and a statement of the editorial principles used in transcription. A series of 14 appendices (170 pp) in the second volume provides readers with additional information on those of Black's correspondents with three or more surviving letters; biographies of 21 members of the Black family (many of whom were what, today, would be called industrial chemists); Black's genealogy; autobiographical fragments prepared by Black between 1793 and 1798; a sequence of undated chemical notes on bleaching and on gold; transcriptions from Black's surviving income and household account books which among other things underline the expense of postage before the days of "the penny post"; a list of his silver plate; a valuation of his property made by Black in 1799 when he was preparing his final long and complicated Will; the list of Black's possessions made by his executors in December 1799; the ornate inscription on his memorial stone in Greyfriars Churchyard in Edinburgh; and, finally, a note on Black's library and his borrowings from the University Library in Edinburgh. The edition is crowned by a bibliography of sources and a comprehensive index which is essential for navigating the huge number of people and topics embedded in the letters and documents.

rightly identify him as a Scottish, not French, chemist. Following his Arts degree, Black trained to be a physician, thereby becoming the favourite pupil of William Cullen, the physician-chemist who developed Boerhaave's programme that chemistry was far more than an adjunct to medicine, but a discipline whose philosophical underpinnings were the key to the improvement of agriculture and industry. It was Cullen who suggested that Black complete his education at Edinburgh, which was then the Mecca for medical training. There Black wrote his famous dissertation, dedicated to Cullen, on the distinction between mild and caustic alkalis. Completed in 1754, this elegant qualitative and quantitative demonstration of the existence of a fixed air different from ordinary air ( $\text{CO}_2$ ), laid the foundations of the pneumatic chemistry that was to, literally, transform chemistry.

When Cullen moved to Edinburgh in 1756 he arranged that Black was elected to the chair of anatomy and botany at Glasgow, together with a lectureship in chemistry. In 1766, when Cullen moved to the chair of the Institutes of Medicine, Black replaced him in the chair of chemistry.

Although Black (as far as is known) never lectured on anatomy or botany, an important conclusion from this edition is that Black had a considerable medical practice in Glasgow and, later, at Edinburgh. Although latterly this practice was confined to written advice to his family overseas, or to caring for personal friends such as David Hume and James Hutton, the correspondence shows that medicine was a significant element in his career as late as

Apart from a few obvious typographical slips (mainly over dates) and some unexpected omissions of relevant secondary sources (e.g. the work of Henry Guerlac and Roger French), the volumes are superbly edited, printed and illustrated. Some may wonder why a complex edition like this was not put on the internet. I am glad it was not, for nothing can beat the convenience of having the notes instantly to hand, easy cross-referencing and a very

further the interests of those associated with the brewing industry and Anderson draws several parallels between these and the Chemical Society and the (Royal) Institute of Chemistry. Indeed, when the two brewing organisations decided in 1989 that merger was the most sensible way ahead, the 1980 merger between the Chemical Society and the RIC (forming the Royal Society of Chemistry) was the model that was followed.

John Rowlinson's book meets an important need and I recommend it to readers who, like me, are fascinated by the lives of the great scientists who contributed so much to our subject at the dawn of the twentieth century.

Alan Dronsfield

John C. Powers, *Inventing Chemistry: Herman Boerhaave and the Reform of the Chemical Arts*, (Chicago: The University of Chicago Press, 2012), £26 hardback. ISBN13: 9780226677606, Pp 260.

Herman Boerhaave was born near Leiden on 31 December 1668 and died there on 23 September 1738. His father, a preacher in the Dutch Reformed Church, wanted his son to follow the same profession. Accordingly, he took a degree in philosophy at the University of Leiden in 1689 and then graduated in medicine in 1693 at the University of Harderwijk, about sixty miles north of Leiden, because it was half the price of the course at Leiden and took less time. After his return to Leiden, he was forced to abandon his plans to enter the ministry, but the University was keen to retain the enthusiastic and dedicated Boerhaave. He progressed to lecturer in the institute of medicine (1701), professor of botany and medicine (1708), was appointed rector of the university (1714) and then awarded a chair in chemistry (1718).

The author is collateral assistant professor in the Department of History and assistant director of the Science, Technology, and Society Program at Virginia Commonwealth University. Drawing on manuscript sources at the Military-Medicine Academy (VMA) in St. Petersburg, the British Library and the Universiteitsbibliotheek Leiden, the author has charted the

generation of monoclonal antibodies (1984); the LDL receptor and its role in cholesterol metabolism (1985); the polymerase chain reaction and site-directed mutagenesis (1993 – actually a chemistry prize); the pathophysiological role of nitric oxide in blood vessels (1995); discovery of *Helicobacter Pylori*



study reveals Regnault's hitherto unknown interest in photography as a tool for scientific, technical and industrial use. She draws attention, for example, to the precise and exemplary "drawings" of experimental apparatus in Regnault's *Cours Élémentaire de chimie* (1847; 2<sup>nd</sup> ed. 1853) that were evidently engraved from photographs Regnault had taken in his laboratory. Regnault also wanted to use photography in documenting the manufacture of ceramics after he was appointed Director of the national porcelain works at Sèvres in 1852. Tragically, he lost all his unpublished research and photographs when the Prussians destroyed his laboratory at Sèvres in 1870. The book contains most of his surviving photographs (mainly salt prints), including a striking image of Thomas Graham, the founder of the Chemical Society, as well as some fascinating self-portraits.

## SHORT ESSAY REVIEW

### Perception, Passion and Perseverance

Istvan Hargittai, *Drive and Curiosity: What Fuels the Passion* (Amherst, New York: Prometheus Books, 2011) £22.95 (hardcover). ISBN 978-1-61614-468-5, Pp338.

There have been a number of attempts to encapsulate the crucial factors that enable a scientist to make a significantly creative rather than a merely incremental discovery. The greater predominance of financial rewards may have led to more emphasis on research aimed at gradual improvements and there is some perception that creativity has decreased by comparison with the mid-twentieth century. Reflecting on later twentieth century physics, Nobel Prize winner W.A. Anderson regrets both the increased tendency towards quantity over quality in publications and also the reduction in support by government and industry of intellectually exciting research. Istvan Hargittai, a respected scientist brought up in Hungary but with wide international experience, has made serious research contributions in symmetry, crystallography and molecular structure. In the past decade or so he has carried out informed relaxed interviews with over 200 Nobel-level scientists and has written short and longer informal biographies. These have led to fourteen books (some jointly with Magdolna Hargittai), including six volumes of the *Candid Science* series.

In *Drive and Curiosity* Hargittai has drawn on this experience to select 15 distinguished scientists, mainly chemists or physicists, each of whom represents a character trait that, coupled with drive and curiosity, has led to genuine creativity and discovery in the field of that chapter. Most are well-known and the majority are Nobel prizewinners. One, Dan Shechtman representing *Stubbornness* was even awarded the 2011 Chemistry Nobel (for a discovery in 1982) during publication. Although many achieved success in the USA and a few in Britain, a good proportion were of German or Eastern European extraction, with the scientist or parents leaving because of anti-Jewish discrimination; three were brought up in Hungary. The least familiar is the Romanian/Hungarian combinatorial chemist Arpad Furka (born in 1931). Coming from a humble farm-worker background in troubled political times, Furka had (like many

service was a delaying experience for some, but Lauterbur was able to specialize in NMR spectroscopy at a US Army Chemical Center. Active-service experience in Vietnam transformed the aspiration of Craig Venter (not described here) towards medically related research. Lauterbur had great difficulty in getting his ideas for zeugmatography, the reconstruction of two-dimensional images, recognized, funded, published or patented, while Mansfield even had to contend with Raymond Andrew's group competing in the same department. The first hint that NMR could be applied medically came from Raymond Damadian, who did not receive a share of the MRI prize. As one supported in cancer research, I recall being intrigued around 1971 by reprints of his pioneering NMR relaxation-time tumour-detection papers. Damadian took whole-page newspaper advertisements in Britain and the USA protesting that he should share in the Nobel (although he received other awards).

In the double-helix chapter, James Watson (born in 1928 into a supportive family) is presented as the 'ignorant' genius, in that his lack of awareness of the limitations of structural chemistry caused him to aim further. His partner, Francis Crick (1916-2004), who spent seven years at the British Admiralty on R and D in magnetism, acoustics and electronics before moving towards biophysics is, I feel, an exemplar of collaboration. At successive stages in his career, Crick engaged in fruitful partnerships and so extended his creativity into old age. The right co-worker can fulfill one of Watson's criteria for success: ensure that ideas are exposed to informed criticism. Another example of this is the 2000 Chemistry Nobel for conducting polymers awarded to Alan Macdiarmid (1927-2007) together with his younger partners, the entrepreneurial physicist Alan Heeger and the polymer chemist Hideki Shirakawa. Hargittai uses their achievement to highlight the Risk to Reputation that Macdiarmid took in moving mid-career from inorganic to unfamiliar organic polymer chemistry.

Sherwood Rowland (1927-2012) has a chapter headed **Reluctant Environmentalist** because his first environment-related research exonerated industry by finding that mercury in ocean-going fish was not a consequence of industrial pollution. After realizing with Mario Molina that ozone was being removed from the atmosphere he suffered many years as a research outcast, despite being confident of meticulous measurements. They shared the Chemistry Nobel with Paul Crutzen in 1995 but Rowland (then aged 68) remained a fairly restrained environmentalist. He had been prompted to investigate chlorofluorocarbons in the atmosphere when he became aware of the measurements of James Lovelock who had in the 1950s developed GC detectors (See A.S. Travis, RSC Historical Group Newsletter 2012, 62, 18-25).

Hargittai's final theme **The Joy of Understanding** concerns the unorthodox genius George Gamow, keen on jokes from his early days in Ukraine and Russia. Despite outstanding contributions to nuclear fusion and astro-physics, including the famous Alpher, Bethe (a contrived non-contributing author) and Gamow paper on the Big Bang, Gamow received few prestigious prizes. Best known for his fine semi-popular books, Gamow did the science that entertained him. Incidentally, Fred Hoyle, the steady-state enthusiast who coined the derisive expression Big Bang for what was presumably the ultimate creative event, intended to read Chemistry at Leeds until a scholarship visit lured him to Mathematics at Cambridge.

Hargittai does not pretend that there is a common way for such diverse personalities to achieve outstanding science although most Nobel

## RSC NATIONAL HISTORICAL CHEMICAL LANDMARKS

**Chemical Landmark Plaque for the Glucose Sensor**, Inorganic Chemistry Laboratory, Department of Chemistry, University of Oxford, Monday 16 July 2012

This plaque commemorates the development, starting in the early 1980s, of an enzyme electrode for detecting glucose. The original paper described a ferrocene-mediated electrode for the analysis of glucose which was usable in whole undiluted blood, and had obvious potential for the sensing of sugar levels in diabetic patients. This original work was extended (principally by Hill, Cass and Davis) and later patented, and the resulting electrode system has saved the lives of many diabetic patients by the simple, reliable detection of sugar levels in the blood. Currently less than 1  $\mu\text{l}$  of blood is needed in a painless straightforward procedure which allows patients to monitor their own blood sugar levels.

The unveiling ceremony began with a welcome and introduction by Professor Peter Edwards FRS, the head of inorganic chemistry at Oxford. Allen Hill FRS then reminisced about early work on the electrode leading to the first paper on it. Tony Cass spoke on “sensors today”: blood sensors are still of prime importance for glucose measurement but now also give an

course the public from his time at the Royal Institution. He did much for science and its reputation with government and the public. He was a cultured person with many interests – he was, for example, a skilled yachtsman.

The plaque was unveiled by Lady Stella Porter, and the inscription reads:

Professor The Lord Porter  
of Luddenham OM PRS



the research encouragement and support I received whilst in his Department. His untimely death was a great loss to his chemical family at Woolwich.

In conclusion, the lecturer stated that he regards Arthur Israel Vogel as a world class chemist, who ran a research-orientated department, at the time superior to many University departments of similar size. Furthermore he did not receive the national recognition his merits deserved, no Chair, no awards from the bodies prior to the RSC and no FRS.

#### **Reference**

1. G. H. Jeffrey, "Arthur Israel Vogel 1905-1966", *Chem. Brit*, 1966, **2**, 548.

#### **The Origins and Significance of Jane Marcet's Conversations on Chemistry**

Jeff Leigh, *Sussex University*

Published in 1806 in the first of sixteen British editions, this book was revised and re-published until 1856. The first edition was written "by a lady", and Jane Marcet's name did not appear on the cover until the thirteenth edition of 1837. Adopting a then current conversational form, of dialogues between a tutor and two students (Mrs. B, and Emily and Caroline), it was ground-breaking for being directed at women, for its attempt to convey in a popular English text the new chemistry first publicised widely in Lavoisier's *Traité*

its first appearance in 1951 until the end of the 1970s and it remains popular in India. The second volume on stereochemistry and natural products first appeared in 1956. While its organisation by types of compounds looks old-fashioned, in many respects, Finar was a progressive author. Even in the first edition of 1951 he used curly arrows and reaction mechanisms. But in a period of rapid change in both organic chemistry and educational methods, he was perhaps too modest in the updating of his books. The key problem was the printing of the book which was constrained by traditional typography. American publishers produced books that were more modern in their layout and illustrations of (e.g.) molecular orbitals. Both volumes of 'Finar' were last published in Britain in the mid-1970s. Lord Tedder's **Basic Organic Chemistry** was last published in 1987 and not widely used. There was not another organic chemistry textbook by British authors until 2001, when OUP brought out **Organic Chemistry** by Jonathan Clayden, Nick Greeves, Stuart Warren and Peter Wothers. For two decades, the British market was dominated by American textbooks by authors such as Jerry March and John McMurry. They followed in the footsteps of Louis and Mary Fieser, and Donald Cram and George Ham

The meeting will take place at the Royal Society of Edinburgh on 24 October 2013. The theme of the meeting, which celebrates the 300th anniversary of the appointment of the first professor of chemistry at the University of Edinburgh, James Crawford (1682-1731), is on Chemistry during the Edinburgh Enlightenment. There will be a private view of a special exhibition in Edinburgh University Library on the evening of 23 October, and the meeting will close with the first performance of a small, specially composed opera, on a theme concerning Edinburgh chemists! This meeting is being organised by the Chemistry Department of the University of Edinburgh and the Royal Society of Edinburgh, with the support of SHAC and the Royal Society of Chemistry Historical Group. Further details will appear in the Summer 2013 Newsletter



Karolinska Institutet on the evening of Monday 19 August and there will be a conference dinner on Tuesday 20 August.

Proposals in the form of a 300 word summary should be sent to the organisers Antonio Garcia Belmar, belmar@ua.es and John Perkins, jperkins@brookes.ac.uk

**Deadline for proposals: 31 January 2013.**

**Decisions will be announced by 28 February 2013.**

We particularly welcome proposals from doctoral students and post-doctoral researchers.

**Funding:** There will be no registration fee for the conference. The accommodation costs (for the nights of 19 and 20 August) of those giving papers will be paid by the project. The project will be able to subsidise the travel costs of those giving papers up to a maximum of £200, or "250. It may be possible to increase this amount especially for doctoral students and those who do not have access to research funds.

The conference on Sites of Chemistry in the 20<sup>th</sup> Century has been organised to coincide with the 9

## **FORTHCOMING CONFERENCES**

**24th International Congress of History of Science, Technology and Medicine University of Manchester, 22-28 July 2013**

The theme of the Congress is “Knowledge at Work”. The organisers construe the theme broadly to include studies of the creation, dissemination and deployment of knowledge and practice in science, technology and medicine across all periods, and to encompass a variety of methodological and historiographical approaches.

The registration fee for the 24th International Congress of History of Science, Technology and Medicine, to be held in Manchester, UK on 22-28 July 2013, has now been confirmed as follows:

**Until Sunday 14 April 2013: £205, after 14 April 2013: £280**

The registration fee includes access to all symposia and other speaker sessions throughout the Congress; the Congress documentation pack; tea and coffee during session breaks; and admission to the opening evening receptions. It does not include lunches, dinners or

15.35 Prof. Colin Suckling, OBE, DSc, FRSE

17.10 Close of Meeting

### REGISTRATION

There is no charge for the meeting, but registering in advance **is essential**. If possible please register by e-mail to Historical Group Secretary, John Nicholson (john.nicholson@smuc.ac.uk), before Monday **11th March**

## Robert Woodward †Chemist Extraordinary

**Friday 17<sup>th</sup> May 2013**

The Royal Society of Chemistry, Burlington House, Piccadilly, London W1J 0BA

- 1330 Introduction, Alan Dronsfield, Chair of Historical Group
- 1340- Bill Brock, University of Leicester, Hofmann and the beginnings of organic synthesis
- 1425 Henry Rzepa, Imperial College, Woodward and the Woodward-Hoffmann Rules
- 1510- Tea: We hope to show short films of Robert Woodward in action during this time.
- 1545 Alan Dronsfield, Chair, Historical Group, to present the Wheeler Award to Peter Morris.
- 1600 Peter Morris, Keeper of Research Projects, Science Museum. The Wheeler Lecture: Robert Woodward, chemist extraordinaire
- 17.00 Close of Meeting

### REGISTRATION

There is no charge for the meeting, but registering in advance **is essential**. If possible please register by e-mail to Historical Group Secretary, John Nicholson (john.nicholson@smuc.ac.uk), before **Monday 13<sup>th</sup> May**.