A Hudson

RSC Historical Group Newsletter No. 74 Summer 2018

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newsletter please do contact me. The guidelines for contributors can be found online at: http://www.chem.qmul.ac.uk/rschg/Guidelines.html

The deadline for the winter 2019 issue will be **Friday 7 December 2018**.

ROYAL SOCIETY OF CHEMISTRY HISTORICAL GROUP AGM

Mitteilungen GDCh-Fachgruppe Geschichte der Chemie, **Nr 25. Gesellschaft Deutsche Chemiker: Frankfurt.**

Ambix –

Society for

the total war economy in 1916. Synthetic ammonia was converted into nitric acid, essential to the production of explosives.

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In 1926 McBain was finally tempted back to North America, to Stanford University. He published more than 450 scientific papers and two major textbooks: *The Sorption of Gases and Vapours by Solids* (1932) and *Colloid Science* (1950).

In 1927 William Ernest Garner, from UCL, was appointed to the Leverhulme Chair in Bristol. He was responsible for major advances in the surface chemistry of solids and in heterogeneous catalysis. Two of his research students in Bristol went on to found schools of surface and colloid science in other universities: Dan Eley at Nottingham (in 1954) and Frank Stone at Bath (in 1972). When Garner retired in 1954, Douglas Everett became the third Leverhulme Professor in Bristol. He made major contributions in applying thermodynamic concepts to the adsorption onto (porous) solids from the gas phase and from solution. Everett was also responsible for establishing, in 1964, the first postgraduate (MSc) course, by advanced study and research, in colloid and surface chemistry. To this end he brought Ron Ottewill from Cambridge to set up the course. Although, his research work was multi-facetted, Ottewill's principle research interest

David Tabor (like Hardy earlier, a fellow of Gonville and Caius College) was appointed Reader in Physics in 1964 at the Cavendish Laboratory in Cambridge, and then Professor in 1973, until his retirement in 1981. He strongly developed the earlier work of Bowden in Cambridge on the friction between solid surfaces, and really was the person who should be credited with the invention of the modern "surface forces apparatus", now widely used for measuring both the normal and the lateral (frictional) forces between two surfaces close to contact.

In 1972 research at Cambridge (especially theoretical work) in soft matter physics (which incorporates many aspects of colloid science) received an enormous boost when Sam Edwards (also a fellow of Gonville and Caius College) was appointed John Humphrey Plummer Professor of Physics (and then Cavendish Professor of Physics in 1984, until his retirement in 1995). He led a powerful, world-renowned research group, which continues to this day with former protegeés such as Athene Donald and Mark Warner. Other current, world-renowned scientists in soft matter, who have passed through the Edwards group in Cambridge, are Michael Cates (who moved to Edinburgh, but is now back in Cambridge), Tom McLeish (who went to Sheffield, then Leeds and now at York), Richard Jones (who went to Sheffield), Colin Bain (who moved to Oxford, then to Durham), Robin Ball (now at Warwick) and Joe Keddie (now at Surrey).

Conclusions

Colloid and interface science research in the UK is alive and well and spread over many universities, although to some extent these days, perhaps somewhat "hidden" within more fanciful, "modern" research topics, such as "nanoscience"

Thresh did not appreciate that capsaicin contains nitrogen too. He moved on to other things, qualifying as a medical doctor in 1896, when he was awarded the gold medal for his M.D. thesis, and then spending twenty-two years as County Medical Officer of Health for Essex [6].

The next significant advance was made by Karl Micko, who worked at the Staatlichen Untersuchungsanstalt für Lebensmittel in Graz, in 1899. He obtained 5.5 g of crude capsaicin from 1 kg of cayenne pepper, found that the substance contained nitrogen, and determined the molecular formula to be $C_{18}H_{28}NO_3$ which was very nearly correct [7]. It should be $C_{18}H_{27}NO_3$. He also showed that the capsaicin molecule had one phenolic OH group and one methoxy group.

Before the structure of capsaicin was known with certainty, there was much interest in measuring the pungency of different capsicum species. Wilbur Lincoln Scoville (1865–1942) was professor at the Massachusetts College of Pharmacy between 1892 and 1904. He then moved to

In 1903 Moseley scored 104/140 so he was only runner up for the C

In *Nature*, Rutherford wrote “To use such a man as a subaltern is economically equivalent to using the liner Lusitania to carry a pound of butter a long distance” [7].

Moseley left £1799 6s 1d to the Royal Society which, with extra money from sale of his mother’s house Picks Hill in West Wellow, Hampshire, gave £10,000 which was used to create a research scholarship, the first two holders being H.R. Robinson and P.M.S. Blackett, former colleagues at Manchester University. (The author would be interested to know what happened to the scholarship afterwards.)

Moseley’s estate, a gratuity by royal warrant, plus an allowance for his unused tropical outfit, was valued at £64-3s-3d but reduced by £8-18s-

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Peter Spargo

BOOK REVIEWS

Iwan Rees Morus (ed.), *The Oxford Illustrated History of Science* (Oxford: Oxford University Press, 2017, Pp. 436 ISBN 978-0-19-966327-9, £25 (hardback).

This claims to be the first fully illustrated global history of science from Aristotle to the atomic bomb and beyond. Its sweep is certainly majestic, with thirteen contributors from Europe, the USA and Canada.

There are two parts. Part I, "Seeking Origins", is broadly chronological, dealing with science in the ancient Mediterranean, ancient China, medieval Christian, Islamic and pre-modern East; it also contains essays on the scientific revolution and enlightenment science. Part II, "Doing Science" is broadly thematic, with six chapters on experimental cultures, exploring Nature, mapping the Universe, the meaning of life, theoretical aspects and the communication of science. There are no references, but extensive lists for further reading are provided for each chapter. There are some 150 illustrations of which about half are in well-reproduced vibrant colour, many full-page, consistent with the Editor's belief that science is a largely visual culture.

outlining the context of the book and an Afterword by Frank James that locates Nicholson Senior in "London's rich scientific culture" (p. 99). The book is also well served by a timeline covering the period of Nicholson's life and several appendices. The timeline is especially useful, placing Nicholson's activities in the context of events of the time, while the appendices include: Nicholson's published works; his inventions and patents; a list of members of the Coffee House Philosophical Society, 1780-7; a list of members of The Committee of the Society for the Improvement on Naval Architecture, 1791.

While there are a few mistakes, this book is a welcome addition to the literature focused on the period of Nicholson's life, highlighting his wide range of interests and his engagement with many intellectual circles. It is hoped the fuller biography will be published over the next few years so Nicholson's polymath contributions to science (and chemistry in particular) are more fully understood and widely acknowledged.

Peter Reed

RSCHG MEETING REPORT

Some Chemical Consequences of World War I
Royal Society of Chemistry, Burlington House, London Wednesday 14 March 2018

The First World War has been very much in everyone's thoughts in recent years, and naturally its terrible human cost has been uppermost in our minds. But the War was to have deep and enduring impacts on all aspects of society, and this meeting dealt with some of its consequences for chemistry and the chemical industry. There were eight short presentations, and we could easily have had eight more. The focus was principally on our own country, but we had one presentation relating to Germany. Attendees were also able to take away copies of the excellent booklet *Pro Patria* prepared by David Allen, which gave accounts of the members of the Chemical Society and the Institute of Chemistry who gave their lives in the conflict.

World War I