

*The British
Journal
for the
History of
Science*

BJHS

Organic Chemistry and High Technology, 1850–1950

*Volume 25
Part 1 No. 84*

March 1992

*ISSN
0007-0874*

Published for The British Society for the History of Science
by Cambridge University Press

EDITORIAL BOARD

John Brooke *Editor*
Dept. of History
Furness College
University of Lancaster
Lancaster LA1 4YG

Robert Bud
Science Museum
South Kensington
London SW7 2DD

Tore Frangsmyr
Office for History of Science
Uppsala University
Box 256, S-751 05 Uppsala
Sweden

Owen Hannaway
Dept. of History of Science
The Johns Hopkins University
Gilman Hall
Baltimore, Maryland 21218
USA

John Henry
(Book Review Editor)
Science Studies Unit
University of Edinburgh
34 Buccleuch Place
Edinburgh EH8 9JT

Michael Hunter
Dept. of History
Birkbeck College
University of London
London WC1E 7HX

Ludmilla Jordanova
Dept. of History
University of Essex
Wivenhoe Park
Colchester CO4 3SQ

David Lindberg
Dept. of History of Science
Helen C. White Hall 4143
University of Wisconsin
Madison, Wisconsin 53706
USA

Giuliano Pancaldi
Dept. of Philosophy
University of Bologna
Via Zamboni 38
40126 Bologna
Italy

Michael Shortland
Dept. of History and
Philosophy of Science
University of Sydney
Sydney NSW 2006
Australia

Charles Webster
All Souls College
Oxford OX1 4AL

Richard Yeo
Dept. of Humanities
Griffith University
Nathan
Brisbane
Queensland
Australia 4111

Contributions are welcome and should be sent to the Editor. They are considered on the understanding that they are unpublished and are not on offer to another journal. Two copies should be submitted, typed in double-spacing with a margin on A4 or American quarto paper. Include an abstract of 150–200 words. Quotations when long should be inset; when short, in single quotation marks. Spelling should follow the *Oxford English Dictionary*, and arrangement H. Hart, *Rules for Compositors*, Oxford, many edns. Be clear and consistent.

All papers should be rigorously documented, with references to primary and secondary sources typed separately from the text in double spacing, and numbered consecutively. Cite as follows:

1 B. Smetov and D. Blogski, *Chemistry in the Eighteenth Century*, 2nd edn (tr. R. Roe), 5 vols., Edinburgh, 1896–1914, iii, 237–8. Only cite the publisher for good reason.

2 J. Doe, 'Searching for gravity waves', in *The History of Physics* (ed. A. Burn and Z. Trent), Oxford, 1982, 22–9 (subsequent references may be written: 3 Doe, op. cit. (2), 23–4).

4 N. Brown, 'Developments of the cathode ray', *Journal of Physics* (1972), 7, 31–5. Abbreviated journal titles may be given where these are in common use.

Standard works such as *DNB*, *DSB*, may be cited thus. For theses, cite University Microfilm order number, or at least Dissertations Abstract number. Line drawings should be drawn boldly in black ink on stout white paper, feint-ruled graph paper or tracing paper. Photographs should be glossy prints of good contrast and well matched for total range. The place of an illustration should be indicated in the margin of the text and a text reference given. Each illustration must carry the name of the author and article, its number, and a caption. Xerox copies may be sent when the article is first submitted for consideration.

© British Society for the History of Science. The British Society for the History of Science retains copyright for all articles published: it is the author's responsibility to secure any necessary permission for publication. Single copies of articles may be made for research or private study without further ado. Permission to make multiple copies should be obtained from the Society. Authors will receive twenty-five offprints of articles free. The editor cannot accept responsibility for loss of a typescript, but will take every care of it; typescripts are not normally returned to authors. In all matters concerning the publication of the article, the Editor's decision is final.

Subscriptions: *The British Journal for the History of Science* (ISSN: 0007-0874) is published quarterly in March, June, September and December. The subscription price of Volume 25, 1992, is £68 net (USA and Canada US \$125) post free; single parts cost £19 net (USA and Canada US \$33) plus postage. Four parts form a volume. Orders, which must be accompanied by payment, may be sent to any bookseller, subscription agent or to the publisher: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU or in the USA and Canada to Cambridge University Press, The Journals Department, 40 West 20th Street, New York, NY 10011–4211, USA. Copies of the journal for subscribers in the USA and Canada are sent by air to New York to arrive with minimum delay. Second-class postage paid at New York, NY and at additional mailing offices. POSTMASTER: send address changes in USA and Canada to *The British Journal for the History of Science*, Cambridge University Press, 110 Midland Avenue, Port Chester NY 10573–9864.

Claims for missing issues should be made immediately on receipt of the subsequent issue.

March 1992

Organic Chemistry and High Technology, 1850–1950

A special issue

Guest Editors: Anthony S. Travis, Willem J. Hornix and Robert Bud

- 1 John J. Beer: Foreword
- 5 Johan Schot: Technology in decline: a search for useful concepts. The case of the Dutch madder industry in the nineteenth century
- 27 Anthony S. Travis: Science's powerful companion: A. W. Hofmann's investigation of aniline red and its derivatives
- 45 Henk van den Belt: Why monopoly failed: the rise and fall of Société La Fuchsine
- 65 Willem J. Hornix: From process to plant: innovation in the early artificial dye industry
- 91 Ernst Homburg: The emergence of research laboratories in the dyestuffs industry, 1870–1900
- 113 Peter Reed: The British chemical industry and the indigo trade
- 127 Robert Bud: The zymotechnic roots of biotechnology
- 145 Peter J. T. Morris: The technology–science interaction: Walter Reppe and cyclooctatetraene chemistry