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Book Review

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Encyclopedic Dictionary of Named Processes in Chemical Technology (Third Edition)

CRC Press/Taylor and Francis: Boca Baton, 2007

422 + xi pp; price £85
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This is the third edition of Alan Comyns' book. Comyns is a chemist by background and a prolific and respected author in chemical technology. That the book has entered a third edition is a testimony to its popularity and usefulness. The book is claimed to contain 3000 named processes, 450 new to this edition.

The purpose of the dictionary is stated in the Introduction: '. . . to provide concise descriptions of those processes in chemical technology that are known by special names that are not self-explanatory.' It broadly covers chemical technology but food chemistry is deliberately omitted. The author claims that the book contains many more processes than are to be found in multi-volume chemical technology encyclopaedias. The coverage concentrates on processes in current use although some obsolete processes of technical or historical interest are included. The book is, therefore, not a stand alone account of chemical technology. Indeed the author in the Introduction is at pains to make it clear that the coverage is restricted to named processes; the book is not intended to provide a comprehensive coverage of chemical technology. Rather it should be regarded as supplementing standard works of chemical technology.

In a book of this kind it is important that sources of information should be reliable and up-to-date. This seems to be the case. Entries are referenced often to original patents and journal articles and reviews. The author reports that information has been obtained from the commercial literature of companies. The book has a useful bibliography and an appendix listing products and the names of processes in which they feature.

Let me now turn to the content. What we might expect for each entry is an accurate, precise and concise description of the process – what it is about, the chemicals used and the products, the operating conditions and any special features, current status and where operated, and key references A balanced chemical equation is *de rigueur* where possible. Not all entries meet all these criteria but, on the whole, the information given in a few lines of text is sufficient for one to understand what the process is about and where to obtain more information. Inevitably the problem of naming chemicals arises. The author prefers common names ('propylene') over systematic; but ferr-ic and – ous and cupr-ic and – ous are surely eccentric. However, one is relieved to see 'sulfur'

One matter that must concern us is whether compendia such as this have any place in the Internet age. The author acknowledges that since the second edition in 1999 Internet search engines have become more powerful. He considers that his dictionary complements the Internet by suggesting key words. In my view there is a place for a printed work. It is convenient to take a book off one's shelf, open it and get the desired information hassle-free without having to sit before the computer at Google's feet. I selected entries at random to see how they fared on Google. With 'OXO' I was distracted by cooking recipes employing the well known cubes – although, to be fair, 'OXO process' did lead me to hydroformylation. 'Oxirane' took me to Wikepedia. 'Loprox' googled as a skin cream. 'Fluohmic' linked me to a site where I was invited to place in a basket a book about hydrogen cyanide prior to buying it at the checkout. An entertaining if ultimately frustrating thirty minutes of activity. There is still a place for Comyns' hard copy.

Who will use the book? It will be useful for students, lecturers and practitioners of industrial chemistry in that it assembles information not readily obtained elsewhere. The price – £85 – should not deter better off individuals who would welcome it among their personal reference books; it is a useful book to have at one's elbow for reference. It might also have some attraction as a book for browsing, a bedside book for insomniacs. In a Foreword, Professor Colin Russell informs us: 'This book can be dipped into with pleasure again and again. I warmly recommend it to anyone interested in the chemical industry – past, present, or future'. I concur.

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