

## Book reviews

---

### **Encyclopedic dictionary of named processes in chemical technology**

Alan E. Comyns 2nd edn.  
CRC Press, Boca Raton, 1999  
303 pages. £66.99  
ISBN 0-8493-1205-1

---

It is easy to confuse two processes or to fail to realize that a process has more than one name. Increasingly, older processes are misunderstood or forgotten altogether. To give just one example, there is considerable confusion about the term 'Buna' for synthetic rubber. In his recent book, *Mauve*, the journalist Simon Garfield states that Buna is an abbreviation of its main components, butadiene and natrium (seemingly unaware that natrium is actually sodium). Had he consulted this dictionary, Garfield would have discovered that sodium was a catalyst rather than a constituent (though the dictionary should make it clearer that sodium was soon dropped as the catalyst).

A particular strength of Comyns' book is the historical information it provides. The long-vanished Leblanc process is covered in some detail, and also associated processes such as the Deacon and Weldon processes. The author is also good at explaining the various nuances of a term, as in the case of Buna, which has been the name of several synthetic rubbers and an East German 'combinat' (now part of Dow). One senses that here is an author who loves chemical processes and their quirky names. There are also bibliographical references for most entries, although these do not appear to have been updated for the second edition. In fairness, the new version does contain 244 new processes. The product index at the back is another useful feature. Looking under butadiene, I see there are entries on the processes associated with Ostromislenski, Lebedev and Reppe, as well as the aldol process. The latter shows its value, for I doubt if I would have thought of looking under aldol. The high quality of this book is demonstrated by the cross-reference to aldol under 'four step', the now obscure name given to this process by IG Farben in the 1920s ('Vierstufenverfahren' in German).

As the entry on Reppe demonstrates, applied organometallic chemistry is well represented, with entries on alfin, Mond (nickel), novolen, OXO, Wacker and Ziegler. I was, however, surprised that neither the Wilkinson process nor the Wilke process were included. The occasional corporate entries (IG Farben, Sasol) provide handy cross-references, but this feature could have been extended at a time when companies change hands and their names with bewildering frequency. Perhaps this is asking for too much, but brief biographies of chemists mentioned in the entries would be a bonus.

The author does mention that K. Bayer of the Bayer (alumina) process had nothing to do with the Bayer dye firm, but it would be nice to know more about some of the more obscure chemists immortalized in process names.

There are a few problems. The Winkler sulfuric acid process is listed in the product index, but is missing from the main text, possibly because a copy-editor thought it duplicated the entry on the Winkler fluidized bed process. In the product index under iron, a cross-reference is given to steelmaking, but under steel it says 'see iron and steel'. It was only by accident that I discovered the entry on steelmaking in the main text. Incidentally, metallurgical processes are comprehensively covered in this dictionary, though I made a fruitless search for Gilchrist–Thomas. When I finally read the steelmaking entry, it told me the process was located under Thomas. These are minor blemishes in a superb (and highly enjoyable!) reference work, which is clearly printed, nicely laid out, and equipped with a sturdy cover and stout binding. Highly recommended.

PETER MORRIS  
*Science Museum, London*

[DOI: 10.1002/aoc.196]

### **World records in chemistry**

H.-J. Quadbeck-Seeger (ed.), R. Faust, G. Knaus and U. Siemeling  
Wiley–VCH, Weinheim, 1999  
xvi + 361 pages. £22.50  
ISBN 3-527-29574-7

---

Let me begin with a disclaimer. In writing this review I must own up to having some serious conflicts of interest. I have known Ulrich Siemeling for several years. Not too serious, you say? Well, I can make things worse by telling you that Rüdiger Faust has been a colleague and drinking partner at UCL for a little over 2 years. So the review you are about to read is guaranteed to be skewed, if for no other reason than the fact that I'd like Rudy to