Enzymes in Industry

Gerhartz, W. (ed), *Enzymes in Industry: Production and Applications*. VCH Verlag, D-6940 Weinheim, Federal Republic of Germany / VCH Publishers (UK) Ltd, Cambridge CB1 1HZ. ISBN 3-527-27984-9 / 0-89573-937-2. 320 pp. cloth; £46.

Under the comprehensive title "Enzymes in Industry—Production and Applications", Wolfgang Gerhartz of Degussa AG has edited a serious, thorough, and wide-ranging study for the German publishers VCH Verlag, whose growing list of biotechnology titles is itself noteworthy. Though this is a multi-author work (as the Editor himself comments, the list of 27 contributing authors 'reads like an international "Who is Who" of industrial enzymology'), every credit must be given to the editor, because what we must suppose were originally quite separate contributions have been welded into a uniform and homogeneous presentation. As in certain cheeses, this uniformity may not be very exciting but it makes all parts of the cheese equally nutritious!

Much of this effect can be traced to the parentage of the work, which began life as a section written for Ullmann's Encyclopedia of Industrial Chemistry—this is *serious industrial* enzymology. The final volume is meticulously sectioned and subheaded, the index is comprehensive, and the extensive bibliographies are very full up to, about, 1985 (it would have been useful to see a 'cut-off' date mentioned somewhere; we all know that the final stages of a book like this take up a good deal of time). The book's main sections cover, successively—a general introduction to enzymes, written for competent non-enzymologists—a careful and practically-oriented account of basic enzyme kinetics and the measurements of catalytic activity—a substantial review of production methods including isolation, purification and immobilization—surveys of enzyme uses in industry (as expected, this is the largest single section of the book), in analysis, diagnosis and therapy, and (a useful compilation) in genetic engineering. These are followed by short but significant sections on economic, safety and environmental aspects.

In spite of its comprehensive and inevitably condensed style, the book is actually quite readable—in small portions—and eminently usable for the purpose of consultation, which it will surely receive. Biotechnologists who use it this way will sometimes be disappointed to find that the *industrial* information about their favourite *research* enzyme is a bit thin; the correct response to this is to get in there and do something useful with their enzyme. Then it might get more space in the next edition! Meanwhile the non-enzymologist who wants to know what industry is really doing about, or with, enzymes will have more than enough to cope with in these pages. Excellently produced, the book is offered at a price which clearly anticipates a fairly wide readership, which it fully deserves.

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ERRATUM

In the paper '*Semicontinuous lactic fermentation of whey by L. bulgaricus: II—mathematical model*' by Podlech, Luna, Jerke, Neto, dos Passos, Souza and Borzani, which appeared in *Biotechnology Letters* 12, 535-540 (1990), an error in calculation means that the final values given by the authors on p. 538 should be corrected as:

$$K_2 = 2.19 \times 10^{-3} \text{ L.g}^{-1} \text{ for fast-fermenting bacteria, and}$$

$$K_2 = 1.65 \times 10^{-3} \text{ L.g}^{-1} \text{ for slow-fermenting bacteria.}$$