

galactic chemical evolution does not predict that we should see stars with *literally* zero metal abundance.) The English is generally adequate, though noticeably less than perfect. Finally, prospective purchasers should be warned that I have come across a copy (not my review copy) that is misbound, with several pages in the wrong order.

In short, a curate's egg of a book in which the largely excellent intentions of the

authors have been frustrated by insufficient attention to detail at different stages of production. The broad sweep of the subject is well presented, though, the illustrations are good and a useful set of references is given, so that on balance this is a welcome and useful book. □

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Number 3 in the Enzymes dynasty

Athel Cornish-Bowden

Enzymes. Third edition. By Malcolm Dixon and Edwin C. Webb. Pp. 1116. (Longman: London/Academic: New York, 1979.) £25, \$49.50.

WHEN THE first edition of this book was reviewed in *Nature* (182, 969-970; 1958) it was described as "one of the finest books that has appeared on the topic of enzymes". Two editions and 22 years later this is still true; there have been other excellent books on enzymes, but none with the breadth of this one. Despite the long period since the second edition appeared in 1963, the new edition resembles its predecessors surprisingly closely and has essentially the same organization of material. The authors have included an astonishing amount of useful information in what is still a single volume. This is especially remarkable in view of the amount of space they have devoted, mistakenly in my view, to the Enzyme Commission's classification system for enzymes. More than 300 pages are given over to a description of its principles and a virtually complete list of known enzymes. Surely a better use could have been found for this space.

Another section of questionable

usefulness, one that must surely have added substantially to the price of the book, is the "Atlas" of crystalline enzymes, which consists of 25 pages of reproductions of photomicrographs. As this is now relegated to close to the back of the book it would seem that the authors recognize that readers no longer gasp in wonderment at the knowledge that enzymes can be crystallized.

In other respects the authors have displayed an admirable sense of what is worth including and what is not. The early chapters are concerned with practical matters and include much useful advice without becoming enmired in experimental detail of no general interest. The discussion of steady-state enzyme kinetics is especially good and almost justifies purchase of the book by itself. Rather oddly, it is not all in one place but is divided between Chapters 4 and 8, which account for about a quarter of the book. Obviously there are some points of detail where one might quarrel with the treatment, but in general it is balanced and thorough. These two chapters also contain an account of transient-state kinetics, but one senses that this is not a major interest of the authors. The other chapters, concerned with specificity, mechanisms, cofactors, protein structure, protein biosynthesis and enzyme biology, are also of a high standard. Of these, protein biosynthesis is perhaps one topic that might have been omitted, not because of any lack of importance, but because it has

Scientific terms by numbers

Alan Isaacs

Longman Dictionary of Scientific Usage. By A. Godman and E.M.F. Payne. Pp.684. (Longman: 1980.) Flexi £4.35, \$14.95.

FOR THE casual user of a scientific dictionary — someone who needs to look up the meaning or spelling of a word from time to time — this is not the book to buy. To find the meaning of a word in this dictionary you have first to read the

instructions, then you have to look in the index for a two-letter set code that will identify the field of science of the word and for a three-figure number to find the position of the word in the set. Memorizing both the set code and the number, you then search the body of the book for the appropriate set. The alleged advantage of this cumbersome system is that the book is designed specifically for the non-native speaker of English who will benefit from the thesaurus-like arrangement in which terms that are "closely related in meaning or subject area" are grouped together. Even if foreign learners have more patience and perseverance than native speakers, this system has its dangers. If you look up *free electron* in this dictionary you will be

developed into a subject rather separate from general enzymology and I doubt whether its devotees will look for an account of it in a book about enzymes.

Finally, a word about production. I was pleased to be sent a copy of the American edition for review, as this is soberly and robustly bound. By contrast, the British publishers should be ashamed of their covers, which are not only ugly but are also far too flimsy for a book of 1100 pages. L

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