

on page 271 Nirenberg's cell-free system was not 'soluble'. These and other matters are the points that I would wish to discuss with the author.

The proof reading is good but not perfect. On pages 248–249 I found [^3H]-labeled, ^3H -labeled, and H^3 -labeled. There is plenty of work for those who are working on the 1982 edition.

The book certainly grew on me the more I studied it. It is not for medical students but science students will find it an excellent source book. Those who are lacking an inspiring teacher may well find the chatty style helps them to keep going.

P. N. Campbell

Pocket Programmable Calculators in Biochemistry

by John E. Barnes and Alan J. Waring
Wiley; Brisbane, Chichester, New York, Toronto, 1980
xxii + 362 pages. £15.82

The title of this book is somewhat misleading since it attempts neither to review the range of programmable pocket calculators on the market, nor to introduce the principles of programming to the novice; nor, as is made clear in the preface, does it represent an exhaustive compilation of the types of problems encountered in Biochemistry and Molecular Biology. Instead it takes two examples of readily available instruments, the Hewlett–Packard HP67/97 and the Texas Instruments TI-58/59, and presents a selection of 27 programmes, listed and annotated to help the laboratory worker solve a series of problems encountered in day-to-day data analysis without recourse to central computing facilities or more costly minicomputers. Both calculators are fully programmable, providing conditional branching sub-routines and magnetic card facilities and the various functions they offer are given an unbiased comparison. The most obvious difference is in the notation used. Hewlett–Packard have standardised on reverse Polish, while Texas Instruments use an algebraic operating system.

The main body of the book consists of the listings which include problems of ionisation phenomena, behaviour of macromolecules in solution, sedimenta-

tion, ligand binding and kinetics, thermodynamics, spectroscopy and isotopes. While the subject coverage is commendably wide, the book is naturally selective in choice of examples. Each chapter under the above headings begins with a brief outline of the theory underlying the methodology which is then followed by the listings and user instructions in the two notations. Unfortunately, the precise purpose of each programme is not always clear until one deduces it from the example problem and solution at the end of the chapter.

The novice with limited programming skills will be disappointed if he expects to find here a substitute for a thorough study of the owners manual and programming guide. In fairness, the authors are at pains to point out that this was never their intention.

In short, this book does for data analysis in Biochemistry what the manufacturers do for Mathematics, Statistics and Accounting in their own 'back-up' software. Its declared aim to provide usable well-documented calculator solutions to a wide variety of Biochemistry problems has been largely achieved but one wonders how long it will be before the next generation of chips outdates it.

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