

I have found this book to be very enjoyable, and one of my students who is currently working through it has expressed a similar response. The discussion is clear, the organization is good, and the programs are presented in a format that is easy to follow. The author reports that he has tested most of the programs on several different Pascal compilers. I have tried many of the programs, and the few cases where minor modifications were necessary to make them run may well be because our Pascal compiler is not one of the common commercial versions. In order to make the programs as portable as possible, the author has used only a fundamental set of Pascal commands. I regret not having the chance to see examples where some of the more elegant structures are used, but this regret is more than balanced by the fact that the programs run so well. I do wish that exercises had been provided, and I hope that this omission will be corrected in the next edition.

In summary, I have found much that I like in this book and very little that I dislike. Because of its clarity and organization, it should be useful to many different individuals having a broad range of computer experience. It is especially welcome to find such a readable book that covers so much valuable material on computational methods.

BASIC PROGRAMS FOR SCIENTISTS AND ENGINEERS

by Alan R. Miller

SYBEX, 318 pages, 1981, \$15.95

FORTRAN PROGRAMS FOR SCIENTISTS AND ENGINEERS

by Alan R. Miller

SYBEX, 280 pages, 1982, \$16.95

Reviewed by Harry E. Pence

Despite my personal interest in Pascal, there is no doubt that for many chemists the computer language of choice continues to be either FORTRAN or BASIC. While working on the review of Miller's Pascal book, I was pleased to learn that he had also written versions of his book in both of these other languages. Although I received copies of these editions too late to examine them extensively, they are both very similar to the original, and so I wished to mention them for the benefit of those who find the description of Miller's book to be interesting, but prefer to work in one of the more traditional computer languages.

In each case, the approach and list of topics covered is almost exactly the same as that in the Pascal book; however, there are a few significant differences. The most important change is the addition of problems at the end of each chapter. Although the number of exercises provided is still rather small (only a total of thirty), they should increase the usefulness of the books for both self-study and classroom instruction. As in the previous volume, the author has gone to great lengths to assure that the programs will run on a wide variety of different systems.

Unlike the situation in Pascal, there are a number of books available which provide scientific subroutines and programs in BASIC or FORTRAN. However, Miller's books do offer a clear well-integrated approach to a large number of useful computational techniques. Chemists who use BASIC or FORTRAN may well find these books to be a worthwhile addition to their libraries.