practice to include them in the *soft-ware*. After all, one may choose to use the software independent of the book. The programs given have been written either in GWBASIC or QBASIC. One can run GWBASIC programs on QBASIC. The converse is not true. If one has only the GWBASIC compiler, the programs on QBASIC cannot be executed. One gets the message 'Direct statement in the file'.

♦ Since colour monitors are widely used, it will be very nice to enhance the presentation by use of colours. The colour of the background screen as well as that of the pixels may be changed with every program. With proper choice of colours one can even simulate 3D view!

♦ Some of the error messages that a program gives cannot be easily corrected by students not well versed with BASIC. For example, PROG116.bas gives the following message: ILLEGAL FUNCTION IN 210. And PROG117.bas says: *Subscript out of range in 90*. This is where data validation becomes very important.

♦ Lastly, for some reason, the file names given in the book and the ones on the floppy do not match. Thus, it is not easy to load a program of one's choice.

B. R. IYER*
H. R. MADHUSUDANA†

*Raman Research Institute,
Bangalore 560 080.
†Jawaharlal Nehru Planetarium
Bangalore 560 001

There are many books in the area of statistical models for reliability theory and methods, and many more from the engineering perspective. However, there are few which combine the two points of view well with students and researchers in mind. Therefore a new book which tries to do this is always welcome. Unfortunately, the present book is not something that can be readily recommended for that purpose. This book is a collection of papers presented at a conference on mathematical methods in reliability, and very few volumes edited from papers presented at meetings result in good textbooks.

This book consists of twenty-four articles arranged in three sections: statistical methods, probabilistic methods, and special techniques and applications. In the preface, the editors state that 'the book aims at presenting the evolution of the most recent modelling researches based on the use of statistical and probabilistic models, and, at the same time, at pointing out, in new works, the present tendencies of reliability research and its applications'. I do not quite understand what this means, but I guess they are trying to indicate how they have put together the different articles as a book.

Part I of the book contains articles dealing with repairable systems, competing risks, and accelerated life testing models. There are many important notions in these areas which need a lot of emphasis. Therefore, the articles could have been provided with reasonably long introductions, thus explaining many of the basic concepts used in the field. For example, details on the Kaplan–Meier estimator of the survival function would be one such. This would have made the volume much more useful for students and researchers.

Part II is quite specialized, and deals with asymptotic approximations and advanced results from stochastic processes. Part III contains articles dealing with some special techniques in reliability methods.

MOHAN DELAMPADY

Statistics and Mathematics Unit,
Indian Statistical Institute,
RV College Post
Bangalore 560 059, India

In spite of chemistry being a fundamental science with increasing importance in biochemistry and biotechnology, its study is not attracting the brighter students. This can be easily ascribed to the dull manner of its presentation in the classroom at all levels. The publication of a book of the above type was obviously a crying need of the day. As indicated by the author in the preface: '*Understanding Chemistry* is an elementary introduction intended for high school students and others interested in an appreciation of chemistry. It is not a textbook. Everything is not said. Some ideas and facts are presented, and a few questions raised, in order to interest the reader in the subject and to arouse curiosity. Several topics of human interest such as the environment, energy, food and water are discussed, besides giving life sketches of chemists, historical accounts and procedures for a few experiments. I believe that the book provides a flavour of the subject and shows how it works. I hope that students, teachers and enthusiasts of science will find the book useful and educational.'

The task which Rao assigned to himself has been admirably achieved in a most impressive manner. The book has been divided into seven chapters: (i) Chemistry in a capsule, (ii) Elements and the periodic table, (iii) The chemical bond, (iv) Structures and shapes of molecules, (v) Chemical energy, (vi) Chemical reactions, and (vii) Two chemists.

Each chapter begins with a brief but clear description of its 'objectives' and ends aptly with broad 'conclusions'. The inclusion of topics like 'The food we eat', 'The atmosphere', 'Water', 'Molecules of life', 'Man-made polymers', 'Energy from the sun', and 'Catalysis', obviously enhances the attraction of the subject to the beginner. In the process, the reader gets a surprisingly clear picture of the latest topics like DNA, fullerene and supramolecular chemistry, which are often not included in the conventional curricula of chemistry even at the highest levels.