ogy, 1969), a principal engineer in the Proposal Engineering Department of Combustion Engineering, Inc., is responsible for proposal development, economic analysis, and engineering development of commercially viable fuel management and reactor design concepts. Mr. Anderson is a member of the American Nuclear Society and the author of several publications covering a range of reactor-related subjects.

## The Practitioner's Shell Model

Author George F. Bertsch

Publisher American Elsevier

Publishing Company, Inc. (1972)

Pages 206

Price \$11.95

Reviewer Atam P. Arya

The monograph *The Practitioner's* Shell Model by George F. Bertsch is well-written, precise, and to the

point. It is customary for the author to mention in the Preface the level of the material contained in the book, the recommended use of the book, and the readers to whom it is addressed. Although the author has mentioned that the monograph grew out of lectures at Michigan State University, the type of audience is not indicated.

To some extent, the title of the monograph is misleading. The emphasis is on shell model, but the topics treated are many and varied. The numerous references to the original work provided throughout the monograph are useful in expanding its scope.

According to this reviewer, the monograph may be used by theoretical nuclear physicists, high energy physicists, and interested theoreticians outside physics. The monograph can also be very useful to those students who are entering fields of theoretical research. However, to fully benefit from this monograph, the student must have a sound theoretical preparation in atomic and nuclear physics beyond the first-year graduate level.

The mathematical expansions and the physical explanations seem to be cut short throughout the monograph, but this might have been necessary in order to fit all the topics in two hundred pages. In many places the author has not defined the terminology and symbols used.

In short, reading this monograph is smooth provided the reader is already familiar with the material. It can prove useful to all those who will be involved in advanced applications and use of the shell model in any basic research situation.

Atam P. Arya (MS, Birla University, India; PhD, Pennsylvania State University) is an associate professor of physics at West Virginia University where he is engaged in teaching, research, and writing. He has taught courses from elementary to advanced levels in different fields of physics, including those in nuclear physics and nuclear engineering. His research interests include nuclear spectroscopy, neutron physics, and some theoretical aspects of nuclear reactions. Dr. Arya is the author of text books Fundamentals of Nuclear Physics (1966) and Fundamentals of Atomic Physics (1971), both published by Allyn and Bacon.