buildup of neutron density depends on the delayed neutrons, the time constant for the buildup rate will, of course, be strongly influenced by the half-life of the delayed neutrons." When it is noted that the only fast reactor mentioned is a bomb, an unsophisticated reader might be left with some doubts about controllability and safety. Also, the passing reference to breeder reactors leaves the impression that breeding and conversion are the same thing.

The final chapter is a neat summary of "elementary" particles, closing with the Oriental mysteries of SU(3) and the eight-fold way. Appendixes include thumbnail sketches from quantum theory together with a table of nuclides. A useful set of problems has been appended to each chapter.

Regarding the book as a whole, there is very little to complain about. The "Name Index" omits Feynman, Wigner, and Oppenheimer. Max Born is cited only once; the Born approximation might have had more than this one passing reference. Neutron resonances and the Doppler effect are too lightly treated. The "Subject Index" has no "barn," although the unit is employed several places. One other personal parochialism might be expressed: Much space is devoted to operating details of nuclear machines other than reactors (e.g., Appendix 2, "Ion-Beam Focusing and Dispersion, etc."). A reactor man might justifiably demand equal time or at least a few details about experimental facilities of research reactors.

The style of the book is good. Nuclear physics "shop talk" is at a minimum, and where used, it is used gracefully. The neologistic infinitive "to momentum-analyze" (p. 5) is regrettable, but the author commendably refrains from using "to least-squares-fit." (Nuclear physics is fortunate in not having people who try "to bang-bang-control.")

Professor Enge has written a fine, well-balanced introduction to low-energy nuclear physics, and it is to be highly recommended for use in formal courses and individual study.

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About the reviewer: Dr. Hetrick is Professor of Nuclear Engineering at the University of Arizona. His current interests in graduate teaching and research are nuclear reactor dynamics and safety. He was a reactor physicist at Atomics International for nine years, and has taught physics at Rensselaer Polytechnic Institute and San Fernando Valley State College. He received his PhD in theoretical physics at UCLA in 1954.

Beryllium, Its Metallurgy and Properties. Edited by Henry H. Hausner. University of California Press, Berkeley and Los Angeles, California (1965). 322 pages. $9.00.

In recent years the prima donna of metals, beryllium, has largely forsaken the nuclear field for a rendezvous with space. The brittleness problem continues and partial compromise is effected at high cost. The latter is aggravated by the fabricator's inclination to charge what the traffic will bear.

The highlights of current technology are covered in this book based on the lecture notes of some eighteen specialists. The result is an easily readable volume which provides a fairly good overview of the field except for undue emphasis on reactor applications. With this background the reader of technical training, preferably in metallurgy, should qualify as an "instant" beryllium expert.

Characteristic of current low publication standards, the editing leaves much to be desired. Numerous corrections cover the gamut ranging from careless typographical errors to questionable or outright incorrect information. The haste in preparation is perhaps most evident in the figures. Cross referencing between chapters is essentially nonexistent. Duplication is especially conspicuous in the chapters on ductility and future research. A glossary would have been useful, particularly to the reader of limited metallurgical background. Finally, the omission of an index is quite inexcusable.

Accordingly, for treatment in depth the reader will have to resort to the older monographs by White and Burke and by Darwin and Buddery, plus several symposia. Of the latter the most recent is the two-volume AIME symposium, *Beryllium Technology* edited by L. M. Schetky and H. A. Johnson.

Detailed comments have been sent to Dr. Hausner, of powder metallurgy renown, who now largely divides his time between teaching and consultation on materials development.

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About the reviewer: Mr. Kerze's experience with beryllium began with the development of the MTR reflector in the late 1940's at ORNL. He is currently the AEC liaison representative on the Beryllium Metallurgy Committee of the Materials Advisory Board.