

anywhere, and is therefore a very important contribution to the literature on current physics. Although the various articles differ in their completeness, length, and clarity, this reader has found them all to be sufficiently understandable and interesting. One gets directly a sense of ferment and perceives the advances made in these fields in recent years. The book serves as a very good introduction to those interested in these areas of physics. Although I do not think that the various authors consciously tried to tie in their work with all of the others, one does acquire a feeling that there seems to be a basic unity underlying the various approaches to treating the problems.

I recommend that those interested in the many-body problem assure themselves of easy access to a copy because I understand that the edition was supposed to be limited.

Exploring the Structure of Matter. By Jean-Jacques Trillat. Translated from French by F. W. Kent. 214 pp. (Allen & Unwin, England) US Distributor, Interscience Publishers, Inc., New York, 1959. \$4.85. Reviewed by I. Fankuchen, Polytechnic Institute of Brooklyn.

THE translation of a scientific book is always a thankless task. However, in this case it is not only a thankless one but a remarkably inept one. This reviewer did not happen to have a copy of the original French edition; the principal pleasure he got out of reading the book was in trying to figure out what the author had originally written. This was sometimes not so easy. Thus, "diffusion" is given as the translation for "diffusion" instead of "scattering"; the generators of a series of cones become the "origins", diffraction maxima become "rays" and the French word for "superstructure" is carried over intact as "surstructure". This reviewer took a devilish pleasure in noticing that "Maxwell's demon", after translation into French by the original author, has now become an "imp" in the English translation. These are but a few of the puzzles which confront the reader in this translation. It is quite apparent that the translator is not very familiar with the science involved in the text.

The book is a sort of "potpourri", describing work in which the author has been interested. Part I covers microradiography by x rays and electrons, Part II deals with the electron microscope, and Part III with electron and neutron diffraction. The ten-page addendum, which is philosophical in character, ends the book. The specialist will find nothing new; the student will find it not sufficiently detailed and the general reader much too detailed.

On several occasions the author refers to the work of E. Rupp. Surely as seasoned an investigator as Dr. Trillat knows of the doubtful validity of Rupp's work. His (Rupp's) own chief, Ramsauer, has called it in question and has denied all responsibility for its authenticity. (See Z. Physik 93, 432 and 98, 416.)

Experimental Techniques in Low-Temperature Physics. By Guy Kendall White. 328 pp. Oxford U. Press, New York, 1959. \$7.20. Reviewed by L. Marton, National Bureau of Standards.

IT is always a pleasure to report on a really good book, and this one belongs in that category. The author succeeded in giving a very concise presentation of the techniques used in low-temperature physics. The book can be divided into three parts. The first part, entitled "General", contains information on the production of low temperatures, storage and transfer, heat exchangers, and temperature measurements. While this is very good, it is not essentially different from the presentation in the *Handbuch der Physik*. The second part, entitled "The Research Cryostat", I enjoyed much more, probably because I am one of those who like to look at the use of low temperatures as a tool rather than a goal in itself. It consists of chapters on introduction to cryostat design, heat transfer, temperature control adiabatic demagnetization, and, last but not least, a relatively short one on vacuum techniques and materials. The end of the book is taken up by physical data on heat capacity, expansion coefficients, electrical and thermal resistivity data.

Up to now, I have had nothing but praise for this really excellent book, but I would like to list two minor shortcomings. One is that the author's preface is dated July, 1957, yet the book was not published until 1959. This is very regrettable in a rapidly growing field like low-temperature physics. The second remark is on the subject of the references, which are very abundant, but contain only Western material. We know by now that there is quite a bit of Russian material available, and that the Russians have been active in the field of low-temperature physics. (This same reproach applies to the corresponding volume on low-temperature physics of the *Handbuch*.) If a new edition of Dr. White's book is issued, and I am sure this new edition will be desired very soon, it would be useful if some Russian material could be included. But as I said before, these are very minor blemishes, and the book as it stands is one of the finest examples of how a book on experimental techniques should be written.

Grundriss der Photographie und ihrer Anwendungen besonders in der Atomphysik. By Georg Joos and Erwin Schopper. 408 pp. Akademische Verlagsgesellschaft m.b. H., Frankfurt, Germany, 1958. DM 48.00. Reviewed by Ira M. Freeman, Rutgers University.

IN the preface to this compendium the authors point out the similarity between the development of photography and that of pharmacy. In former decades, almost every person who engaged in photography mixed his own chemicals and swore by his own pet formulas. Nowadays one can confidently proceed on the assumption that the chemicals and processes made available by the photographic industry represent the best that can