(c) Initiation by heat, light, shock, also spontaneous explosions.
(d) The growth of an explosion after initiation.
(e) Techniques such as the study of thermal decomposition which elucidate aspects of the explosive process.
(f) The effects of energetic particles and photons (α, β, γ rays, etc.) on explosives and related substances.

To a large extent the method of presentation used by these authors is to consider the pertinent references and since they include the most recent ones as well as a good deal of unpublished material, this book is a valuable statement of the current status of this field. In some instances, however, the synthesis of this material into a coherent description might be improved. One can conclude that researchers now in this field, having been unable to explain all of the phenomena associated with explosives in terms of classical chemistry, now hope to obtain explanations using the concepts of solid-state physics. Since explosives are after all nearly always solids, this approach must be successful to some extent as is indicated by some of the text. One particularly impressive example is the evidence supporting the role of excitons in the thermal decomposition, optical absorption, and photoconduction in the explosive silver azide. It matters little whether one approaches explosives from the point of view of chemistry or solid-state physics, since there is no discernible dividing line between the two; what does matter is that this book discusses topics that must be understood by anyone attempting to make basic contributions in this field.

Books Received

SEMICONDUCTOR ABSTRACTS: Abstracts of Literature on Semiconducting and Luminescent Materials and Their Applications, Vol. 4, 1956 Issue. Compiled by Battelle Memorial Inst. Edited by E. Paskell. 456 pp. John Wiley & Sons, Inc., New York, 1959. $12.00.

THEORY OF RELATIVITY. By W. Pauli. Translated by G. Field from 1921 German article, with 25 pp. of supplementary notes by Pauli. 241 pp. Pergamon Press, London & New York, 1958. $6.00.

ELECTROMECHANICAL ENERGY CONVERSION. By David C. White and Herbert H. Woodson. 646 pp. John Wiley & Sons, Inc., New York, 1959. $12.50.

METHODS BASED ON THE WIENER-HOPF TECHNIQUE FOR THE SOLUTION OF PARTIAL DIFFERENTIAL EQUATIONS. By B. Noble. 246 pp. Pergamon Press, London & New York, 1958. $10.00.

A GUIDE TO NUCLEAR ENERGY. By R. F. K. Belchem. 77 pp. Philosophical Library, Inc., New York, 1958. $3.75.

STAR '58 ABSTRACTS: 1958 Science Teacher Achievement Recognition Program. By Chrissie Peters and Iris B. Marcus. Edited by Abraham Raskin. 44 pp. Nat'l Science Teachers Assoc., Washington, D. C., 1959. Paperbound $1.00.

PROGRESS IN METAL PHYSICS, Vol. 7. Edited by Bruce Chalmers and R. King. 408 pp. Pergamon Press, London & New York, 1958. $16.00.

ON NUMERICAL APPROXIMATION: Proc. of US Army Math. Research Center Symp. (U. of Wisc., Apr. 1958). Edited by Rudolph E. Langer. 462 pp. The U. of Wisconsin Press, Madison, Wisc., 1959. $4.50.

FINITE DIFFERENCE EQUATIONS. By H. Levy and F. Lessman. 278 pp. Pitman Publishing Corp., New York, 1959. $9.25.

ADVANCES IN BIOLOGICAL AND MEDICAL PHYSICS, Vol. 6. Edited by Cornelius A. Tobias and John H. Lawrence. 639 pp. Academic Press Inc., New York, 1958. $16.50.

NUCLEAR EXPLOSIONS AND THEIR EFFECTS (2nd Revised Ed.). By Indian Defense Science Organization. 340 pp. Publications Div., Indian Ministry of Information & Broadcasting, Delhi, India, 1958. Paperbound.

AN INTRODUCTION TO ADVANCED DYNAMICS. By S. W. McCuskey. 263 pp. Addison-Wesley Publishing Co., Inc., Reading, Mass., 1959. $8.50.

CONSTITUTIONAL DIAGRAMS OF URANIUM AND THORIUM ALLOYS. By Frank A Rough and Arthur A. Bauer. 153 pp. Addison-Wesley Publishing Co., Inc., Reading, Mass., 1959. $5.00.

SAFE HANDLING OF RADIO-ISOTOPES. No. 1 of IAEA Safety Series. 99 pp. The Internat'l Atomic Energy Agency, Vienna, Austria, 1958. Paperbound $1.00.

THE WAY THINGS ARE. By P. W. Bridgman. 333 pp. Harvard U. Press, Cambridge, Mass., 1959. $5.75.

CONDUCTION OF HEAT IN SOLIDS (2nd Revised Ed.). By H. S. Carslaw and J. C. Jaeger. 510 pp. Oxford U. Press, New York, 1959. $13.45.

THE PHYSICAL METALLURGY OF MAGNESIUM AND ITS ALLOYS. By G. V. Raynor. 531 pp. Pergamon Press, London & New York, 1959. $12.50.

SUR LA RÉSONANCE MAGNÉTIQUE: 86th Internat'l Colloq. of CNRS (Paris, July 1958). 116 pp. Éditions du Centre National de la Recherche Scientifique, Paris, France, 1958. Paperbound 1200 fr.

FONCTIONS ANALYTIQUES—EQUATIONS INTÉGRALES. Vol. 1 of Le Calcul différentiel dans les Espaces de Banach. By Aristotle D. Michal. 150 pp. Gauthier-Villars, Paris, France, 1958. Paperbound $7.30.

PRECIPITATION FROM HOMOGENEOUS SOLUTION. By Louis Gordon, Murrell L. Salutsky, and Hobart H. Willard. 187 pp. John Wiley & Sons, Inc., New York, 1959. $7.50.

LUBRICATION SCIENCE AND TECHNOLOGY. Vol. 1, No. 2 of Transactions of Am. Soc. of Lubrication Eng. Edited by John Boyd. 346 pp. Pergamon Press, London & New York, 1958. $10.00.

DENDRITIC CRYSTALLIZATION (2nd Revised & Enlarged Ed.). By D. D. Saratovkin. Translated from Russian by J. E. S. Bradley. 126 pp. Consultants Bureau, Inc., New York, 1959. $6.00.

RUSSIAN-ENGLISH GLOSSARY OF OPTICS AND SPECTROSCOPY. 78 pp. Interlanguage Dictionaries Publishing Corp., New York, 1959. Paperbound $10.00.

THE PIROTECHNIA (Reissue of 1942 AIME Ed.). By Vannoccio Biringuccio. Translated from 1540 Italian Ed. by Cyril Stanley Smith and Martha Teach Gnudi. 502 pp. Basic Books, Inc., New York, 1959. $8.50.

DIGEST OF THE LITERATURE ON DIELECTRICS, Vol. 21, 1957. Edited by John Hart and Robert A. Soderman. 283 pp. Publication 599. Nat'l Academy of Sciences—Nat'l Research Council, Washington, D. C., 1958. Paperbound $5.00.