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D. Mazia has discretely entitled his excellent description of cell division: "Materials for the Biophysical and Biochemical Study of Cell Division". I assume he means (and rightly) this is the *material* with which a physical analysis may begin. As a condensed review of the fundamental aspects of how living matter divides itself this chapter is highly commendable.

T. H. Wood contributes a timely review, "Lethal Effects of High and Low Temperatures on Unicellular Organisms", and carries out the discussion in analytic terms that carry meaning for the physical chemist. This desirable approach is seen also in N. K. Freeman's discussion of "Infrared Spectrometry", as well as in D. Harker's chapter on "X-ray Diffraction Applied to Crystalline Proteins". I was let down by the inclusion of a derivation of the Bragg Law for x-ray diffraction, and the Patterson-Fourier function, both of which have been given in print many times. This may be a peculiarity of biophysics, but I doubt that the elementary things have to be said over and over, especially not in reviews of latest advances.

Many different scientists will want this volume for the chapter by Gamow, Rich, and Ycas: "The Problem of Information Transfer from the Nucleic Acids to Proteins". It deals with the molecular template that determines reduplication of biological specificity in living units. Is there a code for protein synthesis, and what are the physical channels for expressing its contents? Although they have, understandably, not cracked the code, the authors present some fascinating and important ideas about it. Their work is the first concrete approach to the special arrangement of molecules in self-reproducing systems.

Books Received

EDUCATIONAL EXCHANGES: Aspects of the American Experience. Report of Conf. sponsored by Committee on Internat'l Exchange of Persons of the Conference Board of Associated Research Councils. (Princeton, N. J., 1954) 74 pp. National Academy of Sciences-National Research Council, Washington, D. C., 1956. Paperbound.

SOLID STATE PHYSICS: Advances in Research and Applications. Vol. 2. Edited by Frederick Seitz and David Turnbull. 468 pp. Academic Press Inc., New York, 1956. \$10.00.

ELECTROMAGNETICALLY ENRICHED ISOTOPES AND MASS SPECTROMETRY. Proceedings of the Conf. at Harwell, Sept. 1955. Edited by M. L. Smith. 272 pp. (Butterworths, England) Academic Press Inc., New York, 1956. \$8.00.

AUTOMATIC DIGITAL CALCULATORS (2nd Revised Edition). By Andrew D. Booth and Kathleen H. V. Booth. 261 pp. (Butterworths, England) Academic Press Inc., New York, 1956. \$6.00.

RANDOM PROCESSES IN AUTOMATIC CONTROL. By J. Halcombe Laning, Jr. and Richard H. Battin. 434 pp. McGraw-Hill Book Co., Inc., New York, 1956. \$10.00.

SPECIAL FUNCTIONS OF MATHEMATICAL PHYSICS AND CHEMISTRY. By Ian N. Sneddon. 164 pp. (Oliver & Boyd, England) Interscience Publishers, Inc., New York, 1956. \$1.75.

AUTOMATION FRIEND OR FOE? By R. H. Macmillan. 100 pp. Cambridge U. Press, New York, 1956. \$1.95.

UNITS AND SYSTEMS OF WEIGHTS AND MEASURES: Their Origin, Development, and Present Status. By Lewis V. Judson. 29 pp. NBS Circular 570. US Government Printing Office, Washington, D. C., 1956. Paperbound \$.25.

RADIATION DOSIMETRY. 22 Contributors. Edited by Gerald J. Hine and Gordon L. Brownell. 932 pp. Academic Press Inc., New York, 1956. \$22.00.

QUANTUM FIELD THEORY. By H. Umezawa. 364 pp. (North-Holland, Holland) Interscience Publishers, Inc., New York, 1956. \$9.75.

PRECISION ELECTRICAL MEASUREMENTS. Proceedings of international symposium at National Physical Lab., England, Nov. 1954. 26 papers. Philosophical Library, Inc., New York, 1956. \$12.00.

ELEMENTARY NUCLEAR THEORY (2nd Revised Edition). By Hans A. Bethe and Philip Morrison. 274 pp. John Wiley & Sons, Inc., New York, 1956. \$6.25.

PHYSIK. Ein Lehrbuch zum Gebrauch neben Vorlesungen (4th Edition). By Christian Gerthsen. 545 pp. Springer-Verlag, Berlin, Germany, 1956. DM 29.80.

A SECOND COURSE OF LIGHT. By A. E. E. McKenzie. 342 pp. Cambridge U. Press, New York, 1956. \$3.50.

INVESTIGATIONS ON THE THEORY OF THE BROWNIAN MOVEMENT. By Albert Einstein. Edited by R. Fürth. Translated by A. D. Cowper. 122 pp. Dover Publications, Inc., New York, 1956. Paperbound \$1.25.

THE PRINCIPLES OF MECHANICS. By Heinrich Hertz. Edited by P. Lenard. Translated by D. E. Jones and J. T. Waley. 274 pp. Dover Publications, Inc., New York, 1956. Clothbound \$3.50; paperbound \$1.75.

PRINCIPLES AND TECHNIQUES OF APPLIED MATHEMATICS. By Bernard Friedman. 315 pp. John Wiley & Sons, Inc., New York, 1956. \$8.00.

PROCEEDINGS OF THE FIRST AND SECOND CONFERENCES ON CARBON. Held at U. of Buffalo, Nov. 1953 and June 1955. 222 pp. The U. of Buffalo, Buffalo, New York, 1956. \$5.50.

SYNTHETIC ION-EXCHANGERS. By G. H. Osborn. 194 pp. The Macmillan Co., New York, 1956. \$6.00.

THE STRUCTURE OF TURBULENT SHEAR FLOW. By A. A. Townsend. 315 pp. Cambridge U. Press, New York, 1956. \$7.50.

THE THEORY OF ORDINARY DIFFERENTIAL EQUATIONS. By J. C. Burkill. 102 pp. (Oliver & Boyd, England) Interscience Publishers, Inc., New York, 1956. \$1.55.

ELECTRICAL INTERFERENCE. By A. P. Hale. 122 pp. Philosophical Library, Inc., New York, 1956. \$4.75.

STÉROÏDES. Part 1 of Constantes Sélectionnées: No. 6, Pouvoir Rotatoire Naturel. By J.-P. Mathieu and A. Petit. 507 pp. Masson et Cie, Paris, France, 1956. Clothbound 12,900 fr.; paperbound 12,000 fr.

PRINCIPLES OF COLOR TELEVISION. By The Hazeltine Laboratories Staff. Compiled and Edited by Knox McIlwain and Charles E. Dean. 595 pp. John Wiley & Sons, Inc., New York, 1956. \$13.00.

PHYSICS AND MATHEMATICS. Vol. 1. Series 1 of Progress in Nuclear Energy. Edited by R. A. Charpie, J. Horowitz, D. J. Hughes, D. J. Littler. 398 pp. (Pergamon Press Ltd., England) McGraw-Hill Book Co., Inc., New York, 1956. \$12.00.

THE HISTORICAL BACKGROUND OF CHEMISTRY. By Henry M. Leicester. 260 pp. John Wiley & Sons, Inc., New York, 1956. \$6.00.

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