

Isotopy, excess weight, and atomic structure. According to a hypothesis previously advanced, an atomic species of number N and atomic weight P should possess $(P-2N)$ positive electrons and $(P-2N)$ negative electrons external to the atomic nucleus and arranged to form an electrically neutral whole. This hypothesis is now supported by the relations, manifested but as yet incompletely studied, between the atomic weight and (1) the difference between the weights of the lowest and highest isotopes, or the field of variability of the isotopes, for each element, and (2) the maximum excess weight exhibited by any group of isotopes.—D. Bigiavi: Relations between aromatic nitro-derivatives and azoxy-compounds. Evidence is adduced which confirms the reluctance to undergo substitution exhibited by the aromatic nucleus contiguous to the pentavalent nitrogen of the azoxy-compounds, and moreover shows that, in general, the presence in the aromatic nucleus of an azo-derivative of nitro-groups in the para- or ortho-position to the azo-grouping renders difficult the addition of oxygen to a nitrogen atom of the azo-group by means of peracetic acid.—G. Malquori: The system $Al(NO_3)_3 : KNO_3 : H_2O$ at 25° . The isotherm of this system for the temperature 25° fails to indicate the formation of an additive compound between the two nitrates.—P. Pasquini: Homeoplastic grafting of the ocular rudiments in embryos of *Pleurodeles Waltli*.—R. Savelli: Lack of confirmation of the Giglio-Tos 'rational laws' on hybridism.

Official Publications Received.

BRITISH.

The British Institute of Philosophical Studies. Annual Report and Statement of Accounts for the Year ended 31st March 1927. Pp. 19. (London.)

Report of the Director of the Royal Observatory, Hong Kong, for the Year 1926. Pp. 19. (Hong Kong.)

Journal of the Chemical Society: containing Papers communicated to the Society. June. Pp. x+iv+1221-1400. (London: Gurney and Jackson.)

The Plan of the Educational Colonies Association (of Great Britain and India): the Substance of a Series of Lectures on the Plan delivered in the Universities of Calcutta, Madras and Dacca. By J. A. Petavel. Pp. xl+288. (Calcutta: Educational Colonies Association.)

Biological Reviews and Biological Proceedings of the Cambridge Philosophical Society. Edited by H. Munro Fox. Vol. 2, No. 3, June. Pp. 199-288. (Cambridge: At the University Press.) 12s. 6d. net.

Board of Education. Report of H.M. Inspectors on the Provision of Instruction in Pure Chemistry in Technical Colleges and Schools in England. Pp. 11. (London: H.M. Stationery Office.) 3d. net.

The Tea Research Institute of Ceylon. Bulletin No. 1: Annual Report for the Year 1926. Pp. 29. (Kandy, Ceylon.)

Report of His Majesty's Astronomer at the Cape of Good Hope to the Secretary of the Admiralty, for the Year 1926. Pp. 10. (Cape of Good Hope.)

Forestry Commission. Seventh Annual Report of the Forestry Commissioners, Year ending September 30th, 1926. Pp. 45. (London: H.M. Stationery Office.) 1s. net.

The Physical Society. Proceedings, Vol. 39, Part 4, June 15. Pp. 251-374. (London: Fleetway Press, Ltd.) 6s. net.

South Australia: Department of Mines. Mining Review for the Half-Year ended December 31st, 1926. (No. 45.) Pp. 105+7 plates. (Adelaide: R. E. E. Rogers.)

FOREIGN.

Proceedings of the Academy of Natural Sciences of Philadelphia. A Revision of the Nematodes of the Leidy Collections. By Arthur C. Walton. Pp. 49-163+plates 4-10. The Structure and Affinities of Humboldtiana and related Helicid Genera of Mexico and Texas. By Henry A. Pilsbry. Pp. 165-192+plates 11-14. (Philadelphia, Pa.)

The Carnegie Foundation for the Advancement of Teaching. Bulletin No. 19: Dental Education in the United States and Canada. A Report to the Carnegie Foundation for the Advancement of Teaching. By William J. Fies. Pp. xxi+692. Bulletin No. 20: The Quality of the Educational Process in the United States and Europe. By William S. Learned. Pp. x+133. (New York.)

The Rockefeller Institute for Medical Research: Organization and Equipment. Pp. 24. (New York.)

Proceedings of the United States National Museum. Vol. 71, Art. 12: Megachilid Bees from Bolivia collected by the Mulford Biological Expedition, 1921-1922. By T. D. A. Cockerell. (No. 2684.) Pp. 22. (Washington, D.C.: Government Printing Office.)

Index to Bulletin of the Geological Institution of the University of Upsala. Edited by H. Sjögren. Vols. 11-20 (1912-1927), with an Appendix containing List of Exchanges, etc. Pp. 43. (Uppsala: Almqvist and Wiksell's Boktryckeri A.-B.)

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CATALOGUES.

The Cambridge Bulletin. No. 57, June. Pp. 82+8 plates. (Cambridge: At the University Press.)

Mr. Murray's Quarterly List. July. Pp. 32. (London: John Murray.)

Microscopical Preparations: Zoological and Botanical Material. Catalogue 'A.' Seventh edition. Pp. 96. (Manchester: Flatters and Garnett, Ltd.)

Catalogue of B.D.H. Fine Chemical Products. July. Pp. 108. (London: The British Drug Houses, Ltd.)

Laboratory Apparatus and Equipment. Fourteenth edition. Pp. 151. (London: Brown and Son (Alembic Works), Ltd.)

A Catalogue of Important and Rare Books on Botany, Agriculture, Forestry, Fruit-Culture, Gardens and Gardening, Herbals, Early and Modern Medicine and Surgery, Tobacco. (No. 409.) Pp. 144. (London: Bernard Quaritch, Ltd.) 1s.

Diary of Societies.

SATURDAY, JULY 23.

PHYSIOLOGICAL SOCIETY (in Physiological Laboratory, Edinburgh), at 10 A.M.—Communications from 10 to 1:—Dr. B. A. McSwiney: Structure and Movements of the Cardia.—C. W. Greene: Unique Characteristics of the Electrogram of the Isolated and Automatically Contracting Uterus of the Rat.—G. H. Greene, Martha Aldrich, and L. G. Rowntree: Studies in the Metabolism of the Bile Acids.—H. W. Gerard: The Metabolism of Peripheral Nerve.—A. J. Clark and A. C. White: The Action of Acetyl Choline on the Cardiac Frequency and the Blood Pressure of the Cat.—H. Dryerre: (a) The Effect of the Intermittent Injection of Adrenaline on Perfusion Rate; (b) The Effect of Ingestion of Calcium Chloride on the pH of Urine.—W. P. Kennedy: The Deflection of the Arterial Count by Radiation.—J. D. S. Cameron: The Effect of Ingestion of Creatinine on Blood and Urine-Creatinine.—Sir E. Sharpey-Schafer: Further Observations on the Effect of Section of Cutaneous Nerves.—E. Ponder: Haematocrite Method of Determining the Volume of the Red Cell.—O. Meyerhof: A Communication.—H. E. Magee and A. E. Glennie: Effect of Ether Anesthesia on some Blood Constituents. (Preliminary Communication.)—R. Brinkman: Registration of pH of Circulating Blood by Means of the Antimony Electrode.—Demonstrations from 2 to 4:—(a) A Method for Showing Continuous Tracings on the Screen; (b) A Simple Adjustment to deliver Make Induction Shocks, by N. E. Condon.—The Measurement of the Red Cells of Man before and after Exercise, by H. Dryerre, W. G. Miller, and E. Ponder.—The Estimation of pH of Faeces, by H. Dryerre.—Precipitation and Protection of Silver Sols, by W. W. Taylor.—The Estimation of Percentage Haemolysis by the Selenium Cell, by E. Ponder.—Haemolysis by Ultra-violet Light, by W. P. Kennedy.—Autolytic Changes in Lymph and Blood, by J. Lorrain Smith and T. Rettie.—Apparent Cilia on the Epithelium of the Intestine and Ovary, by May L. Walker.—A New Cytological Method, by May L. Walker and W. A. Bain.—A Simple Slide Rule for the Rapid Determination of Respiratory Quotients using the Formula:

$$R.Q. = \frac{x-0.03}{20.95 \left(\frac{10x-x-y}{79.04} \right) - y}$$

where x is the % CO_2 and y that of O_2 in the expired Air, by W. A. M. Smart.

MONDAY, JULY 25.

CAMBRIDGE PHILOSOPHICAL SOCIETY (in Cavendish Laboratory), at 4.30.—E. G. Dymond: Excitation by High Velocity Electrons.—Dr. L. H. Thomas: The Production of Characteristic X-rays by Electronic Impact.—Dr. W. L. Webster: The Hall Effect in Single Crystals of Iron.—C. E. Wynn-Williams: A Valve Amplifier for Ionisation Currents.—To be communicated by title only:—J. B. S. Haldane: (a) A Mathematical Theory of Natural and Artificial Selection. Part V: Selection and Mutation; (b) The Comparative Genetics of Colour in Rodents and Carnivora.—S. Pollard: On the Generalisations of the Theorems of Parseval and Riesz-Fischer.—F. W. Carter: Eddy Currents in Thin Circular Cylinders of Uniform Conductivity due to Periodically Changing Magnetic Fields, in Two Dimensions.—J. H. Grace: (a) A Theorem of Dr. P. Zeeman; (b) The Pedal Planes of a Tetrahedron; (c) An Illustration of the Space Representation of Circles.—Miss M. E. Grimshaw: Summation of the Integral Conjugate to the Fourier Integral of Finite Type.—F. S. Russell: The Vertical Distribution of Plankton in the Sea.—A. Lipschütz: On Some Fundamental Laws of Ovarian Dynamics.

CONGRESS.

JULY 26 to 28.

BRITISH-AMERICAN NEUROLOGICAL MEETING.—Combined Meeting of the Neurological Section of the Royal Society of Medicine and of the American Neurological Association (at Royal Society of Medicine, 1 Wimpole Street, W.1).

Tuesday, July 26, at 9.30 A.M.—Short Papers.
At 2 P.M.—Short Papers.

Wednesday, July 27, at 9.30 A.M.—Drs. F. Tilney, H. A. Riley, L. J. Pollock, L. E. Davis, A. J. Mussen, T. H. Weisenburg, and Harvey Cushing: Discussion on the Cerebellum.

At 2.30 P.M.—Special Clinical Meeting.

Thursday, July 28, at 9.30 A.M.—Drs. J. S. B. Stopford, W. Harris, S. A. K. Wilson, and Gordon Holmes: Discussion on Sensory Disorders in Organic Disease of the Nervous System.

At 2 P.M.—Papers and Demonstrations on Pathological Subjects.

At 5 P.M.—Dr. C. L. Dana: The Hughlings Jackson Lecture.