

variations by means of a wire conducting electricity, by M. Dussaud. An application of the selenium cell.—On the influence of self-induction in the explosion by the electric spark of mixtures of marsh gas with air, by MM. H. Couriot and J. Meunier.—Influence of temperature upon chemical reactions, by M. Albert Colson. An experimental study of the effect of temperature upon the velocity of absorption of hydrogen sulphide by orthophosphate and pyrophosphate of silver, zinc phosphate, and copper phosphate.—On the ammoniacal bromides of silver, by M. Jarry. By the action of liquid ammonia upon silver bromide the two compounds $2\text{AgBr} \cdot 3\text{NH}_3$ and $\text{AgBr} \cdot 3\text{NH}_3$ are formed, the dissociation pressures of which were measured.—On the phosphoric ethers, by M. J. Cavalier. Monomethyl- and monoallyl-phosphoric ethers were prepared and their behaviour towards indicators examined. The results were analogous to those given by the corresponding ethyl ether. A table is given showing the heats of neutralisation of the three ethers by various bases.—On the alkaline sulphantimonites, by M. Pouget. The sodium sulphantimonites are formed under conditions analogous to the potassium compounds; they differ from the latter, however, by the facility with which they undergo oxidation to sulphantimonates.—General reaction of ethylenic hydrocarbons; corresponding mercuric combinations, by M. G. Denigès. By treatment with acid mercuric sulphate, all ethylenic compounds (except ethylene itself) give yellow compounds of the formula $(\text{HgSO}_4 \cdot \text{HgO})_n \text{R}''$, where R'' represents the hydrocarbon. Compounds of propylene, butylene, and amylene are described.—Heat of formation of some quinones of high molecular weight, by M. Amand Valeur. The quinones used were: α -naphthoquinone, β -naphthoquinone, anthraquinone, phenanthrenequinone, and retenequinone; the results are compared with α - and β -naphthols, new data for which are given.—Heats of neutralisation of ethylphosphoric acid, by M. G. Belugou.—New synthesis of 3,3-di-methyl-1,5-pentanedioic acid, by M. F. E. Blaise.—Spectrum analysis of non-conducting substances by fused salts, by M. A. de Gramont. The finely-powdered mineral is fused with either lithium carbonate, boric acid, or potassium bisulphate, the first for preference, and the sparks passed through the molten mass.—On the functions of cerebral hypophysis, by M. E. de Cyon. The slightest pressure upon the hypophysis is immediately followed by a sudden variation in the blood pressure, and by a marked decrease in the number of heart beats per minute.—Effects upon man and mice of the inoculation of a pyogenous Trichophyte, by MM. Sabrazès and Brengues.—The parasites of cancer and of sarcoma. Coloration, structure, cycles of reproduction, and dimorphism, by M. F. G. Bosc.—Contribution to the study of direct cellular division; its anomalies and functional value, by M. Joannes Chatin.—On the Annelids collected by the expeditions of the *Travailleur* and *Talisman*, by M. Louis Roule.—On a cavity in the integument serving in the *Myrmicine* to spread out a secretion product in contact with air, by M. Charles Janet.—Variations, in four phases, of the pressure and of the two mean components of the wind on the meridian of the sun and its orthogonal, by M. A. Poincaré.—Influence of the movements of the moon on the oscillations of the atmosphere, by M. P. Garrigou-Lagrange.

DIARY OF SOCIETIES.

THURSDAY, APRIL 28.

ROYAL SOCIETY, at 4.30.—On the Meteorological Observatories of the Azores: H.S.H. the Prince of Monaco.—A Compensated Interference Dilatometer: A. E. Tutton.—Observations on the Action of Anesthetics on Vegetable and Animal Protoplasm: Dr. Waller, F.R.S., and Prof. Farmer.—A Calorimeter for the Human Body: Dr. Marcet, F.R.S.—An Experimental Inquiry into the Heat given out by the Human Body: Dr. Marcet, F.R.S., and R. B. Floris.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.

FRIDAY, APRIL 29.

ROYAL INSTITUTION, at 9.—Magneto-Optic Rotation and its Explanation by a Gyrostatic Medium (with Experimental Illustrations): Prof. A. Gray, F.R.S.

INSTITUTION OF MECHANICAL ENGINEERS, at 7.30.—Steam Laundry Machinery: Sidney Tebbutt.

MONDAY, MAY 2.

SOCIETY OF ARTS, at 8.—The Electric Locomotive: Prof. Carus Wilson.

SOCIETY OF CHEMICAL INDUSTRY, at 8.—Self-intensive Refrigeration of Gases, Liquid Air and Oxygen: Dr. W. Hampson.

VICTORIA INSTITUTE, at 4.30.—British Submerged River Valleys: Prof. Hull, F.R.S.

TUESDAY, MAY 3.

SOCIETY OF ARTS, at 8.—Senefelder and the Centenary of Lithography, 1798-1898: Joseph Pennell.

ZOOLOGICAL SOCIETY, at 8.30.

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WEDNESDAY, MAY 4.

SOCIETY OF ARTS, at 8.—The Revival of Hand-loom Weaving: Miss Clive-Bayley.

GEOLOGICAL SOCIETY, at 8.—The Carboniferous Limestone of the Country around Llandudno: G. H. Morton.—On the Graptolite-Fauna of the Skiddaw Slates: Miss G. L. Elles.

ENTOMOLOGICAL SOCIETY, at 8.

THURSDAY, MAY 5.

ROYAL SOCIETY, at 4.30.

LINNEAN SOCIETY, at 8.—On some Spitsbergen Collembola: Sir John Lubbock, Bart., M.P., F.R.S.—On the Structure and Development of *Soranthera*: Miss Ethel Barton.—The Species, the Sex, and the Individual: J. T. Cunningham.

CHEMICAL SOCIETY, at 8.—The Reactions of the Carbohydrates with Hydrogen Peroxide: C. F. Cross, E. J. Bevan, and Claud Smith.—The Properties and Relationships of Dihydroxytartaric Acid, Part II.: H. J. H. Fenton.—The Affinity Constants of certain Hydroxy-acids: S. Skinner.—Molecular Weights in Solution of Permanganates, Perchlorates, and Periodates: J. Murray Crofts.

FRIDAY, MAY 6.

ROYAL INSTITUTION, at 9.—Living Crystals: Edward A. Minchin.

GEOLOGISTS' ASSOCIATION, at 8.—Notes on Skye: Horace B. Woodward, F.R.S.—Observations in Lapland: Aubrey Strahan.

SATURDAY, MAY 7.

GEOLOGISTS' ASSOCIATION.—Excursion to Hillmorton and Rugby. Director: Beeby Thompson.

BOOKS, PAMPHLET, and SERIALS RECEIVED.

BOOKS.—Domestic Science Readers: V. T. Murché, Book vii. (Macmillan).—Flower Favourites: L. Deas (Allen).—A Century of Vaccination Dr. W. S. Tebb (Sonnenschein).—Maryland Geological Survey, Vol. 1 (Baltimore).—Iowa Geological Survey, Vol. vi. (Des Moines).—Magnetismo e Ipnatismo: Dr. G. Belfiore (Milano, Hoepli).—Museums Association, Report of Proceedings &c., at the Eighth Annual Meeting held in Oxford, July 6 to 9, 1897: edited by J. Paton (Dulau).—Handbook of Jamaica, 1898 (Stanford).

PAMPHLET.—Das Physikalisches-Chemische Institut der Universität Leipzig und die Feier seiner Eröffnung am 3. Januar 1898: Prof. Dr. W. Ostwald (Leipzig, Engelmann).

SERIALS.—Journal of Anatomy and Physiology, April (Griffin).—Journal of the Chemical Society, April (Gurney).—Quarterly Review, April (Murray).—Home University, April 15 (West).—American Journal of Mathematics, Vol. xx. No. 2 (Baltimore).—Journal of the Marine Biological Association of the United Kingdom, April (Dulau).—Himmel und Erde, April (Berlin, Paetel).—Bulletin de l'Académie Royale des Sciences, &c., de Belgique, 1898, No. 3 (Bruxelles).—Wide World Magazine, April (Newnes).

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