

carbinols. Ethylvinylcarbinol, dehydrated by the catalytic action of alumina at 350° - 365° C., gives a 60 per cent. to 70 per cent. yield of 1:3 pentadiene.—Ch. Courtot and J. Bonnet: Contribution to the study of the π of sulphonation.—E. Delcambre, P. Idrac and F. Geoffre: A new temperature and pressure recorder for the study of the higher atmosphere.—P. L. Mercanton: The magnetisation of the Greenland basalts.—G. Mangenot: The existence of a remarkable functional arrangement in the orifices of the liber sieves.—V. G. Korneff: Measurement of the force of suction of the soil for water.—C. Rouppert and H. Jedrzejowski: The action of the radiation of radioactive bodies on plant pearls.—H. Hérissé: The detection of asperulose in plants. The extraction of this glucoside from *Galium Aparine*.—Theodor Lipmaa: The physical and chemical properties of rhodoxanthine.—R. Fosse: A new natural principle in plants: allantoinic acid.—E. Roubaud and J. Colas-Belcour: The obligatory winter sleep and its various manifestations in mosquitoes indigenous to France.—Gravel: The development of trout culture in Morocco.—J. Sabrazès: The simple and rapid coloration of the treponeme of syphilis. The comparative affinity for stains of the Spirochaetes.

ROME.

Royal Academy of the Lincei, February 21.—V. Volterra: Variations and fluctuations in the number of individuals in animal species living together.—O. M. Corbino: Magneto-optic phenomena in fields which are varying rapidly. Theory predicts that the Zeeman phenomenon should respond instantaneously to the changes of a field varying with the time according to any law and with any rapidity. In carbon disulphide the magnetic rotatory dispersion follows quantitatively the oscillations of a high-frequency field as far as the shortest persistent waves (300 metres) with which it was found possible to experiment.—Ferruccio Zambonini and S. Restaino: Double sulphates of rare earth and alkaline earth metals (v.). Cerous ammonium sulphate. The crystallographic and other characters of the two compounds, $\text{Ce}_2(\text{SO}_4)_3$, $(\text{NH}_4)_2\text{SO}_4$, $8\text{H}_2\text{O}$, and $\text{Ce}_2(\text{SO}_4)_3$, $5(\text{NH}_4)_2\text{SO}_4$, are described.—Umberto Cisotti: Resolution of harmonic problems in a plane area of indefinite extent with n circular gaps of small diameter.—Azeglio Bemporad: A new method of studying experimental results. The method recently described by Cantone has been applied to the results of astronomical measurements, and is closely analogous to the hodograph so frequently used in mechanics and other branches of mathematics.—G. Vranceanu: The integration of the problem of two bodies in the case in which the mass is a linear function of the time.—Emilio Adinolfi: The absorption spectrum of potassium and calcium permanganates.—Washington Del Regno: The behaviour of selenium subjected to the action of mesothorium radiations. Exposure of selenium to mesothorium radiation produces a marked variation in the electrical resistance of this element, the effect being due mostly to the β -rays.—G. Carobbi: The chemical composition of the orthite of Ambatofotsikely (Madagascar).—Pia Gravino: The anti-monite of Wolfsberg (Harz).—G. R. Levi and R. Haardt: The catalytic action of metals of the platinum group and their degree of subdivision (ii.). The results already published, together with those now obtained with palladium, rhodium, iridium, ruthenium, and osmium show that, in the form of 'black,' these metals are so highly subdivided that the granules are comparable with those of colloidal metals. Measurements of the X-ray diagrams show that, within moderately wide limits, the dimensions of the

granules depend on the method of preparation as well as on the nature of the metal. The fact that the granules of the spongy metals are large in comparison with those of the 'blacks' explains the practical advantage of subdividing the catalyst on a diluent material, such as asbestos or porcelain.—A. Ferrari: Röntgenographic investigation of the crystalline lattices of manganous fluoride and manganese dioxide. Manganous fluoride crystallises in the tetragonal system, the axial ratio being $c:a=0.675$. Its structure is of the rutile type, the dimensions of the elementary cell which contains two molecules being $a=4.865$ and $c=3.284$ Å.U.; the calculated and observed values of the density are respectively 3.97 and 3.98. The dioxide exhibits the same lattice as the fluoride, the dimensions being $a=4.380$ and $c=2.856$ Å.U., the calculated specific gravity is 5.27, whereas the experimental value is 5.08, and the axial ratio, $c:a=0.625$, is decidedly lower than that found crystallographically, namely, 0.664. The dioxide exists in only one crystalline form.—Enrico Carozzi: A chromiferous spessartite from St. Barthélemy (Valle d'Aosta).—Arnaldo Masotti: Uniform rotation of a solid cylinder in an indefinite perfect liquid. Extension of Kutta and Joukowski's theorem.

Official Publications Received.

Classified List of Smithsonian Publications available for Distribution, March 13, 1926. Compiled by Helen Munroe. (Publication 2886.) Pp. v+30. (Washington, D.C.: Smithsonian Institution.) [Corrected entry.]

Engineering Abstracts from the Current Periodical Literature of Engineering and Applied Science, published outside the United Kingdom. Published by the Institution of Civil Engineers with the Cooperation of other Engineering Societies in Great Britain and the Dominions. New Series, Nos. 26 and 27, January and April 1926. Pp. 350. (London: Institution of Civil Engineers.)

Agricultural Research Institute, Pusa. Bulletin No. 164: Standard Methods of Analysis of Fertilizers. By Dr. J. Sen. Pp. iii+14. (Calcutta: Government of India Central Publication Branch.) 4 annas; 6d.

Memoirs of the Indian Meteorological Department. Vol. 24, Part 11: Rainfall Types in India in the Cold Weather Period, December 1 to March 15. By Sir Gilbert T. Walker and Dr. J. C. Kamesvara Rav. Pp. 347-354. (Calcutta: Government of India Central Publication Branch.) 4 annas; 5d.

Department of Commerce: U.S. Coast and Geodetic Survey. Serial No. 812: Terrestrial Magnetism; Results of Magnetic Observations made by the United States Coast and Geodetic Survey in 1924. By Daniel L. Hazard. (Special Publication No. 116.) Pp. 50. (Washington, D.C.: Government Printing Office.) 10 cents.

Journal of the Indian Institute of Science. Vol. 8A, Part 16: The Occurrence of Sylvestrene. By B. Sanjiva Rao and John Lionel Simonsen. Pp. 287-294. 8 annas. Vol. 9A, Part 1: Contributions to the Scientific Study of the Lac Industry. Part xi: Early Recognition of Sex among Lac Insects. By S. Mahdhasan. Pp. 24+10 plates. 4 rupees. (Bangalore.)

Department of Commerce: Bureau of Standards. Circular of the Bureau of Standards, No. 279: Relations between the Temperatures, Pressures and Densities of Gases. Pp. 85. 25 cents. Circular of the Bureau of Standards, No. 300: Architectural Acoustics. Pp. 9. 5 cents. (Washington, D.C.: Government Printing Office.)

Bulletin of the American Museum of Natural History. Vol. 56, Art. 1: The Hemicyninae and an American Tertiary Bear. By Childs Frick. Pp. 119. (New York.)

Papers and Proceedings of the Royal Society of Tasmania for the Year 1925. Pp. v+253+xiv+19-36+24 plates. (Hobart.) 10s.

Department of Commercial Intelligence and Statistics, India. Agricultural Statistics of India, 1923-24. Vol. 1: Area, Classification of Area, Area under Irrigation, Area under Crops, Live-Stock, Land Revenue Assessment and Harvest Prices in British India. Pp. xi+81+7 plates. (Calcutta: Government of India Central Publication Branch.) 1 rupee; 1s. 9d.

Year-Book of the Department of Agriculture, Ceylon, 1926. Pp. iv+62+22 plates. (Peradeniya.)

Transactions of the Royal Society of Edinburgh. Vol. 54, Part 2, No. 10: Geology of the Outer Hebrides. Part iii: North Uist and Benbecula. By Prof. T. J. Jehu and R. M. Craig. Pp. 467-489+4 plates. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.) 4s. 6d.

Diary of Societies.

SATURDAY, MAY 1.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS (South-Eastern District) (at Grand Hotel, Margate), at 1.—E. A. Borg and others: Discussion on Notes on Municipal Work at Margate.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Dr. P. C. Buck: The Song Form in England as represented by Stanford.

ROYAL INSTITUTION OF GREAT BRITAIN, at 5.—Annual Meeting.