

on the virus of dengue. The experiments described show that the virus of dengue and that of yellow fever are distinct.

VIENNA.

Academy of Sciences, July 11.—E. Gebauer-Fülnegg and E. Riess: The course of oxidation in aryl-sulphoarylides.—E. Reiss and R. Feiks: The action of aromatic sulpho-chlorides on β -amino-anthraquinone.—E. Blumenstock-Halward and E. Riess: Note on trimercapto- β -naphthol.—M. Samec: Sulphurylation of starch.—E. Abel and E. Neusser: The vapour pressure of nitrous acid.—O. Redlich: The molecular state of water.—F. Böck and G. Lock: The determination of hydroquinone and pyrocatechin in the presence of other phenols (1).—K. Beaucourt: The constituents of resin (1). The boswellinic acid from olibanum (incense resin).—F. Pollak: The kinetics of the reaction between bromic acid and hydrobromic acid.—K. Schwarz: A simple micro-method for determining molecular weights. Depends on isothermic distillation.—G. Koller and E. Krakauer: The constitution of cetraric acid, $C_{20}H_{18}O_9$, obtained from an Icelandic lichen.—G. Koller and E. Strang: Some derivatives of 6, 7-benzo-1, 8-naphthyridine.—W. Leithe: The natural rotation of polarised light by optically active bases (4). The rotation of some synthetic isoquinoline derivatives.—H. Holter and H. Bretschneider: Researches on the possibility of the formation of tetrazomethane, CN_4 .—G. Burger: The separation of alkalis in minerals with the interferometer. A possible gravimetric determination of potassium and sodium by an optical method.—A. Friedrich and A. Salzberger: On lignin (5). The connexion between lignin and resin. The resin in spruce wood differs from the resin obtained from wounds of this tree, the resin extracted from the wood containing methoxyl groups. There is one sort of lignin dissolved in the wood-resin and another lignin in contact with cellulose.—H. Mache: Specific heat on the lines of equal internal energy and of equal heat content.—J. Kisser: Analysis of the results of chemical stimuli in seed germination. Preliminary inquiries with quickly germinating seeds. Access of oxygen is of great importance.—J. Kisser and S. Possnig: Researches on the influence of impeded and promoted oxygen respiration on seed germination and seed growth. Oxygen helps; the seed-coat of *Pisum* hinders access of oxygen, hydrogen peroxide penetrates the seed-shell.—J. Kisser and R. Stasser: Researches on the bending of roots and hypocotyls of shelled seeds of Leguminosæ. The seed-coat adheres to the radicle, hence removal of this part of the coat may injure the radicle.—J. Kisser and R. Windischbauer: Researches on the permeability of the seed coats of *Pisum sativum* for water and gases. Hydrogen peroxide delays the swelling, but stimulates germination. Weak solutions of sodium and manganese chlorides promote swelling of the seed-coat. Air-dry seed-coats permit the passage of gases with difficulty.—S. Meyer: Physical foundations for radium emanation therapy. Radium emanation absorbed by the human body is in preponderating measure lost again by breathing.—E. Kara-Michailova and B. Karlik: The relative brightness of scintillations of H-rays of different range. The α -particles lose energy in penetrating a crystal layer, and the brightness corresponds to the energy lost. Effects depend on the size of the crystals and the thickness of the zinc sulphide layer.—K. Fritsch: *Camelina rumelica*. A variable plant.—E. Müller and W. Loerpel: The catalytic decomposition of aqueous solutions of formic acid by the platinum metals (4).—R. Schumann: Vectorial adjustment of a measured triangle.

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Official Publications Received.

BRITISH.

- Transactions of the Institution of Chemical Engineers. Vol. 6, 1928. Pp. 202. (London.)
 Commonwealth of Australia: Bureau of Meteorology. Results of Rain-fall Observations made in Western Australia, including all available Annual Rainfall Totals from 1374 Stations for all Years of Record up to 1927, with Maps and Diagrams; and Record of Notable Meteorological Events; also Appendices, presenting Monthly and Yearly Meteorological Elements of Perth, Broome and Kalgoorlie. Pp. xiv+387. (Melbourne: H. J. Green.)
 Studies from the Connaught Laboratories, University of Toronto. Vol. 3, 1926-1928. Pp. vii+331. (Toronto: University of Toronto Press.)
 Department of the Interior, Canada. Publications of the Dominion Observatory, Ottawa. Vol. 10: Bibliography of Seismology. No. 1, January, February, March 1929. By Ernest A. Hodgson. Pp. 17. (Ottawa: F. A. Acland.)
 Records of the Geological Survey of India. Vol. 62, Part 2. Pp. 187-291+9 plates. (Calcutta: Government of India Central Publication Branch.) 2.12 rupees; 5s.
 Proceedings of the Sixteenth Indian Science Congress, Madras, 1929. (Third Circuit.) Pp. xxxiv+474. (Calcutta: Asiatic Society of Bengal.)
 Home Office. Report on Conferences between Employers, Operatives and Inspectors concerning Fencing of Machinery, First Aid and other Safeguards in Cotton Weaving Factories. By Eliot F. May. Pp. 21. (London: H.M. Stationery Office.) 3d. net.

FOREIGN.

- University of California Publications in American Archaeology and Ethnology. Vol. 24, No. 2: Petroglyphs of California and adjoining States. By Julian H. Steward. Pp. 47-238+plates 22-94. 2.50 dollars. Vol. 24, No. 3: Yokuts and Western Mono Pottery-making. By A. H. Gayton. Pp. 239-252+plates 95-102. 40 cents. Vol. 25, No. 4: Archaeology of the Northern San Joaquin Valley. By W. Herbert Schenck and Elmer J. Dawson. Pp. 289-413+plates 74-102. 1.55 dollars. (Berkeley, Cal.: University of California Press; London: Cambridge University Press.)
 Conseil International de Recherches, Union Géodésique et Géophysique Internationale: Section d'Océanographie. Bulletin N. 12: Bibliographie des Mares (1910-1927). By Prof. J. Proudman. Pp. 27. (Venezia.)
 Recueil des Travaux Chimiques des Pays-Bas. Publié par la Société Chimique Néerlandaise. Tome 48, No. 9. Pp. 797-1074+ii. (Amsterdam: D. B. Centen.)
 Publications de l'Observatoire Astronomique de l'Université de Belgrade. Tome 2: Annuaire pour l'an 1930. Rédigé par V. V. Michkovitch. Pp. 133. (Belgrade.)

CATALOGUES.

- High-Tension Transformers for the Production of X-Rays. (Bulletin W.) Pp. 48. (London: Watson and Sons (Electro-Medical) Ltd.)
 Chemische, chemisch-technische und physikalische Zeitschriften. (Jahrg. 8, Nr. 4, November.) Pp. 16. (Berlin: Verlag Chemie, G.m.b.H.)
 Catalogue of Important, and in many cases, Rare Books in various Branches of Natural History. (No. 172.) Pp. 96. (London: Dulau and Co., Ltd.)
 Medical Books, New and Second-hand. (Catalogue of Dept. No. 9, November.) Pp. 44. (London: W. and G. Foyle, Ltd.)
 The Bureau of Information on Nickel. Nickel Steel, Series A, Paper No. 4: Breaking Records and Breaking Stresses; Nickel Alloy Steels in the *Golden Arrow*. Pp. 8. (London: The Mond Nickel Co., Ltd.)

Diary of Societies.

FRIDAY, NOVEMBER 22.

- ASSOCIATION OF ECONOMIC BIOLOGISTS (in Botany Department, Imperial College of Science and Technology), at 2.30.—Research on Infestation of Stored Products: (a) Entomological—(i) Survey and Inspection Work, W. S. Thomson, (ii) Biological Work, G. V. B. Herford; (b) Mycological, R. H. Bunting.
 ANDERSONIAN CHEMICAL SOCIETY (at Royal Technical College, Glasgow), at 3.15.—A. L. Parker: Artificial Silk.
 PHYSICAL SOCIETY (at Imperial College of Science), at 5.—D. P. Dalzell: Heaviside's Operational Methods.—E. T. Hanson: The Dynamical Theory of Resonators.—E. C. Atkinson: Escapement Errors of Pendulum Clocks.
 INSTITUTION OF ENGINEERING INSPECTION (at Royal Society of Arts), at 5.30.—T. W. Willis: Saws: Their Manufacture and some Hints on their Use.
 BRITISH PSYCHOLOGICAL SOCIETY (Esthetics Section) (at Bedford College), at 5.30.—J. M. Thorburn: Spengler's Esthetic.
 SOCIETY OF CHEMICAL INDUSTRY (Liverpool Section) (at Liverpool University), at 6.—H. W. Rowell: Commercial Synthetic Resin Products.
 INSTITUTION OF MECHANICAL ENGINEERS (Informal Meeting), at 7.—J. S. Atkinson and others: The Utilisation of Low-Grade and Refuse Fuels, including Towns' Refuse.
 JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—H. D. Bush: The Quick-Running Oil Engine applied to and used in Railway Service.
 ROYAL SOCIETY OF MEDICINE (Epidemiology and Tropical Diseases Sections), at 8.—Discussion on Brucella Infections in Man and Animals. Openers: Dr. W. Dalrymple-Champneys (Epidemiology), Dr. J. T. Duncan (Tropical).
 ROYAL AERONAUTICAL SOCIETY (Yeovil Branch) (at Yeovil).—Aero Wheels and Tyres.