

the procedure described, processes of nuclei transformation occurring when $RaB+C$ is used as source of radiation may, in spite of the presence of β - and γ -rays, be recorded electrically with the same reliability as when polonium is used. GEORG KOLLER and ADOLF KLEIN : Saxatilis acid. On the basis of the known chemical behaviour, together with new data, a structural formula for this acid is proposed. KASIMIR GRAFF : (1) Colorimetric and photometric observations on δ -Cephei and η -Aquilæ. The spectral changes of these two stars show also in the visual colour and are readily detectable with a colorimeter. The colour curve of δ -Cephei is very similar to, but not quite synchronous with, the light curve. With η -Aquilæ, however, larger deviations occur. (2) Regularities in the change in colour of stars on the horizon. The excess colour of stars on the horizon, observed in Majorca, is related linearly to the path of the rays in the homogeneous atmosphere. RUDOLF GRILL : Oligocene and miocene in the Gallneukirchen basin east of Linz on the Danube and the neighbouring regions. WOLFGANG HOLZER : Action of rapid electrical vibrations on electrolyte solutions in relation to biological effects of short waves.

December 14. STEFAN PELZ : Crystal photo-effect in coloured rock salt. A. SKRABAL : Unstable intermediate products and classical chemical mechanics. In investigations on chemical kinetics, it is often necessary to decide, from a given scheme of reactions in which unstable reactants take part, the actual gross reactions occurring and their velocity equations. A method of solving this problem, based on classical chemical mechanics, is now given. K. W. F. KOHLRAUSCH and A. PONGRATZ : Studies on the Raman effect (31). Raman spectrum of organic substances (polysubstituted benzenes). Each of the four spectra for the molecular types C_6H_2X and $CH_3C_6H_4X$ (X in the ortho-, meta-, or para-position) is analysed for the cases where X is NH_2 , OH, F, CH_3 , CN, Cl, Br, or I.

Forthcoming Events

[Meetings marked with an asterisk are open to the public.]

Monday, April 23

VICTORIA INSTITUTE, at 4.30.—Sir Charles Marston : "Bible and Spade".

ROYAL GEOGRAPHICAL SOCIETY, at 5.30.—"Life in Hungary" (film).

Tuesday, April 24

ROYAL SOCIETY OF ARTS, at 4.30.—C. F. Strickland : "The Co-operative Movement among African Races".

Thursday, April 26

ROYAL SOCIETY, at 4.30.—F. W. P. Götz, A. R. Meetham and Dr. G. M. B. Dobson : "The Vertical Distribution of Ozone in the Atmosphere".

Dr. F. P. Bowden and Dr. C. P. Snow : "Physico-Chemical Studies of Complex Organic Molecules" (1).

Dr. F. P. Bowden and S. D. D. Morris : "Physico-Chemical Studies of Complex Organic Molecules" (2).

LONDON MATHEMATICAL SOCIETY, at 5—(at Burlington House, W.1).—Discussion on : "Integral Functions". Speakers : Prof. E. C. Titchmarsh, Dr. E. F. Collingwood, Dr. M. L. Cartwright, Prof. J. M. Whittaker, A. J. Macintyre, Prof. J. E. Littlewood.

WORSHIPFUL COMPANY OF ARMOURERS AND BRASIERS, at 5.30—(in the Metallurgy Lecture Theatre, Royal School of Mines, Prince Consort Road, South Kensington).—Prof. J. H. Andrew : "Alloy Steels" (succeeding lectures on May 3 and 10).*

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—Prof. J. C. M'Lennan : "Electrical Phenomena at Extremely Low Temperatures". (Twenty-fifth Kelvin Lecture.)

Friday, April 27

ROYAL INSTITUTION, at 9.—J. M. Stagg : "The British Polar Year Expedition to Fort Rae, N.W. Canada, 1932-33".

Official Publications Received

GREAT BRITAIN AND IRELAND

City and County of Bristol : Bristol Museum and Art Gallery. Report of the Museum and Art Gallery Committee for the Year ending 31 December 1933. Pp. 26+4 plates. (Bristol.)

Report of the Rugby School Natural History Society for the Year 1933. (Sixty-seventh Issue.) Pp. 44. (Rugby : George Over (Rugby), Ltd.)

Annual Report of the Council of the Yorkshire Philosophical Society for the Year 1933 ; The Yorkshire Museum, York—Report of the Museum Committee for the Year 1933. Pp. 47. (York.)

The London School of Economics and Political Science (University of London). Register, 1895-1932. Edited by the Registrar of the School. Pp. xix+266. (London.) 3s. 6d. net.

Thirty-third Report of the Felsted School Scientific Society, 1932-1933. Pp. 54+4 plates. (Felsted.)

University Grants Committee. Returns from Universities and University Colleges in receipt of Treasury Grant, Academic Year 1932-33. Pp. 26. (London : H.M. Stationery Office.) 1s. 3d. net.

Transactions of the Royal Society of Edinburgh. Vol. 57, Part 3, No. 34 : Geology of the Outer Hebrides, Part 5 : North Harris and Lewis. By Prof. T. J. Jehu and Dr. R. M. Craig. Pp. 839-874+5 plates. (Edinburgh : Robert Grant and Son ; London : Williams and Norgate, Ltd.) 6s. 6d.

OTHER COUNTRIES

The Indian Lac Research Institute. Annual Report for the Year 1932-33. Pp. 39+6 plates. (Nankum.)

Columbia University. Bulletin of Information, Thirty-fourth Series, No. 24 : Announcement of Professional Courses in Optometry for the Winter and Spring Sessions, 1934-1935. Pp. 31. (New York : Columbia University Press.)

Summary Proceedings of the Twenty-seventh Meeting of the Indian Central Cotton Committee, Bombay, held on the 29th and 30th August 1933. Pp. 40. The Indian Central Cotton Committee : its Objects, Activities and Achievements, with Special Reference to the Punjab, Sind, the United Provinces and Central India. Pp. 32. Annual Report of the Indian Central Cotton Committee, Bombay, for the Year ending 31st August 1933. Pp. ii+155. 2 rupees. (Bombay.)

Proceedings of the American Academy of Arts and Sciences. Vol. 69, No. 5 : Studies on Histomoniasis or "Blackhead" Infection in the Chicken and the Turkey. By Ernest Edward Tyzzer. Pp. 189-264+6 plates. 1.25 dollars. Vol. 69, No. 6 : Critical Examination of Physical Anthropometry on the Living. By C. B. Davenport, Morris Steggerda and William Drager. Pp. 265-284. 45 cents. (Boston, Mass.)

Sulphur, an Essential to Industry and Agriculture : a Treatise on the Properties and Applications of Sulphur. Pp. vi+45. (New York : Texas Gulf Sulphur Co.). Free.

Southern Rhodesia : Geological Survey. Short Report No. 29 : Geological Observations in the Nata Native Reserve, Bulalima-Mangwe District. By J. C. Ferguson. Pp. 8. (Salisbury.)

Records of the Survey of India. Vol. 24 : Riverain Surveys in the Punjab, 1901 to 1929. Pp. v+33+2 plates. (Dehra Dun.) 1.8 rupees ; 2s. 6d.

Journal of the Faculty of Science, Hokkaido Imperial University. Series 2, Physics, Vol. 1, No. 5 : Physical Investigations on Snow, Part 1 : Snow Crystals observed in 1933 at Sapporo and some Relations with Meteorological Conditions. By Ukitorô Nakaya and Tuneso Iizima. Pp. 149-162+4 plates. (Sapporo : Hokkaido Imperial University.)

Koninklijk Magnetisch en Meteorologisch Observatorium te Batavia. Verhandelingen No. 26 : Further Researches into the Possibility of Long-range Forecasting in Netherlands India. By Dr. H. P. Berlage, Jr. Pp. 31+6 plates. Verhandelingen No. 27 : Daily Forecast of Windforce on Java. By Prof. Dr. J. Boerema. Pp. 8+1 plate. (Batavia.)

CATALOGUES

Nephelo- and Absorptimeters for White and Monochromatic Light. (Ex 34.) Pp. 2. A.C. Standard Cell. (Normal 34.) Pp. 2. Moll Recording Microphotometers. (Review 34.) Pp. 4. Mill Thermopiles. (The 34.) Pp. 2. (Delft : P. J. Kipp en Zonen.)

The Applications of Marmite (Yeast Extract) in Medicine and Dietetics. Pp. 23. (London : The Marmite Food Extract Co., Ltd.)

B.D.H. Vitamin Products. Pp. 4. (London : The British Drug Houses, Ltd.)

The "Glamat" Lamp Protector. Pp. 8. (London : The Glamat Co.)