

## Societies and Academies

## CRACOW

Polish Academy of Sciences and Letters, December 10. W. PIECHULEK and J. SUSZKO: New stereochemical studies. Optical isomerism of the  $\alpha$ -phenylsulphonyl-phenylacetic acids. The results are in agreement with the hypothesis of two centres of asymmetry, one round the carbon and the other round the sulphur atom. K. DZIEWONSKI and MLE. J. SCHOEN: The reactions of diphenylthiourea with the hydroaromatic ketones. WL. SZAFER: The rose genus (*Rosa*), "Polish Flora" (vol. 5). ANDRÉ SRODON: Researches on the diluvial vestiges of plants belonging to the family Nymphaeaceae. MLE. M. GAWŁOWSKA: The Naiades in the Polish diluvium. Z. GRODZINSKI: Researches on the development of the vascular area in the chicken. MLE. S. BOJARCZYK: The form of the cells of the cerebral cortex in domestic and in wild animals. Gurewicz and Szatsaturjan have described pyramidal cells in the cortex of animals in the wild state, while in domestic animals round cells have been observed. The author shows that the form of the cell depends on the mode of fixing and time elapsing after removal from the skull. MAX ROSE: (1) The hypothalamus of the rabbit. (2) The parts of the thalamus in relation with the cortex in the rabbit. (3) The metathalamus and the epithalamus of the rabbit. J. STACH: The genus *Odontella* and its species.

## GENEVA

Society of Physics and Natural History, November 15. KURT MEYER: Contribution to the theory of narcosis. The author by his experiments gives support to the lipid theory of narcosis. E. BRNER, E. ROKAKIS and B. SUSZ: Researches on the oxidation of the nitrogen oxides in the presence of ozone. M. GYSIN: The basic igneous rocks of the Haute-Lufira (Belgian Congo.) In the Haute-Lufira basin (Katanga) numerous outcrops of uraltised diabases have been observed, containing a blue soda amphibole and a little dipyre. The blue amphibole forms borders round the uralite regions; the dipyre occurs as small grains mixed with the products of the saussuritisation of the plagioclases. The uralitisation, the formation of blue amphibole and the scapolitisation can be attributed to the action of perimagmatic or apomagmatic mineralised solutions on the diabases. D. ZIMMET: A practical sphygmograph for man and animals.

## MELBOURNE

Royal Society of Victoria, November 8. KATHLEEN M. CROOKS: (1) The cultural and cytological characteristics of a new species of *Mycogala*. While isolating several fungi from Jarrah (*Eucalyptus marginata*) timber a new species of *Mycogala*, *M. marginata*, was obtained. There are two types of asexual spores: (a) chlamydospores, spherical in shape and dark brown in colour with a thick wall when mature, and ranging from 6 to 18  $\mu$  in diameter; (b) oidea, formed by the transformation of aerial branches into cylindrical, hyaline elements which again break up into smaller segments one or more septate. Perithecia are abundantly developed. The perithecium initial is a coiled septate hypha—the ascogonium composed of segments at first multi-nucleate, but later becoming uni-nucleate. An antheridium is not developed. From the ascogonial

coil ascogenous hyphae arise. These branches are rather irregular and recurved at the tip. The ripe asci contain eight spherical hyaline ascospores, 2-4.5  $\mu$  in diameter. (2) A powdery mildew of *Boronia megastigma*:—In September and October 1933, *Boronia* growing at Healesville was found to be diseased. The disease was a 'powdery mildew' caused by a species of *Oidium*. The fungus attacked the petals while the stem and leaves appeared quite healthy. From the vegetative mycelium, aerial branches arose and at the apices of these hyphae, oidia were contracted. The oidia were ovoid in shape and had an average size of 28  $\mu \times 13 \mu$  and a range of 19-38  $\mu \times 11-18 \mu$ . In the family Rutaceae to which *Boronia* belongs, there are few members which have been attacked by *Oidium* species, but the characteristics of the form on *Boronia* do not agree with any of those previously described. Hence it is proposed to give the fungus in question the specific name *Oidium boroniae*. ILMA G. BALFE: Sclerotiforming fungi causing disease in *Matthiola*, *Primula* and *Delphinium* in Victoria. *Rhizoctonia solani*, Kuhn, is recorded as causing 'damping off' of *Matthiola incana* seedlings in Victoria. *Sclerotinia minor*, Jagg., is recorded as causing a collar rot of *Primula malacoides* in Victoria. *Corticium centrifugum* is recorded as causing a collar rot of delphiniums in Victoria. A description of the pathogen in culture is given, and comparisons are made between the strain isolated from *Delphinium*, Wolf's strain of *Corticium centrifugum* and Whetzel's strain of *Sclerotium Delphinii*, Welch. EILEEN E. FISHER: 'Sooty mould' of the tree fern, *Dicksonia*. A dense black film on the fronds of a *Dicksonia* plant growing in a fernery at Doncaster, 11 miles east-north-east of Melbourne, is due entirely to the fungus *Teichospora salicina* (Mont.), Gau.

## ROME

Royal National Academy of the Lincei: Communications received during the vacation of 1934. G. SCORZA: The structure of pseudo-null algebras. G. A. CROCCO: Static and kinetic stability of aeroplanes. G. ROVERETO: Post-Pliocene epigenesis of the maritime Alps and of the Ligurian Riviera. S. RIOS: The ultra-convergence of Dirichlet's series. GH. TH. GHEORGHIU: A special case of metaspherical functions. S. FINIKOFF: Couples of surfaces whose asymptotics correspond and whose homologous asymptotic tangents intersect. A. MASOTTI: The discontinuous plane motion induced in an indefinite rectilinear lamina. G. GARCIA: Einsteinian correction of the time in planetary movement. (2). N. MOISSEIEV: Curves defined by a system of differential equations of the second order. (1) A method of qualitative analysis applied to dynamic problems with two degrees of freedom. G. B. RIZZO: The influence of the terrestrial atmosphere on the effect of latitude in the intensity of cosmic radiation. The view is expressed that the influence of the bulging of the atmosphere in equatorial regions should be taken into account in considering the diminution observed in cosmic radiation at the equator. S. FRANCHETTI: Interatomic forces and oscillation frequencies of the atoms in lattices. SILVIA RESTAINO: Double sulphates of the rare-earth and alkali metals. Investigation of the system  $\text{Pr}_2(\text{SO}_4)_3 - \text{K}_2\text{SO}_4 - \text{H}_2\text{O}$  reveals the existence of six double sulphates. The following compounds are also formed:  $\text{Pr}_2(\text{SO}_4)_3 \cdot \text{Rb}_2\text{SO}_4 \cdot 8\text{H}_2\text{O}$ ;  $\text{Pr}_2(\text{SO}_4)_3 \cdot \text{Cs}_2\text{SO}_4 \cdot 8\text{H}_2\text{O}$ ;  $\text{Sm}_2(\text{SO}_4)_3 \cdot \text{Na}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$  and

$4\text{Sm}_2(\text{SO}_4)_3$ ,  $5\text{Na}_2\text{SO}_4$ ,  $8\text{H}_2\text{O}$ . P. PRINCIPI: Observations on the analogies existing between the tertiary deposits of Albania and those of central Italy. A. CAVINATO: Contribution to the knowledge of the petrography of Sardinia. A characteristic Kersantitic vein with prasinitic facies in Sarrabus. A. MIRRI: Diagnosis of *Brucella* in animals: *Brucellina Mirri*. A method is given for obtaining a brucelline preparation which serves as a sensitive means of diagnosing *Brucella* in animals, and has advantages over the agglutination test for this purpose. R. SAVELLI: Observations on some elaborates of the cells of the chlorenchyme. G. AMANTEA: The effects of slow and repeated asphyxia in an enclosed space. D. GIGANTE: Observations on the course of the reconstructive processes in the pigeon.

## VIENNA

Academy of Sciences, November 8. RUDOLF KANITSCHIEDER: Mechanics of the Föhn (south wind). K. W. F. KOHLRAUSCH and F. KÖPPL: The Raman effect. (38) The Raman spectrum of organic substances (isomeric paraffin derivatives). Repetition of previous measurements and examination of a number of new compounds give results which are considered in relation to free rotatability. These results, and also the intensity differences in the spectra of paraffins containing chlorine, bromine or iodine as substituents, are in agreement with the view that the rotation leads to two different, stable space-forms. The spectral transition,  $\text{CCl}_4 \rightarrow \text{CH}_3\text{CCl}_3 \rightarrow (\text{CH}_3)_2\text{CCl}_2 \rightarrow (\text{CH}_3)_3\text{CCl} \rightarrow (\text{CH}_3)_4\text{C}$  is also discussed. K. W. F. KOHLRAUSCH and A. PONGRATZ: The Raman spectrum of polysubstituted benzenes. The vibration spectra of the nucleus-substituted benzenes,  $\text{C}_6\text{H}_4\text{X}$ , where  $\text{X} = \text{NH}_2, \text{OH}, \text{F}, \text{CN}, \text{Br}, \text{or I}$  in the ortho-, meta-, or para-position, are described.

November 14. ERNST BEUTEL and ARTUR KUTZELNIGG: The action of liquid bromine on cellulose. Contrary to previous statements, bromine is able, under suitable conditions, to dissolve cellulose fibres completely, the time required varying from several weeks at the ordinary temperature to a few minutes at  $100^\circ\text{C}$ . JOVAN JURIŠIĆ: The identity of *Bryophyllum cochlearatum*, Lemaire, with *Bryophyllum proliferum*, Bowie, with biological remarks.

November 22. LEOPOLD PORTHEIM, H. STEIDL and F. KÖCK: Orienting investigations on the influence of ultra-short waves on blossoms. LEOPOLD PORTHEIM and O. RIED: Influence of ultra-short waves on salt solutions previously irradiated with ultraviolet light. B. NUSSBAUM and TH. SENEKOVIC: Callus formation in herbaceous plants. ERNST CHWALLA and JOHANNES JAUMANN: The magneto-elastic method for the direct measurement of forces in the iron in ferro-concrete structures. ELISE HOFMANN, WILHELM KÜHNELT and JULIUS PIA: Evergreen oaks in the alluvium of Lower Austria. EUGEN GUTH: The mutual action between rapid electrons and atomic nuclei. ERICH HAJEK: Potentiometric examination of hydroxide precipitation. ANTON SKRABAL and HELLMUT SCHREINER: Velocity of reduction of chloric and bromic acids. The velocity with which chlorates and bromates are reduced by chlorides, bromides and iodides in acid solution is proportional to the concentrations of the oxy-salt and halides and to the square of the acidity. With the bromate-bromide reaction, the velocity is proportional to the square of the concentration of the bromide, if this is high.

## Forthcoming Events

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

## Sunday, January 27

BRITISH MUSEUM (NATURAL HISTORY), at 3 and 4.30.—M. A. Phillips: "Gem Stones".\*

## Monday, January 28

BRITISH MUSEUM (NATURAL HISTORY), at 11.30.—F. C. Fraser: "Stranded Whales on the British Coast".\*

VICTORIA INSTITUTE, at 4.30.—Dr. K. B. Aikman: "Race Mixture with some Reference to Bible History".

UNIVERSITY OF LEEDS, at 5.15.—Prof. W. J. Tulloch: "The Virus Agents considered as a Problem of General Biology".\*

ROYAL GEOGRAPHICAL SOCIETY, at 5.30.—Miss E. J. Lindgren: "Winter and Summer Travel in the North Manchurian Woods" (Film).

ROYAL SOCIETY OF ARTS, at 8.—Dr. Harriette Chick: "Diet and Climate" (Cantor Lectures. Succeeding lecture on February 4).

UNIVERSITY OF GLASGOW, at 8.30.—Sir Robert Greig: "National Progress in Agriculture".\*

## Tuesday, January 29

ROYAL SOCIETY OF ARTS, at 4.30.—H. C. Sampson: "The Royal Botanic Gardens, Kew, and Empire Agriculture".

## Thursday, January 31

BEDFORD COLLEGE FOR WOMEN, at 5.15.—Dr. J. K. Fotheringham: "Ways of Measuring Time—Ancient Clocks".\*

## Friday, February 1

WESTFIELD COLLEGE, LONDON, at 5.15.—Sir Arthur Eddington: "Cosmic Clouds and Nebulae".\*

ROYAL INSTITUTION, at 9.—Prof. F. Simon: "The Approach to the Absolute Zero of Temperature".

## Official Publications Received

## GREAT BRITAIN AND IRELAND

County Borough of Southport: Meteorological Department. The Fernley Observatory, Southport. Report and Results of Observations for the Year 1933; with an Appendix. By Joseph Baxendell. Pp. 31. (Southport.)

Ministry of Agriculture and Fisheries. Collected Leaflets, No. 3: Diseases of Potatoes. Pp. iv+74+9 plates. (London: H.M. Stationery Office.) 1s. 6d. net.

Board of Education: Science Museum. Rubber Exhibition (November 1934–April 1935). A Brief Account of the History of Rubber from its Source to the Finished Product and a Descriptive Catalogue of the Exhibits. Compiled by the Rubber Growers' Association. Pp. 44+4 plates. (London: H.M. Stationery Office.) 6d. net.

## OTHER COUNTRIES

Commonwealth of Australia: Council for Scientific and Industrial Research. Bulletin No. 83: Natural Pastures: their Response to Superphosphate. By Dr. J. Griffiths Davies, A. E. Scott and K. M. Fraser. Pp. 76. Pamphlet No. 49: Some Important Poison Plants of North Australia. Compiled by the Poison Plants Committee. Pp. 44. (Melbourne: Government Printer.)

Smithsonian Institution: Freer Gallery of Art. Oriental Studies, No. 2: A Descriptive and Illustrated Catalogue of Miniature Paintings of the Jaina Kalpasūtra, as executed in the Early Western Indian Style. By Prof. W. Norman Brown. (Publication 3252). Pp. v+66+45 plates. (Washington, D.C.: Smithsonian Institution.)

Contributions from the Physical Laboratories of Harvard University for the Years 1932 and 1933. Vol. 22. Pp. iv+506. (Cambridge, Mass.: Harvard University.)

Department of Agriculture, Trinidad and Tobago. Vol. 1, Part 6: Flora of Trinidad and Tobago—Myrtales (Pars). By R. O. Williams. Pp. 333–410. (Trinidad: Government Printer.) 3s.

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