

Societies and Academies

Paris

Academy of Sciences, September 7 (*C.R.*, 203, 505-524).

EDOUARD CHATTON and FÉLIX VILLENEUVE: The sexuality and evolutive cycle of *Siedleckia* based on the study of *S. Caulleryi*, hologametogenous and blastogametogenous Sporozoa.

N. A. SLOSKINE: The rotation of a cavity filled with a viscous liquid.

PAUL MULLER: The Paris-Strasbourg gravimetric relation.

ANDRÉ BOUTILLIER: Study of the dilatometric anomalies due to external forces in copper aluminium alloys containing 7-16 per cent of aluminium.

HENRY GAULT and LOUIS ANDRÉ GERMANN: 2-Methylene-1-butanol-3-one.

RAYMOND FURON: The existence of a Ural axis determining the structure of the Iranian Plateau.

JACQUES RISLER: The antiseptic power, either immediate or after prolonged action, of essential oils. The bactericidal power of essential oils can be prolonged by the addition of substances named 'abio-taxines'. Thus the addition of benzoin to oil of thyme prolongs the antiseptic action from 28 days to four years.

ANDRÉ LWOFF and MME. MARGUERITE LWOFF: The nature of the factor V.

HENRI BERRIER: The influence of fasting in the tadpole of *Discoglossus pictus* on the proportion of substances acting as plant auxins.

September 14 (*C.R.*, 203, 525-548).

EDOUARD CHATTON and Mlle. SIMONE BRACHON: A protistan, parasite of the ciliate *Fabrea salina*: *Gregarella fabrearum* and its evolution.

ALEXANDRE GHICA: The development in series of orthogonal functions, of analytical functions of two complex variables.

MARCEL MENDES: The rotation of the heterogeneous ellipsoid studied by means of Lamé functions.

DOUCHAN AVSEC: The formation of convection vortices, in a gaseous layer, with thicknesses of the order of some centimetres.

J. VALENSI and J. SOBIESKI: Tubes with mercury vapour at high pressure for illuminating smoke in aerodynamical studies. Description of a tube which can replace advantageously a carbon arc lamp in certain classes of photography.

THÉODORE V. IONESCU: The properties of an electron which rolls without slip and the radius of which varies inversely as the velocity.

JULES FARINEAU: The *K* spectrum and conductivity electrons of solid and liquid aluminium.

HORIA HULUBEI: Measurements of the *L* spectrum of radium (88).

JEAN CHEYMOL: Verbenalol, aglucone and verbenalolide.

BORIS EPHRUSSI, C. W. CLANCY and G. W. BEADLE: The influence of the lymph on the colour of the vermilion eye in *Drosophila melanogaster*.

MAURICE MATHIS: The diagnosis of yellow fever by intracerebral inoculation of the blood of the patient into white mice. Inoculation into *Macacus rhesus* has hitherto been the only certain test for yellow fever, but these animals are becoming more difficult to obtain. It is now shown that the macacus can be replaced by white mice.

Brussels

Royal Academy (*Bull. Classe Sci.*, 22, No. 7; 1936).

P. STROOBANT: Observation of the eclipse of the sun on June 19, 1936, at the Astronomical Institute of the University of Brussels.

L. GODEAUX: Cyclic involutions of the third order belonging to an algebraic surface.

F. SWARTS: (1) Substitution of fluorine for other halogens with the aid of mercurous fluoride and the iodide (preparation of methyl fluoride). (2) Decomposition of cyclohexyl bromide in the presence of mercuric bromide and the formation of polymers of cyclohexene.

F. H. VAN DEN DUNGEN: *A propos* of a theorem in statics due to M. Giovanni Lampariello.

J. MARIANI: The principle of subjectivity and the theory of gravitation.

J. JAUMOTTE: Variation of the wind with altitude.

P. GILLIS: A class of partial differential equations.

P. BOURGEOIS and J. F. COX: The conditions of observation of the minor planet (1936 CA) = Adonis.

P. BURNIAT: Note on some canonical surfaces and on the surfaces of genus one.

M. LINSMAN: The singularities of the elementary curves in finite geometry (2).

B. ROSEN and F. BOUFFIOUX: Contributions to the study of the molecular spectra of the sulphur group.

E. MIGEOTTE and E. HOGE: Observation of the eclipse of the sun on June 19, 1936, made with the equatorial of the Cointe Observatory.

Moscow

Academy of Sciences (*C.R.*, 2, No. 7, 1936).

K. MARDŽANIŠVILI: Simultaneous dissolution of whole numbers into *m*-th and *n*-th potentials.

L. SRETENSKIJ: Determination of resistance to rolling of a vessel moving on the surface of water of finite depth.

G. ČELINCEV: Organic derivatives of potassium and their role in organic synthesis.

D. MIRLIS and D. DERIBAS: Synthesis of tanning substances from carbohydrates.

V. DERWIES: Genesis of the magnetite deposits of the Gora-Blagodot in the northern Urals.

B. ASTAUROV: New data on artificial parthenogenesis in the silkworm (*Bombyx mori* L.). Individual capacity for parthenogenesis is a hereditary character, probably due to a small number of genes having specific action.

B. ISAČENKO: Corrosion of concrete. There is some evidence of microbiological action on submerged concrete due to fungi (*Oospora Candida* and *Sporotrichum*).

A. A. RICHTER: An absorber of carbon dioxide for currents of atmospheric air.

V. KATUNSKIJ: Movement of growth-promoting substance and the growth of plants in an electric field. (Contribution to the study of electro-cultivation of plants.) A negative potential inhibits the movement of growth-promoting substance in the basipetal direction, while a positive potential stimulates that movement.

N. KONSTANTINOV: The vernalization of tree-cotton.

T. S. RASS: Types of fish-eggs and their bearing on the classification of fishes.

(C.R., 2, No. 8, 1936).

A. P. DIETZMANN and S. A. CUNIKHIN: Classes and centre of a finite group.

S. NIKOLSKIJ: Linear equations in metrical space.

P. A. WALTER: A current through a hydraulic grid with rounded lobes of small curvature.

A. P. ILYINA: Stratigraphy and fauna of the tertiary sediments of the western coast of Kamchatka.

W. A. ENGELHARDT and M. N. LJUBIMOVA: The double mechanism of adenosine triphosphate stabilization in cells. (1) Reticuloocytes.

W. A. ENGELHARDT and A. A. BAJEV: The double mechanism of adenosine triphosphate stabilization in cells. (2) Nucleated avian erythrocytes.

A. I. GREČUŠNIKOV: Toxins of rust (*Puccinia*). The active principle of the toxin consists of two simple compounds, namely, ammonia and urea.

I. A. STEFANOVSKIJ: Influence of environmental factors on immunity of wheat. Retardation of sowing date increases the incidence of brown rust.

V. V. POPOV: The potential ability of various cells for lens development.

I. A. RUBTZOV: A new Simuliid species (*Simulium oligocenicum*, sp.n.) from amber.

(C.R., 2, No. 9, 1936).

I. VINOGRADOV: New results concerning the distribution of fractional parts of a polynomial.

L. V. KANTORVIČ: The elements of the theory of functions of a real variable with values belonging to a semi-ordered linear space.

V. GAVRILENKO: Distribution of communicated velocities in turbulent uniform currents of liquid.

N. T. FEDOROV and V. I. FEDOROVA: The problem of the curve of the spectral sensitivity of the eye.

V. RASUMOVSKIJ: Polarity and tautomerism.

N. I. KOBOSEV, B. V. JERUFEJEV and V. M. SAVINA: Hydration of aluminium nitride by active hydrogen.

A. E. FERSMAN: Application of VEK's in geochemistry.

V. A. NOVIKOV: The influence of the intensity of illumination on the development of the cotton plant. Cotton possesses a very wide range of physiological plasticity as regards intensity of illumination.

A. MACHOTIN: Reduction phenomena in the morphology of the adult moth *Operophtera brumata* L. Loss of wings in the female leads to a greater development of the musculature of extremities. Reduction of digestive tract in the male is accompanied by the transformation of the stomach into an arostatic apparatus.

J. IŽIKOV: Some considerations on the types of development of Metazoa from the egg.

Vienna

Academy of Sciences, July 2.

MAX PESTEMER, TRUDE LANGER and FRIEDRICH MANCHEN: Influence of substituted radicals on the ultra-violet absorption of benzene chromophores, both simple and conjugated with double bonds.

K. W. F. KOHLRAUSCH: Studies of the Raman effect (58). Raman spectrum of organic substances (nitrogenous substances: (1), simple amines).

L. KAHOVEC and K. W. F. KOHLRAUSCH: Studies of the Raman effect (59). Raman spectrum of organic substances (nitrogenous substances: (2), amino- and oxyacetic acid and its esters).

OTTO REDLICH and WALTER STRICKS: Raman spectra and vibrations of di- and tetradeuterobenzene.

L. KÜCHLER and F. PATAT: Photochemical conversion of *o*-nitrobenzaldehyde to *o*-nitrobenzoic acid.

GABRIELE ROGENHOFER: Action of growth-promoting substances on bark formation in woody shoots.

L. PORTHEIM: Action of β -indolylacetic acid on plants (1).

KURT LOHWAG: (1) A useful method of macerating wood tissues. (2) Preservation of the colours of the ordinary wood reaction.

JOSEF KISSER and YOSHIO KONDO: Microchemical test of divalent and trivalent phenols by means of spot reactions.

JOSEF MATTAUCH: Measurements with a new type of mass-spectrograph.

ELISABETH RONA and ELISABETH NEUNINGER: (1) Artificial radioactivity of thorium. An actinium isotope of 42 hours half-period is formed on bombarding thorium with neutrons. (2) Artificial radioactivity of thulium. ^{170}Tm , formed by bombarding thulium with slow neutrons, has a half-period of $4 \pm \frac{1}{2}$ months.

STEFANIE ZILA: Development of a photographic method for the study of proton beams. Methods of sensitizing plates for the registration of protons are described.

ERNST SCHÄFLER: Effect of γ -rays on desensitized photographic plates.

KASIMIR GRAFF: Observation of the total solar eclipse of June 19, 1936.

ROBERT WILLHEIM: The Pasteur-Meyerhof reaction in cancer glycolysis.

Forthcoming Events

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

Monday, October 12

UNIVERSITY COLLEGE, LONDON, W.C.1, at 5.0.—Dr. R. J. Lythgoe: "The Physiology of Vision" (succeeding lectures on October 19, 26, November 2, 9).*

Tuesday, October 13

SOCIETY FOR THE STUDY OF INEBRIETY AND DRUG ADDICTION (at the Friends' House, Euston Road) at 4.—Prof. D. K. Henderson: "Alcoholism and Psychiatry" (Norman Kerr Lecture).

UNIVERSITY COLLEGE, LONDON, W.C.1, at 5.—Dr. C. Reid: "The Endocrine Organs in relation to Metabolism" (succeeding lectures on October 20, 27, November 3).*

ILLUMINATING ENGINEERING SOCIETY (at the Lighting Service Bureau, 2 Savoy Hill, W.C.2), at 5.30.—A. Cunningham: Presidential Address.

Thursday, October 15

INSTITUTE OF FUEL (at the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, S.W.1).

At 2.30.—Sir Philip Dawson: Presidential Address.

At 3.30.—Prof. Franz Fischer: "Production of Synthetic Motor Spirit" (Melchett Lecture).

KING'S COLLEGE, LONDON, W.C.1, at 5.30.—Dr. S. J. Davies: "Injection and Combustion in Oil Engines" (succeeding lectures on October 15, 22, 29, November 5, 12, 19).*

BRITISH INSTITUTE OF RADIOLOGY, at 8.—Prof. J. A. Crowther: "Physics and Radiology" (Presidential Address).

NATIONAL SMOKE ABATEMENT SOCIETY, October 14–17. Annual Conference to be held in the Science Museum, South Kensington, London, S.W.7.

SOCIETY OF CHEMICAL INDUSTRY (at University College, London, W.C.1), October 15–16. Conference on Automatic Control in Industry.