

Anniversary Meeting of the Statistical Society

At the anniversary meeting of the Statistical Society held on March 15, 1937, the third annual report of the Council was read. In the report, suggestions were put forth for furthering the object of the Society, which was instituted "for the purpose of procuring, arranging and publishing facts calculated to illustrate the conditions and prospects of society". Reference was also made to the advancement of statistical studies. A Statistical Society had been established at Bristol, and the Statistical Society of Glasgow had commenced to publish its proceedings. In foreign countries the collections of statistics had advanced rapidly. The French Government, following the example of that in Great Britain, had published a volume of statistical tables; the Belgian Government had published a similar volume and a statistical journal had been founded in Sicily. The total membership of the Statistical Society at this time was 392.

Societies and Academies

Dublin

Royal Dublin Society, January 25.

PAUL A. MURPHY: A ten-year experiment on the spread of leaf-roll in the field. The extent of spread was determined in relation to weather conditions in a uniform experiment. Most infection took place in June. Wet Junes were always marked by least spread, due to direct repression of aphids. The reverse did not always hold, the effect of dry Junes being more complex, affecting differently aphids, parasites and plants. Most spread generally took place when the rainfall of the month was nearly normal.

K. C. DIXON: Some aspects of carbohydrate metabolism.

Paris

Academy of Sciences, February 8 (*C.R.*, 204, 385-456)

ALEXANDRE GUILLIERMOND, FERNAND OBATON and ROGER GAUTHERET: Presentation of a film on the mitochondria in plant cells. This film, which is believed to be first taken of plant cells, proves definitely a certain number of essential properties of mitochondria concerning which many cytologists have held different views.

ANTONIN GOSSET and IVAN BERTRAND: The treatment in man of peripheral nerve sections by medullary heteroplastic grafting. Details of three successful applications of the method.

MARC KRASNER and M^{lle}. BRITT RANULAC: A property of polynomials of the division of the circle.

JACQUES HADAMARD: Remarks on the preceding communication. A. Lienard and Khintchine have given independent solutions of the same problem.

SZOLEM MANDELBRÖJT: The principle of regularization of functions.

GEORGES VALIRON: The curves of constant modulus of integral functions.

CHI-TAI CHUANG: Some theorems of the directions of Julia and of Borel of meromorphic functions.

PIERRE DIVE: A heterogeneous fluid mass in rotation with a given kinetic moment.

L. CAGNIARD: The propagation of movement in viscous media.

RENÉ SWYNGEDAUF: A new theoretical expression concerning a pulley with a thick belt.

DAVID BELORIZKY: Resolution of the nebular lines in the spectrum of Nova Herculis 1934.

THÉODORE KAHAN: The theory of the deuteron: proton-neutron interaction of exponential tendency.

ERNEST BAUMGARDT: The absorption of ultrasound waves by benzene.

RENÉ LUCAS: New properties of the thermal elastic waves of liquids.

DOUCHAN AVSEC and MICHEL LUNTZ: Electroconvective vortices in a liquid sheet.

M^{lle}. MARGUERITE QUINTIN: The potential of copper in solutions of copper benzenesulphonate.

LÉON and EUGÈNE BLOCH: Structure of the spectra Sb VI and Te VII.

LÉON GRILLET: The enlargement of the green line (5461 Å. Hg) in mercury vapour arcs under high pressure. The green mercury line has been taken as the most useful basis for many measurements. The radiation of two mercury lamps has been studied with a prism spectrograph and with a grating. It is shown that the definition of the wave-length of this line requires special precautions.

M^{lle}. HOANG THI NGA: The colouring matters of the anthracene group and their photo-sensible capacity.

RENÉ AUDUBERT and HENRI MURAOUR: The emission of ultra-violet radiation in the course of the slow decomposition of nitrides (hydrozoates). The slow decomposition of nitrides when heated is accompanied by an emission of ultra-violet radiation. It is relatively intense with the nitrides of sodium, potassium, lead and silver, but very slight with the calcium and barium salts.

PIERRE BONNEMAN: Contribution to the study of the condensed phosphoric acids.

VICTOR AUGER and M^{lle}. NINA IVANOFF: The study of some phosphates of the type $M_{II}(NH_4)PO_4$.

HENRI MOUREU and GEORGES WÉTROFF: The phospham of Rose. It is concluded that phospham is not produced in the reaction between ammonia and phosphorus trichloride.

LOUIS ROYER: The relations which exist between the gneiss, granitic and rhyolitic rocks of Djebel Arous to the north of Ménerville (Algeria).

ANDRÉ RIVIÈRE: The rational interpretation of the sifting 'spectra' of sandy sediments and the geological signification of the diagrams.

JACQUES BARDET, ARAKEL TCHAKIRIAN and M^{lle}. RAYMONDE LAGRANGE: The determination of lithium in sea-water. Description of the methods employed for concentrating the lithium from 200 litres of sea-water: the purity of the lithium chloride separated was verified spectroscopically. The quantity found was 0.17 mgm. of lithium per litre.

PAUL DE GRAEVE: The evolution of puric nitrogen in the course of germination.

ROBERT BRUNET and ANTOINE JULLIEN: The principal elements of myocardiac architecture in the Lamellibranchs.

RAOUL LECOQ and ROGER DUFFAU: The influence of acute lack of food balance of glucidic origin on the composition of the muscle of the pigeon.

P. G. CHARPENTIER, MAURICE DOLADILHE and CHARLES MOREL: The antibody property of the viscous protein of hæmolytic sera.

W. KOPACZEWSKI: Gel formation of the blood constituents.

Brussels

Royal Academy (*Bull. Classe Sci.*, 22, No. 10; 1936).

L. GODEAUX: Construction of an algebraic surface of divisor three.

T. DE DONDER and Y. DUPONT: New theory of the dynamics of continuous systems (2).

J. E. VERSCHAFFELT: The application of thermomechanics to electrochemistry.

E. DE WILDEMAN: Variations of generic characters which are specific, or belong to varieties, in plants, and some of their consequences.

P. FOURMARIER: Preliminary observations on slaty cleavage between Boscastle and Newquay, Cornwall.

T. H. J. LEPAGE: Geodesic fields of the calculus of variations (2).

D. S. MITRINOVITCH: Asymptotic lines of a class of surfaces and linear differential equations of the second order belonging thereto.

L. PASQUALINI: Conditions of convexity of a plane curve or of a surface.

M. LINSMAN: Remark on the singular points of real surfaces.

Mlle. G. SCHOULS: Application of affinity and quantum statistics to catalysis.

Z. M. BACQ: Poisons of the nemertean.

W. ROBYNS: Phenomena of pleiometry and synanthly in *Salpiglossis sinuata* Ruiz and Pav.

J. DE LA VALLÉE POUSSIN: Stratigraphy of the old formations in the region of the Great African Lakes.

J. THOREAU, R. BRECKPOT and J. F. VAES: The monazite of Shinkolobwe (Katanga).

(*Bull. Classe Sci.*, 22, No. 11; 1936).

P. BRUYLANTS and J. JENNEN: Maleic and citraconic nitriles.

R. GODEAU: (1) A class of surfaces the asymptotic lines of which have a given differential equation. (2) Remark on the paper "Asymptotic Lines of a Class of Surfaces" by Mitrinovitch.

Mlle. G. SCHOULS: Deduction and generalization of Arrhenius's formula with the aid of affinity and quantum mechanics.

E. RUPPOL: Ultra-violet absorption spectrum of maleic nitrile.

J. JENNEN: Maleic and fumaric nitriles. Preparative details, chemical and physical properties.

M. FLORKIN: True plasmatic glycaemia of a selachian (*Scyllium canicula* L.).

L. LISON: Vital coloration of the nucleoles in the Malpighian tube in *Forficula auricularia* Linn.

Geneva

Society of Physics and Natural History, December 17.

F. CHODAT and R. LEVY: Edaphism of moraine soils.

E. GUYENOT and K. PONSE: The action of the urine of the ovariectomized woman on immature and adult female guinea pigs.

E. GUYENOT: The action of the urine of the ovariectomized woman on hypophysectomized female guinea pigs.

Moscow

Academy of Sciences (*C.R.*, vol. IV, No. 7; 1936).

P. ALEXANDROFF: Affine transformations of enumerably infinite multiplicity.

N. GÜNTHER: An integral analogous to the integral of Fourier.

P. P. LAZAREFF, Z. V. BOULANOVA and M. R. SEMENOVYCH: Influence of the latitude of the observation point on the adaptation in peripheral vision at different ages.

P. P. LAZAREFF and T. N. ČIZEVSKAJA: Change in the adaptation in peripheral vision with altitude above sea-level.

A. V. LUGOVOJ: Effect of short radio waves upon the life activities of cockchafer larvae.

S. A. NEUFACH: Fate of glutathione introduced into the blood *in vitro*. Reduced glutathione can scarcely be detected in blood after 30 minutes.

V. KARASIK and M. LICHÁČEV: (1) Comparative biological activity of aromatic and heterocyclic arsonium bases. (2) The influence of the anion of dimethylphenazarsonium hydroxide salts on their biological activity.

A. P. VERNER and A. A. KOVALEV: The problem of the nitrogen-fixing power of *Bacterium radicum*. The presence of bios is necessary for the reproduction of *B. radicum* and for the accumulation of nitrogen by it.

N. A. ILJIN: Homologous series in the phenogenesis of pigmentation.

B. S. ILJIN: A new goby from the Caspian Sea, *Gobius nonultimus*, sp.n. (Pisces, Gobiidae).

A. A. STUDITSKAJA: Formation of osteoclasts in cultures of skeletogenous tissue.

L. S. BERG: *Teleopterina*, n.g., a highly organized Acanthopterygian from the Carboniferous of North America.

Washington, D.C.

National Academy of Sciences (*Proc.*, 22, 673-713, December 15).

G. S. AVERY, JUN., P. R. BURKHOLDER and HARRIET B. CREIGHTON: Plant hormones and mineral nutrition. Experiments with shoot tips of sunflower and tobacco plants grown in sand culture suggest that growth hormone production is unaffected by relative deficiencies of the common elements, or by variation of osmotic pressure of nutrient solution, but is most abundant in plants provided with a high concentration of nitrogen and scarcely detectable in absence of this element.

W. E. CASTLE: A simplified explanation of Bellamy's experiments concerning sex determination in tropical fishes.

M. J. BUERGER: (1) The kinetic basis of crystal polymorphism. For a given temperature, there is a preferred vibration mode for the aggregate (or cluster) forming the unit of the crystal. This preferred mode requires a certain dynamic symmetry, and stable crystals are formed by the building up of a structure providing this symmetry. (2) The general role of composition in polymorphism. A theoretical discussion of the temperature-composition diagram with particular reference to solid solution.

E. R. DUNN: Notes on North American Leptodeira (Colubrine snakes of moderate to small dimensions).

ACHILLE BASSI: New invariants of a manifold.

G. A. MILLER: (1) Enumeration of the Abelian groups whose orders do not exceed a given number. (2) Groups whose prime powers generate a cyclic subgroup.

JOHN VON NEUMANN: Regular rings.