

University Events

CAMBRIDGE.—Dr. J. A. Todd, of Trinity College, has been appointed University lecturer in mathematics, Dr. D. Stockdale, of King's College, and Dr. F. B. Kipping, of Trinity College, University lecturers in chemistry and Dr. P. Tate, of Christ's College, University lecturer in parasitology.

It is proposed that Prof. O. T. Jones and Prof. C. E. Tilley be appointed to represent the University at the International Geological Congress to be held in Moscow on July 21–29.

The electors to the Isaac Newton studentships give notice that an election to a studentship will be held early in the Michaelmas Term 1937. These studentships are for the furtherance of advanced study and research in astronomy (especially gravitational astronomy, but also including the other branches of astronomy and astronomical physics) and physical optics. The studentship will be tenable for three years from October 1937. The emolument of the student is £250 a year. Candidates are invited to send in their applications to the Registry between October 8 and October 14.

The Michael Perkins Prize of £25 is awarded biennially for the best essay, on a subject to be chosen by the candidate, involving original investigation or interpretation of the natural history of animals. Candidates should send their essays to the Professor of Zoology by September 30.

LONDON.—Mr. John Kirk has been appointed, as from October 1, to the S. A. Courtauld chair of anatomy tenable at the Middlesex Hospital Medical School. Since 1930, he has been senior demonstrator of anatomy at University College.

The title of professor of morbid anatomy in the University has been conferred on Dr. W. D. Newcomb, in respect of the post held by him at St. Mary's Hospital Medical School.

The following doctorates have been conferred: D.Sc. in mathematics on B. R. Seth (University College); D.Sc. in zoology on C. H. N. Jackson (University College); D.Sc. (Engineering) on H. J. Nichols (Northampton Polytechnic Institute).

The Petrie Medal for distinguished work in archaeology has been awarded for 1937 to Prof. J. D. Beazley, professor of classical archaeology in the University of Oxford.

The Dunn Exhibitions in Anatomy and Physiology for 1937 have been awarded to J. W. Paulley (of Middlesex Hospital Medical School) and Philip Harvey (of Guy's Hospital Medical School) respectively.

OXFORD.—Dr. A. G. Gibson (Christ Church) has been appointed Nuffield reader in morbid anatomy while holding the office of honorary pathologist at the Radcliffe Infirmary.

Prof. H. J. Paton (Queen's College) of the University of Glasgow, has been appointed White's professor of moral philosophy as from October 1.

M. L. Jacks (Wadham College), headmaster of Mill Hill School, has been appointed to succeed Mr. George Smith as director of the Department of Education as from January 1, 1938.

Societies and Academies

Paris

Academy of Sciences, April 19 (*C.R.*, 204, 1145–1224).

CHARLES ACHARD and MAURICE PIETRE: The plasma of the smooth muscular fibres studied by means of the acetone method at low temperatures.

ANDRÉ MERCIER: The equation $\nabla \rightarrow C = \alpha C$.

PAUL DELENS: The figures of Lemoine and of Brocard in the tetrahedron.

LOUIS PASQUALINI: The conditions of convexity of a variety V_{p-1} of $p-1$ dimensions plunged in Euclidian space R_p of p dimensions.

THÉODORE ANGHELOTZA: A property which characterizes conformal transformation.

PAUL LÉVY: Integral series representing exponentials of polynomials.

CARLOS BIGGERI: A theorem on the singularities of analytical functions.

LÉON BESCHKINE: A particular solution relating to rings (plane problems).

RÉMY BOURGEAT, DENIS CAHUZAC and JACQUES DEULLIN: The phenomena presented by the calibration of velocity meters in calm water.

PIERRE CHEVENARD and XAVIER WACHE: The intercrystalline corrosion of chrome nickel steels, cold hardened after tempering.

LÉON AUGER: The frequencies of the sounds given by a cylindrical pipe with beating reed.

MME. IRÈNE MIHUL and CONSTANTIN MIHUL: The ionization of the upper part of the atmosphere. The varying heights and discontinuities in the reflecting layer are explained as being due to the variation of the electronic density gradient of the ionosphere with height with the position of the sun.

FRANTZ PERRIER: The ionization of air by electrified dielectrics. G. Reboul explains the inversions of current produced by a dielectric discharging in an ionization chamber as the effect of the ionization of the air surrounding the dielectric, but W. Eichenberger considers that the air does not take part in this phenomenon. The author's experiments agree with Reboul's conclusions.

O. DONY-HÉNAULT and A. DE JAER: Electrolysis with a mercury cathode. Study of the effect of stirring the mercury cathode in the preparation of sodium and potassium amalgams by the electrolysis of solutions of sodium and potassium chlorides. A new form of anode was devised (tantalum wrapped up with platinum gauze). This was found preferable to graphite for the high current densities employed.

ALBERT GRUMBACH and FÉLIX TABOURY: A new phenomenon observed in batteries with one polished electrode. The role of the Beilby layer.

HANNES ALFVÉN: The origin of the cosmic radiation. It is known that the earth and the sun are surrounded with magnetic fields, and if this is the case with the stars the rotation could set up very high electromotive forces. Charged particles accelerated by such voltages could possess the same energy as the cosmic rays. Some of the consequences of this theory are discussed (see also *NATURE*, 138, 761 (1936); 139, 245 (1937)).

VITOMIR H. PAVLOVIĆ: Tesla currents applied to stroboscopy.

ERNST OLSSON: The induced predissociation of the tellurium molecule submitted to intense magnetic fields. Study of the changes produced in the absorption spectrum of tellurium vapour by the Bellevue magnet, field 45,000 gauss.

PIERRE BARCHEWITZ: The (OH) and (CH=) bands of phenol and its derivatives between 6000 Å. and 9500 Å.

JEAN LECOMTE: The infra-red absorption spectra of some mono- and disubstituted derivatives of benzene. The symmetry of benzene.

PIERRE JOLIBOIS and ROBERT BOSSUET: The quantitative analysis of metallic solutions by means of the spectrograph. The spark spectrum is obtained with direct current (5000 volt circuit), and an apparatus is figured securing a constantly renewed surface of cooled solution.

JEAN ROULLEAU: The influence of the luminous intensity on the sensibility of photo-electric meters.

RENÉ AUDUBERT: The activation energy of the photogenic reactions accompanying the thermolysis of hydrazoates. Measurements of the ultra-violet radiation emitted during the thermal decomposition of NaN_3 , AgN_3 and $\text{Pb(N}_3)_2$.

JULES GUÉRON: The wall effect in the evolution of aqueous solutions of ferric chloride.

FRANÇOIS OLMER: The study by photographic recording of the reduction of oxides of iron in the presence of their natural impurities.

OSIAS BINDER: The green basic copper carbonates.

ROGER PAJEAU: The bromination of some aromatic compounds in the presence of beryllium and ethyl ether.

ANDRÉ MEYER and PAUL HEIMANN: A new method of synthesis of derivatives of 2,4-dihydroxyquinoline (4-hydroxycarbostyryl) starting from malonic esters and aromatic amines.

ANTONIO DE MEDEIROS GOUVÊA and GEORGES-ZBYSZEWSKI: New observations on the Quaternary of the coast of southern Portugal between Cap Sagres and the mouth of the River Odesseixe.

CONSTANTIN T. POPESCO: The prolongation of the duration of life in the aubergine grafted on the sweet almond.

PIERRE CHOUARD and RENÉ CASTAU: The tubercization of stems and hypocotyls by longitudinal diffusion of hetero-auxine.

BASILE LUYET: The mechanism of cell death by high pressures. The intensity and duration of the lethal pressures for yeast. The yeast cells do not all die at a given pressure: the lethal pressure commences at about 4,000 atmospheres, under which some cells die in some minutes; at 7,000 atmospheres all are killed in some seconds.

JEAN LOUIS PERROT: The impregnation chamber of *Helix pomatia* and the presence of spermatozooids at this level.

LÉON KÉPINOV: The synergy of adrenaline and of the pituitary hormone. The role of the pituitary hormone in the mechanism of the glycogenolytic action of adrenaline.

R. JONNARD: The magnetic susceptibility of normal and pathological blood serum.

MARCEL LÉVY BRUHL, GEORGES UNGAR and Mlle. ALBERTE LEVILLAIN: The production by means of bacteria, starting with urea, of a substance identifiable physiologically with histamine.

Moscow

Academy of Sciences, (C.R., 14, No. 3, 1937).

M. KRAVČUK: Some approximations in the generalized problem of moments.

J. GERONIMUS: The problem of coefficients for limited functions.

B. A. WENKOV: The automorphic group of an indefinite quadratic form.

P. A. ČERENKOV: (1) Visible luminosity of pure fluids under the influence of hard β -rays. The luminosity is caused mainly by the electrons with β greater than 0.8. (2) Angular distribution of the intensity of the luminosity caused in pure fluids by γ -rays.

I. FRANK and IG. TAMM: Coherent visible radiation due to fast electrons passing through matter. A theory is put forward and supported by calculations that an electron moving in a medium radiates light even if it is moving uniformly, provided that its velocity is greater than the velocity of light in the same medium.

F. M. ŠEMIÁKIN: Colour reactions of rare earths with alkaloids (3). New colour reactions with morphine and brucine are proposed. The brucine reaction may be used for colorimetric determination of cerium.

A. A. GRÜNBERG and D. I. RIABČIKOV: Application of oxidometric titration for the determination of the constitution of complex compounds.

K. K. MATVEIEV: Occurrence of nickel in the biotite shales of the Ural emerald mines and of other emerald deposits.

A. LEBEDEV: Lead-bearing tourmaline from the Maly Khingan.

P. A. KOSMINSKIJ and N. P. ERŠOVA: A new eighth linkage group in *Bombyx mori* L.

P. A. KOSMINSKIJ and N. A. MORDOVKINA: Inheritance of yellow colour in cocoons of *Bombyx mori* L.

Z. F. FEDOROVA: An investigation of inversions in the third chromosome of *Drosophila melanogaster*, and the production of new inversions which completely suppress crossing over along its whole length.

S. O. GREBINSKIJ: Accumulation of citric acid in makhorka (*Nicotiana rustica* L.).

E. D. BOUSLOVA and V. N. LUBIMENKO: Influence of luminous induction on the development of *Perilla ocymoides* (1).

V. N. LUBIMENKO and E. D. BOUSLOVA: Contribution to the theory of photo-periodicity (2).

Vienna

Academy of Sciences, February 25.

E. ABEL and J. PROISL: Mechanism of the lead chamber reaction. The reaction between nitric and sulphuric acids under various conditions.

KARL VANEK: Radius of curvature of plane curves. K. W. F. KOHLRAUSCH, A. PONGRATZ and R. SEKA: Studies of the Raman effect (65). Various organic substances.

K. W. F. KOHLRAUSCH and A. PONGRATZ: Studies of the Raman effect (66). Nitrogenous substances.

KARL KRAMMER: Reflection of α -rays of radium C' by heavy nuclei.

OTTO PESTA: Ponds in the East Alps.

RUDOLF ZIMARA: Observations on mammals from New Guinea.

OTTO KOLLER: Report of a second zoological expedition to Asia Minor in 1936.

March 4.

M. PESTEMER and E. MAYER-PITSCH: Influence of substituents on the ultra-violet absorption of two conjugated benzene chromophores.

O. FRUHWIRTH: Study of the association of water by measurements of dielectric polarization.

M. PESTEMER and O. FRUHWIRTH: Ultra-violet absorption and orientation polarization of the binary systems acetone-benzene and nitromethane-carbon tetrachloride.