

study of zoology. He took an active part in forming an entomological society and the Zoological Society. Of the latter he was at first vice-secretary, and from 1831 until his death the secretary. He contributed many papers to the *Transactions of the Zoological Society* and published "The Tower Menagerie" (1829) and the "Gardens and Menagerie of the Zoological Society" (1831). He also prepared an edition of White's "Natural History of Selborne", with numerous notes, which was published after his death. "From the affability of his manners and general scientific and literary attainments," said one writer, "he was highly respected by a numerous circle of friends."

The British Association at Bristol

THE sixth meeting of the British Association took place at Bristol during the week August 22-27, 1936. The proceedings were fully dealt with in the *Athenæum*, which published several double numbers. On Thursday, August 18, the correspondent of the journal wrote: "There is every fair prospect that the meeting will rival that in Dublin, both in the number and the high scientific character of its members. . . . Upwards of 600 new members were enrolled up to Wednesday evening. . . . As far as can be at present foreseen, Geology and Mechanical Science are likely to be the most important Sections. Reports are current that the Rev. Mr. McGawley's discovery of the possibility of deriving a motive power from electromagnetism . . . has received a new and important extension which may make sad havoc with steam and railway speculation—but on this subject your readers will soon be able to judge for themselves". Writing again on August 20, the correspondent said that the General Committee had received a letter from the Marquis of Landsdowne expressing his regret that he would not be able to take the chair owing to the illness of his son, and the committee had therefore elected the Marquis of Northampton as vice-president. "It was gratifying," he added, "to observe that all traces of the temporary estrangement of Sir David Brewster from his colleagues on the Council had disappeared".

Societies and Academies

Dublin

Royal Irish Academy, June 22.

C. F. HUMPHRIES and W. E. FROST: The Chironomid fauna of the mosses of the River Liffey. Quantitative samples of mosses were taken from the River Liffey (Ireland) from two contrasting stations; one where the water was acid and one where it was alkaline. The species of Chironomid larvæ found in the mosses were identified; the Orthocladiariæ constitute more than ninety per cent of the fauna at both places. The larval Chironomidæ are equally abundant in the acid and alkaline waters, and show only minor qualitative differences. Some notes on the seasonal distribution are given. Four new types are described and figured.

ARTHUR HOLMES: New analyses of Tertiary igneous rocks (Antrim and Staffa). Pending the publication of certain investigations by Dr. F. Allison and the author, it was thought desirable to make available four new analyses of rocks, made in the course of that work. Three of these are from Co. Antrim, namely, rhyolite, Tardree Mountain; olivine-

dolerite, Portrush Sill; and basalt, Giant's Causeway. The fourth is the olivine-basalt of Fingal's Cave, Staffa.

JOSEPH ALGAR: The synthesis of diflavonols. Diflavonols may be synthesized by treating dihydroxy-dichalkones, such as dibenzylidene-diacetoresorcinol, with aqueous alcoholic sodium hydroxide and hydrogen peroxide. In this manner the following have been prepared, with satisfactory yields:—diflavonol; 4'.4"-dimethoxy-diflavonol; 3'.4'-3".4".tetramethoxy-diflavonol; 3'.4'-3".4"-dimethylenedioxy-diflavonol. Since dihydroxy-dichalkones are readily obtained from diacetoresorcinol and the suitable aldehyde, the reaction affords a convenient general method for the synthesis of diflavonols.

Brussels

Royal Academy (*Bull. Classe Sci.*, No. 4, 1936).

G. CESÀRO and J. MÉLON: On cryolite. Refractive index, birefringence perpendicular to various faces and crystalline forms.

J. E. VERSCHAFFELT: The thermo-mechanics of the surface layer. (1) Generalities. (2) The adsorption formula. (3) Mixed phases.

E. DE WILDEMAN and E. VERLEYEN: The budding of the epiphyllous tissues in some monocotyledons.

M. DEHALU: Bernstein's theory relating to the hereditary probabilities of blood groups.

L. GODEAUX: Some involutions belonging to the generalized Humbert surface.

P. GÉRARD: The homology between the sense organs of the lateral system and those of the vestibular system in the teleosts.

P. L. CATTALA: Photo-electric recording of the time of passage of stars. Preliminary theoretical study: variation of the luminous flux through a reticule at the passage of a stellar image.

R. CORDIER: The cutaneous sense organs of *Protopterus*.

G. VAN LERBERGHE and P. GLANSBORFF: Contribution to the thermodynamics of open systems.

E. ANGLADE: Flecnodal surfaces of a ruled surface.

L. DERWIDUÉ: Linear congruence of conics.

B. GAMBIER: Study of the cubic surfaces which can possess Eckardt points.

J. L. DESTOUCHES: Role of the notion of stability in physics.

L. MARTIN: Problems of the limits relative to certain systems of partial differential equations.

G. SOKOLOFF: Singular trajectories in the problem of three bodies which attract each other proportionally to their masses and to a function of the distance (2).

M. LECAT: Remark on the note entitled: "The logical foundations of the theory of probabilities", by S. Avsitudsky.

JEANNE HENRY-CORNET: Study of the absorption spectrum of bilirubin.

Cracow

Polish Academy of Science and Letters, May 4.

G. GIRAUD: A property of certain generalized logarithmic potentials.

J. WEYSSENHOFF and A. BIELECKI: Quaternions, rotations in space of four dimensions, and the formula of Cayley.

M. MIESOWICZ: The influence of the magnetic field on the viscosity of liquids in the nematic phase. A magnetic field produces a marked increase in the viscosity of *p*-azoxyanisol and *p*-azoxyphenetol in the nematic phase.

B. KAMIENSKI and J. INGLOT: (1) The dielectric potential and surface tension of cholic acid solutions with different concentrations of hydrogen ions. (2) The influence of the hydrogen ion concentration on the dielectric potential of a solution of potassium chloride.

K. SMOLENSKI and W. KOZLOWSKI: The rotatory power of alkaline solutions of saccharose.

MLLE. R. LUDWICZAK and J. SUSZKO: Alloquinidine, a carbinol base derived from quinidine.

J. SUSZKO and M. WDOVICI: Naphthalylmalonic ether and peri-naphthindandiono-carboxylic acid.

K. KONIOR: The profile of the Dziedzice Pleistocene.

M. KSIAZKIEWICZ: The structure of the Lanckorona zone.

M. MEREMINSKI: The development of the embryo-sac in *Begonia incana*. Contribution to the embryology of the genus *Begonia*.

S. MIKULSKI: The influence of alternating temperatures on the development of the eggs of batrachians: *Bufo americanus* and *Ambystoma tigrinum*.

J. ZACWILICHOWSKI: Researches on the innervation and the sensorial organs of the wings of *Isopteryx tripunctata*.

T. GARBOWSKI: The repetition of instinctive acts generally done once only. Remarks on some experiments on *Dicranura* and *Cerura* approaching the chrysalis stage.

June 8.

G. GIRAUD: A generalization of logarithmic potentials of a double layer.

A. JAGIELSKI: The dielectric polarization of the liquid chloronitrobenzenes.

S. DOBINSKI and J. WESOLOWSKI: The density of liquid selenium. The density of selenium between 228° C. and 345° C. is a linear function of the temperature, and shows no sudden variations corresponding to those found by Pélabon in the electrical conductivity of this substance.

A. ZIEMECKI and K. NARKIEWICZ-JODKO: The continuity of the variation of the cosmic radiation in the upper layers of the troposphere. The results of G. A. Suchstorff were not confirmed, and the authors regard it as unlikely that radioactive bodies are present in the higher regions of the atmosphere.

M. KAMIENSKI: Study of the motion of the Wolf I comet.

F. KEPINSKI: The movement of the periodic comet Kopff (1906 e).

K. SMOLENSKI and S. POREJKO: The pH of solutions of lime in water and in solutions of saccharose.

L. MARCHLEWSKI and MLLE. R. GRÜNBAUM: Absorption of ultra-violet radiation by gossypol.

W. GOSLAWSKI: The influence of the hydrogen ion concentration on the dielectric potential and surface tension of solutions of cinchonine and cinchonidine.

J. SZAFIARSKI: Remarks on the thermal properties, transparency and colour of the lakes of the south-west part of the High-Tatra massif.

MLLE. J. DYAKOWSKA: The interglacial period at Ponimunie near Grodno.

T. LITYNSKI: The estimation of nucleic phosphorus in the seeds of the bean, *Vicia Faba minor*.

MME. W. ZABŁOCKA: The mycorrhiza in the genus *Viola*.

K. ROUPPERT: The leaf of *Philodendron squamiferum*.

J. MAROLSKI and St. SMRECYNSKI: The Coleoptera of the Pleistocene of Leki Dolne, near Pilzno.

F. ROGOZINSKI and ZB. GŁOWCZYNSKI: The behaviour of some liposoluble colouring matters in the animal organism.

Moscow

Academy of Sciences (C.R., 1, No. 8, 1936.)

A. MARKOV: Some theorems on the Abelian entities.

A. DANILEVSKI and M. KREIN: The bilinear developments of symmetrical nuclei, positive in Mercer's sense.

D. MORDUCHAJ-BOLTOVSKOJ: The impossibility of expressing modular functions in a finite form by elementary ones.

I. BESSONOV: The Brownian movement of a linear grid.

I. N. NAZAROV: Splitting and isomerization of olefines indicating a tertiary radical.

M. P. VOLAROVICH, D. M. TOLSTOJ and L. I. KORCHEMKIN: A study of the viscosity of molten lavas from Mount Alaghez.

M. NEUHAUS: Frequency of occurrence of spontaneous lethals in mature and immature germ cells of *Drosophila melanogaster*.

Tokyo

Imperial Academy, May 12 (Proc., 5, 109-146).

H. HOMBUR: Theory of affinor transformations.

T. TANAKA: Existence of a Galois field with a given p group.

T. NAKAYAMA: The algebras over a field with a prime number characteristic (2).

H. KIMURA: (1) Provisional result of the work of the International Latitude Service in the North Parallel + 39° 8' during the year 1935. (2) Preliminary result of the observations made at Adelaide International Latitude Station during the year 1935. (3) Preliminary result of the observations made at La Plata International Latitude Station during the period 1934.64-1935.97.

Y. HAGIHARA: The speed of corpuscles ejected from stellar atmospheres. The speed of ejection of an atom from a star is calculated by a quantum theoretical method which gives Milne's result as a particular case.

T. ARAKI and M. KURIHARA: The relation between the intensity of the emission lines and the displacement towards the violet of the absorption lines in the spectrum of P Cygni. An empirical formula is derived from published results.

S. NISHIKAWA, S. NAKAGAWA and I. SUMOTO: Slowing down of neutrons by thin layers of paraffin.

S. AKABORI and T. KANEKO: A perfume containing sulphur derived from soya.

F. HOMMA: A method of delineating a curve representing the variation of chemical composition in a zoned plagioclase.

K. TANAKA: Remarkable glaciated rocks found in the high mountains of the central upland of Japan.

S. ENDŌ and H. OKUTSU: *Glyptostrobos* cone from the *Liriodendron* bed near Sendai.

H. YABE and M. EGUCHI: *Eohydrophora*, a new genus of Cretaceous corals.

T. SUGIURA: A list of chromosome numbers in angiosperms (2).