

of the state of insulation of an alternating network by means of voltmeters interposed between a pole and the earth.—**Jacques Duclaux**: The application of the kinetic theory to the study of the phenomena of catalysis.—**Echsner de Coninck**: Determination of the molecular weight of uranyl, UO_2 . The reduction of H_2UO_4 by pure hydrogen at a red heat led to a molecular weight of 270.66 for UO_2 , as against 270.5 deduced from the atomic weight 238.5 for uranium.—**H. Henriet** and **M. Bouyssy**: A method for measuring the impurities in a confined atmosphere. Metallic vessels containing a freezing mixture of ice and salt were suspended in the room, the ice being melted and weighed. The amount of reduction of a solution of potassium permanganate and chromic acid was determined, and this taken as a measure of the impurity of the atmosphere.—**MM. Taurel** and **Griffet**: The determination of the proportion of combined sulphur in a mixture of different forms of sulphur.—**Frédéric Aronsohn**: The mineral composition of the bee. Fifteen elements were determinable in the ash, including arsenic, copper, manganese, and zinc.—**Jean Pognet**: The action of the ultra-violet rays upon the green pods of vanilla. Ultra-violet light produces the odour of vanilla in fresh green pods; manganese salts accelerate this action.—**Lucien Daniel**: Biometrical researches on a graft hybrid between the pear and quince trees. After six years' cultivation, no flowers have been produced on this hybrid. A study of the leaf dentition shows the influence exerted by the subject on the graft.—**A. Marie** and **Léon MacAuliffe**: The height and general morphology of French women.—**MM. Landsteiner, Levaditi,** and **Prasek**: Attempts to transmit scarlatina to the chimpanzee.—**C. Vaney** and **G. Tainturier**: The degeneration of some larval forms of *Hypoderma bovis*.—**Carl Störmer**: The results of photogrammetric measurements of the altitude of the aurora borealis at Bosekop during February and March, 1910.

MELBOURNE.

Royal Society of Victoria, March 9.—Prof. E. W. Skeats, in the chair.—**J. Mann**: Papuan timbers, some of the properties of six species. These, known as Ulabo, Tamanau, Alaga, Madave, Kokoilo, and Iiimo, are now being exported. Mechanical tests for strength, and for calorific value, charcoal, and ash were made, and the results are tabulated. Ulabo, which is a dark heavy wood, is of engineering value and white-ant proof, while the others are useful for general joinery and, being well coloured and figured, for cabinet work.

DIARY OF SOCIETIES.

THURSDAY, MAY 18.

ROYAL SOCIETY, at 4.30.—The Properties of Colloidal Systems. II. On Adsorption as Preliminary to Chemical Reaction: Prof. W. M. Bayliss, F.R.S.—Inbreeding in a Simple Mendelian Stable Population, with Special Reference to Cousin Marriage: S. M. Jacob.—On the Direct Guaiacum Reaction given by Plant Extracts: Miss M. Wheeldeale.—Transmission of Amakebe by means of *Rhizopneustes appendiculatus*, the Brown Tick: Dr. A. Theiler.—On Distribution and Action of Soluble Substances in Frogs deprived of their Circulatory Apparatus: S. J. Meltzer.—The Discrimination of Colour: Dr. F. W. Edridge-Green.
ROYAL INSTITUTION, at 3.—Air and the Flying Machine. I. The Structure of the Atmosphere and the Texture of Air Currents: Dr. W. N. Shaw, F.R.S.
ROYAL GEOGRAPHICAL SOCIETY, at 5.—Research Meeting. Principles of the Construction of Vegetation Maps: Dr. C. E. Moss.
INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Automatic Telephone Exchange Systems: W. Aitken.

FRIDAY, MAY 19.

ROYAL INSTITUTION, at 9.—Recent Experiments with Invisible Light: Prof. R. W. Wood.

SATURDAY, MAY 20.

ROYAL INSTITUTION, at 3.—Phases of Bird Life. I. Flight: W. P. Pycraft.

MONDAY, MAY 22.

ROYAL GEOGRAPHICAL SOCIETY, at 3.—Anniversary Meeting.
ROYAL SOCIETY OF ARTS, at 8.—Rock Crystal: its Structure and Uses: Dr. Alfred E. H. Tutton, F.R.S.

TUESDAY, MAY 23.

ROYAL INSTITUTION, at 3.—The Brain and the Hand: Prof. F. W. Mott, F.R.S.
ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—The Classification of the Prehistoric Remains of Eastern Essex: S. Hazzledine Warren.—On a Prehistoric Skeleton from Walton-on-Naze: Dr. A. Keith.
ZOOLOGICAL SOCIETY, at 8.30.
FARADAY SOCIETY, at 8.—Recent Advances in Gas Thermometry: Dr. A. L. Day.—The High Temperature Equipment at the National Physical Laboratory: Dr. J. A. Harker, F.R.S.—The Boiling Points of Metals:

H. C. Greenwood.—The Behaviour of Silica at High Temperatures: A. Blackie.—On the Maintenance of Constant High Temperatures: Prof. Bodenstein.—On Stellar Pyrometry: M. Féry.

WEDNESDAY, MAY 24.

LINNEAN SOCIETY, at 3.—Anniversary Meeting.
ROYAL SOCIETY OF ARTS, at 8.—Architecture in America: Frank M. Andrews (New York).
GEOLOGICAL SOCIETY, at 8.—On the Geology of Antigua and other West Indian Islands, with reference to the Physical History of the Caribbean Region: R. J. Lechmere Guppy.
SOCIETY OF PUBLIC ANALYSTS, at 8.—The Composition of Milk: H. Droop Richmond.—Notes on the Analysis of Margarine: Cecil H. Cribb and P. A. Ellis Richards.—Observations on some Methods of Estimating Coconut Oil and Butter in Butter and Margarine: Cecil Revis and E. Richards Bolton.—The Estimation of Quinine as the Acid Citrate, in certain Organic Liquids: T. Cockburn and J. W. Black.—The Determination of the Amount of Dissolved Oxygen absorbed by Sewage Effluents containing Nitrite, and of the Amount of Nitrite in Sewage Effluents or Water: R. W. Clarke.—Further Analyses of Ghee: Cecil Revis and E. Richards Bolton.

THURSDAY, MAY 25.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: Experiments on the Compression of Liquids at High Pressures: Hon. C. A. Parsons, F.R.S., and S. S. Cook.—An Optical Method of Measuring Vapour Pressures; Vapour Pressure and Apparent Superheating of Solid Bromine: C. Cuthbertson and Mrs. M. Cuthbertson.—The Vacuum-tube Spectra of Mercury: Dr. F. Horton.—The Production of Characteristic Röntgen Radiations: R. Whiddington.

ROYAL INSTITUTION, at 3.—Air and the Flying Machine. II. Conditions of Safety for Floaters and Flyers: Dr. W. N. Shaw, F.R.S.
ROYAL SOCIETY OF ARTS, at 4.30.—N.W.F. Province of India: W. R. H. Merck.

SATURDAY, MAY 27.

ROYAL INSTITUTION, at 3.—Phases of Bird Life. II. Migration: W. P. Pycraft.
ARISTOTELIAN SOCIETY (at Oxford in conjunction with Mind Association).—A Symposium on the Relation of Psychology to Metaphysics: G. F. Stout and A. Smith.

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