

thermometer remains the best instrument for high temperatures.—Researches on dielectric solids: V. **Crémieu** and L. **Maicles**. In the course of his researches on electric convection, Crémieu observed some anomalies of electrical influence through solid dielectrics. The authors have commenced a systematic study of these phenomena, and give an account in the present paper of the apparatus used, reserving the results for a future communication.—On the conductivity of gases from a flame: Paul **Langevin** and Eugène **Bloch**. The coefficient of re-combination of the ions from a flame has been measured, and found to be equal to about 0.7. This value is less than one, as the theory requires, and is much greater than in the case of the Röntgen rays.—On the absorption of hydrogen by rhodium: L. **Quenneßen**. Contrary to the statement given in the text-books, the absorptive power of rhodium for hydrogen is nil. Rhodium is not analogous with palladium in this respect.—The action of boric acid on the alkaline peroxides and the formation of perborates: George F. **Jaubert**. By the action of boric acid upon sodium peroxide a perborate of sodium is formed, the analysis of which leads to the composition $\text{Na}_2\text{B}_2\text{O}_5 \cdot 10\text{H}_2\text{O}$. On re-crystallising this a substance possessing more oxygen, $\text{NaBO}_3 \cdot 4\text{H}_2\text{O}$, is formed, and this is very stable at the ordinary temperature, although decomposed rapidly at 100°C . The latter substance, treated with 50 per cent. sulphuric acid, gives after filtration through guncotton a solution of hydrogen peroxide of a strength of 150 to 200 volumes.—On thioformic acid: V. **Auger**. The author has shown in a previous paper that the substance regarded by Wöhler and Limpricht as thioformic acid is in reality trithioformaldehyde. The method which was found to give the best yield of sodium thioformate was the interaction of sodium hydrogen sulphide with phenyl formate. The latter substance was incidentally obtained in the pure state for the first time, and details of its preparation are given.—The synthesis of $\beta\beta$ -dimethyladipic acid: G. **Blanc**.—On a new sugar from the berries of the mountain ash: Gabriel **Bertrand**. The sugar is isomeric with, but distinct from, sorbite and mannite, and is provisionally named sorberite. Its physical properties are given, and its composition as a hexahydric alcohol determined by the production of a hexacetate.—The development of the organic material in seeds during their ripening: G. **André**.—On the detection of cotton seed oil in olive oil: E. **Milliau**. The test proposed is a modification of the reduction test with silver nitrate.—Anhydrobiosis and tropisms: Georges **Bohn**.—On the growth of man and of living beings in general: Charles **Henry** and Louis **Bastien**.—The evolution of the weight and organic material of the leaf during necrobiosis in white light: L. **Beulaygue**.—On heterogeneity in the Stichodactylinae group: Armand **Krempf**.—The comparative influence of some organic compounds of phosphorus on the nutrition and development of animals: A. **Desgrez** and A. **Zaki**.—On the inoculation of cancer: M. **Mayet**.—On the bleaching of flour by electricity: M. **Balland**. The treatment of flour by electrified air has a bleaching action, and produces chemical changes corresponding to the effect of age.

DIARY OF SOCIETIES.

THURSDAY, NOVEMBER 24.

ROYAL SOCIETY, at 4.30.—On the Refractive Indices of the Elements: C. Cuthbertson.—The Flow of Water through Pipes. Experiments on Stream-line Motion and the Measurement of Critical Velocity: Drs. H. T. Barnes and E. G. Coker.—On Galvanic Cells produced by the Action of Light. Preliminary Communication: Dr. M. Wilderman.—Some Physical Characters of the Sodium Borates, with a New and Rapid Method for the Determination of Melting Points: C. H. Burgess and A. Holt, jun.—On the Convergence of Infinite Series of Analytic Functions: H. A. Webb.

INSTITUTE OF ELECTRICAL ENGINEERS, at 8.—Hydrodynamical and Electromagnetic Investigations regarding the Magnetic-Flux Distribution in Toothed-Core Armatures: Prof. H. S. Hele-Shaw, F.R.S., Dr. Alfred Hay, and P. H. Powell.

FRIDAY, NOVEMBER 25.

PHYSICAL SOCIETY, at 5.—The Measurement of Small Differences of Phase: Dr. W. E. Sumpner.—On the Curvature-method of Teaching Geometrical Optics: Dr. C. V. Drysdale.—(1) Exhibition of Specimens of Crystals showing the Phenomenon of Luminous Rings; (2) On a Rapid Method of Approximate Harmonic Analysis: Prof. Silvanus P. Thompson.—Exhibition of Apparatus by Prof. Dalby, Mr. Darling, Dr. Drysdale, and Prof. Thompson.

SATURDAY, NOVEMBER 26.

ESSEX FIELD CLUB (at Essex Museum, Stratford), at 6.30.—Delegate's Report British Association: F. W. Rudler.—Notes on Supposed Lake Settlement at Skitt's Hill, Braintree: F. W. Reader.—Coast Erosion in East Anglia: John Spiller.

MONDAY, NOVEMBER 28.

SOCIETY OF ARTS, at 8.—Musical Wind Instruments: David J. Blaikley (Cantor Lecture I.)

INSTITUTE OF ACTUARIES, at 5.—Inaugural Address by the President, Mr. Henry Cockburn.

TUESDAY, NOVEMBER 29.

ZOOLOGICAL SOCIETY, at 8.30.—Some Observations on the Field Natural History of the Lion: Capt. Richard Crawshaw.—On some Nudibranchs from East Africa and Zanzibar. Part VI.: Sir Charles Eliot, K.C.M.G.—The Altai Lynx: R. Lydekker, F.R.S.—On Old Pictures of Giraffes and Zebras: R. Lydekker, F.R.S.—On the Morphology and Classification of the Asellota Group of Crustaceans, with Descriptions of the Genus *Stenetrium* and its Species: Dr. H. J. Hansen.—On the *Lacerta depressa* of Cameroon: G. A. Boulenger, F.R.S.

INSTITUTE OF CIVIL ENGINEERS, at 8.—Discussion: Distribution of Electrical Energy: J. F. C. Snell.

WEDNESDAY, NOVEMBER 30.

SOCIETY OF ARTS, at 8.—The British Canals Problem: Arthur Lee.

THURSDAY, DECEMBER 1.

ROYAL SOCIETY, at 4.30.—*Probable Papers*:—The Ascent of Water in Trees: Dr. A. J. Ewart.—On the Presence of Tyrosinases in the Skins of some Pigmented Vertebrates. Preliminary Note: Miss F. M. Durham.—On Chemical Combination and Toxic Action as Exemplified in Hæmolytic Sera: Prof. R. Muir and C. H. Browning.—Histological Studies on Cerebral Localisation. Part II.: Dr. A. W. Campbell.

CHEMICAL SOCIETY, at 8.—The Nitrites of the Alkali Metals and Metals of the Alkaline Earths, and their Decomposition by Heat: P. C. Ray.

RÖNTGEN SOCIETY, at 8.15.

LINNEAN SOCIETY, at 8.—Proteid Digestion in Animals and Plants: Prof. Sidney H. Vines, F.R.S.

FRIDAY, DECEMBER 2.

AERONAUTICAL SOCIETY, at 8.—The Aeronautical Exhibits at the St. Louis Exhibition: the President, Major B. Baden-Powell.—Kites, Kite-flying and Aeroplanes: W. H. Dines.—The Work of the International Aeronautical Commission: Dr. M. H. Hergesell.—Captive Balloon Photography: Griffith Brewer.

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