

modifications of gelatin in presence of electrolytes and non-electrolytes: J. Languier **des Bancelles**. In presence of certain salts gelatin dissolves in water at the ordinary temperature. At equal concentrations, salts of divalent metals exert a more powerful solvent action than salts of monovalent metals. For the same metals nitrates exert a more energetic action than chlorides. Certain non-electrolytes, such as alcohol or acetone, also attack gelatin more easily than pure water.—The rapid estimation of potassium bichromate in milks: M. **Gouere**.—The preparation of dithymol: the action of bromine on dithymol. H. **Cousin** and H. **Hérissey**. The oxidation of the thymol is carried out with ferric chloride in aqueous solution; the yield is from 25 per cent. to 30 per cent.— γ -Oxytetrolic acid: MM. **Lespieau** and **Viguer**. This is prepared by the interaction of propargyl alcohol and ethylmagnesium bromide, the reaction product being treated with carbon dioxide. The addition products with bromine have been studied.—Researches on a method of preparing the cyclic aldehydes: M. **Savariou**. Phenylmagnesium bromide reacts with chloral hydrate to give the compound $C_6H_5.CH(OH).CCl_3$, and this is converted into benzaldehyde by boiling with a solution of an alkaline carbonate. The method appears to be general, and may be useful in preparing small quantities of rare cyclic aldehydes.—The action of alcohols upon sodium benzyolate: Marcel **Guerbet**. The action of sodium benzyolate upon benzyl alcohol at $225^\circ C$. gives rise to stilbene, dibenzyl, toluene, and benzoic acid.—The chemical constitution and biological properties of the protoplasm of Koch's bacillus: Jules **Auclair** and Louis **Paris**.—Tyrosinase and racemic tyrosine: Gabriel **Bertrand** and M. **Rosenblatt**.—The genus *Seuratia* and its connections with *Capnodium*: Paul **Vuillemain**.—The intramolecular respiration of the aerial vegetative organs of vascular plants: G. **Nicolas**.—The multiplication *in vitro* of *Treponema pallidum*: C. **Lebailly**.

DIARY OF SOCIETIES.

THURSDAY, FEBRUARY 20.

ROYAL SOCIETY, at 4.30.—Notes on the Application of Low Temperatures to some Chemical Problems (1) Use of Charcoal in Vapour Density Determination. (2) Rotatory Power of Organic Substances: Sir James Dewar, F.R.S., and Dr. H. O. Jones.—On the Osmotic Pressure of Compressible Solutions of any Degree of Concentration. Part II. Cases in which both Solvent and Solute are Volatile: A. W. Porter.—Effects of Self-induction in an Iron Cylinder when traversed by Alternating Currents: Prof. Ernest Wilson.—(1) On the Refractive Indices of Gaseous Nitric Oxide, Sulphur Dioxide, and Sulphur Trioxide. (2) On the Dispersion of Gaseous Mercury, Sulphur, Phosphorus, and Helium: C. Cuthbertson and E. Parr Metcalfe.

ROYAL INSTITUTION, at 3.—Wood: its Botanical and Technical Aspects: Prof. W. Somerville.

INSTITUTE OF MINING AND METALLURGY, at 8.—The Alloys of Gold and Tellurium: Dr. T. K. Rose.—A Method of Settling Slimes, as applied to their Separation from Solution in Cyanide Treatment: H. G. Nichols.—Two Deterrants to the Dissolution of Free Gold in the Cyanide Process: D. Simpson.—A Rapid Method for the Estimation of Arsenic in Ores: H. E. Hooper.—The Indian Mint Assay of Silver Bullion: F. T. C. Hughes.

LINNEAN SOCIETY, at 8.—Experiments with Wild Species of Tuber-bearing Solanums: A. W. Sutton.—The Life-history and Larval Habits of Tiger Beetles (*Cicindela*): Dr. V. E. Shelford.—On a Possible Case of Mimicry in the Common Sole: Dr. A. T. Masterman.—*Exhibi*: Stereoscopic Photographs of Alpine Plants in Natural Colours: T. Ernest Waltham.

INSTITUTE OF ELECTRICAL ENGINEERS, at 8.—Electrical Power in Railway Goods Warehouses: H. Henderson.—Electric Power in Docks: C. E. Taylor.

CHEMICAL SOCIETY, at 8.30.—The Action of Thionyl Chloride and of Phosphorus Pentachloride on the Methylene Ethers of Pyrocatechol Derivatives: G. Barger.—The Preparation of Conductivity Water: H. Hartley, N. P. Campbell and R. H. Poole.—Derivatives of *para*-Diazoinobenzene: G. T. Morgan and Miss F. M. G. Micklethwait.—A Study of the Diazyl-reaction in the Diphenyl Series: G. T. Morgan and Miss F. M. G. Micklethwait.—Organic Derivatives of Silicon. Part VI. The Optically Active Sulphobenzylethylpropylsilyl Oxides: F. S. Kipping.—A Simple Manometer for Vacuum Distillation: N. L. Gebhard.

FRIDAY, FEBRUARY 21.

ROYAL INSTITUTION, at 9.—The Ether of Space: Sir Oliver Lodge, F.R.S. INSTITUTE OF MECHANICAL ENGINEERS, at 8.—Annual Meeting.—Tests of a Live Steam Feed-water Heater: Prof. J. Goodman and D. B. MacLachlan.

INSTITUTE OF CIVIL ENGINEERS, at 8.—Currents as a Cause of Coast-erosion: G. O. Case.

MONDAY, FEBRUARY 24.

ROYAL SOCIETY OF ARTS, at 8.—The Theory and Practice of Clock Making: H. H. Cunyngame, C.B.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—Travels in the Old Kingdom of Congo: Rev. Thomas Lewis.

INSTITUTE OF ACTUARIES, at 5.—A Review of the Investments of Offices in Recent Years, with Notes on Stock Exchange Fluctuations and the Future Rate of Interest: P. L. Newman.

TUESDAY, FEBRUARY 25.

ROYAL INSTITUTION, at 3.—Membranes: Their Structure, Uses and Products: Prof. W. Stirling.

ROYAL SOCIETY OF ARTS, at 4.30.—Irrigation in Egypt under British Direction: Sir Hanbury Brown, K.C.M.G.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—Montenegrin Manners and Customs: Miss M. Edith Durham.

INSTITUTE OF CIVIL ENGINEERS, at 8.—The New York Rapid-transit Subway: W. B. Parsons.

FARADAY SOCIETY, at 8.—Hydrolysis as Illustrated by Heats of Neutralisation: Dr. V. H. Veley, F.R.S.—A Study of the Sulphur Anion and of Complex Sulphur Anions: Dr. J. Knox.

WEDNESDAY, FEBRUARY 26.

ROYAL SOCIETY OF ARTS, at 8.—The Problem of Road Construction with a View to Present and Future Requirements: H. S. Hele-Shaw, F.R.S., and Douglas Mackenzie.

BRITISH ASTRONOMICAL ASSOCIATION, at 5.—Address by Prof. H. H. Turner, F.R.S.

THURSDAY, FEBRUARY 27.

ROYAL SOCIETY, at 4.30.—*Probable Papers*:—The Influence of Temperature on Phagocytosis: J. C. G. Ledingham.—On the Maturation of the Ovum in the Guinea-pig: Prof. J. E. S. Moore and Miss F. Twort.

ROYAL INSTITUTION, at 3.—Wood: its Botanical and Technical Aspects: Prof. W. Somerville.

SOCIETY OF DYERS AND COLOURISTS, at 8.—The Deterioration of Modern Dyed Leathers: M. C. Lamb.—A Note on the Germicidal Value of Petroleum Benzine: F. J. Farrell and F. Howles.

FRIDAY, FEBRUARY 28.

ROYAL INSTITUTION, at 9.—Explosive Combustion, with Special Reference to that of Hydrocarbons: Prof. W. A. Bone, F.R.S.

ROYAL SOCIETY OF ARTS, at 8.—The Removal of Dust and Fumes in Factories: Dr. J. S. Haldane, F.R.S.

PHYSICAL SOCIETY, at 5.—Contact Potential Differences Determined by Means of Null Solutions: S. W. J. Smith and H. Moss.—An Experimental Examination of Gibbs' Theory of Surface Tension as the Basis of Adsorption with an Application to the Theory of Dyeing: Mr. Lewis.

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