

primary alcohols is characterised by the predominance of hydrogen and absence of carbon dioxide; with secondary and tertiary alcohols the proportion of hydrogen is reduced, being replaced by methane and its homologues. Aldehydes give a gas containing carbon monoxide as the chief constituent, whilst carbon dioxide predominates for the fatty acids.—**M. Nanty**: The equilibria between potassium bicarbonate and hydrated magnesium carbonate.—**Georges Denigès**: A new reaction for cupreine. The reagent used is a mixture of water, copper sulphate, ammonia, and hydrogen peroxide. Cupreine gives a deep emerald-green coloration after adding some alcohol.—**M. Hanriot**: Brown gold. This name is applied to the gold left after treating a gold-silver alloy (20 per cent. gold) with nitric acid. This is not pure gold, but contains traces of silver, copper and lead, and also of nitric acid, even although the washings with water are free from acid. This gold undergoes changes in colour and volume on heating, a description of these being given in detail.—**F. Bodroux**: The action of some esters on the monosodium derivative of benzyl cyanide. In a preceding paper it has been shown that the sodium derivative $C_6H_5.CH.Na.CN$ reacts with the esters of the fatty acids, giving compounds of the type $C_6H_5.CH(CN).CO.R$, and in the present note the reaction is extended to esters of the monobasic aromatic acids.—**M. Lespieau**: The condensation of acrolein bromide with malonic acid. The saturated acid $CH_2Br.(CHBr)_2.CH_2.CO_2H$ is obtained instead of the unsaturated acid expected.—**L. Tchougæff** and **E. Serbin**: The complex salts of certain amino-acids. An account of the preparation and properties of some chromium salts of glycine and its homologues.—**P. Pierron**: A method of preparation of the aromatic acylguanidines.—**L. H. Philippe**: The glucodeconic acids.—**Pierre Breteau**: The addition of hydrogen in presence of palladium: application to phenanthrene. Palladium was used in the form of sponge, block, and precipitated metal, phenanthrene tetrahydride being formed.—**MM. Achalmé and Bresson**: A method for determining the presence of one or several diastases in a liquid.—**W. Vernadsky** and **Mlle. E. Révoutsky**: The chemical distinction between orthose and microcline. Lithium and rubidium have been found in various microclines; this is opposed to the rule for distinguishing orthose from microcline, based on the absence of lithium and rubidium in the latter.—**Auguste Chevalier**: New evidence on *Voandzeia Poissoni*.—**L. Matruchot**: The new culture of an edible mushroom, *Pleurotus cornucopioides*.—**G. André**: The conservation of saline matters during the growth of an annual plant.—**Henri Agulhon**: The acquirement by maize of immunity with respect to boron compounds.—**P. Mazé**: Induced ripening of seeds. The antigerminative action of acetaldehyde.—**P. A. Dangeard**: The action of light upon chlorophyll.—**P. Ammann**: The existence of a perennial rice in Senegal.—**P. Bouin** and **P. Ancel**: The lipid nature of an active substance secreted by the yellow body in mammals.—**Louis Lapique**: The relation of the encephalic weight to the retinal surface in some orders of mammals. A new set of experimental results confirming the views announced in a previous paper.—**C. Houard**: The mode of action of Asterolecanium, external parasites of stems.—**Auguste Michel**: The structure of the elytra of *Halosydna gelatinosa*.—**Fabre Domergue** and **R. Legendre**: A method of detecting *Bacterium coli* in anaerobic cultures in waters and oysters. The development is carried out in the absence of air; this modification of the usual methods removes some ambiguities from the reaction.—**E. Doumer**: Epilepsy and constipation. Cases are cited in which the epilepsy was directly connected with constipation; electrical treatment of the abdomen, resulting in the removal of the constipation, completely suppressed the attacks of epilepsy.—**M. Godfroy**: Some results of the study of the Antarctic tides observed in the course of the French expedition to the South Pole. The results of the analysis of the observed data are not in accord with the views of Whewell or the more recent hypothesis of R. A. Harris, and show that the tides in this region are very complex.—**Georges Hervé**: The instructions given by the National Institute (first and second class) to Captain Baudin for his voyage of discovery in the Antarctic (1800-4).

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DIARY OF SOCIETIES.

- THURSDAY, JANUARY 5.**
RÖNTGEN SOCIETY, at 8.15.—The Radioactivity of Thorium: Prof. Rutherford.
FRIDAY, JANUARY 6.
GEOLOGISTS' ASSOCIATION, at 8.—A History of Species-making; as illustrated by some Carboniferous Corals: by Dr. A. Wilmore.
INSTITUTION OF CIVIL ENGINEERS, at 8.—The Measurement of Boiler Deformations: G. F. Davidson.
TUESDAY, JANUARY 10.
INSTITUTION OF CIVIL ENGINEERS, at 8.—(1) The Strengthening of the Roof of New Street Station, Birmingham; (2) The Reconstruction and Widening of Arpley Bridge, Warrington: W. Dawson.
WEDNESDAY, JANUARY 11.
GEOLOGICAL SOCIETY, at 8.—The Zonal Classification of the Salopian Rocks of Cautley and Ravenstonedale: Miss G. R. Watney and Miss E. G. Welch.—On a Collection of Insect-remains from the South Wales Coalfield: H. Botton.
THURSDAY, JANUARY 12.
ROYAL SOCIETY, at 4.30.—*Probable Papers*: The Absolute Expansion of Mercury: Prof. H. L. Callendar, F.R.S., and H. Moss.—The Density of Niton (Radium Emanations) and the Disintegration Theory: Dr. R. W. Gray and Sir W. Ramsay, K.C.B., F.R.S.—The Charges on Ions in Gases, and some Effects that Influence the Motion of Negative Ions: Prof. J. S. Townsend, F.R.S.—The Distribution of Electric Force in the Crookes Dark Space: F. W. Aston.—The Measurement of End Standards of Length: Dr. P. E. Shaw.
INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—*Adjourned discussion*: Submarine Cables for Long Distance Telephone Circuits: Major W. A. J. O'Meara, C.M.G.
MATHEMATICAL SOCIETY, at 5.30.—A Property of the Number 7: T. C. Lewis.—A Mode of Representation of an Electromagnetic Field as due to Singularities Distributed over a Surface: Prof. H. M. Macdonald.—On the Fundamental Theorem in the Theory of Functions of a Complex Variable: Dr. W. H. Young.
FRIDAY, JANUARY 13.
ROYAL ASTRONOMICAL SOCIETY, at 5.

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