

Mixed phthaleins, containing two different phenol residues, one of which is $C_6H_4 \cdot OH$, are made with extraordinary ease by boiling *para*-oxybenzophenone-*o*-carboxylic acid with any phenol or amine, whether free or substituted. The spectra of eighteen new phthaleins of this class are described, and the laws governing the colour elucidated. The method is an excellent analytical one for identifying phenols and amines and their ethers and derivatives. The spectrum of phenolphthalein is not exactly half-way between those of phenolphthalein and thymolphthalein. The spectra of five sulphonephthaleins made from "saccharin" are also described, also six more new derivatives of ordinary phenolphthalein. A new general formula for the coloured substances is put forward.—J. R. Sutton: Kimberley diamonds, especially cleavage diamonds. This paper is a general and statistical account of the diamonds produced in the mines under the control of the De Beers Company at Kimberley. It describes the outstanding differences in size, colour, and type between the yields of the different mines; speaks of coloured diamonds, bort, and, especially, cleavage diamonds; and advances the view that many diamonds have been naturally broken by the unequal expansion of themselves and mineral inclusions. It appears that brown diamonds have shown a particular disposition to come up broken from the deeper levels of the Wessleton mine (though the ratio of colourless cleavage to colourless stones also increases with depth of mining), but the author doubts the common assertion that brown or smoky diamonds are markedly liable to spontaneous fracture.—S. Schönland: The phanerogamic flora of the divisions of Uitenhage and Port Elizabeth. This paper is meant to be a companion to the papers published by the late Dr. Bolus and Major Wolley Dod on the flora of the Cape Peninsula, and by the late Dr. J. Medley Wood on the flora of Natal. There are 2290 species recorded, of which ninety-eight are considered by the author not to be native. They are distributed over 128 natural orders and 712 genera. There are, however, still large tracts of this area unexplored. Most of the localities quoted are contained in about 600 sq. miles, while the total area is about 2500 sq. miles; much of the remaining tract is, however, covered by fairly uniform karroid succulent vegetation.—J. R. Sutton: A lunar period in the rates of evaporation and rainfall. This paper directs attention to the possibility of a lunar influence governing the evaporation from a water surface, and a lunar period in the incidence of rainfall. Tables are given showing that as the result of hourly observations of evaporation and rainfall during the 120 lunar months from August, 1899, to April, 1909, rainfall has its maximum frequency about the time of moonrise, and its minimum just after moonset; also that the rate of evaporation has a maximum and minimum, respectively, shortly after the moon passes the meridian above and below the horizon.

BOOKS RECEIVED.

Two Summers in the Ice-Wilds of Eastern Karakoram. By F. B. and W. H. Workman. Pp. 296+3 maps+illustrations. (London: T. Fisher Unwin, Ltd.) 25s. net.

University of London. University College. Abridged Calendar. Session 1917-18. (London: Taylor and Francis.)

The Pasteurization of Milk from the Practical View point. By C. H. Kilbourne. Pp. iv+248. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 6s. net.

Modern Propagation of Tree Fruits. By Prof. B. S. Brown. Pp. xi+174. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 6s. net.

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Elliptic Integrals. By Prof. H. Hancock. Pp. 104. (Mathematical Monographs, No. 18.) (New York: J. Wiley and Sons, Inc.; London, Chapman and Hall, Ltd.) 6s. net.

A Text-Book of Inorganic Chemistry. By Prof. A. F. Holleman. Issued in English in co-operation with H. C. Cooper. New edition. Pp. viii+507. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 10s. 6d. net.

Dairy Cattle Feeding and Management. By Profs. C. W. Larson and F. S. Putney. Pp. xx+471. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 11s. 6d. net.

Rustic Sounds and other Studies in Literature and Natural History. By Sir F. Darwin. Pp. 231. (London: J. Murray.) 6s. net.

The Faith of a Farmer: Extracts from the Diary of William Dannatt, of Great Waltham. Edited, with an Introduction, by J. E. G. de Montmorency. Pp. xliii+249. (London: J. Murray.) 5s. net.

DIARY OF SOCIETIES.

FRIDAY, OCTOBER 26.

PHYSICAL SOCIETY, at 5.—A Class of Multiple Thin Objectives: T. Smith. —The Radius of the Electron, and the Nuclear Structure of Atoms: Prof. J. W. Nicholson.

THURSDAY, NOVEMBER 1.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: The Reflexion of Light from a Regularly Stratified Medium: Lord Rayleigh.—Two Cases of Congenital Night-blindness: Sir William Aneuv.—Duration of Luminosity of Electric Discharge in Gases and Vapours. Further Studies: Hon. R. J. Strutt.—Surface Reflexion of Earthquake Waves: G. W. Walker.—Characteristic Frequency and Atomic Number: Dr. H. S. Allen.

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