

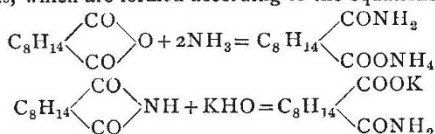
C₉H₁₈ by reduction with HI at 230°. It boils at 132°-134° and has the sp. gr. 0.783 at 0°. It is saturated and very inert; it yields trinitropseudocumene with difficulty when treated with fuming nitrosulphuric acid. It is identical with the hexahydro-pseudocumene obtained from Baku petroleum.—Attenuation of viper poison by heat and vaccination of the guinea-pig against this poison, by MM. C. Phisalix and G. Bertrand. The authors conclude that the toxic substances present in the poison of the viper include (1) a diastasic substance—echidnose; (2) a nerve poison—echidnotoxine. These are considerably modified if not destroyed by a temperature of 75°, and the product acquires vaccinating properties.—On the utilisation of ligneous products for the feeding of cattle, by M. Emile Mer.—Physiological observations on the kidney of the snail (*Helix pomatia*, L.), by M. Paul Girod. The snail possesses, in its urinary vesicle, a special alkaline gland which transforms the uric acid excreted by the kidney into sodium urate.—On the salivary glands of Hymenoptera, by M. Bordas.—On an aquatic stridulating Hemipteron, *Sigara minutissima*, L., by M. Ch. Bruyat.—On the relation between marine ercoachments and the movements of the earth-crust, by M. A. de Grossouvre. The movements occurring in Europe during the secondary era are traced.—On the chances of obtaining artesian waters along the Wady Ighargar and the Wady Mya, by M. Georges Rolland.—On a possible relation between the frequency of storms and the position of the moon. A letter from M. A. Barrey pointing out the relation between the age of the moon and the frequency of storms in France, in which the possibility of a connection between the perturbations of the earth's path due to the moon and the frequency of storms is shown.

BERLIN.

Physiological Society, January 12. — Prof. du Bois Reymond, President, in the chair.—Dr. D. Hausemann, on the various forms of mitotic nuclear divisions, which he divided into two groups, pathological and physiological. The first kind he further divided into three classes, according to the behaviour of the chromosomata, viz. hyperchromatic, normochromatic, and hypochromatic, of which examples are found in carcinomata and sarcomata. He had also observed differences of the chromosomata in physiological cell division, according to the tissue from which they were taken.—Prof. Munk spoke on the tactile areas of the cerebral cortex, which he had found in the well-known motor areas, whereas other observers had located them either in the hippocampal convolution (Ferrier) or the gyrus fornicatus (Horsley and Schäfer), or in the parietal regions (many clinicians). The hippocampal convolution had been soon given up as the seat of the tactile areas for the skin. The speaker had shown that it is impossible to operate on the gyrus fornicatus, owing to its position, without injury to the motor regions, and since the localisation of the tactile areas for the skin in the motor regions of the brain can only be determined by extirpation of the latter, he regarded the experiments of Horsley and Schäfer as inconclusive. With regard to the parietal lobes, experiments on monkeys and dogs showed that its removal did not upset their tactile sensibility. It is important in these observations to discriminate sharply between touch, perception of contact, pressure, &c. and the general sense of pain. The perception of the cuticular sense is connected with the motor regions, and is permanently lost when these are destroyed, whereas, on the other hand, general sensibility can be done away with by many different injuries to the brain, but reappears after a short time. The temperature sense of the skin belongs to the sense organ, and is permanently destroyed by removal of the motor areas.

AMSTERDAM.

Royal Academy of Sciences, January 27.—Prof. van de Sande Bakhuysen in the chair.—Messrs. Hoogewerf and van Dorp gave the results of their investigations on some derivatives of camphoric acid. They succeeded in isolating two camphoramic acids, which are formed according to the equations:



These substances are both derivatives of the same camphoric acid. The formation of these camphoramic acids was ex-

plained by the authors in the following way. Camphoric acid being dissymmetrical, the atom of oxygen, linking together the two groups of carbonyl in the camphoric anhydride, and also the group NH, linking together the two groups of carbonyl in the imide, will not be attracted with equal force by the two carbonyls. The carbonyl exerting the smallest attraction towards the O in the anhydride, will also exert the smallest attraction towards the NH in the imide. In the reactions, represented by the above equations, the rings in the anhydride and imide will therefore be opened in corresponding places, whereby two camphoramic acids must be formed.—Mr. Franchimont communicated a paper in his name and that of Mr. H. van Erp. The authors have compared the zinc and copper salts of the dinitromethylic acid of Frankland with the corresponding salts of the methylnitramine, because it seems that many chemists think the two bodies were identical. Treated with diluted sulphuric acid and ether, the methylnitramine salts yield the methylnitramine with the known properties; the salts of the dinitromethylic acid yield in the same manner an acid body, which melts ± 20° higher than the methylnitramine, and differs in form and solubility. The authors intend to investigate the chemical structure of the dinitromethylic acid.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—The Mean Density of the Earth: Prof. J. H. Poynting (Griffin).—Economic Geology of the United States: R. S. Tarr (Macmillan).—Materials for the Study of Variation: W. Bateson (Macmillan).—The Theory of Heat: T. Preston (Macmillan).—Annuaire de L'Observatoire Royale de Belgique, 1894: F. Folie (Bruxelles).—Faraday as a Discoverer: J. Tyndall, 5th edition (Longmans).—Statistique de la Production des Gites Metallifères: L. de Launay (Paris, Gauthier-Villars).—Construction du Navire: A. Croneau (Paris, Gauthier-Villars).—Tree Pruning: A. des Cars, translated by Prof. C. S. Sargent (Rider).—Practical Forestry: A. D. Webster (Rider).—Tobias Mayer's Sternverzeichniss (Leipzig, Engelmann).—Wood Working Positions, sheets 1 to 12 (large and small sizes): (Chapman and Hall).—Annuaire pour l'an 1894 publié par le Bureau des Longitudes (Paris, Gauthier-Villars).—Ostwald's Klassiker der Exakten Wissenschaften, Nos. 43 and 45 (Leipzig, Engelmann).—Gestaltung und Vererbung: Dr. W. Haacke (Leipzig, Weigel).—Beni-Hasan: P. E. Newberry, part 2 (K. Paul).—Norwegian North Atlantic Expedition, 1876-8, xxii., Zoology, Ophuroidea: J. A. Grieg (Low).
PAMPHLETS.—Scarlatina and Scarletina Sore Throat: Dr. A. K. Chalmers (Glasgow).—Researches on Matrices and Quaternions: Dr. Th. B. van Wetum (Leyden, Brill).—A Short History of Astronomy: G. Knight (Philip).

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