

in 0.02–0.2% yield and isolated as the chloroaurate. Probably the choline reported by Kinoshita and the acetylcholine reported by Bischoff were actually carnitine.

A. W. DOX (Chem. Abstr.).

*The Vitamin C Content of the Brain and of the Cerebro-spinal Fluid at Various Ages.* (Klin. Wochenschr., vol. xiii, pp. 1744–5, 1934.) Plaut, F., and Bülow, M.

The liver, brain and testis of rabbits are particularly rich in ascorbic acid, containing 15, 20 and 26 mgrm.% respectively. The brains of newborn mice and rabbits contain more of the vitamin (40–50 mgrm.%) than that of one-year-old animals (20–30 mgrm.%). The cerebro-spinal fluid content of vitamin C varies widely in human beings, but averages considerably more up to the age of 35 (15 to 20 mgrm.%) than it does in later life, falling to 0.4 mgrm.% above the age of 61.

HARRY EAGLE (Chem. Abstr.).

*Studies on the Phosphorus Compounds of Brain. I: Phosphocreatine.* (Journ. Biol. Chem., vol. cx, p. 625, Aug., 1935.) Kerr, S. E.

The writer froze the brain in situ with liquid air in animals under amytal anaesthesia. This procedure preserves a very labile phosphorus compound, which disappears so quickly after death that only one-tenth is left 30 seconds after excision of the brain. The writer shows this labile compound to be phosphocreatine. No significant differences were observed in the labile phosphorus content of the cerebrum and the cerebellum.

G. W. T. H. FLEMING.

*The Lactic Acid Content of Mammalian Brain.* (Journ. Biol. Chem., vol. cx, p. 637, Aug., 1935.) Avery, B. F., Kerr, S. E., and Ghantus, M.

The writers used the liquid air freezing method of preparation of the brain, and the Friedemann-Graeser procedure for determination of the lactic acid. The lactic acid content was found to range between 11.4 and 35.6 mgrm. per 100 gm., averaging 15.3 mgrm. for the cat and 22.3 for the dog. There was no significant difference between the cerebrum and the cerebellum. The highest values for lactic acid are accompanied by relatively low concentrations of phosphocreatine. As autolysis proceeds, this relationship is accentuated. The longer the freezing is delayed, the greater the content of lactic acid.

G. W. T. H. FLEMING.

*The Blood Fats in Schizophrenia.* (Journ. Nerv. and Ment. Dis., vol. lxxi, p. 613, June, 1935.) Brice, A. T.

The writer examined 62 cases of schizophrenia and 25 normal individuals. Estimations of total cholesterol and total fatty acids were made by Bloor's method and for iodine absorption by the method of Gibson and Howard. Evidence of a real depression of the level of the blood fatty acids and of the blood cholesterol in schizophrenia was found. The functions of desaturation and utilization of fatty acids seem to be closely associated with motor phenomena. Variations in the absolute levels of blood cholesterol and unsaturated fatty acids seem to be closely associated with emotional phenomena.

The depression of the level of the total blood fats is most pronounced among the apathetic stuporous types of case. The iodine numbers of the blood fats in schizophrenia are generally high except in the paranoid group.

G. W. T. H. FLEMING.

*Pathological Changes in the Tuber Cinereum in a Group of Psychoses.* (Journ. Nerv. and Ment. Dis., vol. lxxxii, p. 286, Sept., 1935.) Morgan, L. O., and Gregory, H. S.

The authors compared 32 brains of various types of psychoses with 6 control cases. The cell groups in the diencephalon were examined. Significant changes were found in the substantia grisea of the third ventricle and the nucleus tuberis lateralis. Cell counts of these areas were made and compared with the normal brains.