

pyruvate. The exposure of brain to narcotics (sommifen, luminal and chloretone) results in an elimination of the activation of the sugar, those of sodium succinate and glycerophosphate being relatively undisturbed. The narcotic and sodium lactate compete for the same activating enzyme. G. W. T. H. FLEMING.

*The Effect of Alcohol on the Oxygen Uptake of Brain-tissue.* (*Biochem. Journ.*, vol. xxvi, No. 1, 1932.) Robertson, J. D., and Stewart, C. P.

Ethyl alcohol at first increases the rate of oxygen uptake of brain-tissue. This increase, which is greater in grey matter than in white, lasts for about an hour, and is followed by a fall to slightly below the normal rate. The authors suggest that alcohol is adsorbed on the oxidizing surfaces, thereby displacing more usual metabolites, but is more slowly oxidized. The initial increase in the rate of oxygen uptake is explained on the assumption that the alcohol first takes up unoccupied parts of the surfaces. The alcohol content of the brain reaches its maximum under experimental conditions in about half an hour, and has fallen very slightly in four hours. G. W. T. H. FLEMING.

*The Relationship between Sugar in Blood and Lactic Acid in Brain.* (*Biochem. Journ.*, vol. xxvi, No. 2, 1932.) Holmes, E. G., and Sherif, M. A. F.

The lactic acid content of mouse brains fixed rapidly in liquid air is invariably low. The amount of lactic acid formed on anaerobic incubation depends on the blood-sugar level at death, up to a blood-sugar value of some 200 mgrm. per 100 c.c. At higher levels there is a smaller increase in lactic acid in proportion to the increase in blood-sugar, but this increase is accounted for by a corresponding failure of the brain-tissue to take up carbohydrate. At blood levels at which hypoglycæmic symptoms occur, the resting brain lactic acid level is decreased. G. W. T. H. FLEMING.

*The Calcium and Phosphorus Content of the Brain in Experimental Rickets and Tetany.* (*Journ. of Biol. Chem.*, vol. xcvi, Nov., 1932.) Hess, A. F., Gross, J., Weinstock, M., and Berliner, F. S.

The authors found that rickets in the rat was associated with a marked decrease in the total calcium and the percentage of inorganic phosphate in the brain, in spite of the fact that the diet was high in calcium.

There was no relationship between the concentration of the calcium in the blood and its concentration in the brain. In rickets the total calcium is normal in the blood and diminished in the brain; in parathyroid tetany it is low in the blood and undiminished in the brain. G. W. T. H. FLEMING.

*Further Observations on the Nature of the Highly Unsaturated Fatty Acids of Beef Brains.* (*Journ. of Biol. Chem.*, vol. xcvi, July, 1932.) Brown, J. B.

The author prepared the methyl esters of the highly unsaturated fatty acids of beef brains. The acids belonged chiefly to the C<sub>22</sub> series. Docosapentenoic was the predominant acid present, together with small amounts of docosatetrenoic acid. There was no evidence of the presence of ordinary arachidonic acid, such as occurs in the glandular lipids. There was little or no evidence of the presence of acids below the C<sub>22</sub> series. Possibly small amounts of tetracosapentenoic acid were present. G. W. T. H. FLEMING.

*The Destruction of Cholesterol by the Animal Organism.* (*Journ. of Biol. Chem.*, vol. xcvi, Aug., 1932.) Page, T. H., and Minschick, W.

An endeavour was made to alter the cholesterol content of the brain and vascular system by the feeding of cholesterol to rabbits. The authors found that administered cholesterol was deposited throughout the body except in the brain. From 0.8-1.8 gm. per week was destroyed. G. W. T. H. FLEMING.