

Effect of Age on the Phosphorus Compounds of the Brain. (Ukrain. Biokhem. Zhur., vol. ix, pp. 613-32, 1936.) Epel'baum, S. E., Khaikina, B. I., and Skvirskaya, E. B.

In rabbit brain, in the first 7 days after birth there are considerably more total phosphate and acid-soluble P compounds than in adults. With increasing age there are decreases in the fraction hydrolysed during 7 minutes in normal HCl at 100° of the fraction of difficultly hydrolysable compounds and of creatinephosphoric acid. At 12-23 days the first two of these fractions are greater than in adults. After the 30th day after birth the content of P compounds attains the level characteristic for the brain of adults.

E. E. STEFANOWSKY (Chem. Abstr.).

Unimolecular Films of Nerve Proteins. (Journ. Phys. Chem., vol. xl, pp. 989-96, 1936.) Fourn, Lyman, and Schmitt, Francis O.

Nerve protein fractions were prepared. The general features of the unimolecular films formed by them on various sub-solutions are described. A phenomenon of pressure equilibration following change of area of these films was observed. This equilibration is not associated with changes in phase boundary potentials and is distinct from irreversible collapse.

F. URBAN (Chem. Abstr.).

The Influence of Lactic Acid on the Cerebral Respiration of Mammals During Avitaminosis B₁. (Biochem. Zeitschr., vol. cclxxxix, pp. 136-42, 1936.) Galvao, P. E., and Pereira, J.

Lactate causes no increase in the O₂ consumption of the motor region of the cerebrum of rats with typical manifestations of B₁ avitaminosis, but in the cord the lactate exerts its usual effect. On the other hand in rats on a vitamin B-free diet without any manifestations of avitaminosis the motor area of the cerebrum shows the usual behaviour towards lactate, whereas lactate has no effect on the respiratory activity of the cord. The disturbances in birds are localized in the cord, while in the rat there are also disturbances in the motor area of the cerebrum.

S. MORGULIS (Chem. Abstr.).

Relationship between Brain Lipides and Learning Ability of Albino Rats. (Journ. Genetic Psychol., vol. xlix, pp. 389-403, 1936.) Alm, O. W., and Whitnah, C. H.

The scores for learning ability of rats obtained by maze tests gave positive correlations with the unsaturated galactolipides and phospholipides of the brain. The latter perhaps show a more uniform relationship to learning ability than the former. Other relationships were studied and are discussed critically.

WALTER H. SEEGER (Chem. Abstr.).

A Study of the Chemical Composition of Various Divisions of the Nervous System. III. The Peripheral Nerves of Various Divisions of the Cow. (Ukrain. Biokhem. Zhur., vol. ix, pp. 69-84, 1936.) Palladin, A. V., Rashba, E. Ya., and Gel'man, R. M.

The chemical compositions of the anterior and posterior roots of the spinal cord per unit of dry matter are essentially the same; per unit of wet matter cholesterol, lecithin and cephalin contents of the anterior roots are lower than that of the posterior. In comparison with other divisions of the nervous system the absolute cholesterol contents are much greater in both cases. The inverse is the case for lipoids, nitrogen, creatine, P and water contents in the peripheral nerve. The N and creatine contents of the sympathetic nerve are higher than those of other nerves. It is concluded that a high protein and a medium cholesterol content are characteristic for the non-medullated nerves. The ganglia of the posterior roots have approximately the same composition as all the others, with the exception of a higher cholesterol and unsaturated phosphatides. Phylogenetically the