

*Content, Partition and Physico-chemical State of the Blood Bromine of Normal and Pathological, but not Insane Cases.* (*Compt. Rend. Soc. Biol.*, vol. cxiii, p. 1428, 1933.) *Guillaumin, C. O., and Merejkowski, B.*

In 8 normal persons blood bromine in mgrm. per litre was 7.4–16.0 for the plasma and 3–6 for the corpuscles. In 200 samples of serum or plasma from normal and sane diseased persons, bromine ranged from 2–20 mgrm. per litre, with an average of 10. Ultra-filtration of the same samples showed that 63–88% of the bromine would not pass through the collodion membrane, and hence was in the form of organic compounds of high molecular weight.

L. E. GILSON (Chem. Abstr.).

*The Determination of Calcium in Blood-serum and Cerebro-spinal Fluid.* (*Biochem. Journ.*, vol. xxvii, No. 2, p. 332, 1933.) *Tingey, A. H.*

The author compared various methods of estimating calcium in non-deproteinized serum and cerebro-spinal fluid. He recommends the Peters and van Slyke modification of Halverson and Bergeim's method, including the method of washing with removal of the mother-liquors by suction, as modified by van Slyke and Sendroy.

G. W. T. H. FLEMING.

*Lactic Acid of the Spinal Fluid in Meningitis.* (*Amer. Journ. Dis. Child.*, vol. xlvii, p. 239, 1933.) *De Sanctis, A. G., Killian, J. A., and Garcia, T.*

The concentration of lactic acid in the spinal fluid is markedly increased in meningitis. The concentration varies directly with the leucocyte count, and is decreased by serum therapy. It is higher than that of the blood and appears to be independent of it. The increased concentration probably results from the metabolism of leucocytes.

E. R. MAIN (Chem. Abstr.).

*A Pigment of the Cerebro-spinal Fluid of a Child with Tuberculous Meningitis.* (*Naturwissenschaften*, vol. xxi, p. 405, 1933.) *György, P., and Kuhn, R.*

The cerebro-spinal fluid had a peculiar green fluorescence. The pigment is insoluble in benzene and chloroform; two drops of caustic soda cause the fluorescence to change to a yellow colour. This colour disappears on heating with dilute caustic soda. The authors conclude that the pigment resembles the ovoflavine of egg albumen, the absorption spectra of the two being similar. The amount of pigment in 8.5 c.c. fluid was .4 mgrm.

B. J. C. VAN HOEVEN (Chem. Abstr.).

*On the Excretion of Hexamine in the Cerebro-spinal Fluid and its Possible Antiseptic Value.* (*Birm. Med. Rev.*, vol. viii, p. 76, June, 1933.) *Summers, W.*

This paper gives an admirable survey of the history of the use of hexamine as an antiseptic, particularly for the nervous system. The dissociation of hexamine is discussed, and experiments described which prove that the liberation of formaldehyde from hexamine is increased by increasing acidity, and diminished by increasing alkalinity, but dissociation of hexamine is proved to occur in alkaline solutions. Investigations were made to see if hexamine was excreted into the cerebro-spinal fluid, and as to whether formaldehyde was liberated there. Certain writers (Crowe, Hanzlik, Collins and Hinman) were satisfied that hexamine is excreted into the cerebro-spinal fluid, whereas other writers (Guthrie and Knott) failed to find the drug in the cerebro-spinal fluid after oral administration. It is noted that the tests used for the detection of hexamine and formaldehyde have not always been reliable, and the author describes and discusses the fallacies of four well-known tests—bromine water, Hehner's, Rimini-Burman's and the phloroglucin test. Reference is made to the satisfactory experiments of Hanzlik and Collins, who investigated ten cases, finding hexamine, but no formaldehyde, in the cerebro-spinal fluid of nine cases, the tenth case showing neither hexamine nor formaldehyde in the