

56 (988)

The formation of urea in the liver.

By **DONALD D. VAN SLYKE, GLENN E. CULLEN, and FRANKLIN C. McLEAN.**

[From the Hospital of the Rockefeller Institute for Medical Research, New York City.]

In dogs etherized and operated at various intervals after feeding, we have found the urea content of blood from the hepatic vein to be from 3 to 20 per cent. higher than the portal blood. A similar increase in the urea content during passage of the blood through the muscle tissue of etherized dogs did not occur.

57 (989)

Accurate determination of chlorides in small amounts of blood serum.

By **FRANKLIN C. McLEAN and DONALD D. VAN SLYKE.**

[From the Hospital of the Rockefeller Institute for Medical Research New York City.]

By the use of an iodometric method under definite conditions one can determine the chlorides in 1 or 2 c.c. of serum with an accuracy of 1 per cent. The proteins are coagulated, and an aliquot part of the filtrate treated with an excess of standard silver nitrate, nitric acid in 5 per cent. concentration being present to prevent precipitation of the purines. A drop of octyl alcohol, which has a faculty of causing colloidal silver chloride to coagulate, is added, and the solution is shaken and filtered. The excess silver in the filtrate is then titrated back with N/50 or N/100 KI, sodium nitrite and starch being present as indicators. The nitrous acid frees iodine as soon as a drop of excess iodide is added, and the blue starch iodate color forms. In order that this end point may be sharp, the solution must have a definite, slight acidity. This is obtained by adding, before the final titration, for each gram of nitric acid present 4 c.c. of a solution containing 446 grams (5/4 gram molecules, 15/4 equivalents) of crystalline trisodium citrate and 19 grams (1/4 gram molecule) of sodium nitrite per liter.