

A Micro Method for the Estimation of Chlorides in Blood.

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The authors have used the method of VAN SLYKE¹⁾ (1923) for the estimation of whole blood chlorides, with satisfactory results. In this method one cubic centimeter of blood is required for a single determination. During the course of other experiments, only small quantities of blood were available for the estimation of blood chlorides; consequently the VAN SLYKE method was modified to permit the estimation of chlorides in one-tenth of a cubic centimeter of whole blood. The details of this micro method are here described.

Reagents.

(1) **Standard Silver Nitrate.** — This solution contains 2.905 grams per liter. It is prepared by dissolving the C. P. salt in a small quantity of distilled water and making up to volume with concentrated nitric acid (Sp. gr. 1.42). 1 c. c. of this solution = 1 mg. NaCl.

(2) **Potassium Thiocyanate.** — A water solution containing 0.554 gm. per liter. Prepared by standardization against the silver nitrate solution. 3 c. c. of this solution = 1 c. c. of the standard AgNO_3 .

(3) **Indicator.** — A saturated solution of ferric alum²⁾ is used as an indicator in the titrations of the excess silver with K C N S.

Procedure.

One-tenth cubic centimeter of whole blood is measured by means of a micro-pipette and discharged into 1 c. c. (approximately) of distilled water contained in a pyrex test tube. The pipette is rinsed thoroughly by filling and emptying several times with the liquid in the tube and then 1 c. c. of the standard AgNO_3 solution

¹⁾ VAN SLYKE, D. D., 1923, Jour. Biol. Chem., VIII, 523.

²⁾ BAKER's analyzed ferric alum was employed.