

moléculaire s'avère être plus intense. Ces résultats corroborent nos suppositions antérieures selon lesquelles la perméabilité glomérulaire s'accroît notablement au cours d'un effort physique intense. L'excrétion accrue des protéines plasmatiques se manifeste surtout par des fractions de faibles poids moléculaires, mais aussi par des composants plus lourds tels que l'haptoglobine 1-1, céruloplasmine², γ -globulins (7 S).

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BRIEF TECHNICAL NOTES

The hemoglobin error in diazomethods for bilirubin

The greater part of the diazomethods for bilirubin determinations are very sensitive to small amounts of hemoglobin¹. The method of Lathe and Ruthven is the only exception on this rule.

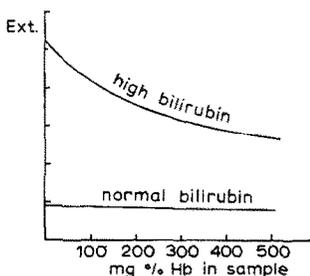


Fig. 1

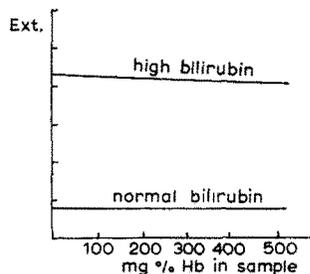


Fig. 2

The method of BRÜCKNER² gives correct values for hemolysed sera with normal bilirubin concentrations, but at elevated concentrations the results are seriously affected by 500 mg % Hb (Fig. 1).

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We found this to be due to lack of coupling reagent. Adding twice the original volume improved markedly the results; the error with 500 mg% Hb being now less than 10% (Fig. 2).

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² J. BRÜCKNER, *Clin. Chim. Acta*, 6 (1961) 370.

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Yagoda papers: A permanent record of Benedict's test for reducing sugars*

Investigations of insect carbohydrases at this laboratory indicated the desirability of a permanent record of tests carried out with Benedict's solution for reducing sugars in enzyme reaction mixtures. The desirability of being able to estimate the quantity of reducing sugars in the reaction mixtures was equally evident.

Benedict's modification of Fehling's solution as a test for glucose and other reducing sugars is used routinely in laboratory practice. Although the amount of precipitate rather than its color is generally used as an estimate of the presence of glucose¹, the color of the precipitate can also indicate the concentration of glucose or reducing sugars in the solution being tested².

Yagoda confined spot test papers have been used in the detection of chromate ion, bismuth, trivalent iron and bivalent iron and in the detection and estimation of copper, sodium and nickel³. They have also been used in the detection and identification of such toxic gases as hydrogen sulphide, sulphur dioxide, arsine, ammonia, chlorine, bromine, phosgene, hydrocyanic acid, chloropicrin, cyanogen chloride, acetylene, Lewisite, diphenyl cyanoarsine, ozone, carbon monoxide and mercury⁴. However, their suitability for the detection and estimation of reducing sugars in solutions has not previously been determined.

Yagoda confined spot test papers, S & S No. 598-YD (Carl Schleicher & Schuell Co., Keene, N.H.), were treated with 25 μ g of Benedict's solution and allowed to dry at room temperature. Aqueous solutions of D-glucose were prepared ranging in concentration from 0.01-10.0%. 10 μ g of each sugar solution were applied to each of three test papers and the papers were placed on racks in a constant temperature oven at 100° for 15 min. One set of three test papers was treated with 10 μ g of distilled water as a control and was processed in the same manner.

The results of these tests are listed in Table I.

* Contribution No. 165.