Proceedings of the Iowa Academy of Science

Volume 48 | Annual Issue Article 53

1941

Effect of Added Salts on Solubility of Hippuric Acid in Urine (Abstract)

T. U. Marron
Iowa Lutheran Hospital

EFFECT OF ADDED SALTS ON SOLUBILITY OF HIPPURIC ACID IN URINE (ABSTRACT)

T. U. MARRON

Solubility data are presented for the effect of added salts on the precipitation of hippuric acid from urine in quick liver function tests. Calculations appearing in the literature are inaccurate because they apply to varying solubility conditions. The effect of added salts is to standardize these conditions and give accurate calculations.

IOWA LUTHERAN HOSPITAL,
DES MOINES, IOWA.

THE FRIEDEL-CRAFTS REACTION WITH LONG-CHAINED ALKYL BROMIDES

(ABSTRACT)

R. N. MEALS AND HENRY GILMAN

It has been reported that 1-bromooctadecane reacts with benzene and aluminum chloride to give a 50 per cent yield of 1-phenyloctadecane. [Gilman and Turck, *J. Am. Chem. Soc., 61,* 478 (1939)]. We have found that 1-bromohexadecane, 1-bromotetradecane and 1-bromododecane behave similarly. The case of 1--bromododecane was studied in more detail. Evidence was found that, in addition to 1-phenyldodecane, isomeric dodecylbenzenes were formed.

Incidental to this work the six isomeric 2-naphthalene-sulfono-p-n-dodecylanilides ($B\text{-}C_{10}H_7.SO_2.NH.C_6H_4.C_{12}H_{25}$) were prepared for use in a study of the validity of the mixed melting point determinations with structurally similar long-chained compounds.

Fractionation of the products of the reaction of 1-bromohexane, benzene and aluminum chloride (carried out at 0°) showed that 1-phenylhexane, 2-phenylhexane and 3-phenylhexane were obtained. These hydrocarbons were characterized as their monacetamino and diacetamino derivatives [Ipatieff and Schmerling, *ibid, 59,* 1056 (1937)] and as the sulfonamides. They were identified by comparison with synthetic specimens.

AMES, IOWA.