excreted only to a small extent in the urine; the greater part is apparently excreted in the bile. After feeding alloxan we observed a distinct decrease in the output of inorganic sulfur in the urine.

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On the Isolation of Guanidine Compounds from the Urine.

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In an attempt to find a reagent which would enable us to isolate guanidine compounds from urine, experiments were carried out with β-naphthalene-sulfochloride. The substances tested were guanidine, methylguanidine, as-dimethylguanidine and synthalin (diguanidinodecamethylene). We have found that all these compounds react with β-naphthalene-sulfochloride. Except for the methylguanidine derivative, the condensation products are very little soluble in water.

The procedure which we have used to recover the above compounds from the urine is as follows: A certain amount (50-200 mg.) of the substance was added to 50 cc. of human or dog's urine. The urine was evaporated to a volume of less than 10 cc. To the residue water was added, so as to have a total volume of 10 cc. This solution was treated with an equal volume of 4 N-KOH. To this a quantity of β-naphthalene-sulfochloride equivalent to 4 mols, dissolved in 25-35 cc. of ether was added. The mixture was shaken for about 8 hours. The precipitate formed was filtered, washed with water and recrystallized from water.

By means of this method we have been able to recover more than 80% of guanidine and dimethylguanidine added to urine. With methylguanidine the best yield obtained was 66%.