

1941

Pyrrolidine from N-alkyl-N-Chloroureas (Abstract)

George H. Coleman
State University of Iowa

Glen Alliger
State University of Iowa

Copyright © Copyright 1941 by the Iowa Academy of Science, Inc.
Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Coleman, George H. and Alliger, Glen (1941) "Pyrrolidine from N-alkyl-N-Chloroureas (Abstract)," *Proceedings of the Iowa Academy of Science*: Vol. 48: No. 1 , Article 46.
Available at: <https://scholarworks.uni.edu/pias/vol48/iss1/46>

This Research is brought to you for free and open access by UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Nothing, however, was known about this effect in the indanones substituted in the 7 position. In these ketones free rotation about the bond between the carbonyl group and the ring is prevented and the increased opportunity for resonance might influence the steric effect.

The ketone 4, 7-dimethyl indanone-1, in which one ortho position is occupied by a methyl group and the other by the end of aliphatic ring, was prepared. It readily formed an oxime (m.p. 175.5 - 177.5° C), a semicarbazone (decomposed 215 - 221° C) and a phenyl-hydrazone (m.p. 99- 101° C).

MOUNT VERNON,
IOWA.

PYRROLIDINE FROM N-ALKYL-N-CHLOROUREAS

(ABSTRACT)

GEORGE H. COLEMAN AND GLEN ALLIGER

Previous work in this laboratory has shown that when N-n-butyl-N-chloro-p-toluenesulfonamide, N-n-butyl-N-chloroacetamide, or N-n-butyl-N-chloropropionamide is dissolved in sulfuric acid and heated, ring closure occurs with the formation of pyrrolidine in good yields. It was thought that N, N'-di-n-butyl-N, N'-dichlorourea might react in a similar manner. This was found to be the case. When this compound was dissolved in 95 per cent sulfuric acid and heated for a period of one hour at 120-130° C. pyrrolidine was formed in yields of 50 to 55 per cent. Under similar conditions N, N-dimethyl-N'-n-butyl-N'-chlorourea gave pyrrolidine in yields of 5 to 10 per cent.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

AZOYL DERIVATIVES OF SUGARS AND SEPARATION BY CHROMATOGRAPHIC ADSORPTION

(ABSTRACT)

GEORGE H. COLEMAN AND ALFORD G. FARNHAM

Azobenzene-p-benzoyl derivatives of d-d-glucose and B-d-glucose, fructose, galactose, lactose, maltose, sucrose, trehalose, gentiobiose and cellobiose have been prepared. They have been analyzed for per cent of azoyl and their specific rotations in chloroform determined. The chromatographic separation of d-d-glucose and fructose azoates as described by Reich has been repeated using silicic acid as an adsorbent. Using a mixture of "magnesol"