

1941

## Action of Thionyl Chloride on Urethanes (Abstract)

H. B. Freyermuth  
*State University of Iowa*

L. Chas. Raiford  
*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

Freyermuth, H. B. and Raiford, L. Chas. (1941) "Action of Thionyl Chloride on Urethanes (Abstract)," *Proceedings of the Iowa Academy of Science*: Vol. 48: No. 1 , Article 49.  
Available at: <https://scholarworks.uni.edu/pias/vol48/iss1/49>

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](mailto:scholarworks@uni.edu).

may be used in comparisons involving the far stronger effects due to structural differences.

(1) Proc. Ia. Acad. Sc. 38, 169-70 (1931); 40, 113 (1933); 41, 172 (1934).

(2) Stieglitz, Am. Chem. J., 39, 31 (1908).

CORNELL COLLEGE,  
MT. VERNON, IOWA.

---

## ACTION OF THIONYL CHLORIDE ON URETHANES

(ABSTRACT)

H. B. FREYERMUTH AND L. CHAS. RAIFORD

Raiford and Shelton [J. Org. Chem., 4, 207 (1939)] found that hot pyridine causes 2-carbophenoxyamino-4-methyl-6-bromophenyl p-tolylsulfonate to lose phenol and give a "condensation product" which was found to be a 1,3- derivative of uretidone (uretidone). This type of derivative was also obtained by Warren and Wilson [Ber., 68, 957 (1935)] by the action of thionyl chloride on phenylurethane. But it has now been found that the last-named reaction is specific for phenylurethane. When the phenyl radical contains a "negative" substituent, thionyl chloride causes no action after five hours refluxing. If the substituent is alkyl the treatment causes tar formation, from which nothing definite could be isolated.

Ethyl and n-butyl carbamates react with thionyl chloride to give the corresponding esters of allophanic acid and small amounts of cyanuric acid. Under the same treatment 2-naphthylurethane undergoes chlorination to give the 1-chloro derivative, while the 1-naphthyl compound gives the 4-chloro derivative.

LABORATORY OF ORGANIC CHEMISTRY,  
STATE UNIVERSITY OF IOWA.  
IOWA CITY, IOWA.

---

## THE ACTION OF THE ETHANOLAMINES ON CORNSTALK LIGNIN

(ABSTRACT)

ELTON FISHER

A previous paper has shown that the amount of lignin removed from plant tissue by organic nitrogen bases is dependent on the basic strength of the extracting agent. It was also shown that these bases form nitrogenous compounds with lignin.