

Proceedings of the Iowa Academy of Science

Volume 34 | Annual Issue

Article 54

1927

Diphenylketene with Nitrogen Trichloride

G. H. Coleman
State University of Iowa

A. W. Campbell
State University of Iowa

Copyright © Copyright 1927 by the Iowa Academy of Science, Inc.
Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Coleman, G. H. and Campbell, A. W. (1927) "Diphenylketene with Nitrogen Trichloride," *Proceedings of the Iowa Academy of Science*, 34(1), 223-223.
Available at: <https://scholarworks.uni.edu/pias/vol34/iss1/54>

This Research is brought to you for free and open access by the Iowa Academy of Science at 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.

tribromophenyl compound. When the allyl derivative is used, both phenyl and allyl radicals may be involved in the change. Experiments now in progress show that rearrangement of the allyl ether by heat, according to Claisen's method may cause a loss of bromine.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

DIPHENYLKETENE WITH NITROGEN TRICHLORIDE

G. H. COLEMAN AND A. W. CAMPBELL

Diphenylketene reacts with nitrogen trichloride in carbon tetrachloride solution. When this solution is warmed to 50° C with sodium hydroxide the addition product undergoes a rearrangement with the formation of imidobenzophenone. This rearrangement is similar to the rearrangement in Hofmann's method for the preparation of primary amines from amides. On passing dry HCl into the carbon tetrachloride solution, the hydrochloride of this compound is precipitated.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

NITROGEN TRICHLORIDE WITH BENZALACETOPHENONE

G. H. COLEMAN AND DAVID CRAIG

Nitrogen trichloride and benzalacetophenone in carbon tetrachloride solution between 20° and -15° react to form free nitrogen, ammonium chloride, benzalacetophenone dichloride, and a C-chloro-N-dichloroamino ketone. This compound can be reduced to the C-chloroamino ketone by means of concentrated hydrochloric acid. The hydrochloride and the benzoyl derivative of this compound were isolated and analyzed.

STATE UNIVERSITY,
IOWA CITY, IOWA.

MONOCHLOROAMINE WITH GRIGNARD REAGENTS

G. H. COLEMAN AND C. R. HOUSER

Certain Grignard reagents react with monochloroamine in dry ether solution to form amines. There is a wide variation in the