

Proceedings of the Iowa Academy of Science

Volume 39 | Annual Issue

Article 38

1932

Nuclear Condensations of Furan

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Recommended Citation

Gilman, Henry; Wooley, B. L.; and Vanderwal, R. J. (1932) "Nuclear Condensations of Furan," *Proceedings of the Iowa Academy of Science*, 39(1), 176-176.

Available at: <https://scholarworks.uni.edu/pias/vol39/iss1/38>

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NUCLEAR CONDENSATIONS OF FURAN

HENRY GILMAN, B. L. WOOLEY AND R. J. VANDERWAL

In connection with studies on orientation of furan and the synthesis of *beta*-substituted furans, condensation reactions have been effected with diazomethane, aryl-diazonium compounds, diazoacetic ester and related types with furan and its derivatives. The condensations in some cases are preceded by 1,2- and 1,4-additions. It appears that the difficulty in preparing simple furan-diazonium compounds is due, in part, to the ready coupling reaction of the diazonium group with the furan nucleus.

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FURAN ARSENICALS

HENRY GILMAN AND WILLARD H. KIRKPATRICK

Furan arsenicals can be prepared by the interaction of furan mercurials and arsenic chloride. The reaction is capable of extensive application because of the availability of a miscellany of furan mercurials having the mercuri group both in the *alpha* and *beta* positions. Another method involves the interaction of recently accessible furan Grignard reagents with arsenic halides.

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THE REACTION OF CHLOROAMINES WITH ZINC ALKYLS

GEORGE H. COLEMAN AND HANS P. ANDERSEN

The reaction of zinc ethyl has been studied with two monochloroamines and six dichloroamines in diethyl ether solution and in petroleum ether solution.

The following yields illustrate the results obtained with dichloroamines in the two solvents. With *i*-amyldichloroamine in ether solution a 16 percent yield of *i*-amylethylamine was formed while in petroleum ether a 42 percent yield of this compound was obtained. There was no evidence of the formation of tertiary amines with any of the dichloroamines used. With the monochloroamines of the type R_2NCl the yields of tertiary amines were very small.

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