

## New Type of Intramolecular Interaction between Electrophilic Carbon and Furan Ring

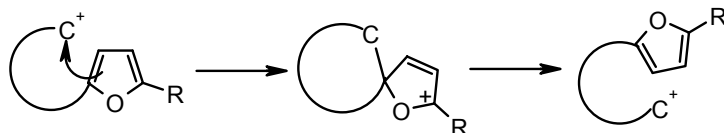
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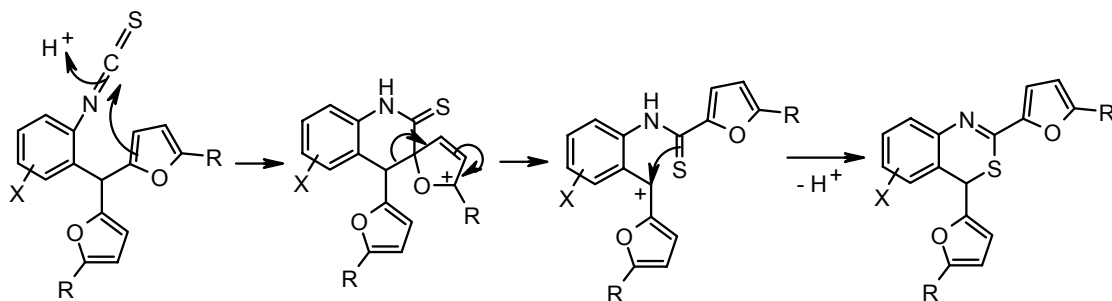
There are two known types of intramolecular interaction between electrophilic carbon and furan. The first way is intramolecular cyclization to position 3 of furan ring because of alkylation or acylation reactions [1]. The second one results in oxidative furan ring cleavage [2].

We have found new type of such interaction, which includes furan ring migration.

### TYPE 3



It was determined that under the action of perchloric acid 2-isothiocyanates of aryldifurylmethane series were rearranged into benzothiazine derivatives.



R = Alk, Ar

Thiophene analogues were used in the reaction too.

1. a) Tanis S.P., Deaton H.V., Dixon L.A., McMillis M.C., Raggon J.W., Collins M.A. *J. Org. Chem.*, **1998**, 63, 6914. b) Starling S.M., Raslan D.S., De Oliveira A. B. *Synth. Communications*, **1998**, 28, 1013.
2. a) Kusuvara N., Sugano Y., Takagi H., Miyake M., Yamamura K. *Chem. Commun.*, **1997**, 1951. b) Sasabe M., Mouda V., Takagi H., Sugane T., Bo X., Yamamura K. *J. Chem., Perkin Trans. 1*, **2000**, 3786.