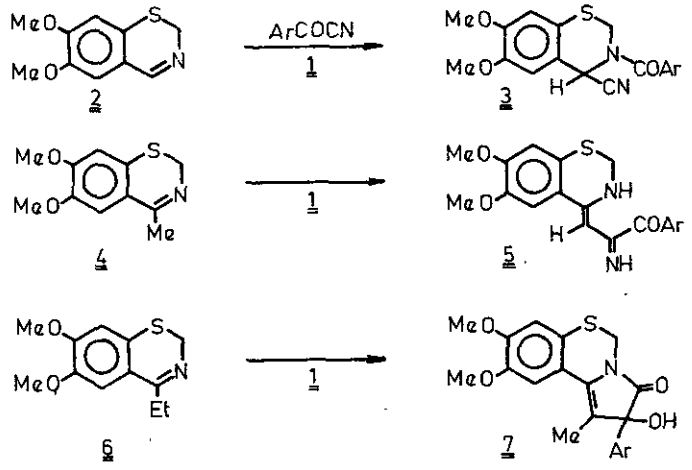
REACTIONS OF 1,3-BENZOTHIAZINE DERIVATIVES WITH AROYL CYANIDES

János Szabó, Lajos Fodor, Erzsébet Szűcs, Gábor Bernáth, Pál Sohár*

Institute of Pharmaceutical Chemistry, University Medical School Szeged, Hungary
*Spectroscopic Department of EGYT Pharmacochemical Works Budapest, Hungary

Continuing our studies[1-3] on the cycloaddition reactions of 1,3-benzothiazines, we have recently studied their reactions with aroyl cyanides. In this paper we describe the results of these investigations.

It was found that the reactions of 1,3-benzothiazines with aroyl cyanides depend strongly on the substituent at position 4 of the 1,3-benzothiazines. Depending on this substituent, addition and cycloaddition were observed. Reaction of compounds 1 with 6,7-dimethoxy-2H-1,3-benzothiazine (2) in benzene solution furnished Reisert compounds (3), which could not be prepared under the usual experimental conditions. In contrast, the reactions of the 4-methyl- (4) and 4-ethyl-1,3-benzothiazine derivatives (6) with 1 furnished compounds 5 through addition, and compounds 7 through cycloaddition.



2 → 3 (ArCOCN, 1) · 4 → 5 (1) · 6 → 7 (1)

The reactions of several further 1,3-benzothiazine derivatives were also studied. The structures of the compounds obtained were supported by microanalytical and spectroscopic (IR, ^{1}H- and ^{13}C-nmr, MS) methods.

1. L. Fodor, J. Szabó, P. Sohár: Tetrahedron 37, 963 (1981)
2. L. Fodor, J. Szabó, G. Bernáth, P. Sohár: Lecture presented at the 8th International Congress of Heterocyclic Chemistry, Graz, Austria, 27 August, 1981. Abstracts p. 495
3. L. Fodor, J. Szabó, G. Bernáth, P. Sohár: Heterocycles 19, 489 (1982)