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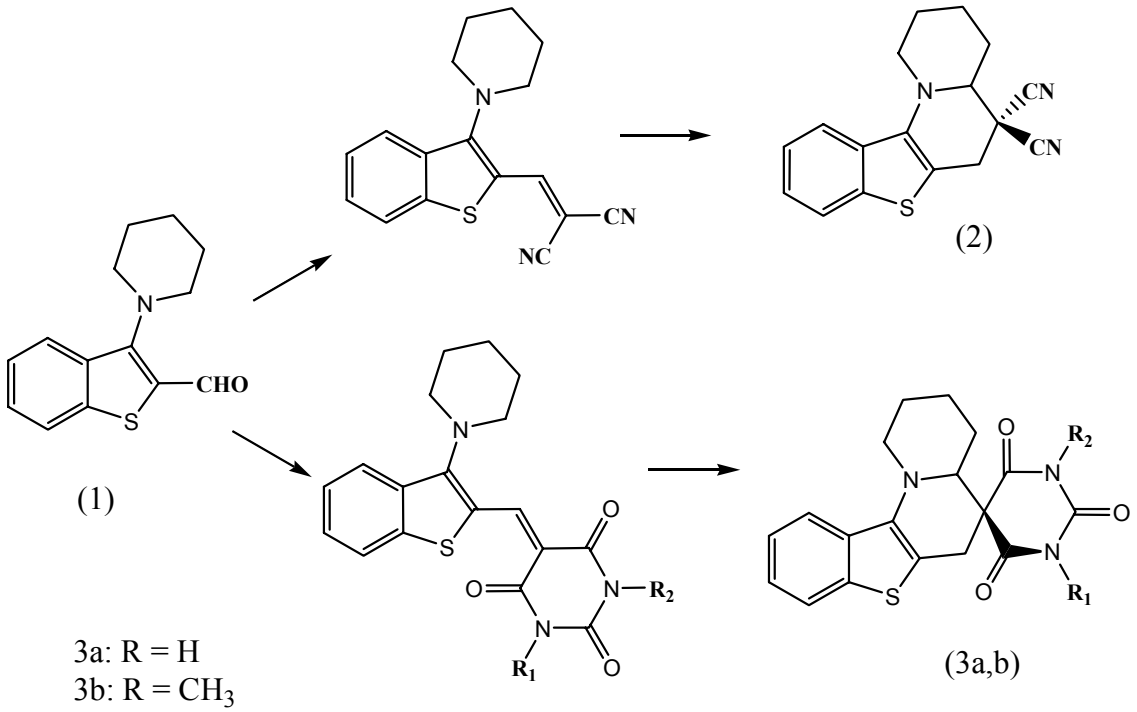
Poster Presentation

T-Reactions in the Synthesis of Benzo[4,5]thieno[2,3-*c*]quinolizines

F.M. Stoyanovich[1], B.V. Lichitskii[1], S.N. Ivanov[1], M.M. Krayushkin[1], V.G. Kartsev[2]

[1]*Zelinsky Institute of Organic Chemistry, Leninskii pr. 47, Moscow, 119991 Russia*
[2]*InterBioScreen, PO Box 218, Moscow, 121019 Russia, screen@ibscreen.chg.ru*

We investigated the interaction between 3-piperidyl-2-formylbenzothiophene (**1**) with barbituric acids (BA) and malononitrile in conditions of T-reactions (this term was suggested by the authors [1–3] for heterocyclizations based on the *o*-*tert*-amino effect). In this way, we obtained new 2,3,4,4a,5,6-hexahydro-1*H*-benzo[4,5]thieno[2,3-*c*]-quinolizines (**2**, **3a**, **b**) in ca. 60% yield (polar solvents, 60–100ºC, 2–10 h).



3a: R = H
3b: R = CH_3

Reaction of isomeric "T-syntones" (e.g. 5-phenyl-3-formyl-2-morpholylthiophene) with BA and malononitrile only afforded the products of the Knoevenagel condensation that underwent no transformation into T-products. The structure of synthesized compounds was confirmed by IR, ^{1}H NMR, ^{13}C NMR and mass spectra.

[1] Krasnov K.A., Kartsev V.G., *Tertahedron Lett.* 2004 (submitted).
[2] Krasnov K.A., in *Selected Methods for Synthesis and Modification of Heterocycles* (edited by V.G. Kartsev), Moscow: IBS Press, 2002, vol. 1. p. 280.
[3] Krasnov K.A., Kartsev V.G., Khrustalev V.N., *Russ. Chem. Bull.* 2002, vol. 51, pp. 1540–1544.