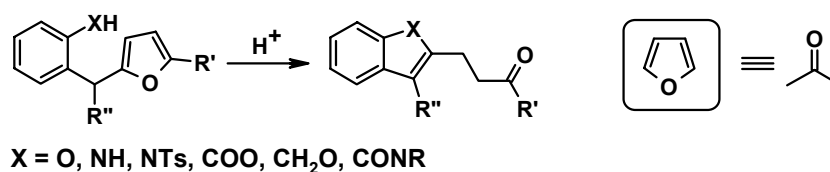


The General Approach To The Synthesis Of Benzoannulated Heterocycles Based On Furan Recyclization Reaction

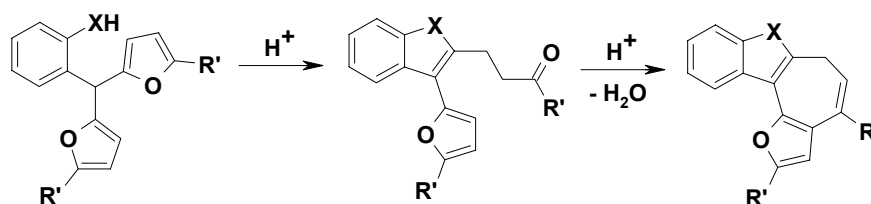
Alexander V. Butin

Research Institute of Heterocyclic Compounds Chemistry of Kuban State University of
Technology, Moskovskaya 2, Krasnodar, 350072, Russian Federation
E-mail: alexander_butin@mail.ru

We have developed a general approach to benzoannulated heterocycles synthesis on the base of *ortho*-substituted benzylfurans. We used this method for the preparation of benzofuran, indole, isochromene and isoquinolone derivatives. These structures are parts of many natural compounds and synthetic substances, which have various kinds of biological activity. That is why the developed approach can be widely used for a search of new biologically active compounds. Choosing optimal conditions and corresponding substituents in the *ortho*-position of aromatic ring we can apply the method for another benzoannulated heterocyclic systems syntheses.



In this method, furan is used as a carbonyl group equivalent and the reaction proceeds under the conditions of protolytic cleavage of furan ring. The second furan ring in the initial benzylfuran molecule results in the secondary cyclization and tetracyclic compounds formation.



In this report we investigate the influence of nature of substituents at position 5 of furan ring and at *ortho*-position of benzene one on the course of the recyclization reaction. The effect of substituents in furan ring for the secondary cyclization will be shown also.

Another reacyclization reactions and transformations of *ortho*-substituted benzylfurans will be discussed.

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