VI International Conference

CHEMISTRY OF NITROGEN CONTAINING HETEROCYCLES

CNCH-2012

12th to 16th November, 2012
Kharkov, Ukraine

Book of Abstracts

Chemistry of Nitrogen Containing Heterocycles, CNCH-2012. Book of Abstracts. – Kharkiv: Ekskluziv Publ., 2012. – 300 p.

ISBN 978-966-2166-54-5

Book of Abstracts

Print accepted 30.11.2011. Size 60x90/16
Offset paper. Risograph print.
250 copies. Order 0238

Ekskluz Publ. © 2012
Approval certificate DK 347, 28.02.2001
exkluz@ukr.net

P-203

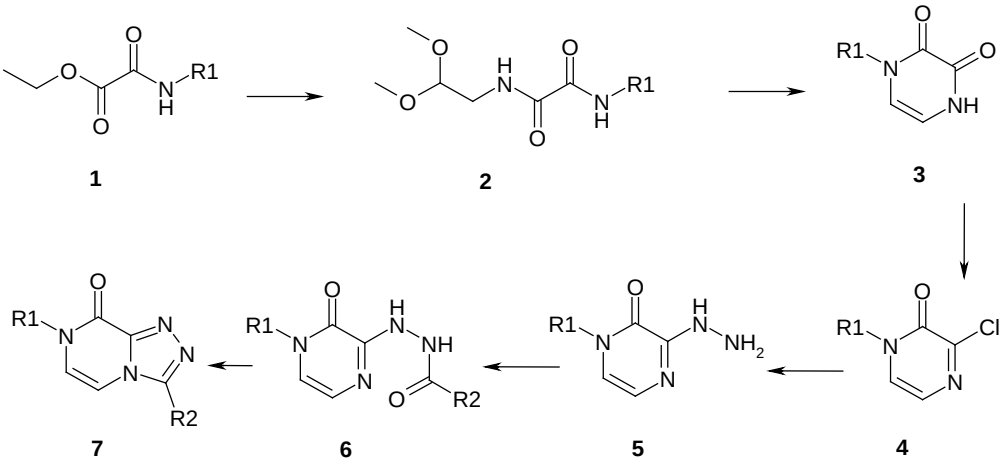
Synthesis of [1,2,4]triazolo[4,3-*a*]pyrazin-8-ones

Kulikovskaja K.U., Kovalenko S.S., Drushlyak O.G.,
Zhuravel I.O., Kovalenko S.M., Chernykh V.P.
National University of Pharmacy, Kharkiv, Ukraine, e-meil:
kulikovskaja.k@gmail.com

Searching for the new biologically active substances and creating on their basis branded new highly effective drugs is fundamental task for pharmaceutical industry.

Derivatives of [1,2,4]triazolo[4,3-*a*]pyrazines attract our attention as insufficiently known class of chemical compounds that combines in their structure fragments of several pharmacophores. Taking to the account the wide range of pharmacological action of the [1,2,4]triazolo
[4,3-*a*]pyrazine derivatives, is very actual to develop the methods for purposeful synthesis of systematic series and combinatorial libraries of compounds based on it, and to decide the problems with rational design of biologically active substances using methods of computer prediction.

We offer this suitable scheme which allows us to get a variety of the 7-substituted [1,2,4]triazolo[4,3-a]pyrazin-8-ones **7**.



R1 = Ph, 4-CH_3OPh, 4-$ClPhCH_2$ R2 = CH_3, C_2H_5

The proposed scheme is appropriate for the synthesis of [1,2,4]triazolo[4,3-*a*]pyrazin-8-ones **7** that have various substituents in tschthe seventh position except for residues of aromatic and heterocyclic amines with reduced nucleophility of amino group, and amines that have functional groups which can react with thionyl chloride, such as hydroxyl group.

The structure of the synthesized compounds was confirmed by NMR-spectroscopy.