Thematic Section: Preparative Research. **Full Paper**
Subsection: Organic Chemistry. *Registration Code of Publication:* 14-37-1-13
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*".
http://butlerov.com/readings/
Contributed: January 29, 2014.

Synthesis of novel bifunctional thiophene and furan-containing isoxazole carboxamides

© **Lyudmila A. Shumilova**,[+] **Mikhail K. Korsakov**,* and **Mikhail V. Dorogov**
Department of Organic and Inorganic Chemistry Yaroslavl State Pedagogical University named after K.D. Ushinsky. Respublikanskaja St., 108. Yaroslavl, 150000. Russia.
Phone: +7 (8452) 73-15-29. E-mail: shumilova08@bk.ru

*Supervising author; [+]Corresponding author

Keywords: *isoxazoles, sulfonylchlorination, electrophilic substitution, sulfonamides, carboxamides, isoxazole carboxylic acids.*

Abstract

Multistep method for synthesis of new bicyclic thiophene and furan containing isoxazolcarboxamides has been developed. The reaction of sulfochlorination of these molecular systems in their interaction with chlorosulfonic acid was investigated. The position of substitution in the process of electrophilic attack was determined by the method of two-dimensional correlation ^{1}H-^{1}H nuclear magnetic spectroscopy using the nuclear Overhauser effect.