Thematic Section: Preparative Chemistry	·	Full Paper
---	---	------------

Subsection: Organic Chemistry. Registration Code of Publication: 13-33-1-65

Publication is available for discussion in the framework of the on-line Internet conference "Butlerov readings". http://butlerov.com/readings/ Contributed: January 31, 2013.

## Synthesis of 1,3-disubstituted ureas and bisureas – structural elements for supramolecular compounds

© Ekaterina A. Zubovich, 1+ Vladimir V. Burmistrov, 1\* Boris A. Lysich, 1 Sergev V. Dvakonov, Dmitry V. Danilov, and Gennady M. Butov<sup>2</sup>\* <sup>1</sup> Volgograd State Technical University. VSTU. Pr. Lenin St., 28. Volgograd, 400005. Russia. Phone: +7 (917) 848-49-18. E-mail: ekamneva@rambler.ru <sup>2</sup> Volzhsky Polytechnic Institute (branch) Volgograd State Technical University. Engels St., 42a. Volzhsky, 404121. Volgograd region. Russia. Phone: +7 (8443) 22-19-59 E-mail: butov@yolpi.ru

\*Supervising author; \*Corresponding author

**Keywords:** isocyanate, adamantane, adamantyl, urea, 1,3-dimethyladamantane.

## **Abstract**

We synthesized 1,3-disubstituted ureas and bisureas of adamantane series that can be used as molecular components for the synthesis of supramolecular complexes, in particular, rotaxanes or as monomers for supramolecular cyclodextrine polymers. The reactions were carried out under mild conditions with high yields. The article presents data on the synthesis of new 1,3-adamantyldisubstituted ureas and bisureas.