Thematic Section: Preparative Chemistry. **Full Paper**
Subsection: Supramolecular Chemistry. *Registration Code of Publication:* 11-28-20-101
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*".
http://butlerov.com/readings/
Contributed: December 12, 2011.

A new type of poytopic coordination compounds: Synthesis and NMR study of the first hybrid thiacalix[4]arenoclathro-chelates

© **Svetlana E. Solov'eva**,[1]* **Andrey A. Tyuftin**,[1] **Anton A. Murav'ev**,[1] **Gruner Margit**,[2] **Habicher Wolf**,[2] **Sergey V. Korobko**,[3] **Yan Z. Voloshin**,[4] **Igor S. Antipin**,[1,5]*+ **Alexander I. Konovalov**[1,5] and **Yury N. Bubnov**[4]

[1] *A.E. Arbuzov Institute of Organic and Physical Chemistry. Kaz SC RAS. Arbuzov St. Kazan, 420088. Tatarstan Republic. Russia. Phone: +7 (843) 272-73-94. E-mail: svsol@iopc.ru*

[2] *Technical University. Bergstr. 66c. D-01062 Dresden. Germany.*

[3] *V.I. Vernadsky Institute of General and Inorganic Chemistry. NAS Ukrain. Kiev, 03680. Palladin St., 32-34. Ukrain.*

[4] *A.N. Nesmeyanov Institute of Organoelemental Compounds. RAS. Vavilov St., 28. Moscow, 11999. Russia.*

[5] *Kazan (Privolzhsky) Federal University. Kremlevskaya St., 18. Kazan, 420008. Tatarstan Republic. Russia. Phone: +7 (843) 272-73-94. E-mail: igor.antipin@ksu.ru*

*Supervising author;+Corresponding author

Keywords: *thiacalix[4]arenes, clathro-chelates, hybrid complexes, synthesis, NMR study.*

Abstract

Interaction of dichlorclathro-chelate of iron(II) with thiacalix [4]arene, containing terminal thiol groups and being in stereoisomeric form *1,3-alternate*, has led to the production of the first representative of a new type of coordination compounds – polymacrocyclic thiacalix[4]areno-clathro-chelates, the structure of which was established by NMR spectroscopy.