Full Paper Thematic section: Industrial Chemistry. Registration Code of Publication: 8-14-5-18 Subsection: Chemistry of High-Molecular Compounds. Publication is available for discussion in the framework of on-line conference "Butlerov readings". http://butlerov.com/readings/ Contributed to editorial board: November16, 2008.

Development of siliconacryl-containing monomers and research of their influence on the properties of rubber compounds on the basis of rubber CKMC-30 APK

© Sergey M. Verhunov,* Alexander E. Petrov, Nikolay F. Ushmarin, and Nikolay I. Kol'tsov⁺

Department of Physical Chemistry and High-Molecular Compounds. I.N. Ul'yanov Chuvash State University, Moskovasy Pr., 19. Cheboksary. Chuvash Republic. Russia. *Phone:* +7 (8352) 45-24-68. *E-mail: koltsovni@mail.ru*

*Supervising author; ⁺Corresponding author

Keywords: siloxanes, monomers, rubber, vulcanization, rubber compound, modification.

Abstract

On the basis of methyltrichlorsilane, monomethacryl ether of ethylene glycol and butyl alcohol properties of siliconacrylcontaining monomers have been synthesized and investigated. Influence of trisubstituted monomer on plasto-elastic characteristics of rubber compound on the basis of rubber CKMC-30 APK, as well as physico-chemical and physico-mechanical properties of vulcanizates have been investigated. It has been shown that trisubstituted siliconacrylcontaining monomer allows to obtain modified rubber compounds and vulcanizates with improved properties.