*Thematic Section:* Applied Chemistry. **Full Paper**
*Subsection:* Elastomers. *Registration Code of Publication:* 10-19-3-75
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*". http://butlerov.com/readings/
Contributed: Май 15, 2010.

*Thematic direction:* Research of influence of technological additives on properties of rubbers on the basis of BNR new generation. Part 2.

# Elastid, oxsanoles and factice

© **Nikolay I. Koltsov**,[1]*+ **Nikolay F. Ushmarin**,[2] **Lina G. Rogozhina**,[1] **Svetlana A. Issakova**,[1] **Anastasia V. Jarutkina**,[1] **Anzhelika Y. Plehanova**,[2] and **Michael V. Kuzmin**[1]

[1] *Department of physical chemistry and macromolecular compounds. Chuvash state university of I.N.Ulyanov. Moscow avenue, 15. Cheboksary, 428015. Chuvash Republic. Russia. Phone: +7 (8352) 45-24-68. E-mail: koltsovni@mail.ru*

[2] *Technical department to rubber-technical products of Cheboksary production association of V.I. Chapaeva. Socialist St., 1. Cheboksary, 428006. Chuvash Republic. Russia. Phone: +7 (8352) 39-62-39.*

*Supervising author; +Corresponding author

***Keywords:*** *butadien-nitrile rubbers of new generation, technological additives, elastid, oxsanoles, factice, rubbers, plasto-elastic properties, physical-mechanical properties.*

## Abstract

Efficiency of action of technological additives elastid, oxsanoles CS-100 and KD-6 and their combinations with factice on properties of rubbers on the basis of butadien-nitrie rubbers (BNR) of new generation is investigated. It is found out that elastid displays properties of the additive of multifunctional action: improves plasto-elastic properties, cohesive strength and stickiness of rubber mixtures, influences on technological and curing behaviour of rubbers. Oxsanoles CS-100 and KD-6 slightly reduce viscosity of rubber mixtures, stabilize physical-mechanical properties of vulcanizates and increase their firmness when exposed to severe atmospheres at elevated temperatures. Joint application of factice with elastid and oxsanole CS-100 or KD-6 allows to improve plasto-elastic and the cross-linking characteristics of rubbers. Thus their stability under the action of high and low temperatures and severe atmospheres is above or at the level of rubbers on the basis of BNR of old generation.