Thematic Section: Theoretical Research. **Full Paper**
Subsection: Simulation of Physico-Chemical Processes. *Registration Code of Publication:* 13-34-6-157
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*".
http://butlerov.com/readings/
Contributed: May 6, 2013.

Numerical modeling of physical and chemical processes in the vulcanization of stranded cable products

© **Evgenia V. Ivanova**,[+] and **Pavel A. Strizhak***
National Research Tomsk Polytechnic University. Lenin St., 30. Tomsk, 634050. Russia.
Phone: +7 (3822) 701-777, add. 1910. E-mail: zhenya1@tpu.ru

*Supervising author; [+]Corresponding author

Keywords*: heat and mass transfer, curing, cable product, polymerization, insulating sheath, modeling.*

Abstract

A numerical study of the integral characteristics of vulcanization stranded cable products based on heat and mass transfer model that takes into account a set of basic physical and chemical processes has been carried out. The characteristic times of complete polymerization of the shell of a typical multi-conductor cable have been shown. The influence of the internal structure of the cable on the vulcanization characteristics of its external insulation shell has been established.