Full Paper	Thematic Section: Physico-Chemical Research.
Registration Code of Publication: 13-35-8-42	Subsection: Polymer Chemistry

The article is published on the materials of speech at the XX All-Russian Conference

"The structure and dynamics of molecular systems." Yalchik 2013.

Publication is available for discussion in the framework of the on-line Internet conference "Butlerov readings".

http://butlerov.com/readings/

Contributed: May 6, 2013.

Thematic course: Control over physical and chemical properties of polymers by direct synthesis. Part 1.

Influence of the nature of the co-monomer on the thermal behavior of acrylonitrile co-polymers

© Artem A. Baskakov, 1 Julia V. Kostina, 1* and Elena V. Chernikova2*

¹ Institution of the Russian Academy of Sciences. A.V. Topchiev Institute of Petrochemical Synthesis of RAS. Leningradskiy Pr., 29. Moscow, 119991. Russia. Phone: +7 (495) 955-41-35. E-mail: julia@ips.ac.ru ²M.V. Lomonosov Moscow State University. Chemical Faculty. Leninskiye gory. Moscow, 119991. Russia. Phone: +7 (495) 939-54-09. E-mail: chernikova_elena@mail.ru

Keywords: polyacrylonitrile, polyconjugated system, pseudoliving radical polymerization, IRspectroscopy, IR-pyrolysis.

Abstract

We studied the laws of the formation of actylonitrile co-polymers in the presence of small additions of co-monomers – styrene and tret-butylacrylate – in pseudoliving radical polymerization under the action of agents of reversible chain-transfer. The influence of the nature of co-monomer on the rate of formation and the structure of polyconjugated system under the thermal effect on the synthesized co-polymers have been studied.

^{*}Supervising author; *Corresponding author