Thematic Section: Research into New Technologies. **Review**
Subsection: Medicinal Chemistry. *Reference Object Identifier* – ROI: jbc-02/19-58-6-1
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*".
http://butlerov.com/readings
Submitted on June 06, 2019.

Antiseptic polymer materials

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Keywords: antiseptic, polymer, composition, synthesis, processing.

Abstract

The work is devoted to the analysis of information in the domestic and foreign literature on antiseptic polymer materials. Recently, there has been an increased interest in polymeric materials (compositions), which, in addition to the properties inherent in polymeric materials (a combination of elasticity and strength, corrosion and chemical resistance, etc.), have antiseptic properties, i.e. when the polymer exhibits its antimicrobial properties in contact with the polymer surface. The manifestation of antiseptic properties of polymers is possible in the presence of active atoms or groups with antimicrobial properties in the polymer chain itself, as well as in the presence of antimicrobial substances in the composite material as an additional additive. Both methods of creating antiseptic polymer systems are described in the scientific literature. In terms of the volume of messages, the composite (second) method for creating antiseptic polymer composite materials significantly exceeds the synthetic (first) method, since it is simpler and more accessible, both in terms of technology and the availability of components for their creation. Various classes of compounds with antiseptic properties are considered as potential components of antiseptic polymer compositions. The existing terminology used in the field of antiseptic systems is analyzed.

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