Thematic Section: Research of the New Technologies.	Full Paper
Subsection: Inorganic Chemistry.	Reference Object Identifier – ROI: jbc-02/15-44-11-87

Publication is available for discussion in the framework of the on-line Internet conference "Butlerov readings". http://butlerov.com/readings/ (English Preprint)

Contributed: October 02, 2015.

Study on the possibility of measuring the content of nitrosylsulfuric acid in a mixture of acids

© Nadezhda Yu. Kozlova,* Alexey I. Harrynov,* and Rosa F. Gatina*

¹ Federal State Enterprise "State Research Institute of Chemical Products". Svetlaya St., 1. Kazan, 420033. Tatarstan. Russia. E-mail: kozlova nadezhda 2014@mail.ru.

*Supervising author; *Corresponding author

Keywords: nitrate, a mixture of nitric and sulfuric acids, potentiometric titration, nitrogylcerin acid.

Abstract

The investigations of solutions of mixtures of nitric and sulfuric acids in the concentration range of HNO_3 20-23%, H_2SO_4 50-65%, H_2O -10-20% were curried out. It is shown that the interaction of nitric and sulfuric acids, a mixture of nitrosylsulfuric acid is formed. The process of formation of the nitrosylsulfuric acid finished in one day after preparation of the mixtures. By potentiometric titration it is possible to determine nitrosylsulfuric acid in mixtures of nitric and sulfuric acids.

² Department of Technology of Inorganic Substances. Kazan National Research Technological University. K. Marx St., 68. Kazan, 420015. Tatarstan. Russia.