Thematic Se	ction.	Techn	ological Research.				Full Pape	er
				 	 	 		-

Subsection: Chemical Equipment. Reference Object Identifier – ROI: jbc-02/15-43-7-135

The article is published on materials of the report on "International Scientific Forum Butlerov Heritage – 2015". http://foundation.butlerov.com/bh-2015/ (English Preprint)
Submitted on April 29, 2015.

## Development of the construction and method of calculating the vortex devices for gas cleaning

© Vitaly G. Afanasenko,\* and Evgenie V. Boev

Equipment Petrochemical Plants Division. USPTU. Kosmonavtov St., 1. Ufa, 450062. Bashkortostan Republic. Russia. Phone: +7 (347) 243-11-45. E-mail: awirus@rambler.ru

\*Supervising author; \*Corresponding author

Keywords: separation, cleaning of gases, vortex motion, centrifugal force.

## **Abstract**

Gas cleaning is one of the most important processes of the petrochemical industry. It is carried out on various stages of production, for preparing a feed gas of organic synthesis and purification products thereof. Also subjected to cleaning gases before atmospheric emission in order to reduce the content of harmful impurities that negatively affect the environment. This article describes the features of the process of separation of inhomogeneous gas mixture in a vortex motion, and shows the structure of a device for carrying out this process.