

Upgrading vacuum systems of black oil rectification plant

© **Eduard V. Osipov**,⁺ **Sergey I. Poncarov**, and **Eduard S. Telyaykov***

Mechanical Engineering for Chemical Industry. Kazan National Research Technological University.

K. Marx St., 68. Kazan, 420015. Tatarstan Republic. Russia.

Phone: +7 (843) 2-314-241. E-mail: mahp_kstu@mail.ru

*Supervising author; ⁺Corresponding author

Keywords: *vacuum system, the vacuum rectification of black oil, liquid ring vacuum pump.*

Abstract

The developed model worked out in *ChemCad* represents a complex of chemical engineering system (installation for vacuum distillation), which allows to take into account characteristics of the elements of the same hierarchical level, of which it consists. Numerical experiments on the models of individual elements obtained in the software package were conducted to determine their characteristics in order to obtain integrative characteristics of the system.