Abstract

Master's thesis contains the analysis of the technological scheme of process production of polyisobutylene.

The main technological device is evaporator.

In the master's thesis have developed mathematical models of the static and dynamic modes for the evaporator. With these models made calculations of static characteristics of process disturbance and control channels and conducted the synthesis control system for thermal conditions of an evaporator in the process production of polyisobutylene. Were got optimal settings for PID-controller and were comparison of using the PID-controller using and without using of the optimal settings for regulator.

Also in the master's thesis deals with the issue of safety to the operation of process of production of polyisobutylene.

Master's thesis contains an explanatory note volume 84 pages.

Explanatory note contains 33 pictures, 4 tables, 2 application and 24 source of literary.

Keywords: polyisobutylene, ethylene, isobutylene, evaporator, the scheme of automation, mathematical model, controller.