

## **Abstract**

### **COMPUTER MODELING, AUTOMATION, GAS CLEANING PROCESS WITH MONOETHANOLAMINE, MODELING, MATERIAL BALANCE.**

Explanatory note 93 p., 30 figures., 15 tables., 6 appendixes, 16 sources.

The topic of this project is Computer modelling and automation of gas cleaning process with monoethanolamine.

The purpose of this project is to design plant of gas cleaning with monoethanolamine by computer modeling, development of a computing module and automation system.

Computer calculation of basic technological parameters and calculation of the material balance of the process in the environment of Hysys is executed.

The algorithm of designing with application of mathematical model is developed.

A computational module for calculating the C # programming language has been developed.

The process automation scheme, which contains 16 contours for monitoring, signaling and regulation, flow, temperature, level and pressure, is developed. The necessary control and control devices are selected.

Assembly drawing of the installation of a resistance thermometer at the facility is presented.

The calculations of the main technical and economic parameters of the gas cleaning process with monoethanolamine with the account of automation are carried out.

The basic dangerous factors on a production are revealed, considered measures for occupational safety. Technical safety solutions are given.