

Abstract

COMPUTER MODELING, AUTOMATION, HIGH PRESSURE
POLYETHYLENE, MODELING, MATERIAL BALANCE

Explanatory note 96 p., 22 figures, 42 tables, 3 appendixes, 17 sources.

The topic of this project is computer simulation of the process of obtaining high-pressure polyethylene by a continuous method.

The purpose of this project is to design an autoclave reactor using computer simulation methods, development of a computing module and automation system.

A computer calculation of basic technological parameters in the environment of Chemcad 7.1.2 is executed.

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

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

The process automation scheme, which contains 23 contours for monitoring, signaling and regulation, flow, temperature and pressure, is developed. The necessary control and control devices are selected.

The resistance thermometer is presented as the main element.

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

Considered measures for occupational safety at the enterprise. Technical safety solutions are given.