

Abstract

In this thesis project was executed:

- development of schemes of automatic control in the process of obtaining ethylene oxide by direct oxidation of ethylene;
- Development of a mathematical model of control object;
- analysis of the automation process of producing ethylene oxide;
- Investigation of static and dynamic characteristics of the control object;
- system configuration control method Tsihlera-Nikelsa, transition mode and using interactive environment SISOTool;

The work contains explanatory memorandum (A4) Scheme automate the process of obtaining butyndiolu from acetylene and formaldehyde (A1), construction and circuit switching technology to block engines (A1), circuit diagram automation remote control electric motors (A1) and data automation means (A4).

The explanatory note are: process description, analysis of physical and chemical bases of process in terms of automatic control equation statics and dynamics control object (agitator), graphic static and dynamic characteristics of the process and graphics mode transition control object with using P, PI and PID controllers