ABSTRACT

COMPUTER MODELING, CONTROL AND REGULATION, AUTOMATION, COMPUTER MODULE, MATHEMATICAL MODEL, CHEMCAD, DIOXIDE, SULFUR TRIOXIDE, CATALYTIC OXIDATION.

The diplom project contains 84 p., 13 figures, 19 tables, 3 appendixes, 21 sources.

The project of computer calculation of the technological scheme of catalytic oxidation of sulfur dioxide in the production of sulfate acid is executed.

The project substantiates the norms of technological regimes, provides a technological diagram of the process of catalytic oxidation of sulfur dioxide. The characteristics of the technological scheme of catalytic oxidation of sulfur dioxide are considered.

Computer calculation of the material balance of the process in the program - simulator ChemCad 7.2.1

A computational module was developed for identifying the parameters of a mathematical model for the used model of an isothermal reactor ideal for displacement of continuous action.

Proposed scheme of process automation. The necessary control and regulation devices have been selected.

The economical - organizational calculations of the main technical and economic indicators of this process are carried out.

The safety technology of the production process is considered. Technical safety solutions are given.