

ABSTRACT

COMPUTER MODELING, AUTOMATION, PURPOSE OF NITRATE AMONY, MATERIAL BALANCE, NITROAMOFOSC

Explanatory note has 99 p., 19 fig., 28 tables, 3 appendixes, 28 sources.

The project of computer simulation and automation of the evaporation process in the production of nitroamophos

The purpose of this project is computer simulation of the production scheme of nitroamofoski, calculation of the main characteristics, design calculation of the evaporator, development of the computing module for design, development of the automation scheme.

The project substantiates the norms of the technological regimes, gives a technological diagram of nitroamophos production. The characteristics of the technological scheme of the evaporation process are considered.

Computer calculation of the material balance of the process in the program - simulator Chemcad 7.1.2.

The algorithm of design calculation of a single-body evaporator of film type with the use of iterative procedures for determination of process parameters was constructed.

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

The scheme of process automation is developed. Selected devices for monitoring and regulation.

The economic-organizational calculations of the main technical and economic indicators of this production taking into account the automation of production are carried out.

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