

Abstract

Master's thesis: "The system of process control evaporation of ammonium nitrate" consists of 142 pages, 57 figures, 14 tables and 7 of Annex 15 source.

Object of study - evaporator and buffer capacity in the evaporation of ammonium nitrate.

Subject of investigation - mathematical models and process control evaporation of ammonium nitrate

Purpose - to explore the processes of evaporation stage, to create a system to control double evaporator, to create a system of automatic control stage evaporation, create a project implementation quality management system of PJSC "Rivneazot."

The method of research - analysis of the mathematical model of the process SAU classical methods and using expert systems.

The paper examined the physical and chemical processes occurring in the evaporator and was created by dual-circuit control system. Besides mathematical model was created stage evaporation, which includes obtained transfer functions evaporator and the buffer tank. The paper highlights the key principles of implementing a modern system of quality at the production of nitrogen fertilizers and asked to create a project implementation quality management system of PJSC "Rivneazot."

In further work is necessary to supplement a mathematical model derived evaporation stage, to continue the study of influence of parameters setting options.

KEY WORDS: system management, mathematical model, evaporator, buffer capacity, concentration, quality management system.