

## **Abstract**

Diploma project on a theme «Automation of process of production of polypropylene» contains an explanatory message by volume of 67 pages, specification of equipment by volume of 14 pages, and addition, on 3 pages.

An explanatory message contains 26 pictures, 7 tables, 2 additions (one of which is a specification of equipment) and 10 literary sources.

In the diploma project of bachelor the executed analysis of flowsheet of production of polypropylene, as an object of automation.

One of basic technological a vehicle there is a mixer of catalization complex. For this vehicle the features of his work were considered, as a management object. The mathematical model of static and mathematical model of the dynamic modes of operations of mixer were also developed. By these models the executed calculations of static characteristics of disturbance and control channels. Done synthesis control system. The transition process in the system with the regulator cheaper than in the facility without the regulator.

In-process there was the considered reliability of part of the system – to the contour of management of eletro drives. Also in a diploma project the question of accident prevention is considered on the production of polypropylene.

At implementation of diploma project there were the used methods of theory of automatic control, theory of reliability, mathematical design.

Basic job performances can be used for the preliminary estimate of parameters of tuning of real control system and in quality didactics materials of courses «Authentication and design of technological objects», «Planning of control system», «Automation of chemical productions» and «Theory of automatic control»

*Keywords:* polypropylene, polymer, polymerization, mixer of catalization complex, management contour, control system, management object, regulator, chart of automation, mathematical model, static description, channel of indignation, management channel, dynamic description, labour protection, specification of equipment.