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BOOK OF ABSTRACTS

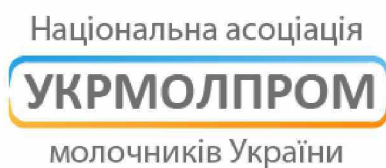
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INTELLIGENT CONTROL SYSTEM OF EVAPORATION SYSTEM

There are research works and developments devoted to improving the evaporation system at the sugar refinery and its automated management control. Much has been done in the field of this problem but undoubtedly much remains to be done in it. At present there is a growing interest in saving of energy resources at the Ukrainian food processing plants and the sugar refinery is no exception. That's why the evaporation system, as a primary energy user, needs an energy-saving automated control. There are some research works where evaporation system is regarded as a part of technological complex or a part of heat and power complex, but we regard both. On the one hand the evaporation system is chief user of heat energy and important part of energy saving system, on the other it is a part of technological complex and quality of products depend on it. It is therefore important to develop an automated system of control, which makes a point of products quality and energy conservation side by side. One of approaches, which will help to improve the efficiency of the evaporation system, is the development and implementation of modern intellectual information control systems. These systems allow you to quickly search, synthesis and implementation of strategies that minimize energy consumption and resources consumption. These systems can operate under dynamic conditions and under uncertainty. It also provides a reasonable level of system productivity and product quality. It should be noted that the efficient use of thermal resources by entropy approach can be used in automated control of evaporation system also. All of these approaches are combined into intelligent control system based on information technology.

KEY WORDS: *evaporation system, automated system of control, energy conservation, intellectual information control systems*