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**FORMATION AND DEVELOPMENT OF THE ALCOHOL INDUSTRY IN
UKRAINE IN THE CONTEXT OF THEORETICAL
AND METHODOLOGICAL FACTORS**

Summary

The author has set the goal to generalize the theoretical and methodological foundations of the formation of the alcohol industry of Ukraine, which have formulated in the works of foreign and domestic scientists in the second half of the 18th – early 20th centuries. The characteristic of the first devices of the distillation action, which were most widely used in the production of alcohol of the period under study, is given. It has shown that in the 17th – 18th century the methods of distillation were sufficiently developed, which made it possible to obtain alcohol for industrial production. Despite the fact that the chemical equation of alcoholic fermentation was discovered at the end of the 18th – at the beginning of the 19th century, until the second half of the 19th century there was not science-based technology for the process of alcohol production. It has proved that the forming of the alcohol industry was preceded by the development of the theory of distillation and fermentation. The main positions of the mechanistic, microbiological, physico-chemical, physiological theories of fermentation, which have formulated in the second half of the

XIX century, have generalized. Their founders are domestic and foreign scientists Zh.-B. Dumas, E. Peligo, M. Bertlo, A.M. Butlerov, A. Lavoisier, J. Lussac, S. Canarian de Latour, T. Schwann, F. Kuttsing, J. Libich, L. Paster, M.M. Manaseina, E. Buhner, L.A. Ivanov, A.I. Lebedev, S.P. Kostychev, Ya.O. Parnas, K. Neyberg, G. Embden, O. Meyerhof and others.

The first study of methyl alcohol was conducted in 1834, the synthesis of methanol in 1857, tertiary alcohol – in 1863. The chemical equation of alcohol fermentation was given by French chemists at the end 18th – the early 19th century. The role of L. Pasteur, who in 1856 began to study the processes of fermentation and studied it for 20 years, was proved. The scientist has shown that the formation of alcohol, glycerin and amber acid during fermentation can occur only in the presence of microorganisms. Russian physicist, biochemist M.M. Manaseina for the first time pointed out the possibility of cell-free alcohol fermentation. The author presents an important study by E. Bukhner, who advanced the hypothesis that the active substance is an enzyme. His discovery meant that fermentation occurs as a result of the chemical activity of the enzyme both inside and outside the yeast cell.

Key words: *alcohol industry, alcohol, fermentation, distillation, enzymes, methanol.*