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**THE OBTAINING AND STUDYING OF THE COMPOSITION OF CAR TIRE BASED LIQUID PYROLYSIS PRODUCTS**

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*The actual problem of the accumulation of used car tires in the environment has been considered and rational ways of its solving have been proposed. The "traditional" (thermal) method has been considered, the essence of which lies in the following technological operations: the extraction of metal parts from the tires, the grinding of the obtaining rubber material and its heating to high temperatures without air access. The result products of the pyrolysis of used car tires are gas, liquid fraction and carbon black. To carry out the process of pyrolysis of used car tires, a basic technological scheme of the process has been proposed, which was implemented on a pilot scale. The main product is liquid pyrolysis products of used car tires, the mass yield of which is about 35 %.*

*In order to search a further rational use of liquid pyrolysis products of used car tires, a number of their physicochemical properties and fractional composition have been analysed, and their hydrocarbon composition has been determined. Comparison of the characteristics of liquid pyrolysis products of used car tires with the requirements of regulatory documents for commercial fuels allowed to assert that these materials cannot be used as a component of boiler fuel. The main reason for this conclusion is the low flash point in the open crucible. After the removing of gasoline fractions from the liquid products of pyrolysis of used car tires (boiling temperature 200 °C), the resulting residue (boiling temperature > 200 °C) met the requirements of DSTU 4058-2001 for fuel oils of grades "40" and "100". This fact allows to use such a material as a component of boiler fuel.*

*The possibility of using gasoline fractions as components of commercial gasoline is analyzed. The revealed high content of aromatic compounds and a relatively high content of unsaturated hydrocarbons in the composition of the fractions (fr. with a boiling interval of 140–200 °C and fr. with initial boiling point of 140 °C) are unacceptable for gasoline fractions. Establishing effective and simple methods for reducing the content of aromatic and unsaturated compounds without significant reconstruction of the installation will be the goal of further research.*

Key words: used car tires, pyrolysis, liquid pyrolysis products, chromatography, boiler fuel, gasoline fractions.

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