

GASIFICATION OF LOW-MELTING HYDROCARBON MATERIALS IN HIGH-TEMPERATURE GAS FLOW

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Abstract: The experiments are carried out and the quantitative characteristics of the process of gasification of low-melting hydrocarbon materials (polyethylene and polypropylene) in the flow of high-temperature inert gas are determined. The yield of gasification products is shown to increase with the carrier gas temperature and with the completeness of heat removal to the material. The minimum attained value of the ratio between the mass flow rates of the carrier gas and gasification products in the experiments is 4.5.

Keywords: low-melting fuel; inert gas; gas generator; high-temperature carrier gas flow; gasification products

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