
Evaluation of Environmental Friendliness and Efficiency of Biomass Gasification Processes

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Abstract: The results of numerical studies of biomass gasification are presented: litter masses of poultry farming, sewage sludge, woodworking waste. A schematic diagram of a gasification installation using thermal energy obtained by burning a certain part of the generated synthesis gas is proposed. The optimal operating parameters of steam gasification, contributing to an increase in the degree of conversion of carbon into carbon monoxide and hydrogen, as well as operating parameters of combustion of a mixture of air and a part of the generated synthesis gas, contributing to the minimum content of harmful substances emitted into the atmospheric air in combustion products have been determined.

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