

Method for thermal processing of solid domestic and industrial waste includes feeding waste to vertical reactor, drying and pyrolysis of the waste with gaseous heat carrier, with discharge of vapor-gas mix from the reactor and its separation to pyrolysis gas and liquid fraction (condensate). As gaseous heat carrier one uses plasma, and as plasma-forming agent – pyrolysis gases. At that, liquid fraction (condensate) is partially or completely supplied to reactor for following destruction. Apparatus for thermal processing of solid domestic and industrial waste includes vertical reactor, unit for waste loading, vapor-gas mix collector and separation column, this is connected by pipeline with vapor-gas mix collector. Additionally it includes plasmotron, this is installed in the lower part of the reactor and connected by pipeline to output branch pipe of pyrolysis gas of the distribution column. At that, the output branch pipe of liquid fraction (condensate) of the distribution column is connected by pipeline with inner medium of the reactor.