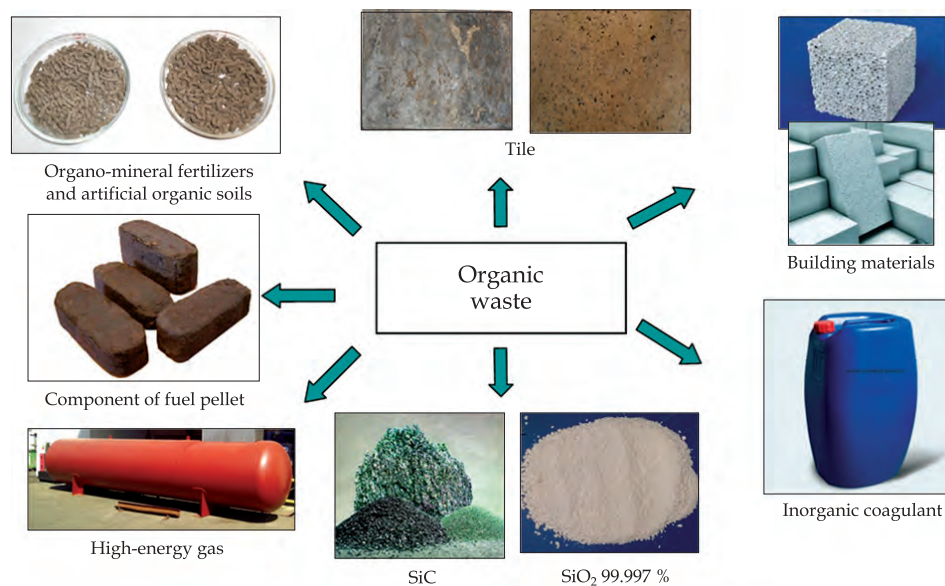


PROCESSING OF ORGANIC WASTE INTO VALUABLE SUBSTANCES AND MATERIALS



Scheme of integrated processing technology of the organic waste

Areas of Application

The technology is to be used for recycling plant waste into commercial products

Specification

The integrated technology for processing plant waste includes the following stages: preparation of raw materials for further processing; targeted waste treatment to obtain a specific product; residual biomass thermal decomposition after removal of one or more products; grading of ash residue formed after heat treatment to obtain high-purity products; recovery of ash residue, if the grading stage is missing for a particular customer (fertilizers, construction materials and reagents for water purification)

IPR Protection

IPR1

Advantages

Unlike the world existing technologies for recycling plant waste, majority of which is oriented towards energy generation, this one enables obtaining several high-demand products and materials (technical and microcrystalline cellulose, alcohols, furfural, hydroxybenzaldehydes, high-purity SiO₂, SiC, and Si₃N₄) at the same time

Stage of Development.

Suggestions for Commercialization

IRL5, TRL5
Technology for processing particular biomass is developed, upon request

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