

RESEARCH REGARDING SOLID AND GASEOUS EMISSIONS EMITTED BY PYROLYSIS INSTALLATION

Goal of the project

Evaluation of a new pyrolysis installation impact on the suburban environment

Short description of the project

The research partner has purchased and further developed a pyrolysis installation for thermal treatment of Polyethylene Terephthalate (PET). The main product is a high density molasses with a high energy content to be used as renewable energy source. The byproduct is biogas and our goal is to evaluate its quality and suitability to be used as main fuel for pyrolysis process.

Project implemented by

Politehnica University of Timisoara/ Faculty of Mechanical Engineering

Implementation period

22.04.14 – 22.12.14

Main activities

In-situ measurements of SO₂, NO (NO+NO₂), CO, CO₂, O₂, VOC, heavy metals, suspended particles emissions and thermodynamic parameters

Results

- Evaluation of pyrolysis efficiency.
- Evaluation of installation environmental impact.
- Evaluation of biogas quality.



Applicability and transferability of the results

- PET pyrolysis techniques.
- Renewable energy sources.
- Urban waste management.

Financed through/by

POWEROIL COMPANY Timisoara

Research Centre

Research Center for Thermal Machines and Equipment, Transportation and Pollution Control

Research team

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