

Municipal Wastes Conversion: The Energy Valorization of waste by Pyrolysis

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The whole world is committed to economic development and the continuous improvement of living conditions, thus the problem of depletion of the limited resources of our planet and the management of waste become crucial. The global consumption and depletion of materials were highlighted in the Millennium Development Goals formulated in the year 2000 by the United Nations. A set of goals were formed with a heavy importance put on the 7th Goal “To Ensure Environmental Sustainability” ([Millennium Assessment, 2005](#)). Additionally, the 2008 Waste Framework Directive includes a 50% recycling target for waste from households, to be fulfilled by 2020 ([European Environment Agency, 2013](#)).

Pressures on the global environment have led to calls for an increased use of renewable energy sources. Municipal wastes disposed of at open dumping sites, pose health risks, contaminate surface water and release greenhouse gases such as methane. However, these wastes could be considered as a potential source of renewable energy. This paper will present a brief review of the main conversion processes, with specific regard to the Thermo-Chemical conversion in general and Pyrolysis technology in particular.

Keywords: Waste Conversion, Renewable Energy, Pyrolysis

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