CONVERSION OF MUNICIPAL SOLID WASTE TO GREEN ENERGY: A PARAMOUNT CONCERN OF THE WORLD

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Abstract:

The exponential growth of Municipal Solid Waste (MSW) along with its environmental impact is one of the most critical problems that large cities in developing countries face now-a-days. Solid Waste management in developing countries is characterized by highly inefficient waste collection practices, variable and inadequate levels of service due to limited resources, lack of environmental control systems, indiscriminate dumping, littering and scavenging and, most of all, poor environmental and waste awareness of the general public. In most urban areas in emerging/developing countries, solid waste management costs consume between 20% and 50% of municipal revenues. They need to run Municipalities, Puorashava and City Corporation Turning Municipal waste to energy is the best solution for waste management and waste can be turned into a valuable resource in this way. Waste Technology Limited is producing diesel and gas from solid waste.

Biography:

In the United States and in most part of the globe,transportation fuels are predominantly derived from imported fossil fuel, which creates an economic and political dependence on foreign supplies. In recent period, gasoline and diesel have been subject to large price swings that strongly affect regional economic and transportation planning and budgeting. Economic, political, and Environmental pressures provide the motivation to reduce the use of conventional transportation fuels and a growth in the interest for alternate sources to these conventional transportation fuels. In urban areas in the United States and around the world, vehicle emissions are the largest single source of air pollution and greenhouse gases. Emissions from gasoline cars include unburned hydrocarbons, which are responsible for ground-level ozone and smog; nitrogen oxides (NOx), which contribute to ozone and acid rain; carbon monoxide (CO), a toxic byproduct of incomplete combustion and a health hazard; sulfur dioxide (SO2), which contributes to acid rain; and carbon dioxide (CO2), a greenhouse gas that contributes to global warming.The exhaust from gasoline vehicles or from evaporative emissions include many other harmful compounds,including benzene, toluene, xylene, styrene, 1,3-butadiene, aldehydes, ketones, phenols, halogenated hydrocarbons, and trace metals.

Recent Publications:

- U.S. Energy information Administration, world supply and consumption of petroleum products, Wikipedia, http://en.wikipedia.org./wiki/Petroleum
- Y. Uemichi, Development of a catalytic cracking process for converting waste plastics to petrochemicals, J. Mat. Cycles Waste Manage.,5(2), 89-93, 2003.
- A. Marcilla, A. Gómez-Siurana and F. Valdés, Catalytic cracking of low-density polyethylene over H-Beta and HZSM-5 zeolites: Influence of the external surface. Kinetic model, Polym. Degrad. and Stability, 92(2), 197-204, 2007.
- G. Manos, "Catalytic Degradation of Plastic Waste to Fuel Over Microporous Materials" Chapter 7 in Recycling of Waste Plastics: Pyrolysis and Related Feedstock Recycling Techniques, (Eds: J. Scheirs, W. Kaminsky), J. Wiley, 193-208, 2006.

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