

Analyzing Properties of Plastic Waste for Energy Recovery †

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Abstract: Rise in population, rapid urbanization, and lifestyle change have led to the generation of a large quantity of solid waste, serving as a significant impediment to the environment. As a consequence, implementing an efficient solid waste management strategy is gaining momentum. The urgency becomes more evident as out of 17 Sustainable Development Goals, the majority of goals, and their targets directly link to solid waste management. India generates approximately 15 million tonnes of plastic waste per year, and only one-fourth of it is recycled. Recent advancements have resulted in the prospect of converting this waste into liquid fuel using the pyrolysis technique. Thus, using these wastes to produce liquid fuel addresses the issue of plastic debris and provides a solution to the depletion of fossil fuels. The current study investigates the calorific value of plastic waste. To know so, proximate and ultimate analysis was performed using the ASTM standards. Detailed results will be discussed.

Keywords: environmental pollution; waste management; resource recovery.

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Conflicts of Interest

The authors declare no conflict of interest.