Recent advances in biological recycling of polyethylene terephthalate (PET) plastic waste.

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Polyethylene terephthalate (PET) is one of the most commonly used polyester plastics worldwide, but it is very difficult to hydrolyze in a natural environment. PET plastic is a cost-effective lightweight and durable material that can be easily formed in a range of products used in a wide range of applications. Most pets are used for disposable packaging materials such as disposable consumer elements and packaging. PET plastic is a valuable resource on many aspects, but the rapid increase in plastic products brought a negative environmental impression in recent decades. Long-term risk of released release of PET waste in this region is a modern society ecosystem, food safety, and a serious threat to human health. Recycling is one of the most important actions currently available to reduce these effects. Current refund strategies are trying to reduce the adverse effects of PET pollution, but cannot compete with the increase in environmental pet waste. This review discusses the current PET recycling method to improve life cycle and waste management, which can be implemented further to reduce plastic contamination, and to the health effects and environments Can be implemented further. As compared to conventional mechanical and chemical recycling methods, PET biotechnological recycles include degraded degradation of degraded PET monomers of degraded PET monomers in rated chemicals. This approach produces a circular PET economy by recycling waste and upcycling with more precious products with minimal environmental printing [1].

Plastics consist of a wide range of wide molecular weight polymers derived from synthetic, semi-synthetic or natural compounds assembled in repetitive patterns. Plastics can be easily formed in any shape through certain polymerization and melt processing. Design or engineer polymers can very versatile plastics with unique properties, flexibility, durability, stress resistance, lightness and electrically insulating and unique properties. More than 350 million tons of plastic are manufactured annually in various applications such as packaging, construction, construction, textile, consumer and organization, transport, electrical and electronic equipment, and industrial machineries [2]. Plastics are valuable resources on many aspects, but since the recycling rate after the first use is low, the rapid increase of plastic products brought sharp environmental footprints to the environment for the last year. Despite this obvious issue, plastic production is expected to increase continuously in the next decades. Currently, about 70% of global plastic are seen as waste.

Only about 41% of postal companies' plastic waste is obtained by recycling and combustion in the power generation process, 40% discarded in the landfill, and 19% is over at the sea coast. Plastics are primarily prepared as synthetic polymers, and small moieties consist of naturally occurring biopolymers. For that cost-effective production and their versatility, synthetic polymers are used in many different products. Most synthetic plastics such as polyethylene (PE), polypropylene (PP), polystyrene (PS), polycarbonate (PC), polyvinyl chloride (PVC), polyethylene terephthalate (PET) are non-renewable resources such as coalification [3]. The growing demand for plastic products and the lack of efficient and economical ways to recycle used plastics have raised concerns about environmental plastic pollutants. The long-term risks of harmful chemicals released into the environment from released plastic waste pose a serious threat to ecosystems and health problems. In particular, micron-sized particles that break down from plastic waste, called micro plastics, are now at risk of swallowing, entanglement, and choking that affect the ocean and hundreds of thousands of marine life. Of all the plastics, PET is the most commonly produced polyester in the world and is widely used in beverage bottles, packaging, clothing and carpets. At the same time, large amounts of PET were released into the environment during manufacturing, use and disposal. It is estimated that it will take hundreds of years for PET plastics to be completely degraded by microorganisms in the environment.

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