

Experimental investigations on polyethylene and polyethylene terephthalate microplastics' degradation. A review

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Abstract. A topic of high interest, the plastic degradation in the environment, is approached in this work, to serve for future research. The problem of plastics pollution became critical with the exponential development of plastic materials industry in last decades. Soil and water are primarily polluted, then degradation to microplastics leads to spatial distribution of plastic debris in all ecosystems. Slow natural degradation and pollutants accumulation on the plastic particles are responsible for environment unbalances. This work follows the new research about the induced degradation methods, abiotic and biotic, pointing out the most notable results. Most research took place in laboratories, but promising results of some biotic methods will hopefully lead to industrial scale-up.

Keywords: microplastics; degradation; polyethylene; polyethylene terephthalate.

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