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**Accelerated ageing and hydrolytic stabilization of poly(lactic acid) (PLA) under
humidity and temperature conditioning**

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ABSTRACT

The accelerated hygrothermal ageing of two commercial poly(lactic acid) grades, a semi-crystalline and an amorphous one, was studied in order to establish a baseline degradation mechanism and kinetics. In particular, the water uptake, the molecular weight, the carboxylic end groups concentration and the thermal properties were monitored during the course of humidity and temperature conditioning at 70 °C and 80% relative humidity (RH), revealing

Keywords: poly(lactic acid) (PLA), hydrolytic degradation, hygrothermal ageing, carbodiimides, anti-hydrolysis agents

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