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Insight into the Physical Ageing of Poly(Butylene Succinate)

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Abstract : The hydrolytic degradation of poly(butylene succinate) (PBS) was investigated when exposed to different humidity-temperature environments. To this direction different PBS grades were submitted to hydrolysis runs. Results indicated that the increment of hydrolysis temperature and relative humidity induced significant decrease in the molecular weight and thermal properties of the bioplastic. The derived data can be considered to construct degradation kinetics based on carboxyl content variation versus time.

Keywords : hydrolytic degradation, physical ageing, poly(butylene succinate), polyester
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