

Supporting Information:

Crucial Differences in the Hydrolytic Degradation between Industrial Polylactide and Laboratory- scale Poly(L-lactide)

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Degradation Environment

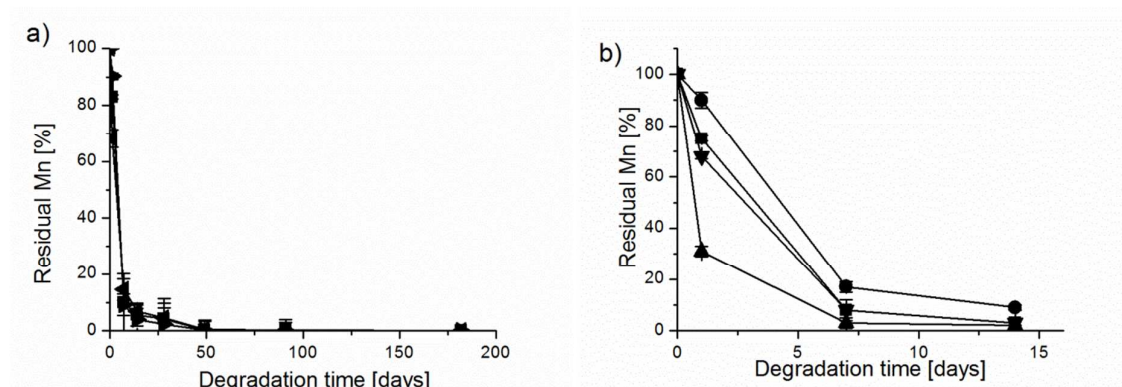


Figure S1 Residual molar mass during **a)** long-term degradation and **b)** short-term hydrolysis of polylactide 3051D in (■) H₂O at 60 °C (●) PBS at 60 °C, (▲) PBS at 80 °C, and (▼) pH 5 buffer at 60 °C.

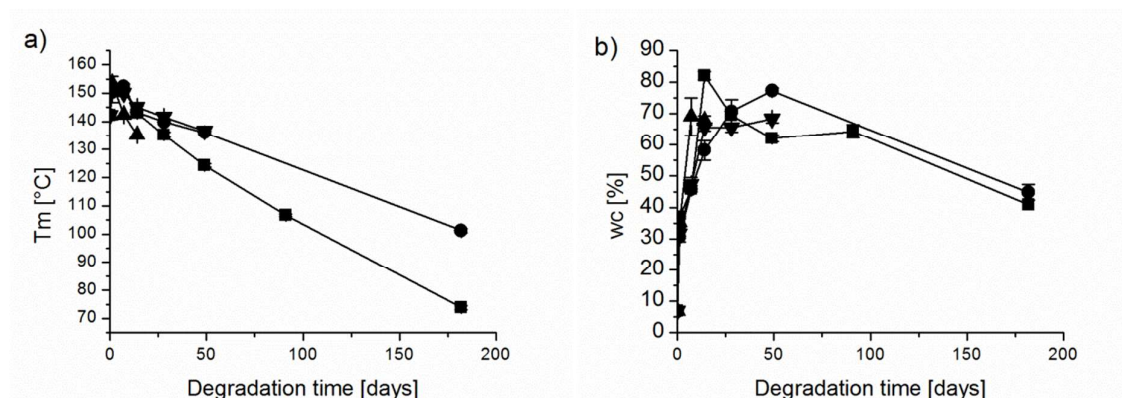


Figure S2a) Melting temperature and **b)** degree of crystallinity as a function of degradation time for polylactide 3051D degraded in (■) H₂O at 60 °C (●) PBS at 60 °C, (▲) PBS at 80 °C, and (▼) pH 5 buffer at 60 °C.

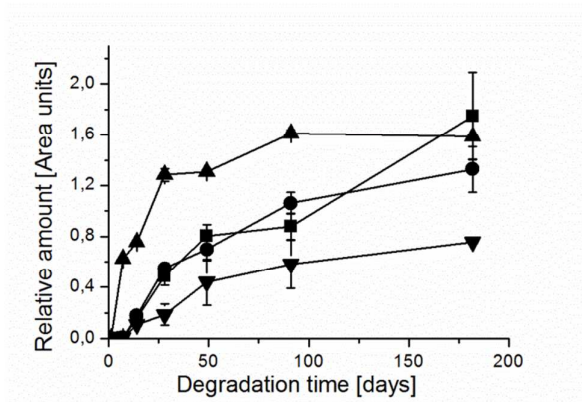


Figure S3 Relative amount of lactic acid monomer extracted from the aqueous fractions of polylactide 3051D samples degraded in (■) H₂O at 60 °C (●) PBS at 60 °C, (▲) PBS at 80 °C, and (▼) pH 5 buffer at 60 °C.

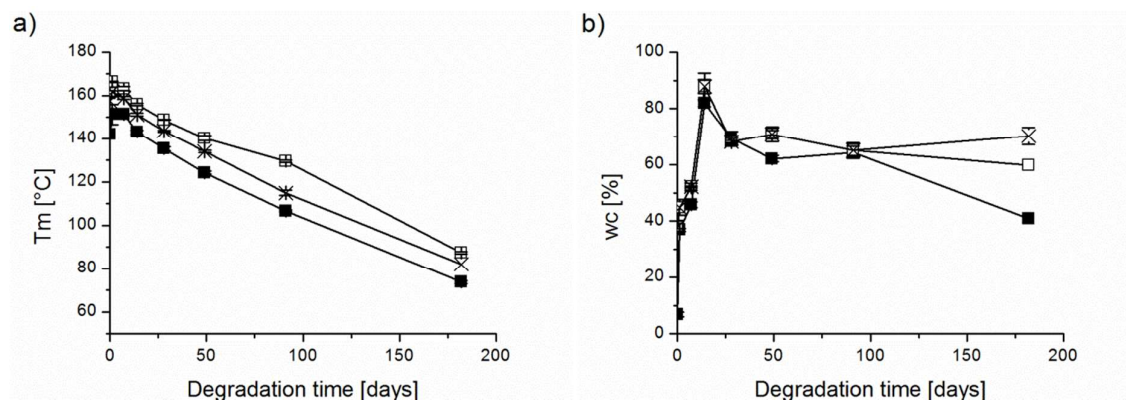


Figure S4 Melting temperature and **b)** degree of crystallinity as a function of degradation time during hydrolysis of (■) poly(lactide 3051D), (□) poly(lactide 3001D), and (×) 50:50 blend of poly(lactide 3051D and 3001D in H₂O at 60 °C.

PLA Grade

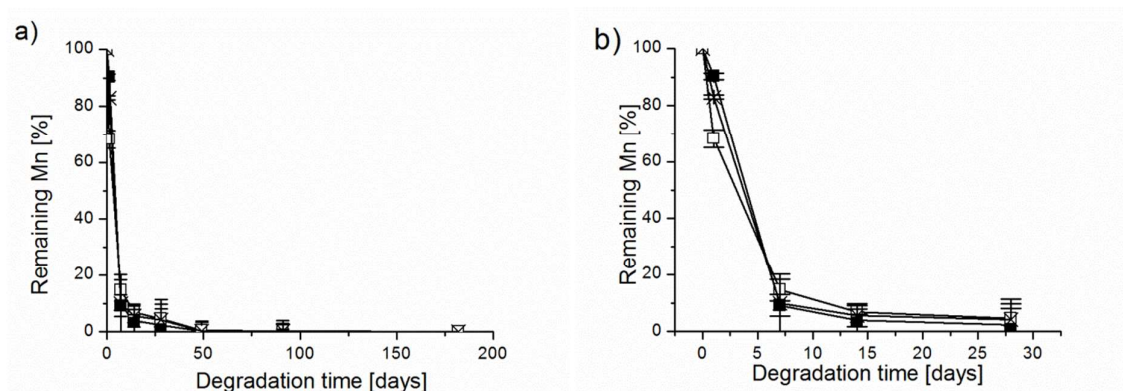


Figure S5 Remaining molar mass during **a)** long-term degradation and **b)** short-term hydrolysis of (■) poly lactide 3051D, (□) poly lactide 3001D, and (×) 50:50 blend of poly lactide 3051D and 3001D in H₂O at 60 °C.

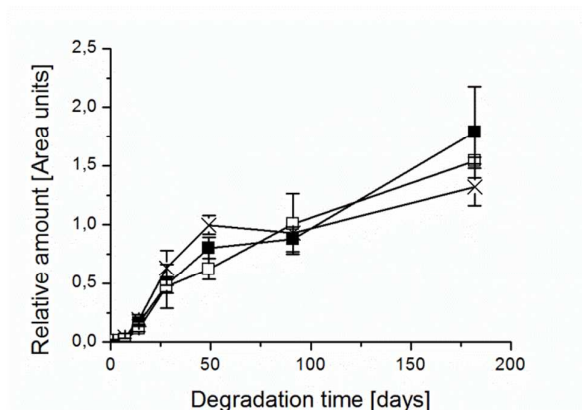


Figure S6 Relative amount of extracted lactic acid monomer extracted from the water fractions of (■) poly lactide 3051D, (□) poly lactide 3001D, and (×) 50:50 blend of poly lactide 3051D and 3001D in H₂O at 60 °C.