

## Electronic Supplementary Information

### Bio-based PBS copolyesters derived from a bicyclic D-glucitol

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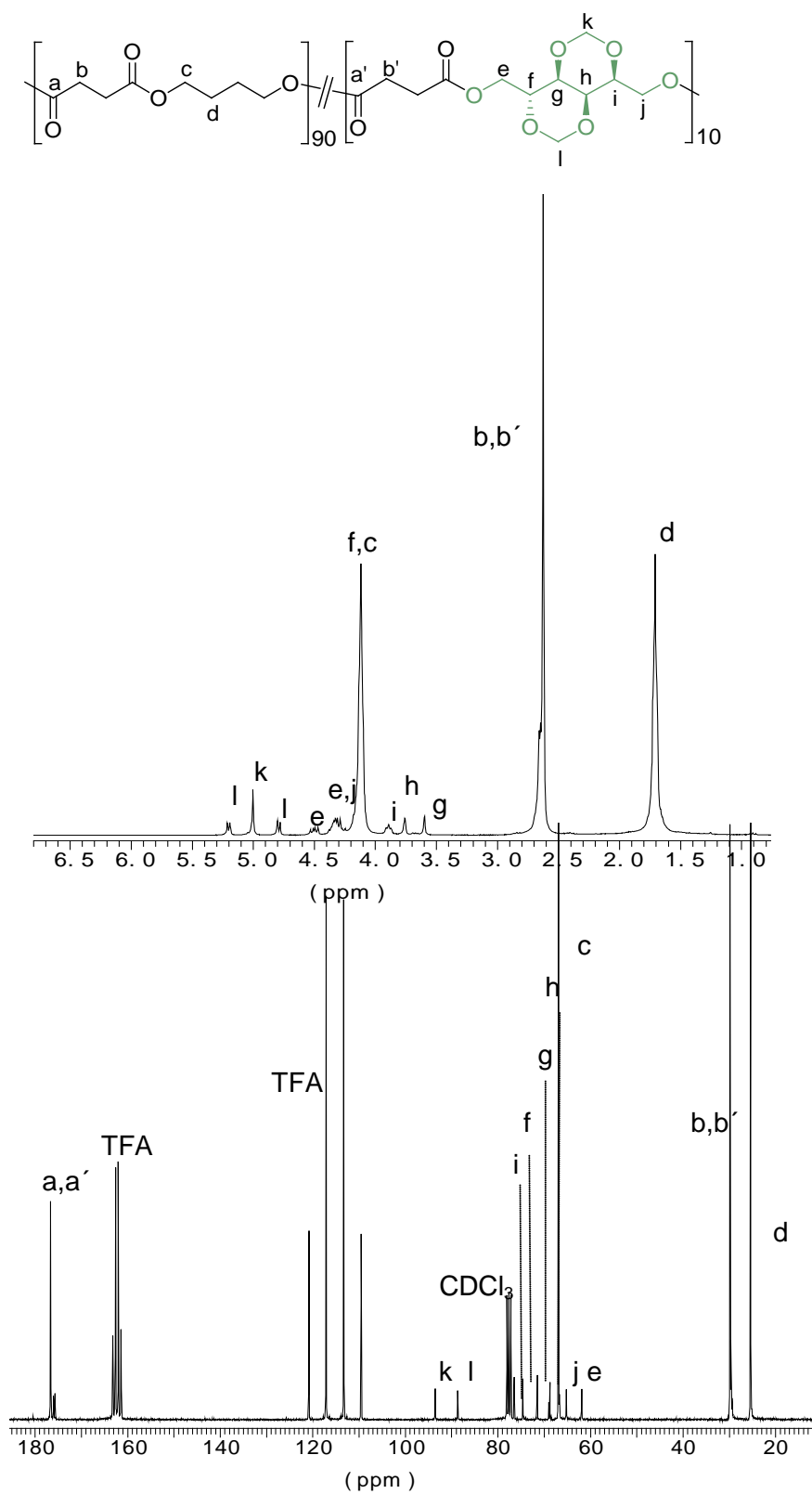
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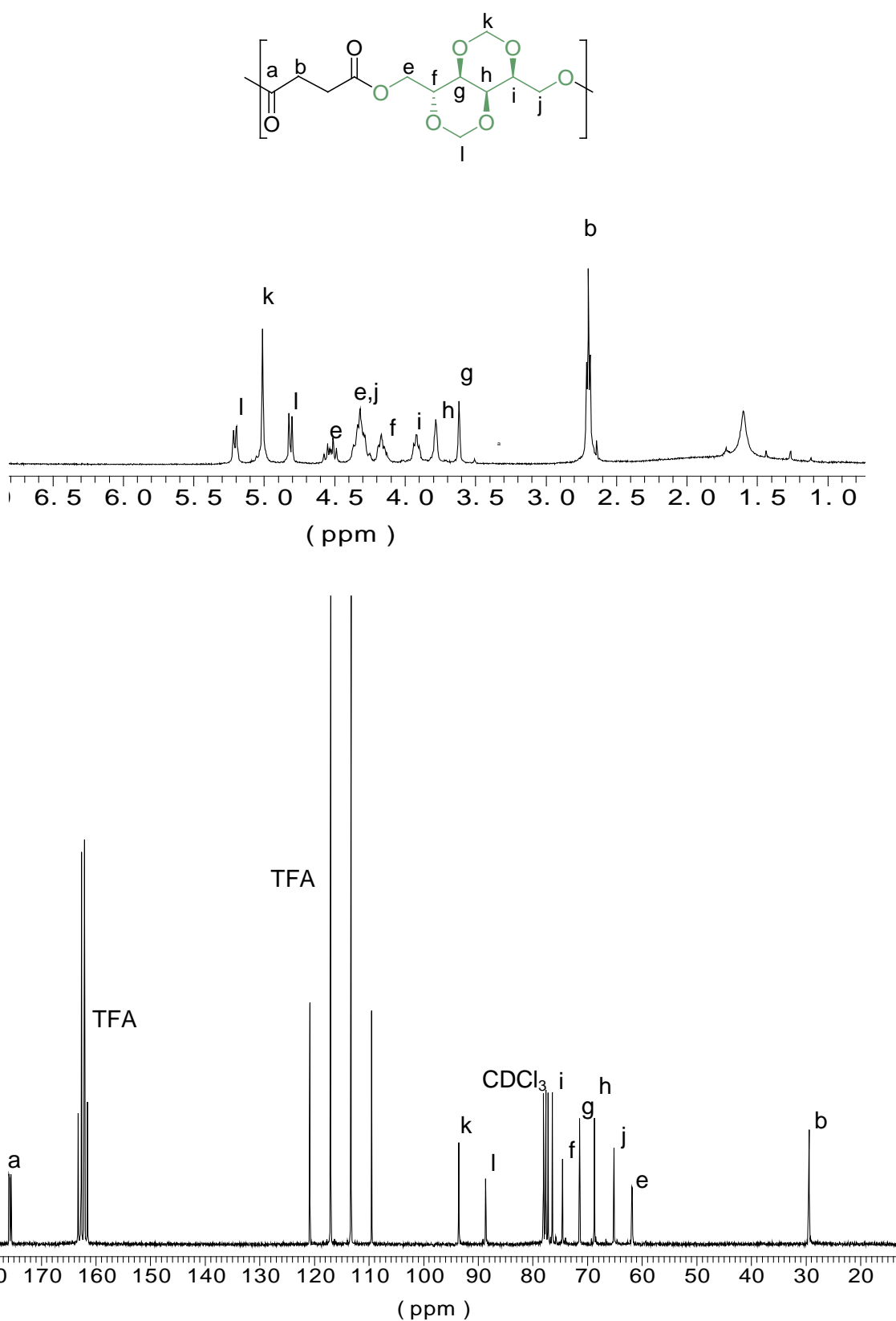
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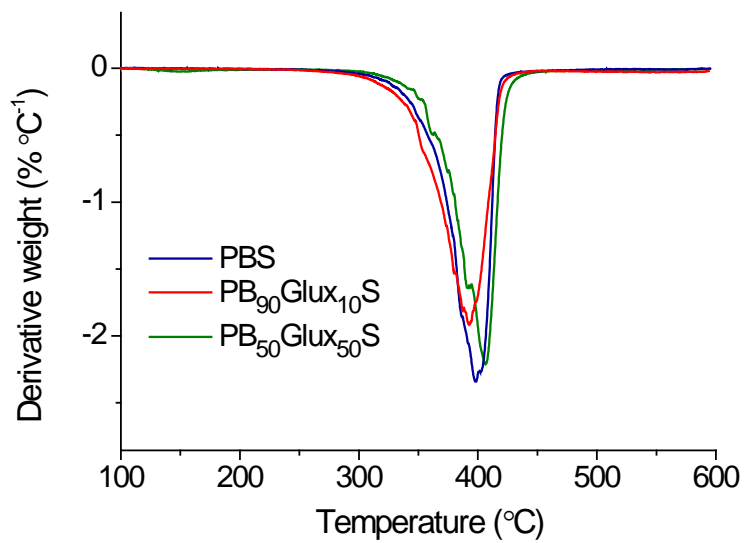
**Fig. SI-8** Degradation curves representing the decay in molecular weight against incubation time for isocompositional  $\text{PBS}$  copolyesters containing  $\text{Gluxe}$  and  $\text{Manx}$  units at pH 7.4. (+) and (-) stand for presence and absence of lipases.



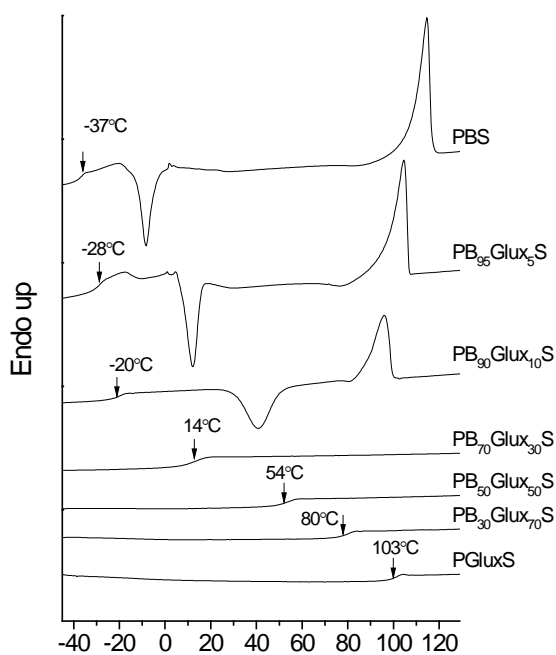
**Fig. SI-1** <sup>1</sup>H NMR (top) and <sup>13</sup>C (bottom) spectra of PB<sub>90</sub>Glux<sub>10</sub>S copolyester with indication of peak assignments.



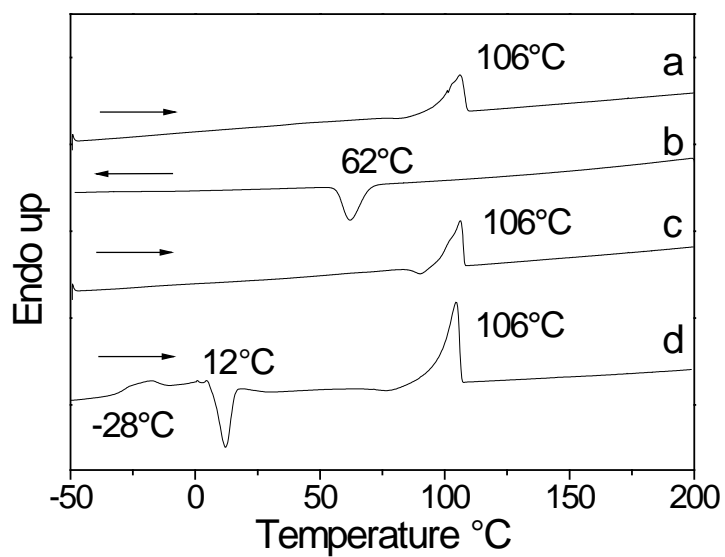
**Fig. SI-2**  $^1\text{H}$  NMR (top) and  $^{13}\text{C}$  (bottom) spectra of PGLuxS homopolyester with indication of peak assignments.



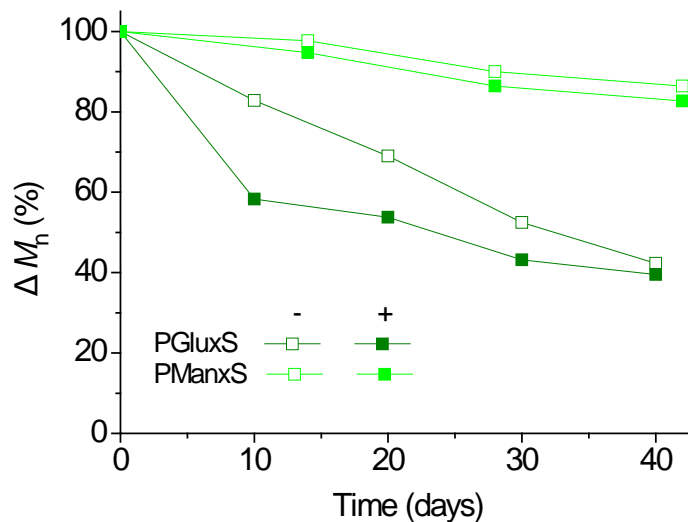
**Fig. SI-3** Derivative curves of PBS, PB<sub>90</sub>Glux<sub>10</sub>S and PB<sub>50</sub>Glux<sub>50</sub>S.



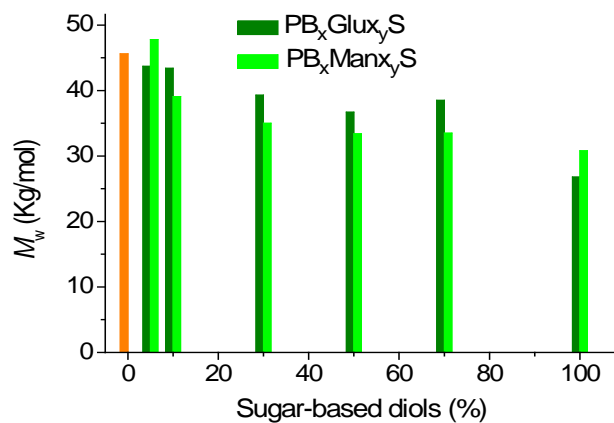
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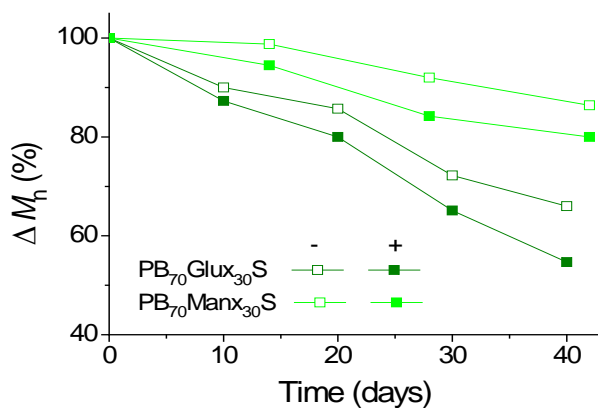
**Fig. SI-5** DSC traces for PB<sub>95</sub>Glux<sub>5</sub>S: (a) Heating at 10 °C·min<sup>-1</sup>, (b) Cooling at 10 °C·min<sup>-1</sup>, (c) Second heating at 10 °C·min<sup>-1</sup>, (d) Heating at 20 °C·min<sup>-1</sup> of a sample quenched from the melt.



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