

Supporting Information

Copolyesters Prepared Using Succinic Acid, 1,4-Butanediol, and Bis(2-hydroxyethyl) Terephthalate

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a)

- PBS[5.0T; 1.0P; 220; Mg]
- PBS[5.0T; 1.0P; 210; Mg]
- PBS[5.0T; 1.0P; 200; Mg]
- PBS[5.0T; 1.0P; 190; Mg]

b)

- PBS[0T; 1.0P; 210; Mg]
- PBS[5.0T; 1.0P; 210; Mg]
- PBS[10T; 1.0P; 210; Mg]
- PBS[15T; 1.0P; 210; Mg]

c)

- PBS[5.0T; 1.0P; 210; Mg]
- PBS[5.0T; 2.0P; 210; Mg]

Figure S3. a) Images illustrating reactor fouling during the esterification of BD, SA, and dimethyl terephthalate, contrasted with b) image depicting the cleanliness observed in the corresponding reaction involving BD, SA, and BHET.

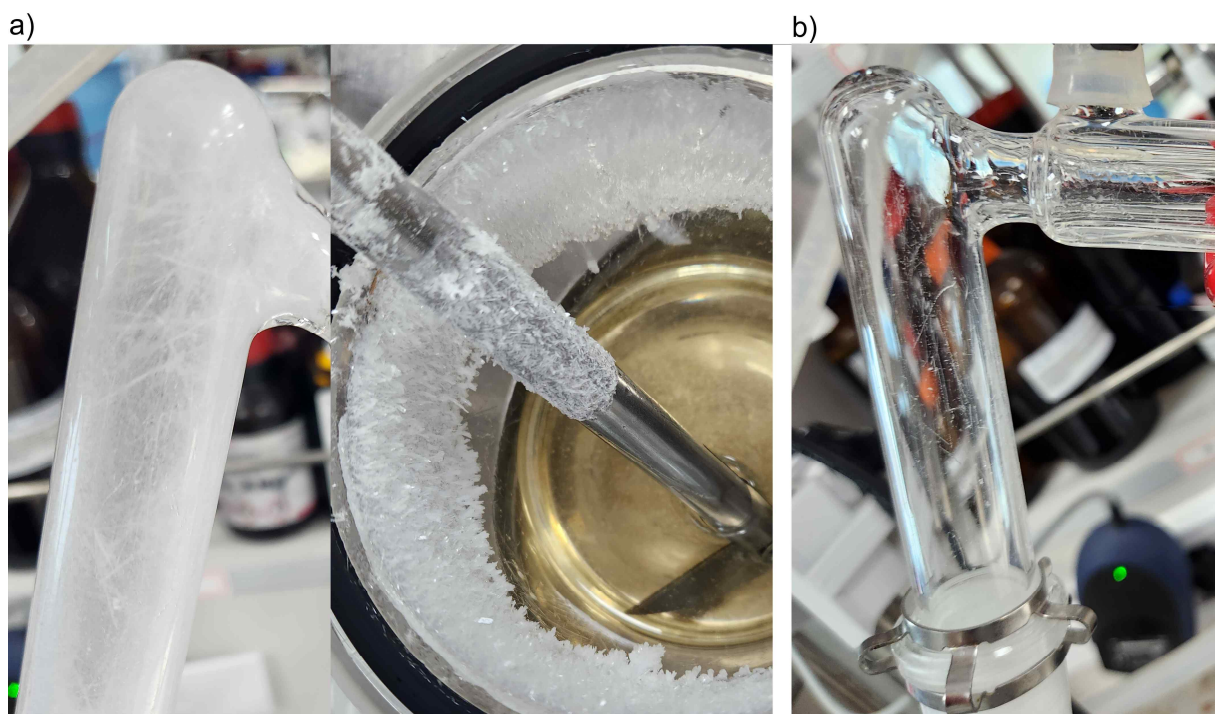


Figure S4. Temperature dependence of a) $\tan \delta$, b) storage modulus (E'), c) loss modulus (E'') curves from DMA runs illustrated for PBS[x T; Ti; 230] ($x = 0, 5.0, 10, 15, 20$) series.

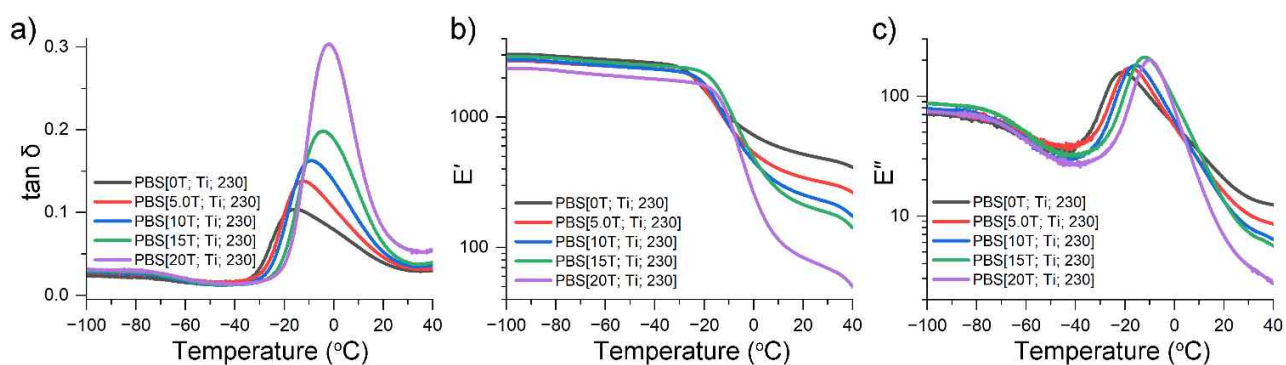


Figure S5. Tensile curves for copolyesters prepared with a) variation of temperatures (200, 210, and 220 °C), b) varying H_3PO_4 feed quantities (1.0, 2.0, 3.0 mol% per SA), and c) varying the divalent metal species (Mg, Zn, Mn).

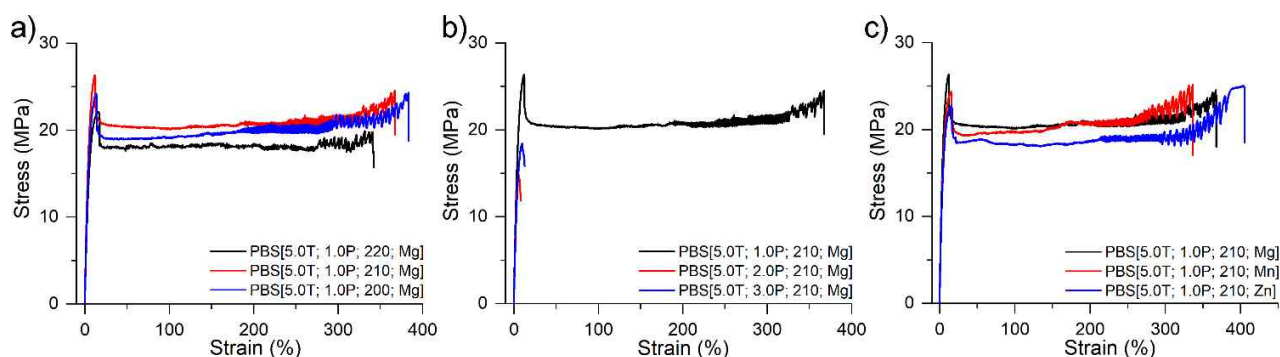


Figure S6. Comparison of dynamic moduli vs. angular frequency between a) PBS[0T; 1.0P; 210; Mg] and PBS[0T; Ti; 230], b) PBS[5T; 1.0P; 210; Mg] and PBS[5T; Ti; 230], c) PBS[15T; 1.0P; 210; Mg] and PBS[15T; Ti; 230], d) PBS[20T; 1.0P; 210; Mg] and PBS[20T; Ti; 230].

