SUPPLEMENTARY INFORMATION

Modulating the $T_g$ of Poly(alkylene succinate)s by Inserting Bio-based Aromatic Units via Ring-Opening Copolymerization

Juan Carlos Morales-Huerta, Antxon Martínez de Ilarduya and Sebastián Muñoz-Guerra

Departament d’Enginyeria Química, Universitat Politècnica de Catalunya, ETSEIB, Diagonal 647, 08028 Barcelona, Spain

Correspondence: sebastian.munoz@upc.edu

Contents:

Figure S1. $^1$H NMR of coPBS$_x$RF$_y$ and coPES$_x$RF$_y$.

Figure S2. $^{13}$C NMR of coPBS$_x$RF$_y$ and coPES$_x$RF$_y$.

Figure S3. $^{13}$C NMR spectra of coPES$_x$RF$_y$ copolyesters in the regions of the carbonyls and aromatic carbons.

Figure S4. Comparison of predicted (dashed lines) and experimental (symbols) values of $T_g$ for the copolyesters synthesized in this work. a) Fox equation. B) Gordon-Taylor equation.

Figure S5. Molecular weight reduction of resorcinol-containing copolyesters as a function of incubation time in aqueous buffer at pH 4 and 37 °C (a and b) and under the same conditions but with lipases added to the incubation medium (a’ and b’).
Figure S1. $^1$H NMR of $\text{coPBS}_x\text{RF}_y$ and $\text{coPES}_x\text{RF}_y$.  

![NMR Spectra](image)

Figure S2. $^{13}$C NMR of $\text{coPBS}_x\text{RF}_y$ and $\text{coPES}_x\text{RF}_y$.  

![NMR Spectra](image)
**Figure S3.** $^{13}$C NMR spectra of coPES$_x$RF$_y$ copolyesters in the regions of the carbonyls and aromatic carbons.
Figure S4. Comparison of predicted (dashed lines) and experimental (symbols) values of $T_g$ for the copolyesters synthesized in this work. a) Fox equation. b) Gordon-Taylor equation. Inset: Heat capacity values measured by DSC for each homopolyester for $K$ determination.
Figure S5. Molecular weight reduction of resorcinol-containing succinate-furanoate copolyesters as a function of incubation time in aqueous buffer at pH 4 and 37 ºC (a and b) and under the same conditions but with lipases added to the incubation medium (a’ and b’).