

Supporting Information

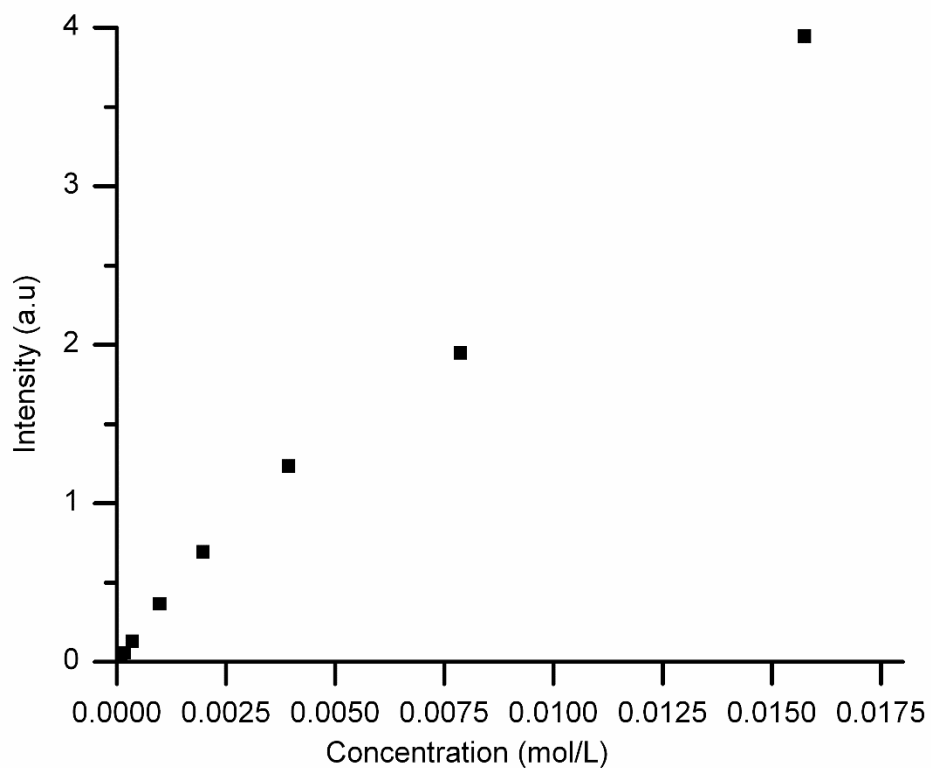


Figure S1. Alizarin Red S calibration curve. 100 μL of Alizarin Red S solution was placed in a 96 well plate and absorbance was measured at 562 nm. The curve was linear with a $R^2 = 0.99$.

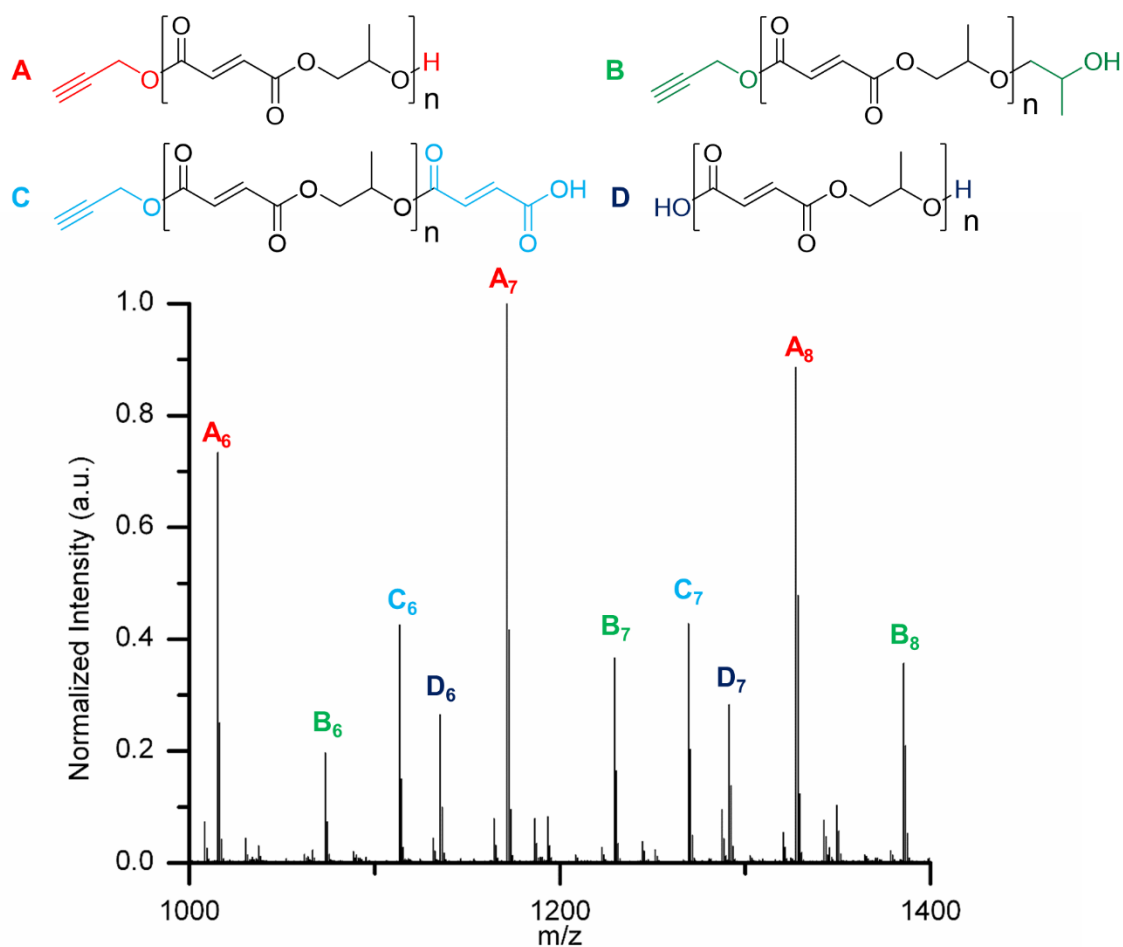


Figure S2. MALDI-ToF mass spectra of propargyl-functionalized poly(propylene fumarate) synthesized for Bioglass incorporation. Initiation with propargyl alcohol is observed with the addition of extra maleic anhydride or propylene oxide monomers.

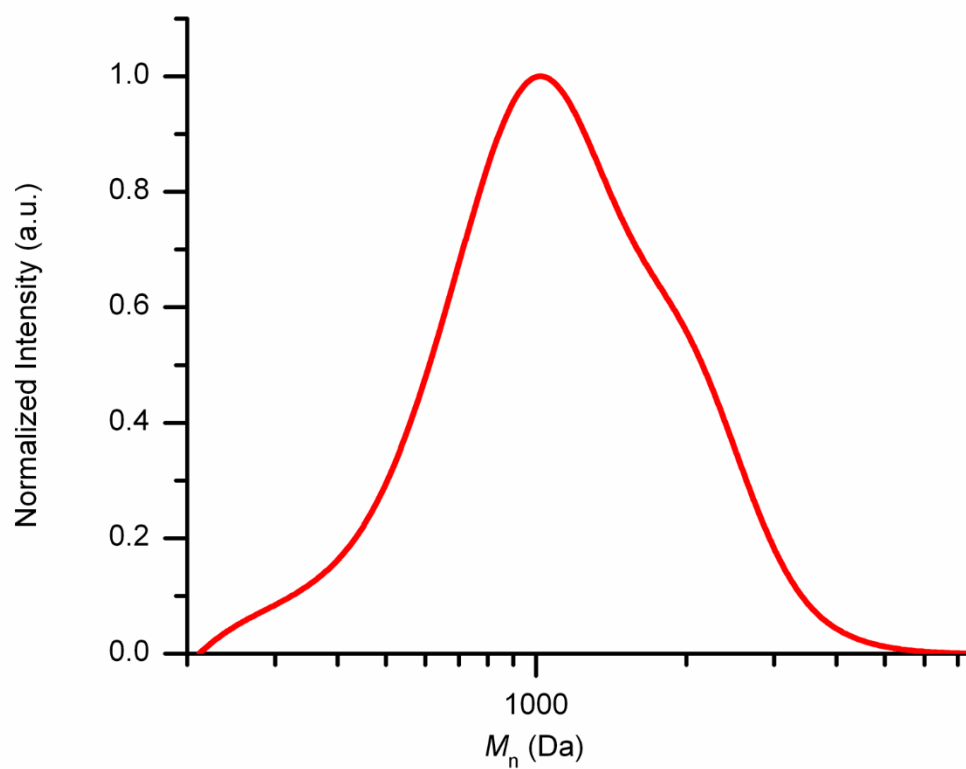


Figure S3. SEC chromatogram of propargyl-functionalized poly(propylene fumarate).

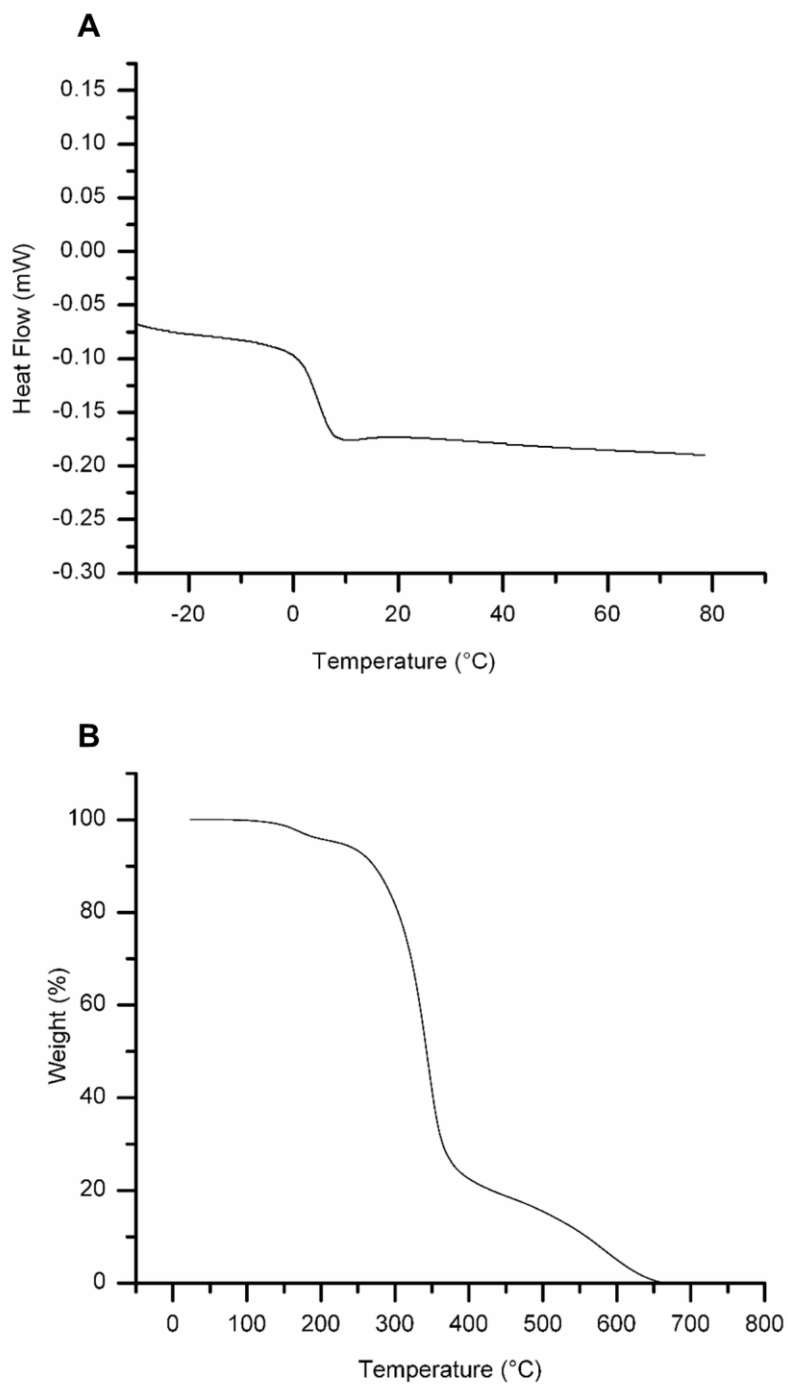


Figure S4. Thermal properties of propargyl-functionalized poly(propylene fumarate) were assessed using (A) differential scanning calorimetry (DSC) and shows a T_g below room temperature. (B) Thermogravimetric analysis (TGA).

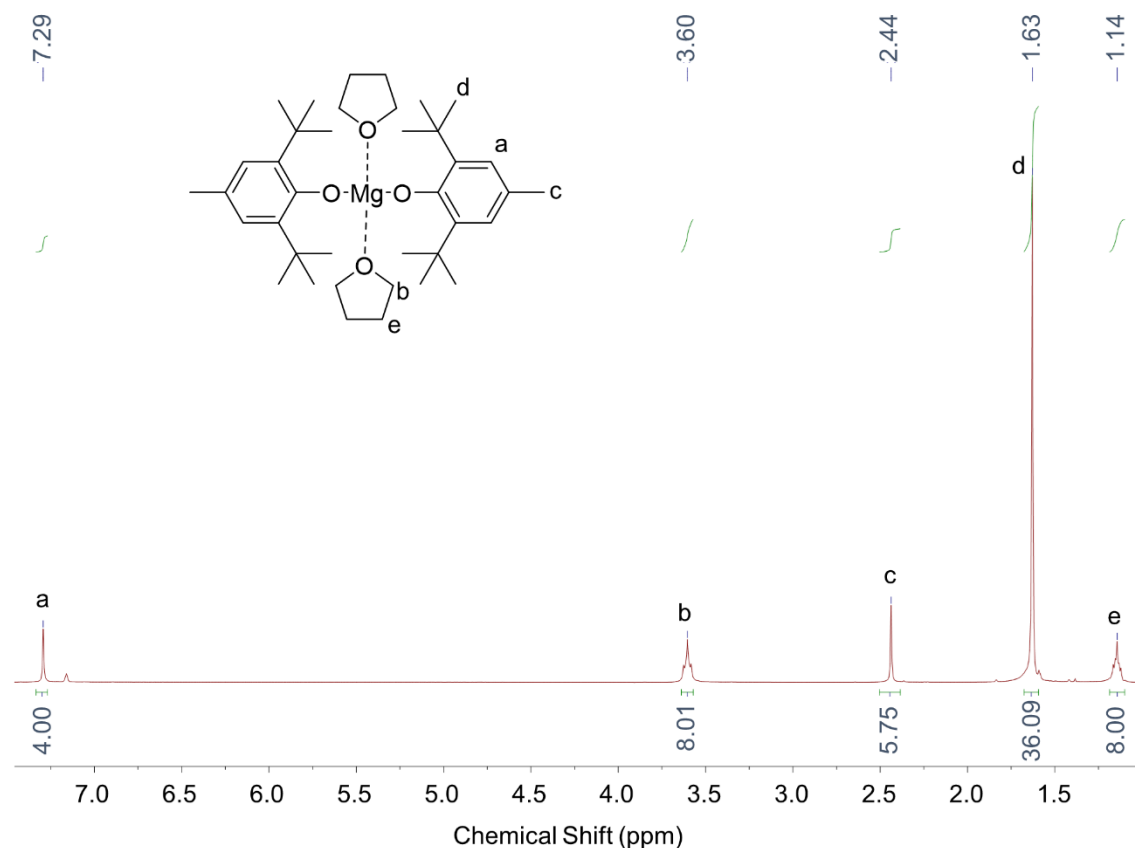


Figure S5. ^1H NMR magnesium 2,6-di-*tert*-butyl-4-methylphenoxide catalyst for the synthesis of poly(propylene maleate).

Table S1. Properties of Propargyl-Functionalized Poly(propylene fumarate)

Polymer	M_n^a (kDa) (^1H NMR)	M_n^b (kDa) (SEC)	M_w^b (kDa) (SEC)	\bar{D}_m^b	^cMAN Conversion (%)	T_g ($^{\circ}\text{C}$)	T_d ($^{\circ}\text{C}$)
Poly(propylene fumarate)	1.2	1.0	1.3	1.34	81	4.5	260

^aDetermined by end-group analysis using ^1H NMR spectroscopy. ^bDetermined from SEC in THF from poly(styrene) standards. The number average molecular mass (M_n) and weight average molecular mass (M_w) are reported with the molar mass distribution (\bar{D}_M) being calculated from those values. ^cMonomer conversion determined by ^1H NMR spectroscopy.

Table S2. Zero shear viscosity (η_0) of PPF-Bioglass resins

Bioglass wt%	0	0.5	1	2.5	5	10
Zero-shear viscosity (Pa*s)	0.22	0.24	0.25	0.34	0.44	1.31