Supporting Information

Sustainable, Upscaled Synthesis of Pinene-Derived (Meth)acrylates and their Application as High T_g Monomers in Styrene/Acrylic-Based Bioderived Copolymer Coatings

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Table S1: Experimental details for synthesis of copolymers **P1-P6**

| Entry [a]	Sample label	M1	M1 moles	M2	M2 moles	[M1]/[M2]/[MAA] (molar ratio)
1	**P1**	BA	2.55	PA **1**	0.87	2.93/1.00/0.14
2	**P2**	BA	2.55	PMA **2**	0.82	3.12/1.00/0.15
3	**P3**	BA	2.55	iBoMA **3**	0.82	3.12/1.00/0.15
4	**P4**	St	3.13	PA **1**	0.87	3.60/1.00/0.14
5	**P5**	St	3.13	PMA **2**	0.82	3.84/1.00/0.15
6	**P6**	St	3.13	iBoMA **3**	0.82	3.84/1.00/0.15

[a]Monomer feed ratios (wt %): M1 = 63% (326.3 g); M2 = 35% (181.2 g); MAA = 2 % (10.4 g); total reaction mass = 1200 g.
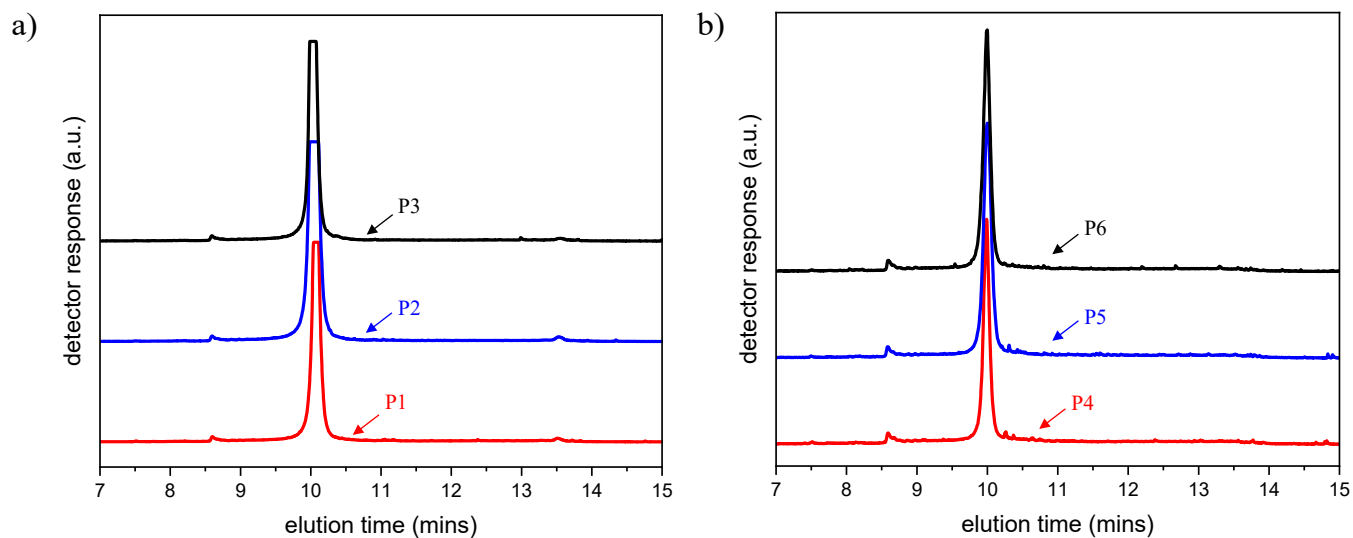

Figure S1: Gradient polymer elution chromatograms of (a) PBA-based copolymers (**P1-P3**), and (b) PSt-based copolymers (**P4-P6**) prepared by starved feed emulsion radical copolymerization with PA **1** (red), PMA **2** (blue) and iBoMA **3** (black). **P1-P6** refer to the sample labels given in Table 1.
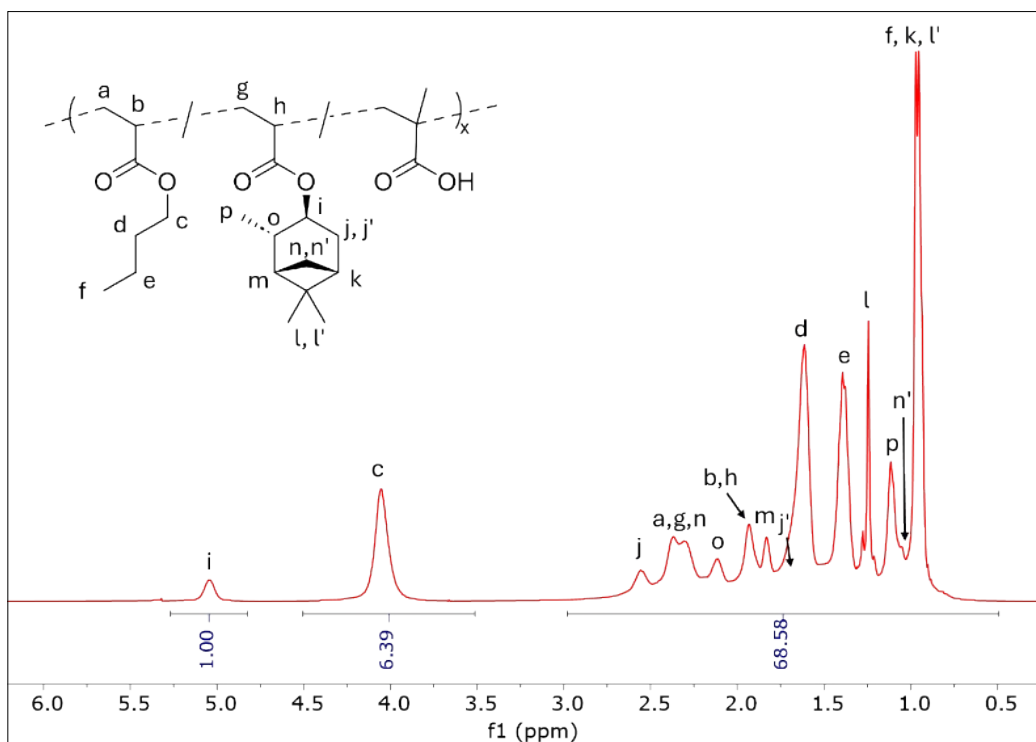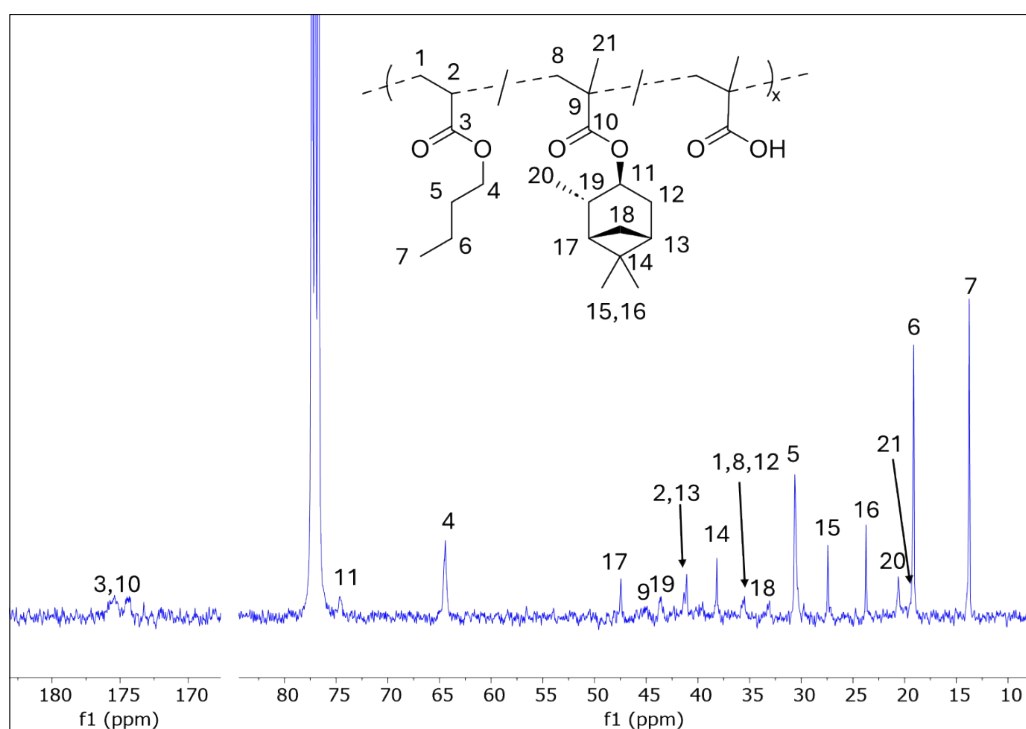
Figure S2: [superscript 1]H NMR spectrum of poly[(*n*-butyl acrylate)-*co*-(3-pinanyl acrylate)-*co*-(methacrylic acid)] (**P1**). Note, MAA signal assignments are omitted for clarity.
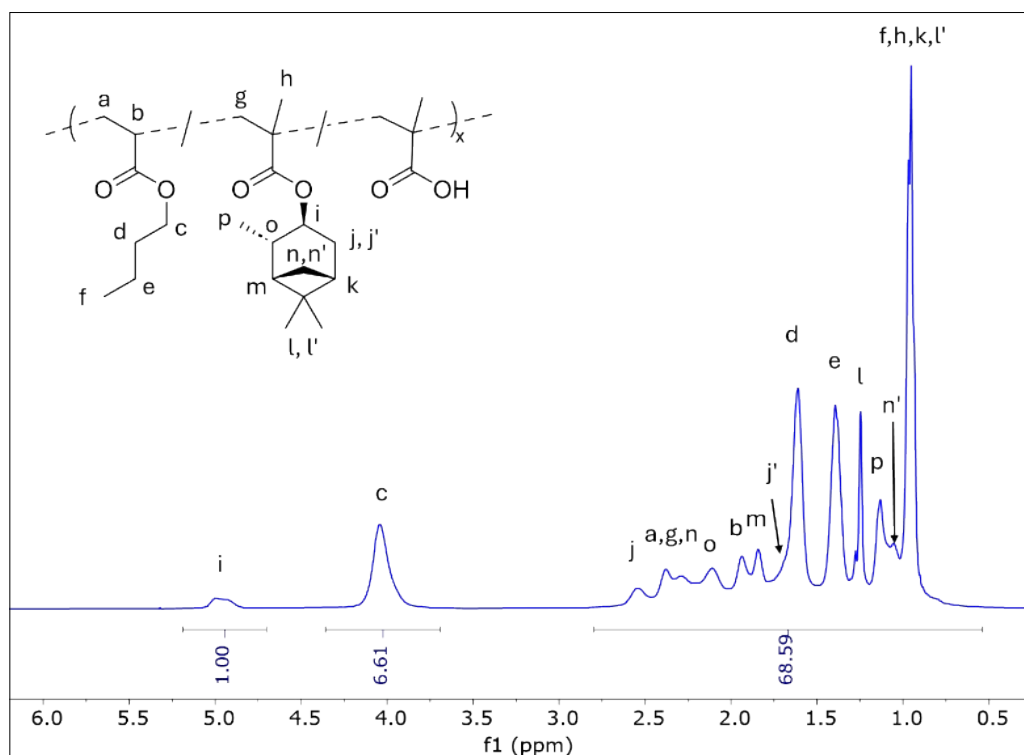
Figure S3: [superscript 1]H NMR spectrum of poly[(*n*-butyl acrylate)-*co*-(3-pinanyl methacrylate)-*co*-(methacrylic acid)] (**P2**). Note, MAA signal assignments are omitted for clarity.
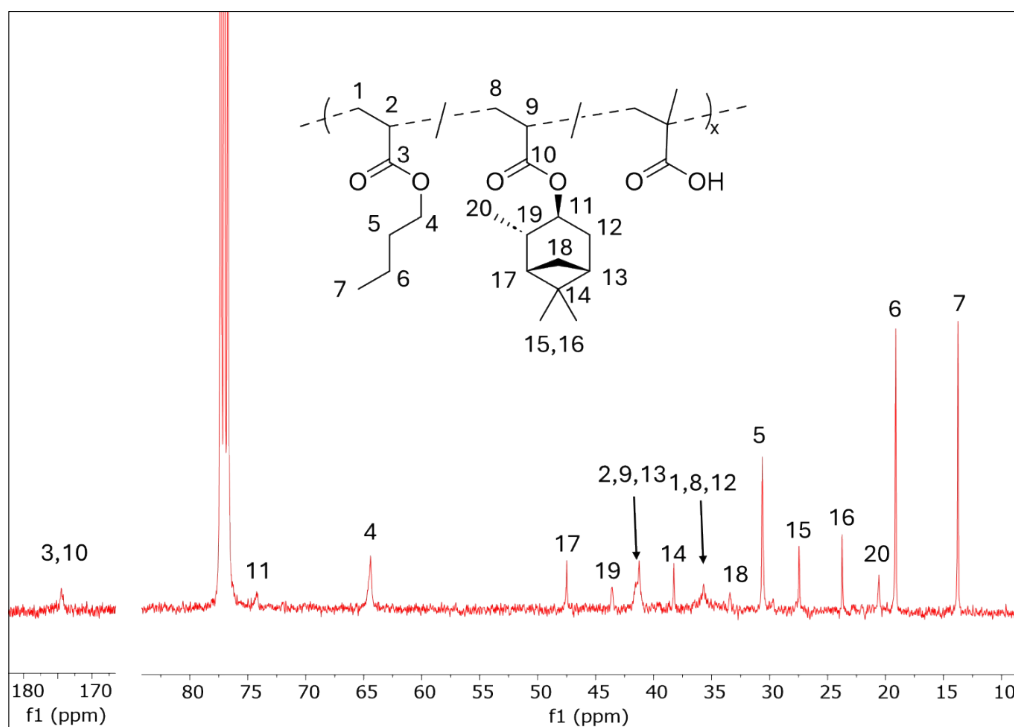
Figure S4: ^{13}C NMR spectrum of poly[(*n*-butyl acrylate)-*co*-(3-pinanyl acrylate)-*co*-(methacrylic acid)] (**P1**). Note, MAA signals assignments are omitted for clarity.

Figure S5: ^{13}C NMR spectrum of poly[(*n*-butyl acrylate)-*co*-(3-pinanyl methacrylate)-*co*-(methacrylic acid)] (**P2**). Note, MAA signals assignments are omitted for clarity.