

Supporting Information for

## Making the Best of It: Nitroxide-Mediated Polymerization of Methacrylates via the Copolymerization Approach with Functional Styrenics

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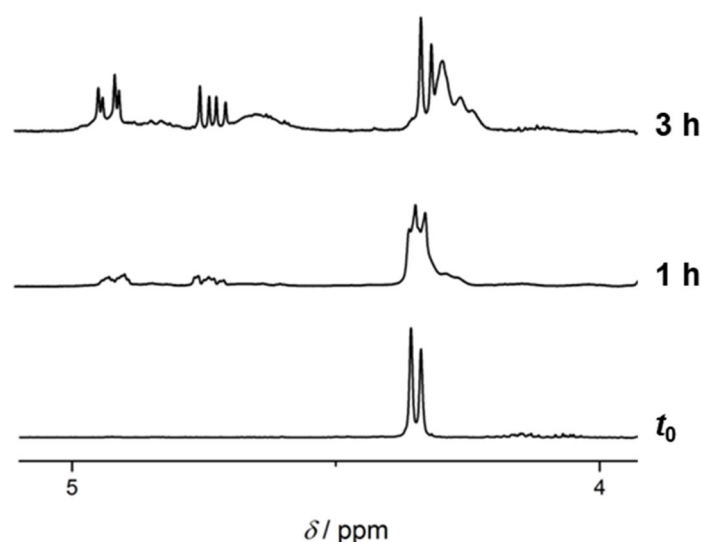
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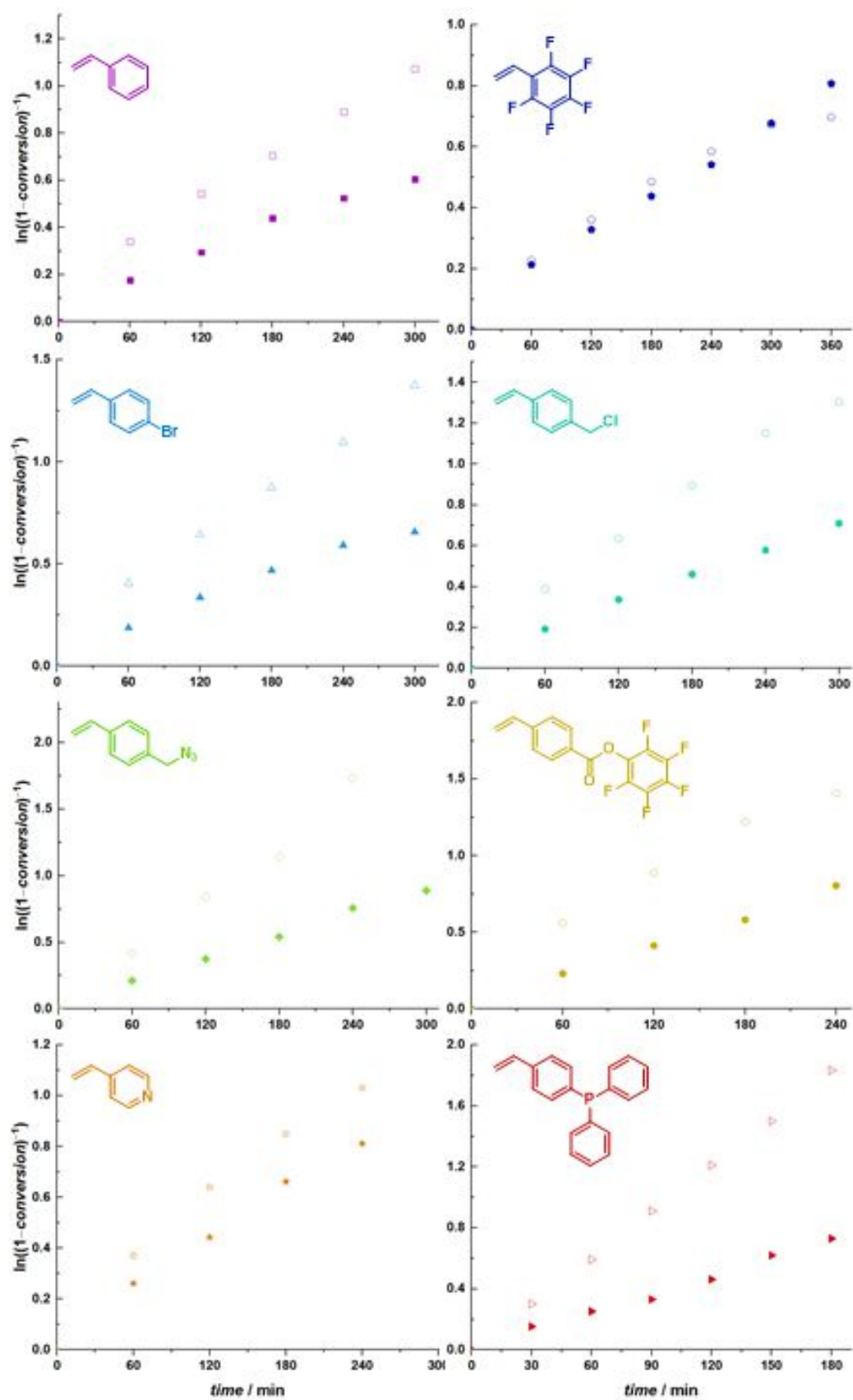
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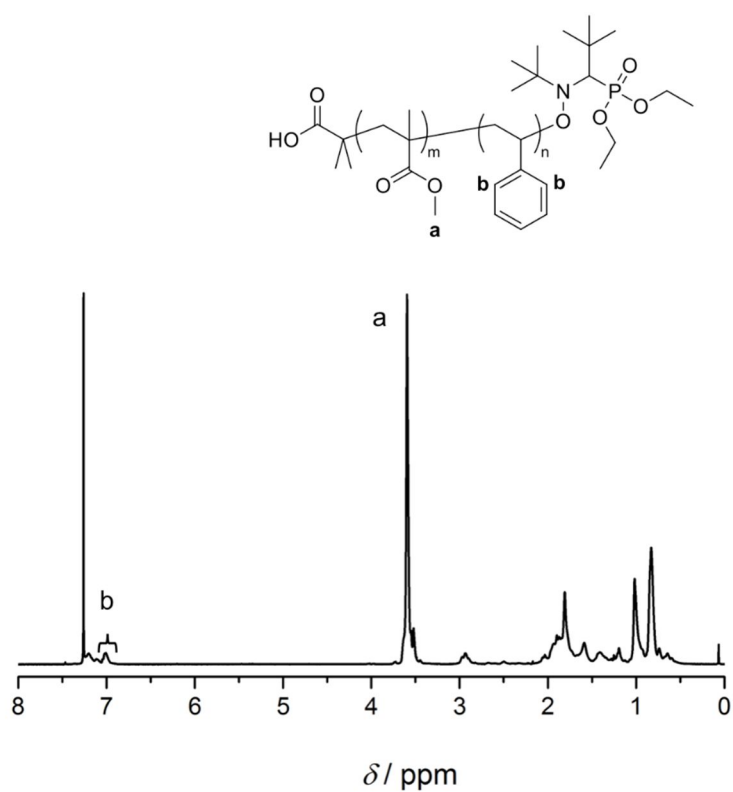
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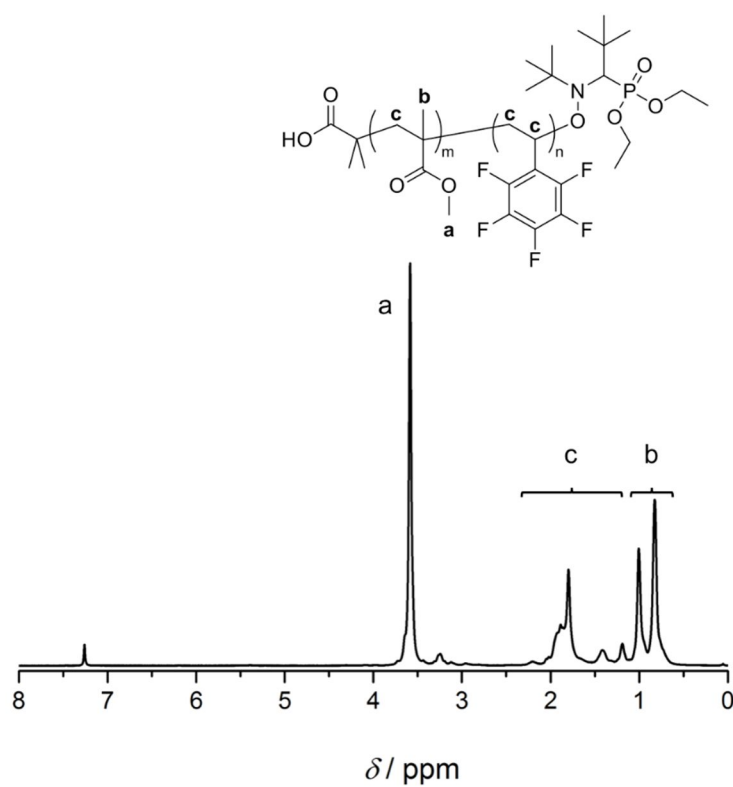
**Figure S1.** Evolution with polymerization time of the 4–5 ppm region <sup>1</sup>H NMR spectrum corresponding to the SG1-mediated polymerization of MMA in toluene at 80 °C, in the presence of 5 mol% of 4-azidomethylstyrene. Two unknown peaks around 4.7–4.9 ppm appear progressively.



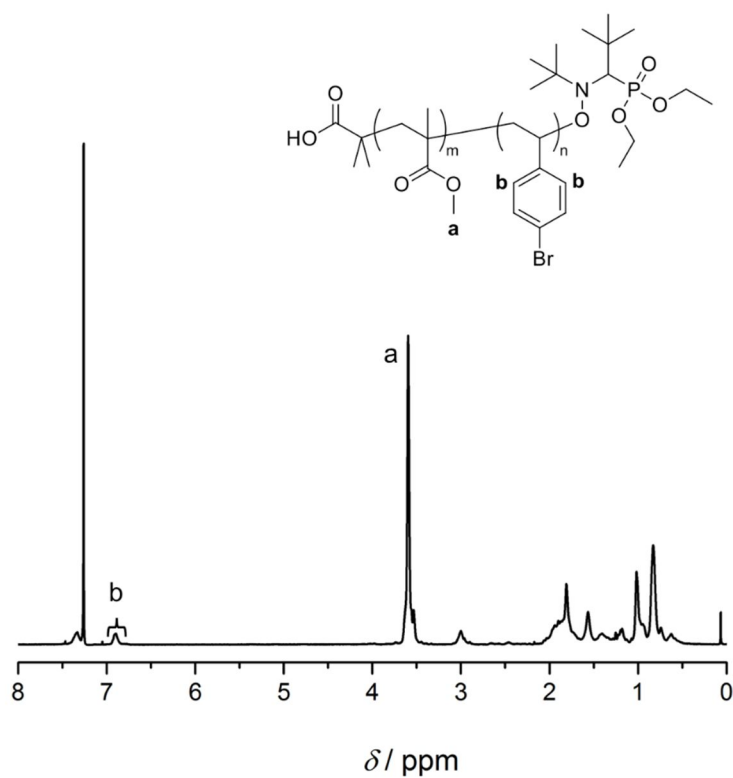
**Figure S2.** Evolution of individual comonomer conversions with time during the SG1-mediated polymerization of MMA in toluene at 80 °C, in the presence of 5 mol% of various styrenics. Full symbols: MMA. Empty symbols: Styrenic comonomer.



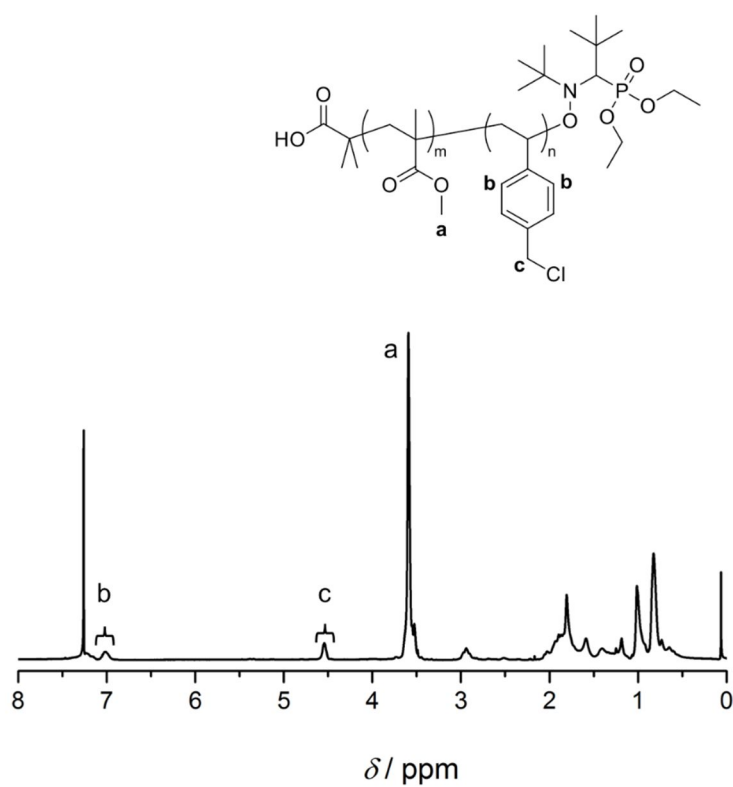
**Figure S3.**  $^1\text{H}$  NMR spectrum of the purified P(MMA-*co*-Sty) macroinitiator.



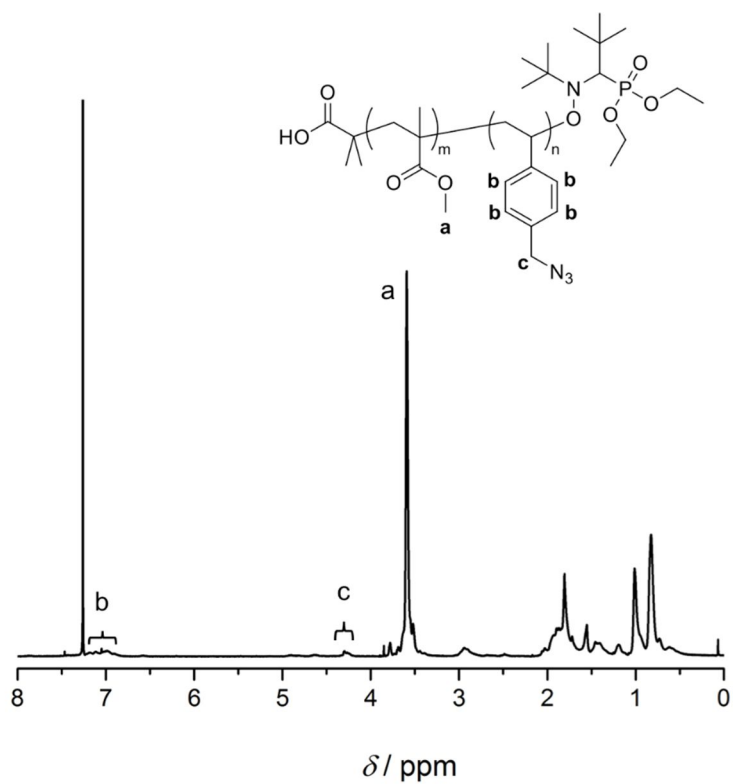
**Figure S4.**  $^1\text{H}$  NMR spectrum of the purified P(MMA-*co*-PFS) macroinitiator.



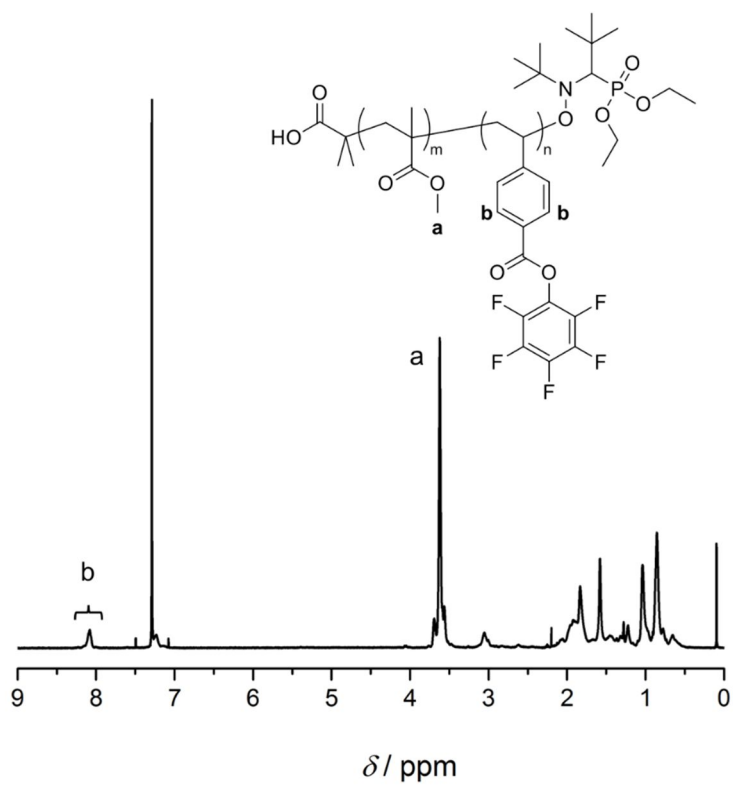
**Figure S5.**  $^1\text{H}$  NMR spectrum of the purified P(MMA-co-BrS) macroinitiator.



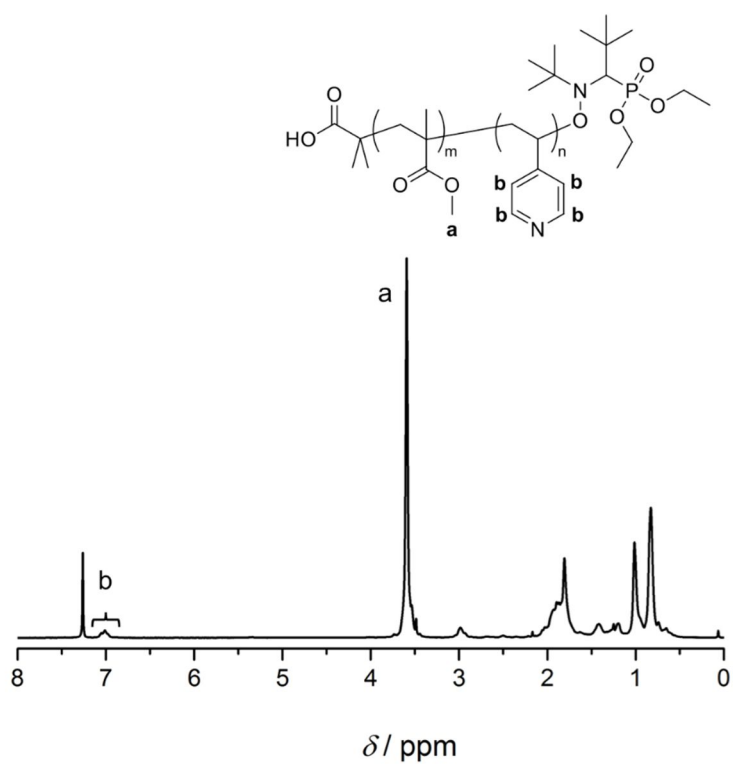
**Figure S6.**  $^1\text{H}$  NMR spectrum of the purified P(MMA-co-CMS) macroinitiator.



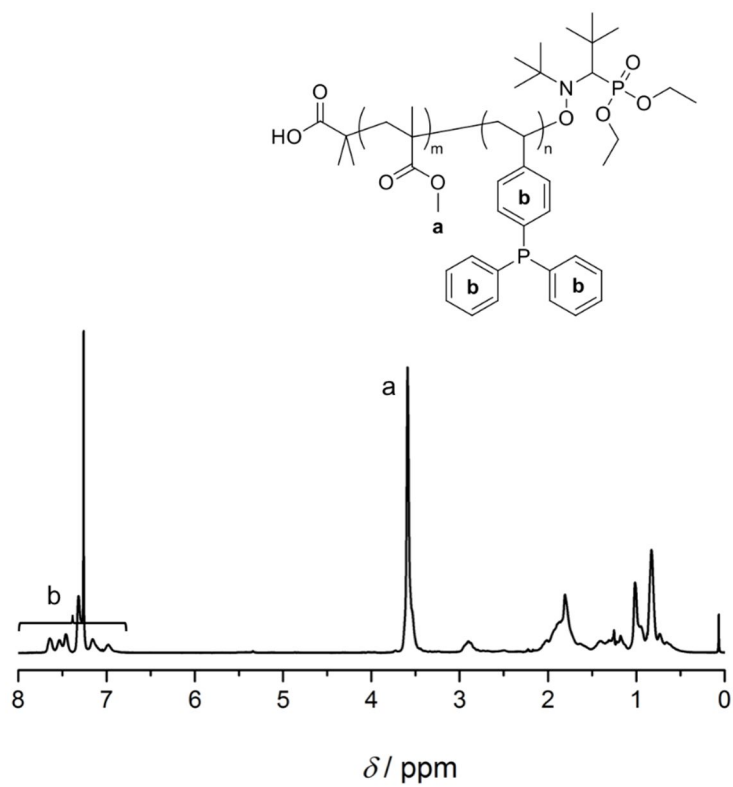
**Figure S7.**  $^1\text{H}$  NMR spectrum of a purified P(MMA-co-AMS) polymer.



**Figure S8.**  $^1\text{H}$  NMR spectrum of the purified P(MMA-co-PFPVB) macroinitiator.



**Figure S9.**  $^1\text{H}$  NMR spectra of the purified P(MMA-co-4VP) polymer.



**Figure S10.**  $^1\text{H}$  NMR spectra of the purified P(MMA-co-DPPS) macroinitiator.

**Table S1.** Refractive index values of some brominated polymers and their non-brominated counterparts as found in the Polymer Handbook.

Polymer	$n_D$
Poly(2-bromoethyl methacrylate)	1.5426
Poly(ethyl methacrylate)	1.4850
Poly(pentabromophenyl methacrylate)	1.7100
Poly( <i>p</i> -bromophenyl methacrylate)	1.5964
Poly(phenyl methacrylate)	1.5706
Poly(cyclohexyl $\alpha$ -bromoacrylate)	1.5420
Poly(cyclohexyl methacrylate)	1.5066
Poly(2,3-dibromopropyl methacrylate)	1.5739
Poly( <i>n</i> -propyl methacrylate)	1.4840
Poly(methyl $\alpha$ -bromoacrylate)	1.5672
Poly(methyl acrylate)	1.4720–1.4800
Poly(phenyl $\alpha$ -bromoacrylate)	1.6120
Poly(phenyl methacrylate)	1.5706