Catalyst-Free Click Polymerization of Thiol and Activated Internal Alkynes: A Facile Strategy toward Functional Poly(β-thioacrylate)s

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Figure S1. IR spectra of monomers 2b (A) and 1 (B) and their polymer P1/2b (C).



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Figure S4. IR spectra of monomers 3b (A) and 1 (B) and their polymer P1/3b (C).



Figure S5. IR spectra of monomers 3c (A) and 1 (B) and their polymer P1/3c (C).



Figure S6. ¹H NMR spectra of monomers **2b** (A) and **1** (B) and their polymer P**1/2b** (C) in CDCl₃. The solvent and water peaks are marked with asterisks.



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Figure S15. ¹³C NMR spectra of monomers **3c** (A) and **1** (B) and their polymer P**1/3c** (C) in CDCl₃. The solvent peaks are marked with asterisks.



Figure S16. DSC curves of P1/2a–c and P1/3a–c measured under nitrogen at a scanning rate of 2 °C/min.

Table S1. Refractive indices, Abbé numbers and chromatic dispersions of thin films of the PTAs^a

PTA	<i>n</i> ₄₀₀₋₁₇₀₀	<i>n</i> _{632.8}	<i>n</i> ₁₅₅₀	$v_{\scriptscriptstyle \mathrm{D}}$	$v_{\scriptscriptstyle D}$	D	D'
P 1/2a	1.7638-1.6304	1.6742	1.6318	15.9	69.0	0.063	0.014
P1/2b	1.8174–1.6574	1.6915	1.6581	12.8	126.9	0.078	0.008
P1/2c	1.8316-1.6862	1.7216	1.6870	15.6	114.8	0.064	0.009
P 1/3a	1.7845-1.6496	1.6840	1.6505	15.8	110.6	0.063	0.009
P 1/3b	1.8169–1.6654	1.7006	1.6662	14.6	117.2	0.068	0.009
P1/3c	1.8334–1.6761	1.7098	1.6768	14.3	135.7	0.070	0.007

^{*a*} Abbreviations: n = refractive index, $v_D =$ Abbé number, $v_D' =$ modified Abbé number, D = chromatic dispersion in the visible region, and D' = chromatic dispersion in the IR region.