

Supporting Information

Induction of Chirality in β -Turn Mimetic Polymer Conjugates *via* Postpolymerization “Click” Coupling

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Scheme S1. Synthesis of chiral and achiral titanium(IV)-catalysts and polymerization of *n*-hexyl isocyanate using these catalysts

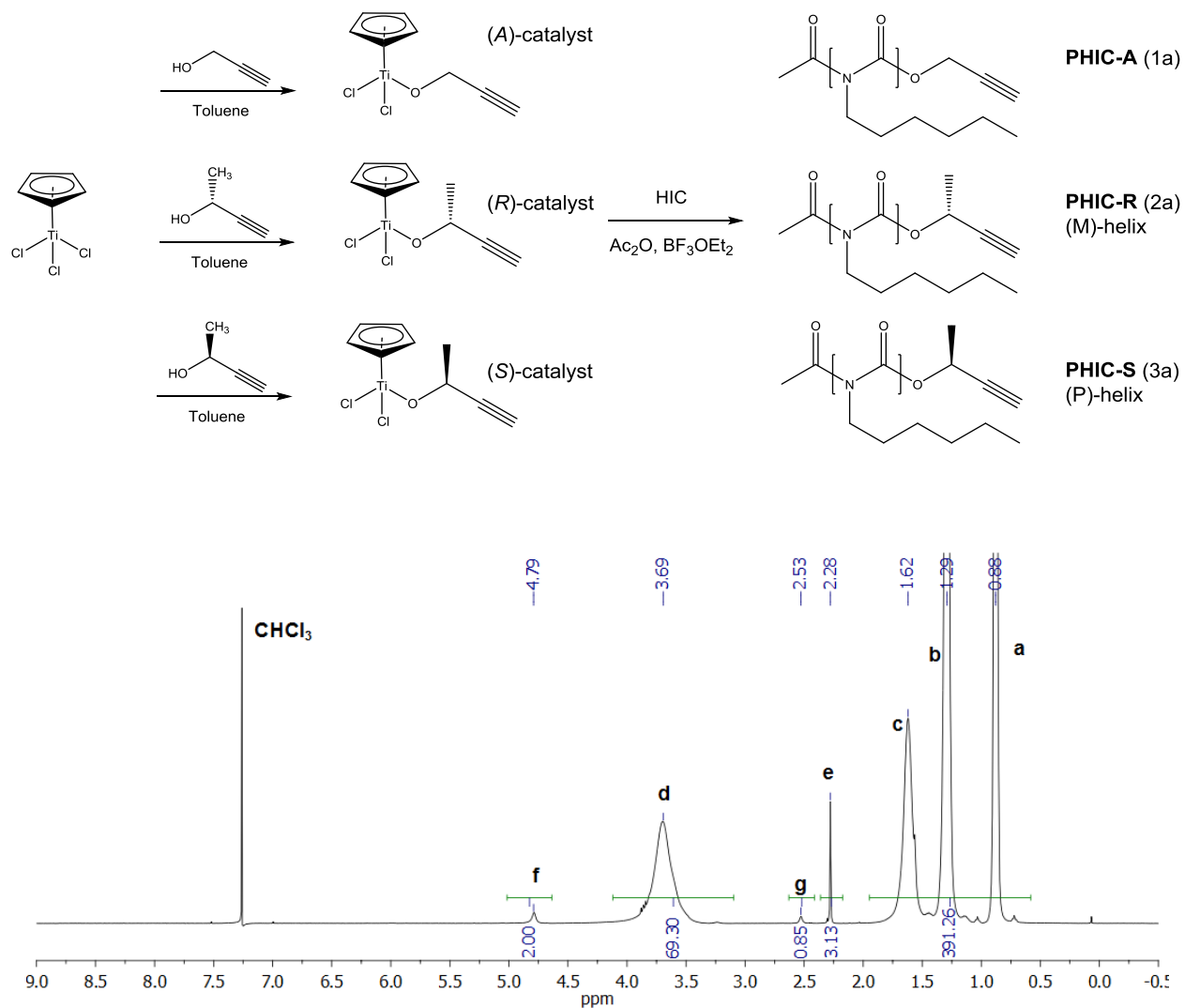


Figure S1. ^1H NMR of achiral alkyne functional **PHIC-A**.

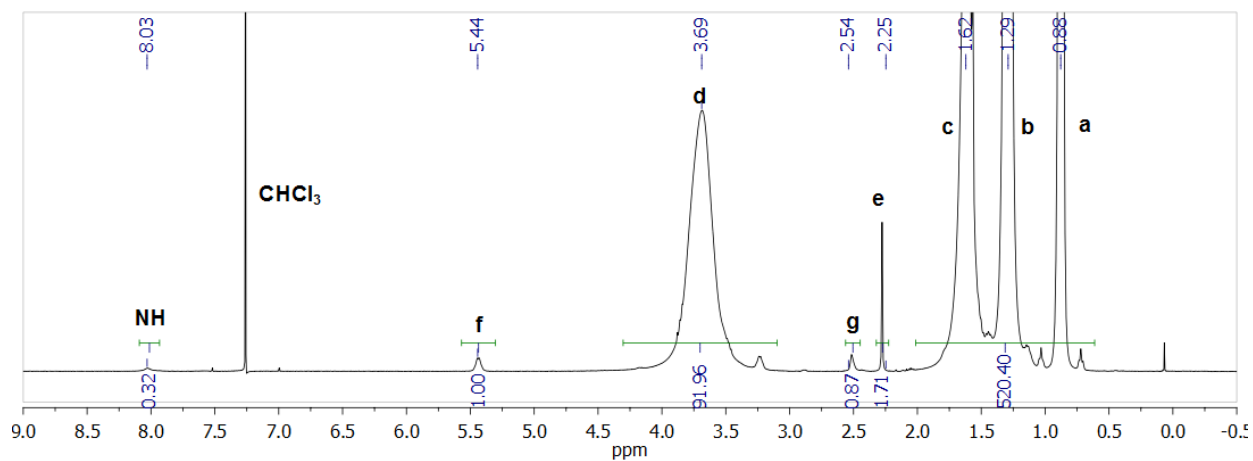


Figure S2. ^1H NMR of chiral alkyne functional **PHIC-R**.

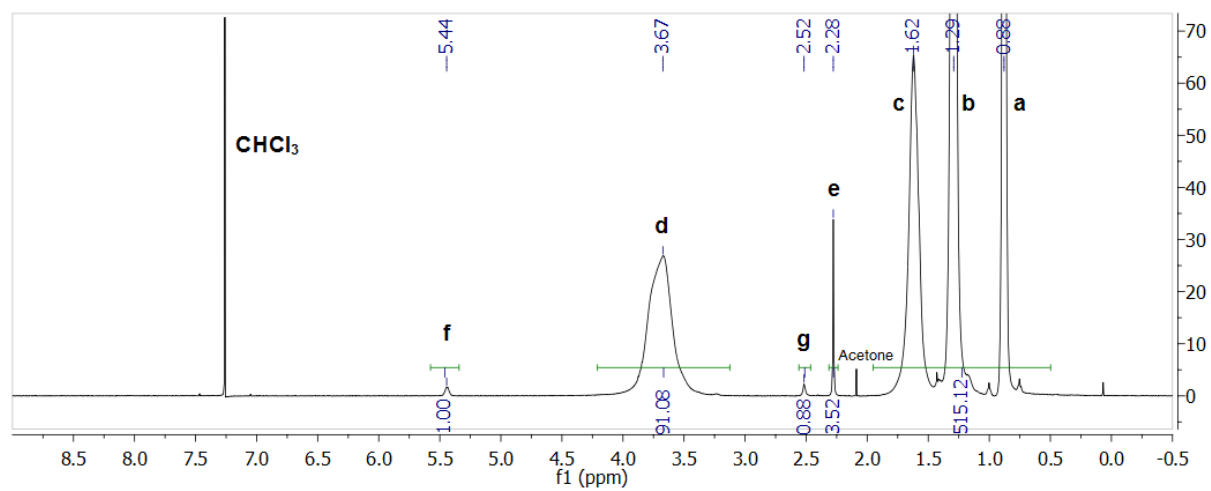


Figure S3. ^1H NMR of chiral alkyne functional **PHIC-S**.

Scheme S2. Synthesis of bifunctional β -turn mimetic dipeptide **2**

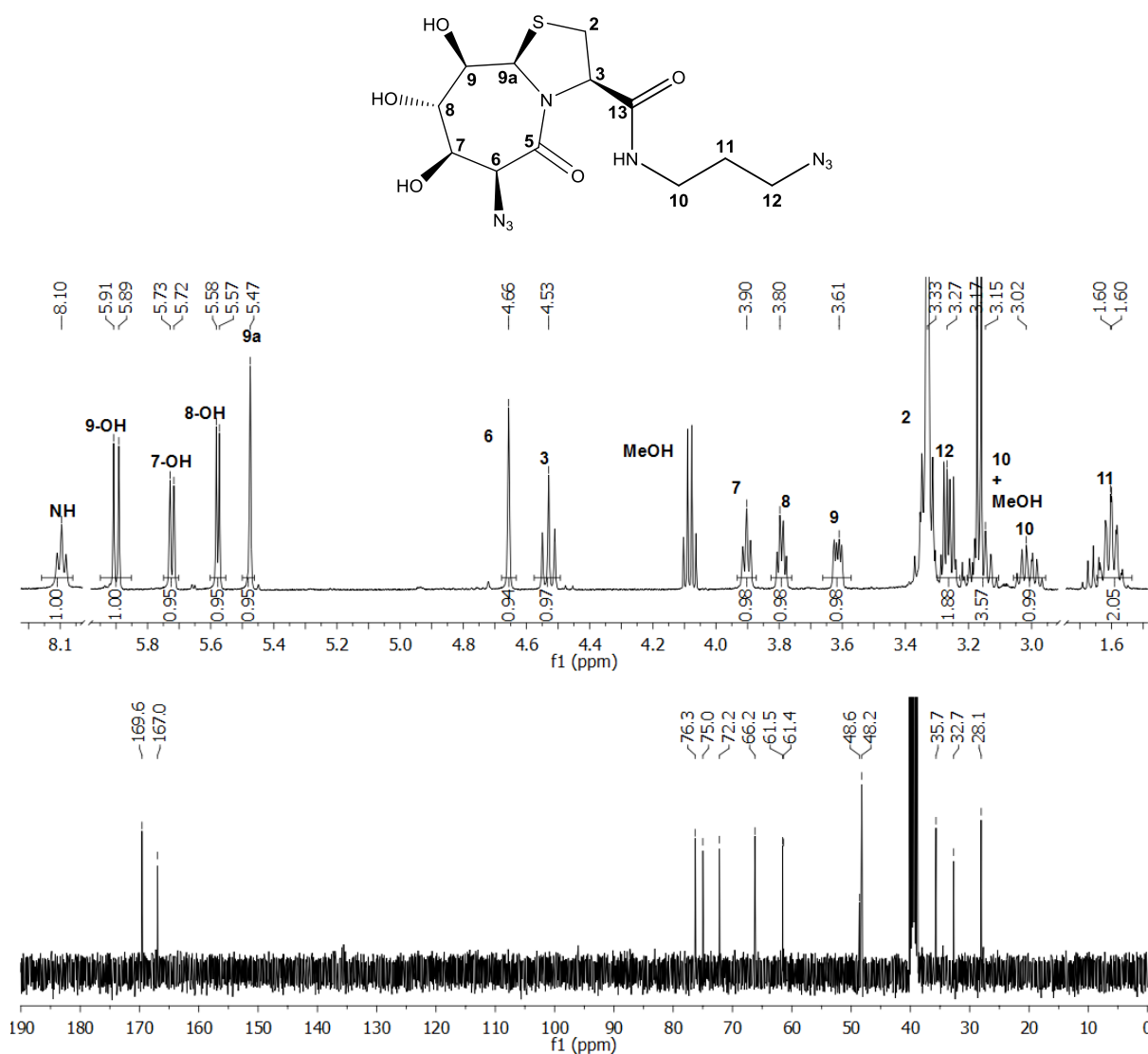
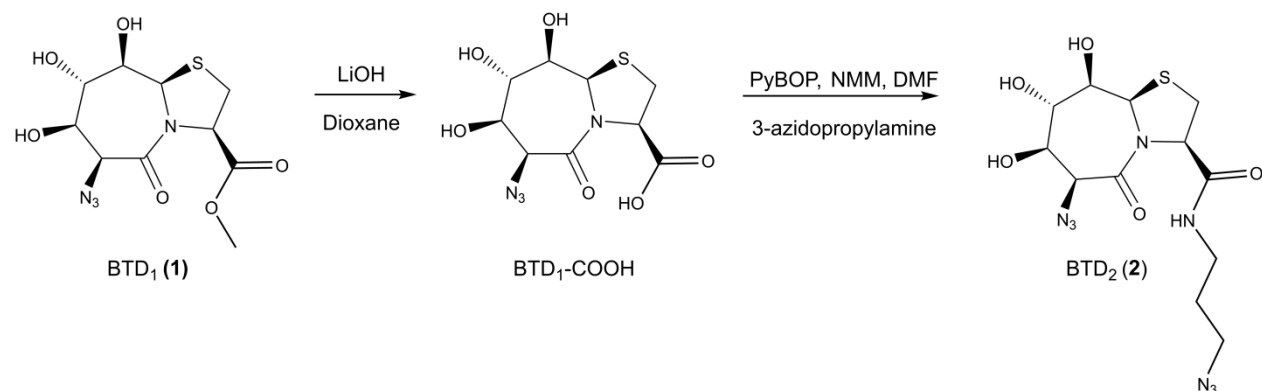


Figure S4. ¹H NMR spectrum (upper) and ¹³C NMR spectrum (lower) of bifunctional β -turn mimetic dipeptide **2**.

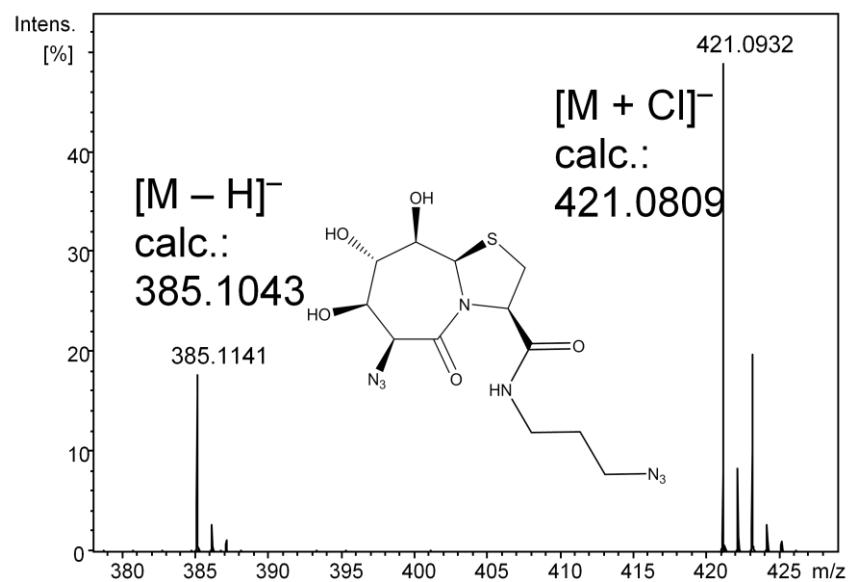


Figure S5. ESI-TOF MS of bifunctional β -turn mimetic dipeptide **2**.

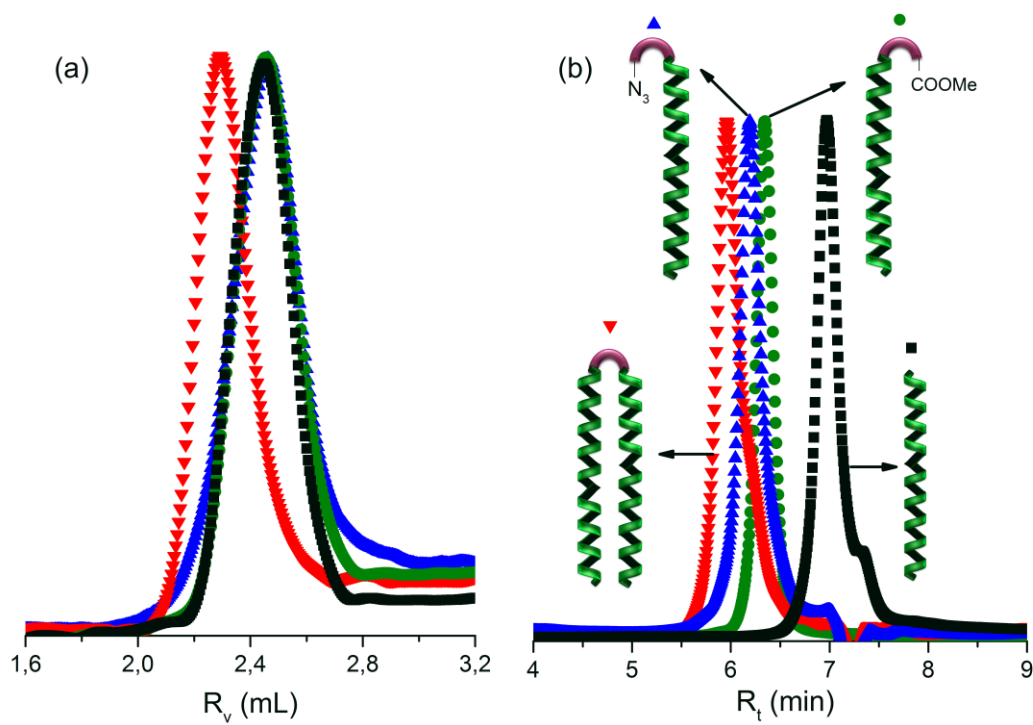


Figure S6. (a) SEC traces of PHIC-S and chiral conjugates (**1S**, **2S**, **3S**) (b) HPLC traces of PHIC-S and chiral conjugates (**1S**, **2S**, **3S**).

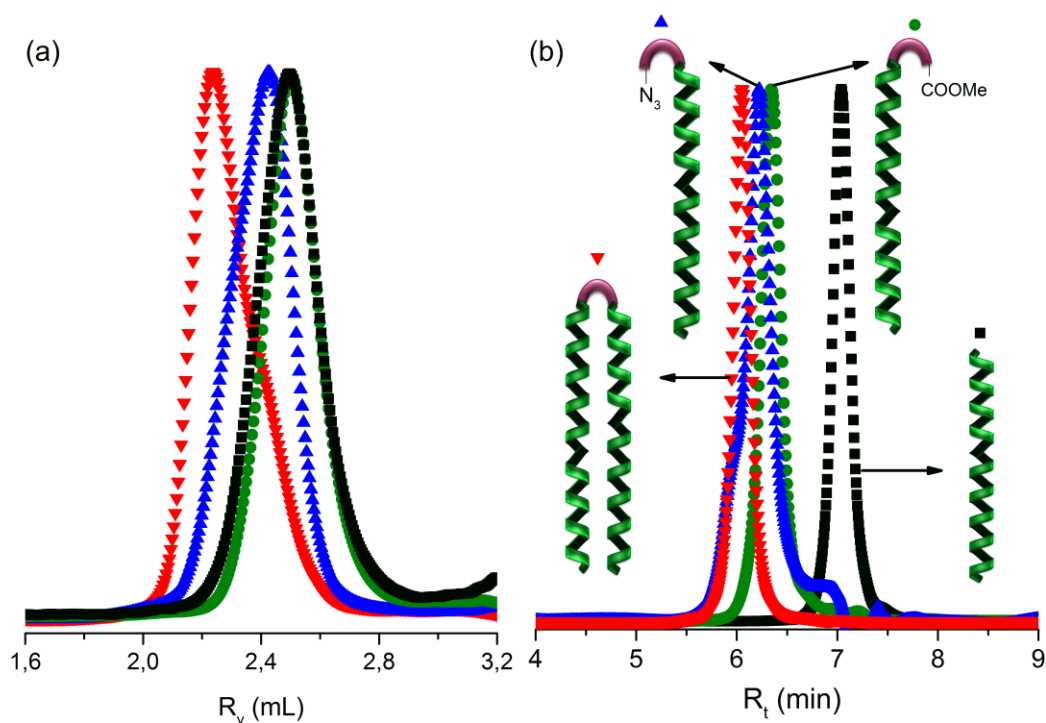


Figure S7. (a) SEC traces of PHIC-R and chiral conjugates (**1R**, **2R**, **3R**) (b) HPLC traces of PHIC-R and chiral conjugates (**1R**, **2R**, **3R**).

Table S1. Polymer Characterization Data for alkyne-functional PHICs used for LCCC Measurements and CD spectroscopy

Entry	Sample Code	M_n^a (kDa)	$\bar{D}^a$ (M_w/M_n)	Cotton Effect ^b
1	PHIC-A	2.2	1.22	/
2	PHIC-R	3.4	1.09	-
3	PHIC-A	4.0	1.09	/
4	PHIC-S	5.4	1.18	+
5	PHIC-R	5.9	1.13	-
6	PHIC-S	6.5	1.16	+
7	PHIC-R	12.0	1.80	-

^aDetermined *via* SEC in THF using polystyrene standards

^bDetermined *via* CD-spectroscopy in THF

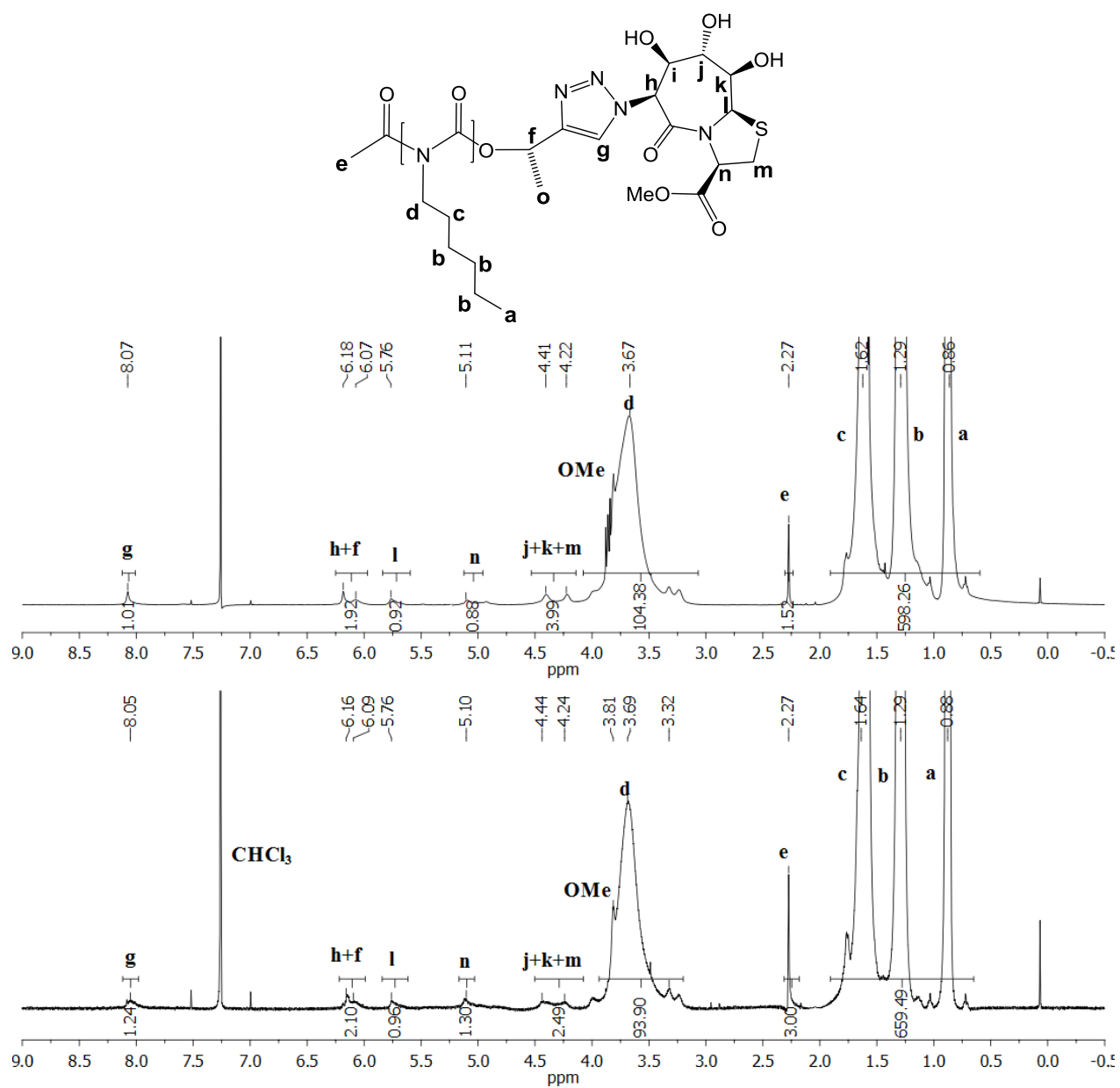


Figure S8. ^1H NMR spectra of chiral one-arm BTB-PHIC conjugate **S1** (upper) and **R1** (lower).

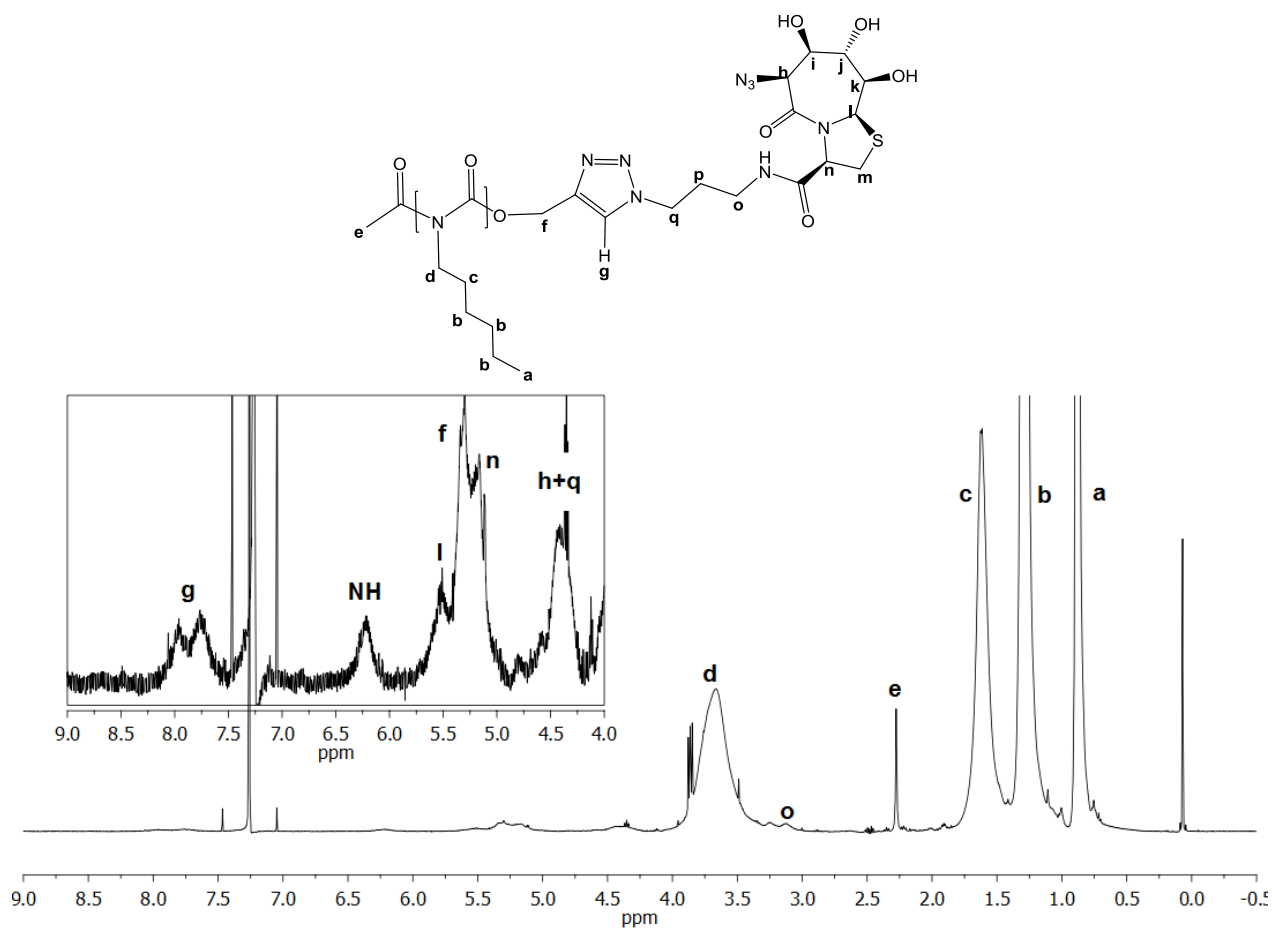


Figure S9. ^1H NMR spectrum of achiral monofunctional BTD-PHIC conjugate **A2**.

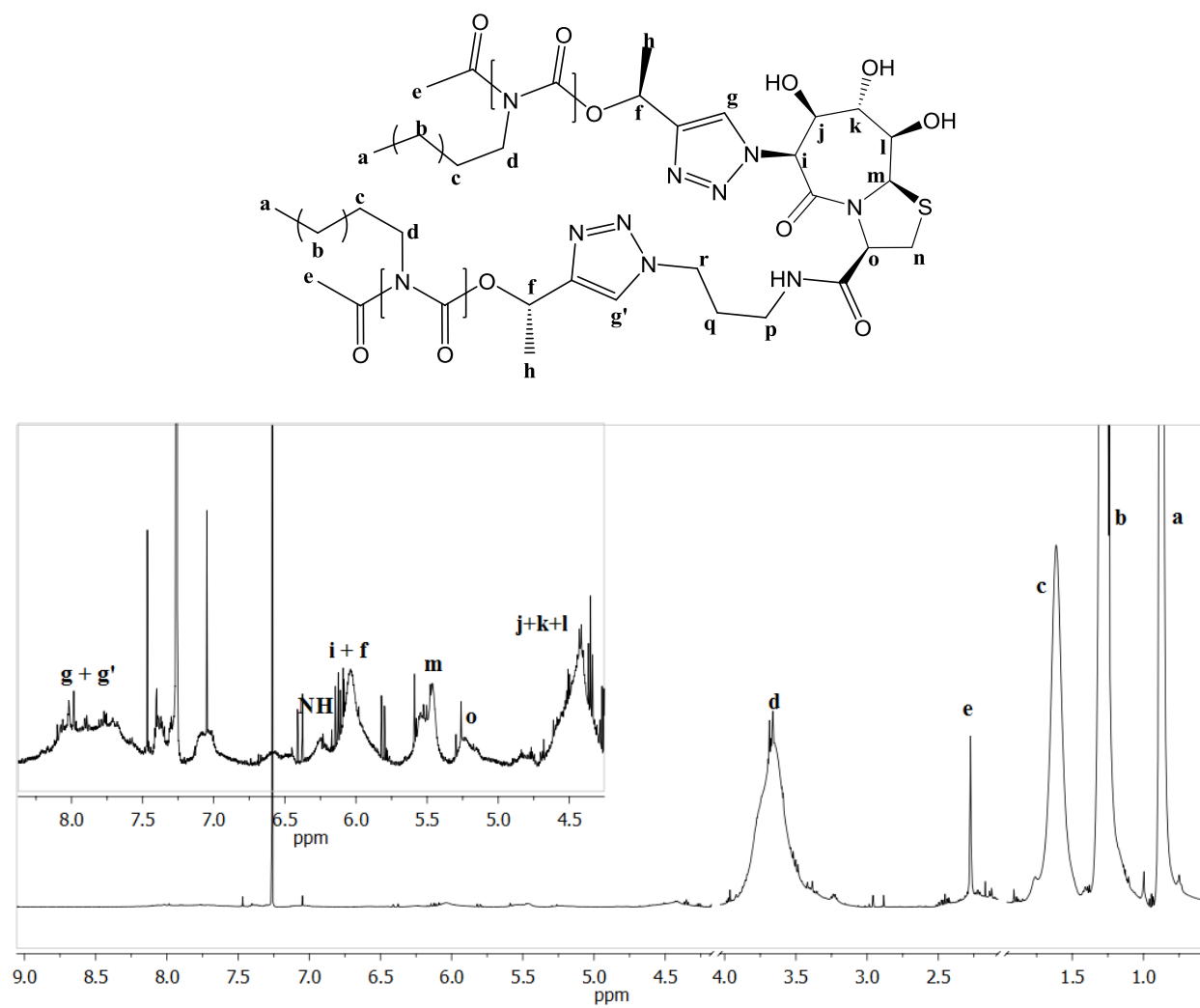


Figure S10. ^1H NMR spectrum of chiral two-arm BTD-PHIC conjugate **S3**.

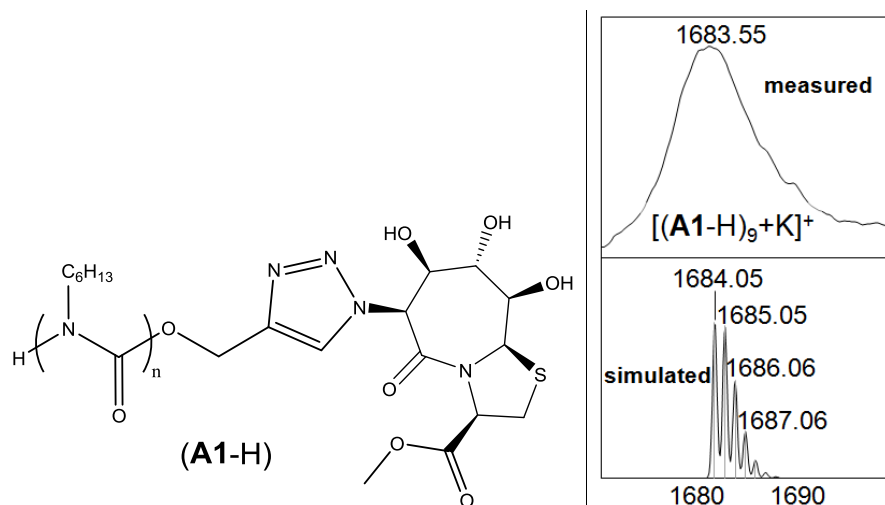


Figure S11. Structure of conjugate **A1** without terminal acetyl group as visible in MALDI-ToF MS and simulation of second series.

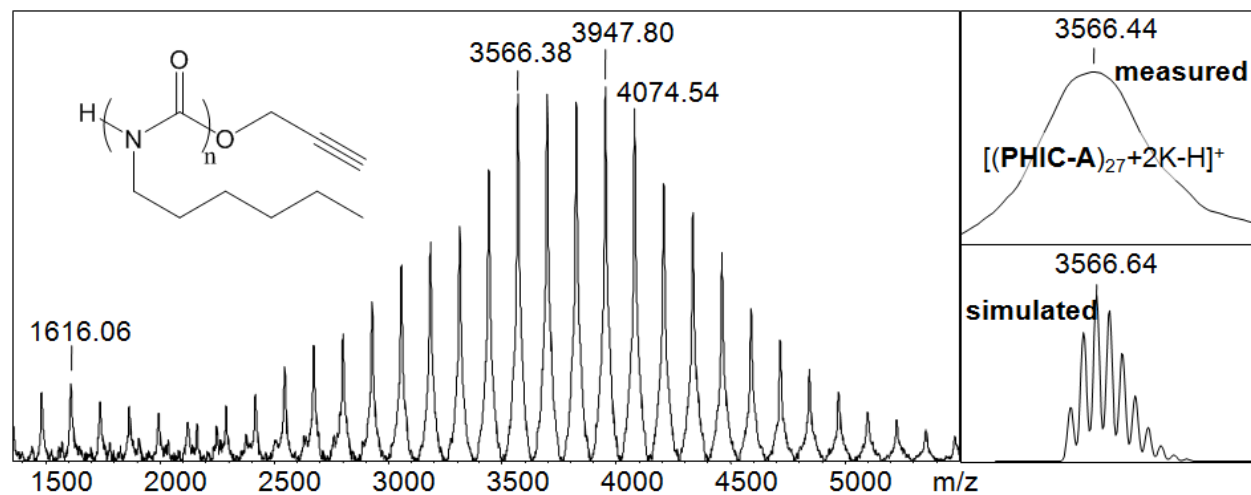


Figure S12. MALDI-ToF MS spectrum of achiral poly(*n*-hexyl isocyanate) (**PHIC-A**).

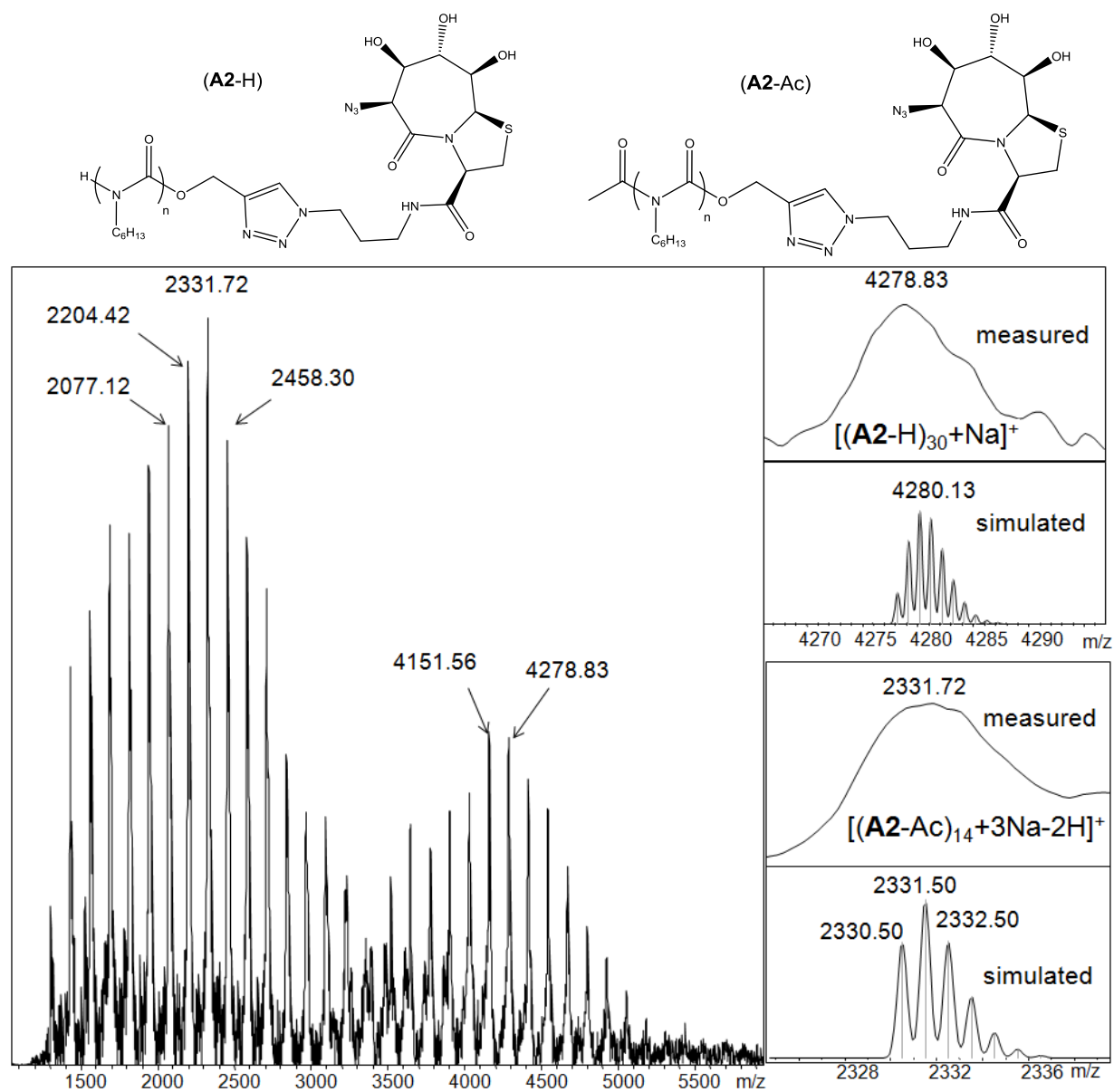


Figure S13. MALDI-ToF MS spectrum of achiral monofunctional BTD-PHIC conjugate **A2**.