Supporting information for

Conjugated Polymer-Enhanced Enantioselectivity in Fluorescent Sensing

Xuepeng Zhang,[a][b] Chao Wang,[b] Pan Wang,[a] Jiajun Du,[a] Guoqing Zhang,*[a] and Lin Pu*[a][b]

[a] X. Zhang, P. Wang, J. Du, Prof. G. Zhang
Hefei National Laboratory for Physical Sciences at the Microscale
University of Science and Technology of China
96 Jinzhai Road, Hefei, Anhui, 230026, China
[b] C. Wang, Prof. L. Pu
Department of Chemistry, University of Virginia, Charlottesville, Virginia 22904-4319, U.S.A.
E-mail: lp6n@virginia.edu

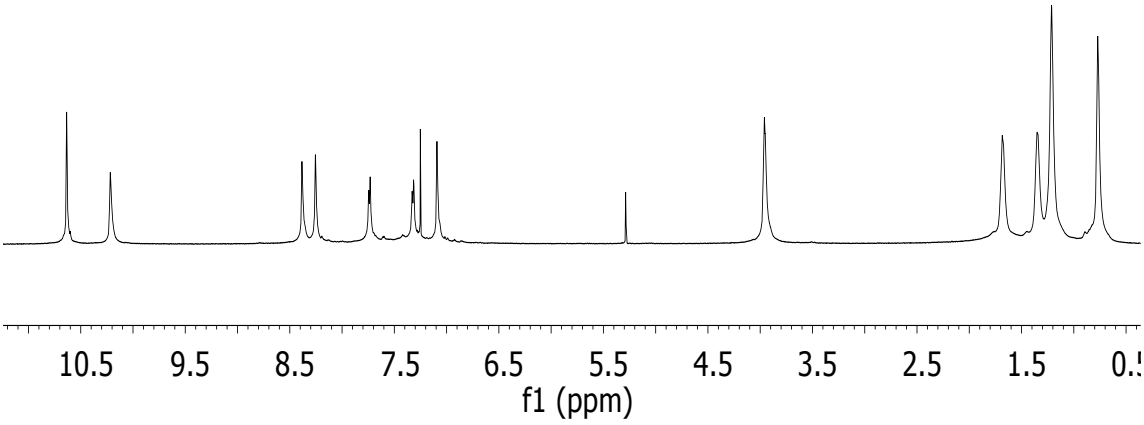


Figure S1. ^{1}H NMR spectrum of polymer (*S*)-**6** in $CDCl_3$.

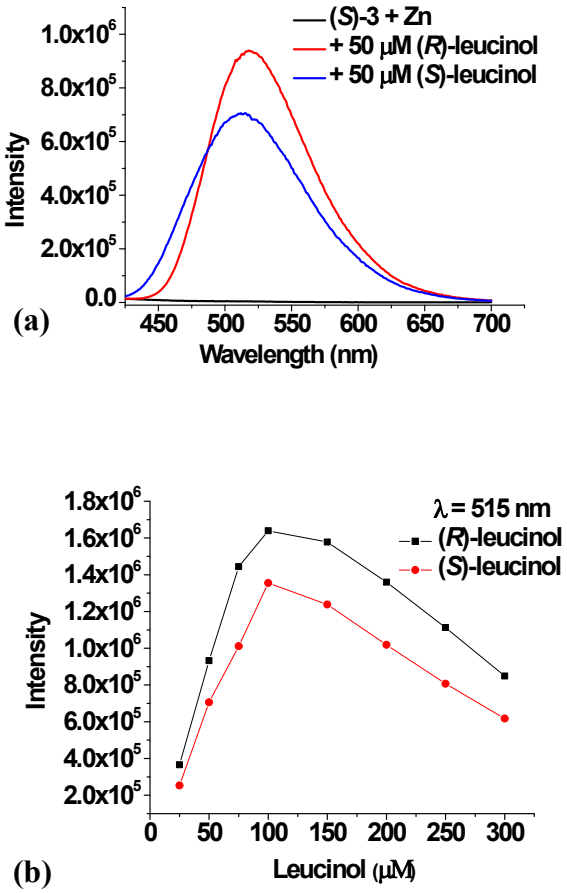


Figure S2. Fluorescent spectra of (*S*)-**3** (5.0 x 10^{-5} M) + Zn(II) (1.0 x 10^{-4} M) in CH_2Cl_2 with 1 equiv of (*R*)- and (*S*)-leucinol (a) . Fluorescent intensities at λ = 515 nm versus leucinol concentrations (b). (λ_{ex} = 355 nm, slit: 3/3 nm).

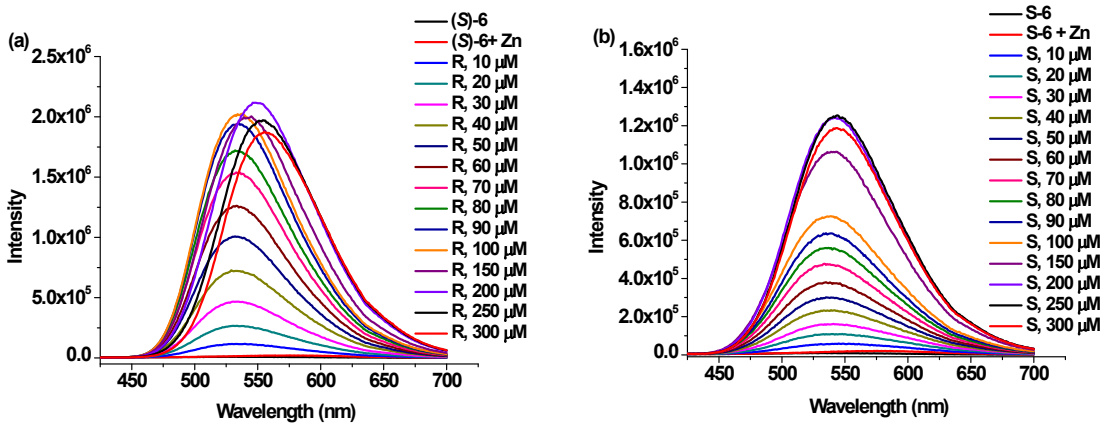


Figure S3. Fluorescent spectra of (*S*)-**6** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**7** (b). (λ_{ex} = 355 nm, slit: 3/3 nm).

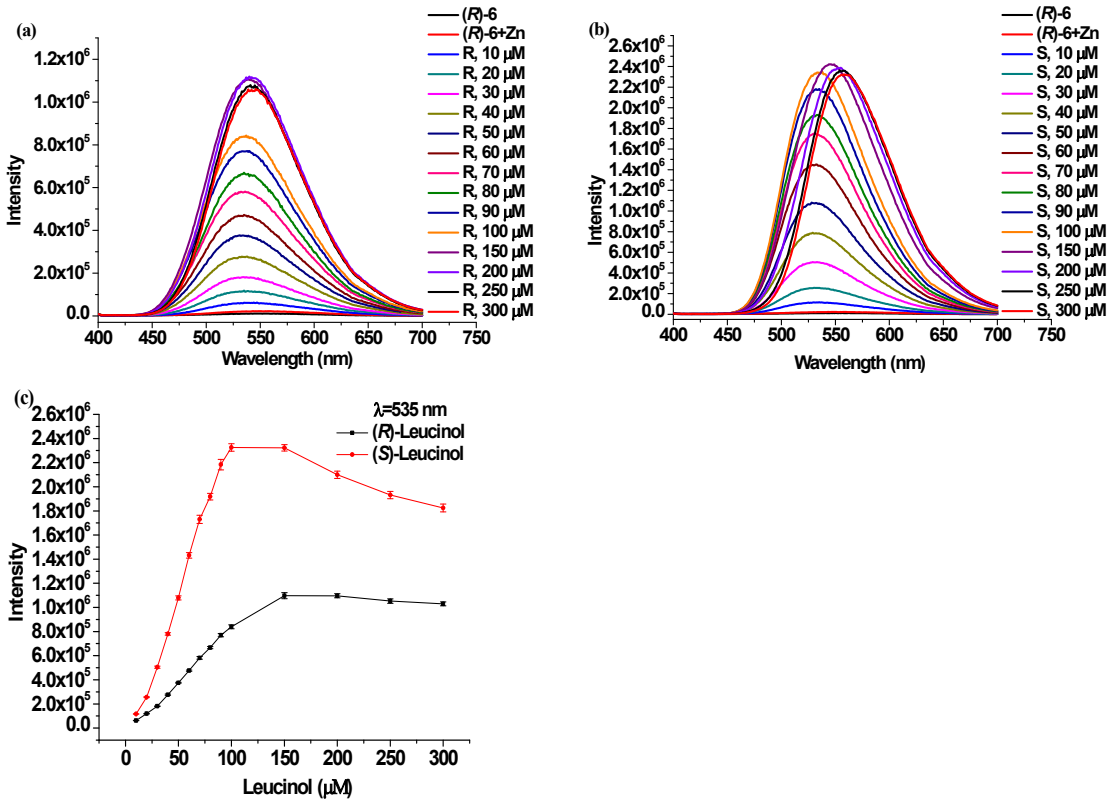


Figure S4. Fluorescent spectra of (*R*)-**6** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**7** (b). Fluorescence intensities versus leucinol concentrations (error bars are from three independent measurements) (c). (λ_{ex} = 355 nm, slit: 3/3 nm).

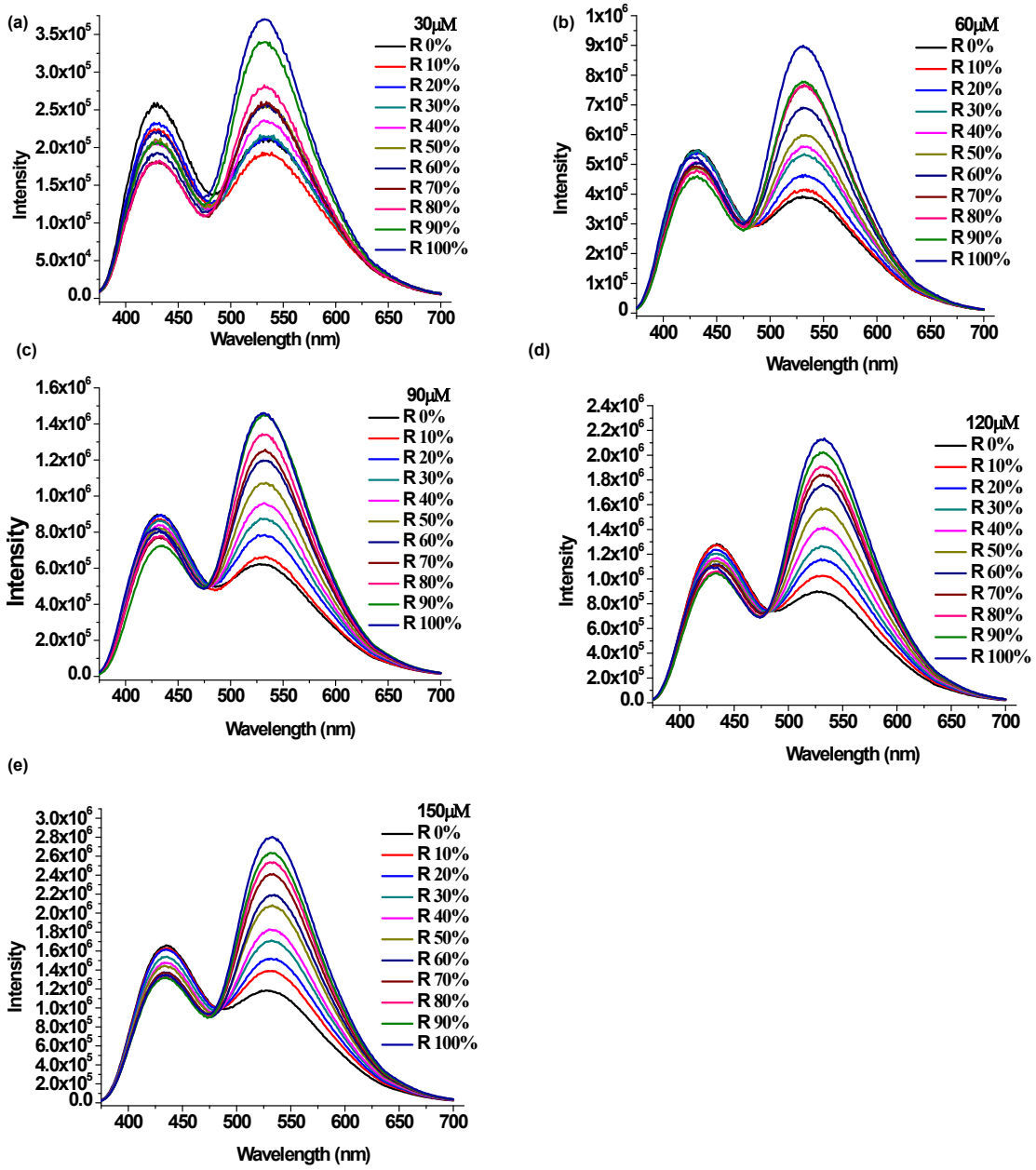


Figure S5. Fluorescent response of (*S*)-**6** + SA (1:2, total concentration: 1.5 × 10^{-4} M in CH_2Cl_2) + Zn(II) (3.0 × 10^{-4} M) toward amino alcohol **7** at various total concentrations with varying percentages of (*R*)-**7** (λ_{ex} = 355 nm, slit: 3/3 nm).

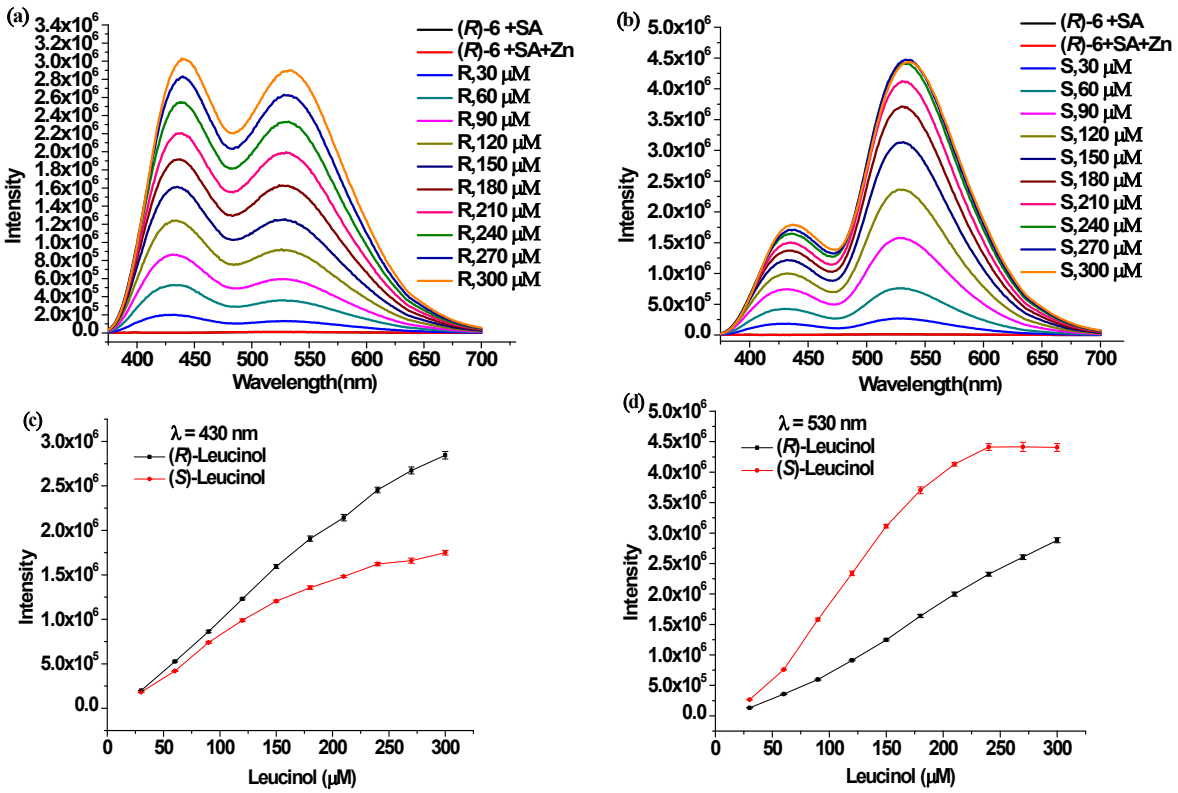


Figure S6. Fluorescent response of (*R*)-**6**+SA (1:2, total concentration: 1.5 × 10^{-4} M in CH_2Cl_2) + Zn^{II} (3.0 × 10^{-4} M) towards (*R*)- and (*S*)-**7** (λ_{ex} = 355 nm, slits: 3/3 nm).

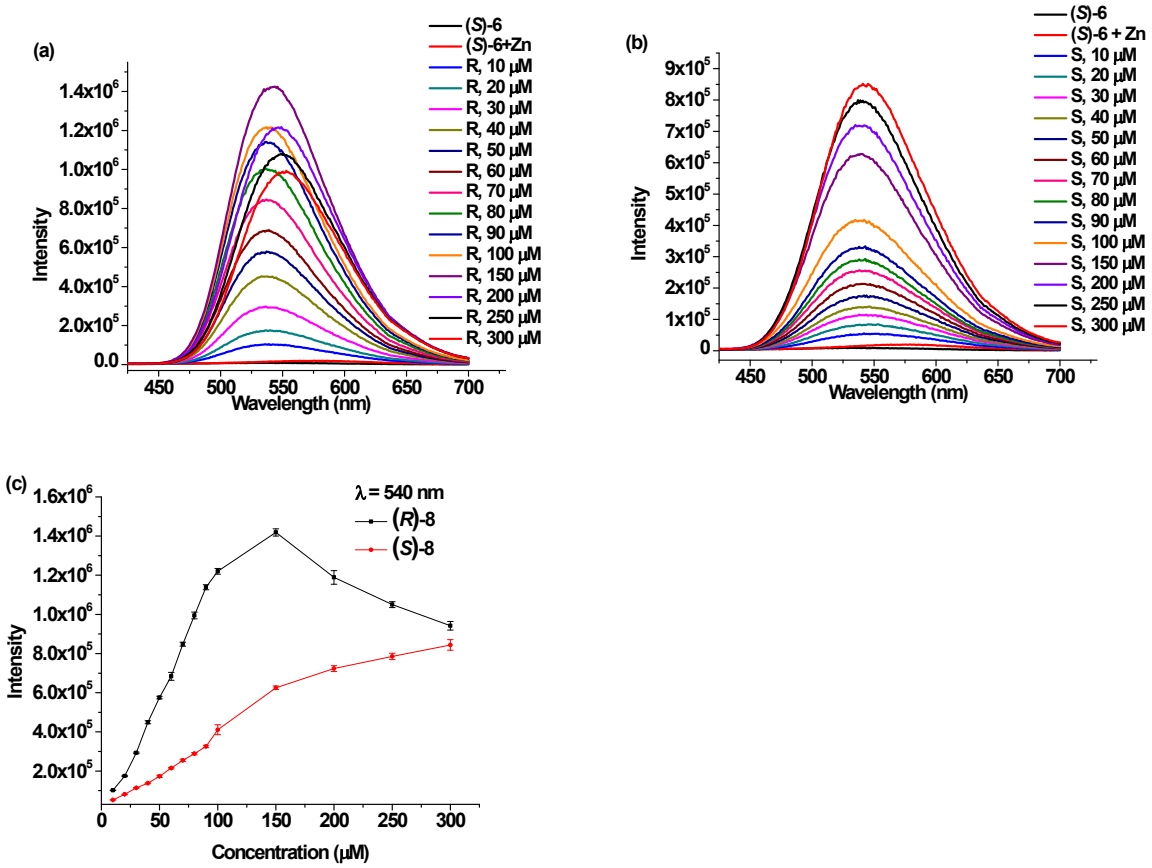


Figure S7. Fluorescent spectra of (*S*)-**6** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**8** (b). Fluorescence intensities versus concentrations of amino alcohol **8** (error bars are from three independent measurements) (c). (λ_{ex} = 355 nm, slit: 3/3 nm).

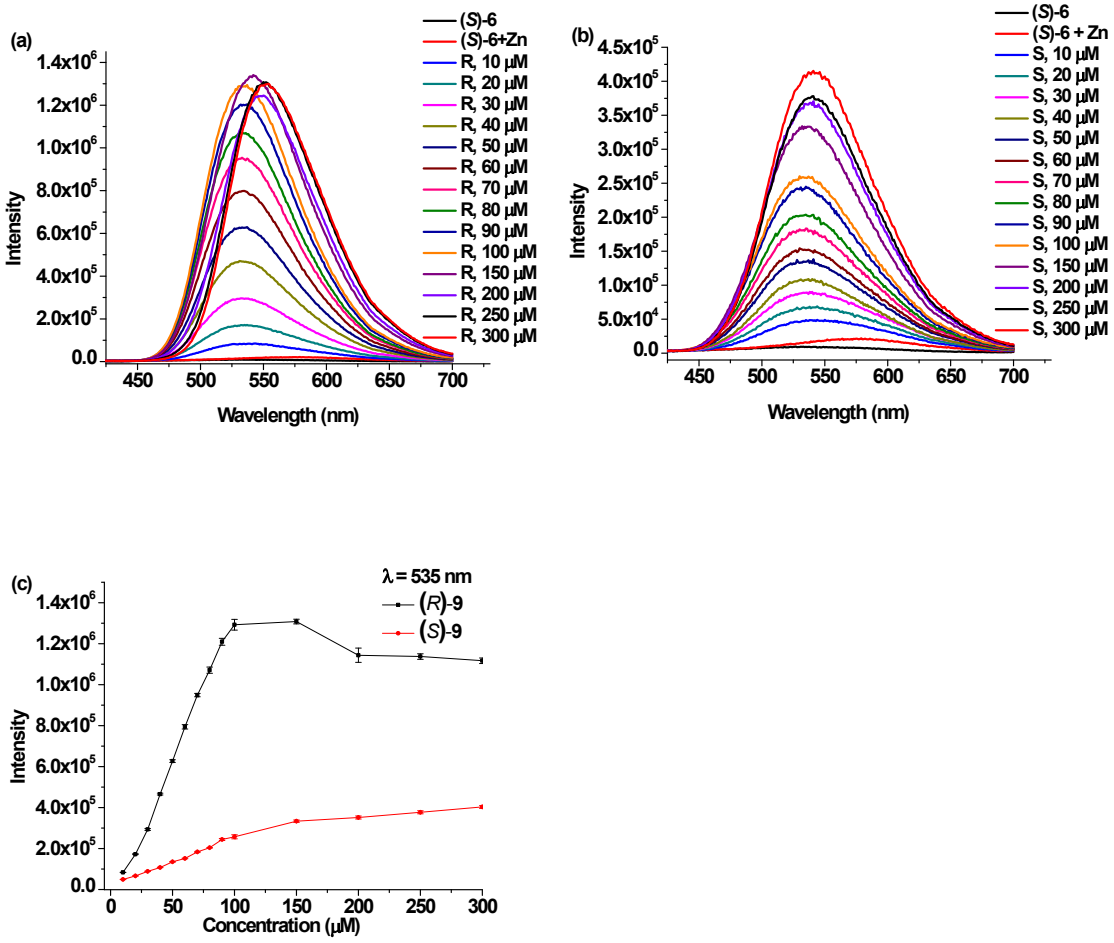


Figure S8. Fluorescent spectra of (*S*)-**6** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**9** (b). Fluorescence intensities versus concentrations of amino alcohol **9** (error bars are from three independent measurements) (c). (λ_{ex} = 355 nm, slit: 3/3 nm).

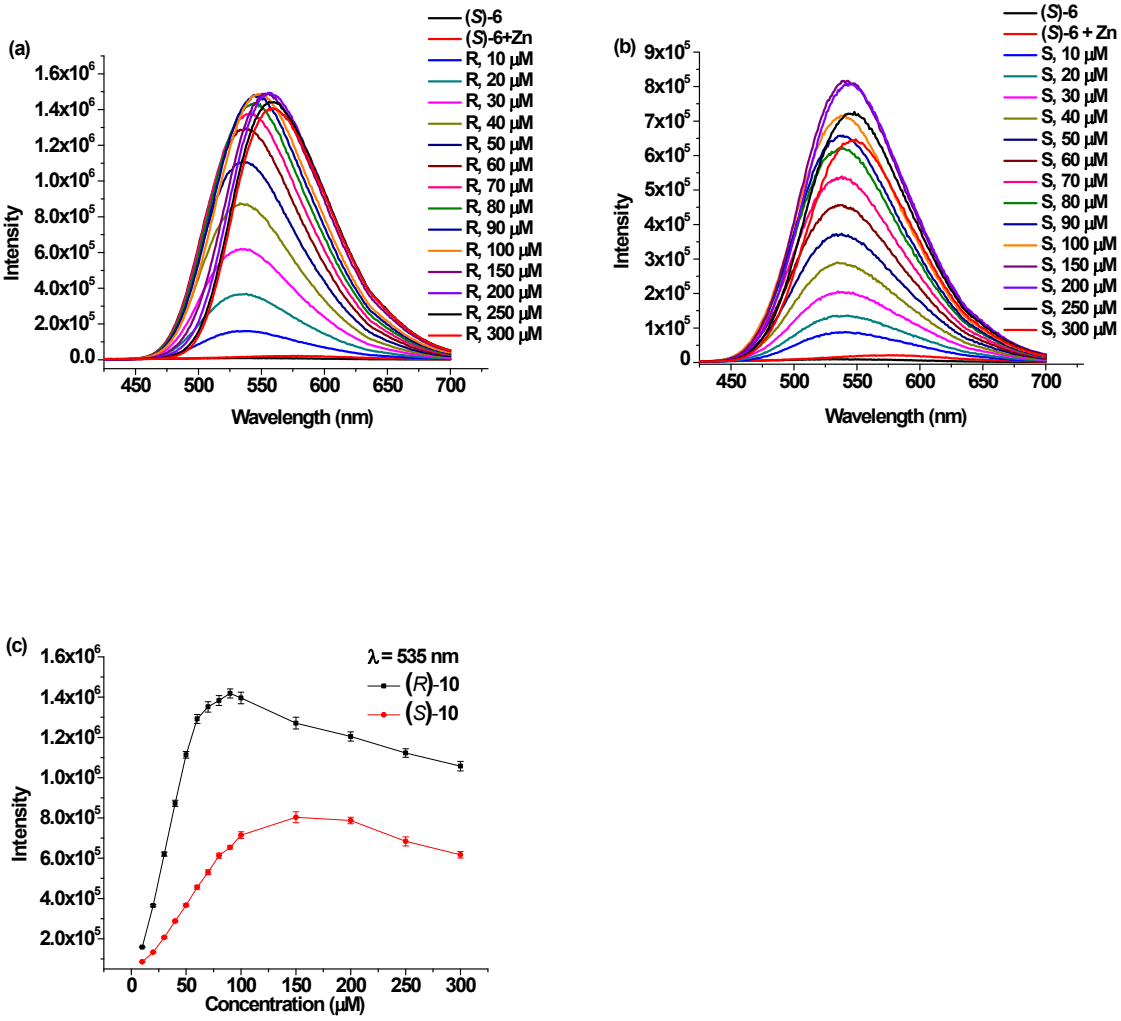


Figure S9. Fluorescent spectra of (*S*)-**6** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**10** (b). Fluorescence intensities versus concentrations of amino alcohol **10** (error bars are from three independent measurements) (c). (λ_{ex} = 355 nm, slit: 3/3 nm).

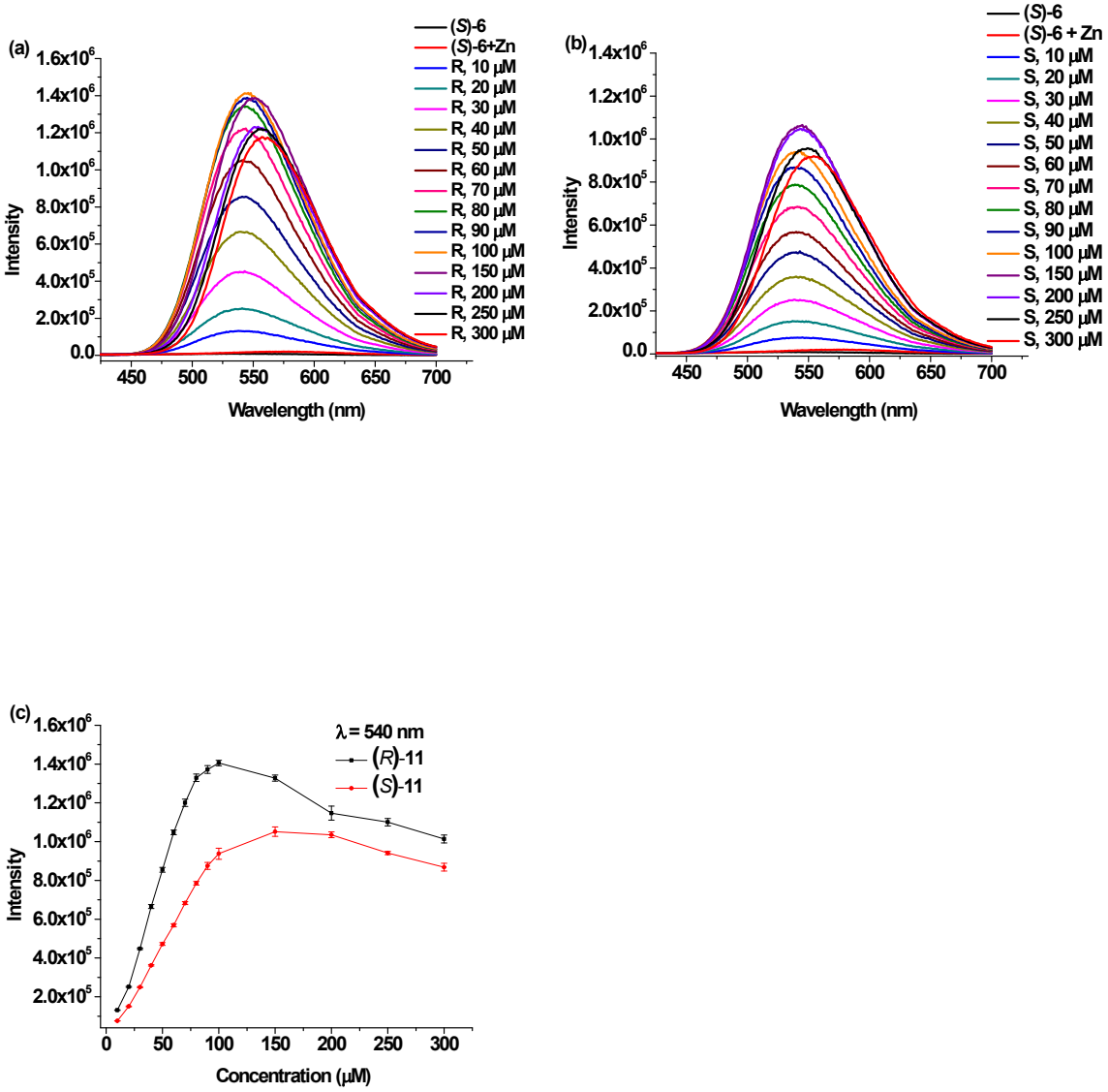


Figure S10. Fluorescent spectra of (*S*)-**6** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**11** (b). Fluorescence intensities versus concentrations of amino alcohol **11** (error bars are from three independent measurements) (c). (λ_{ex} = 355 nm, slit: 3/3 nm).

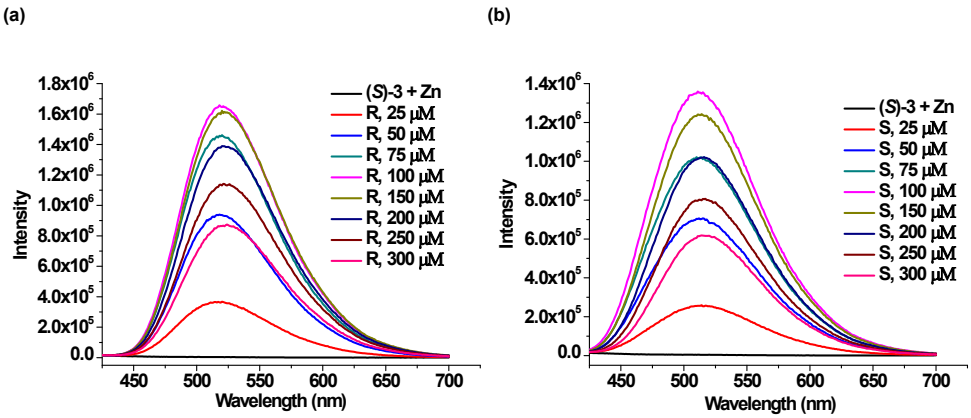


Figure S11. Fluorescent spectra of (*S*)-**3** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**7** (b). (λ_{ex} = 355 nm, slit: 3/3 nm).

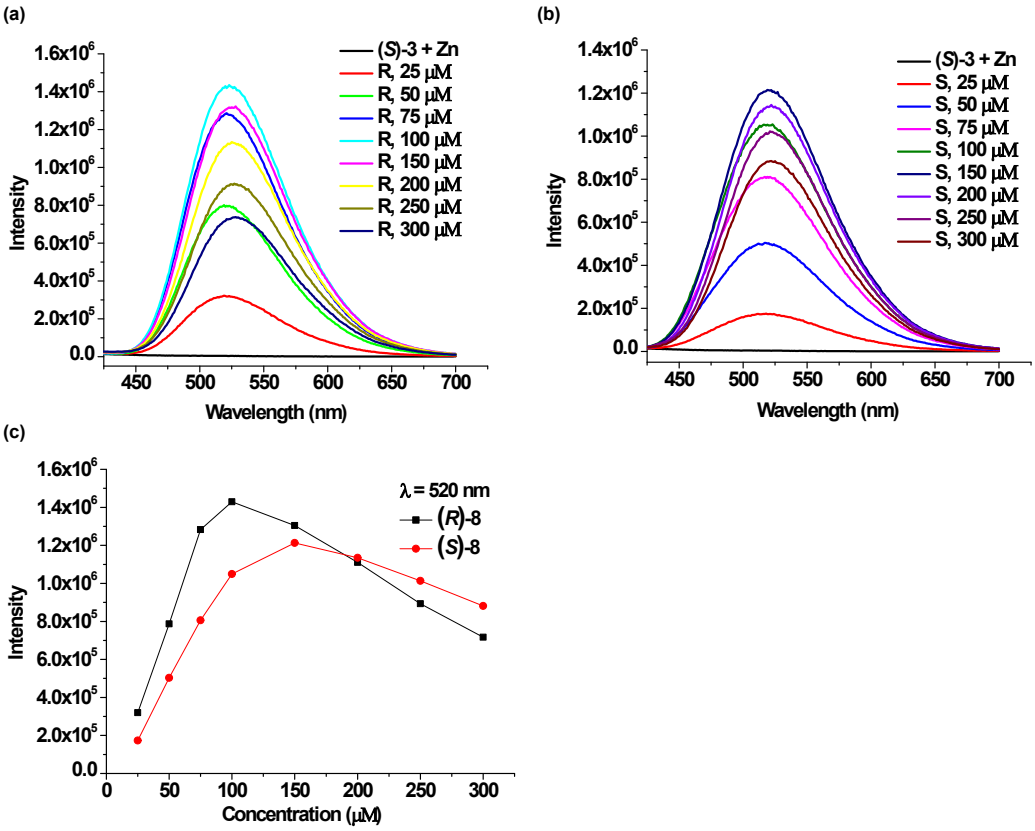


Figure S12. Fluorescent spectra of (*S*)-**3** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**8** (b). Fluorescence intensities versus concentrations of amino alcohol **8** (c). (λ_{ex} = 355 nm, slit: 3/3 nm).

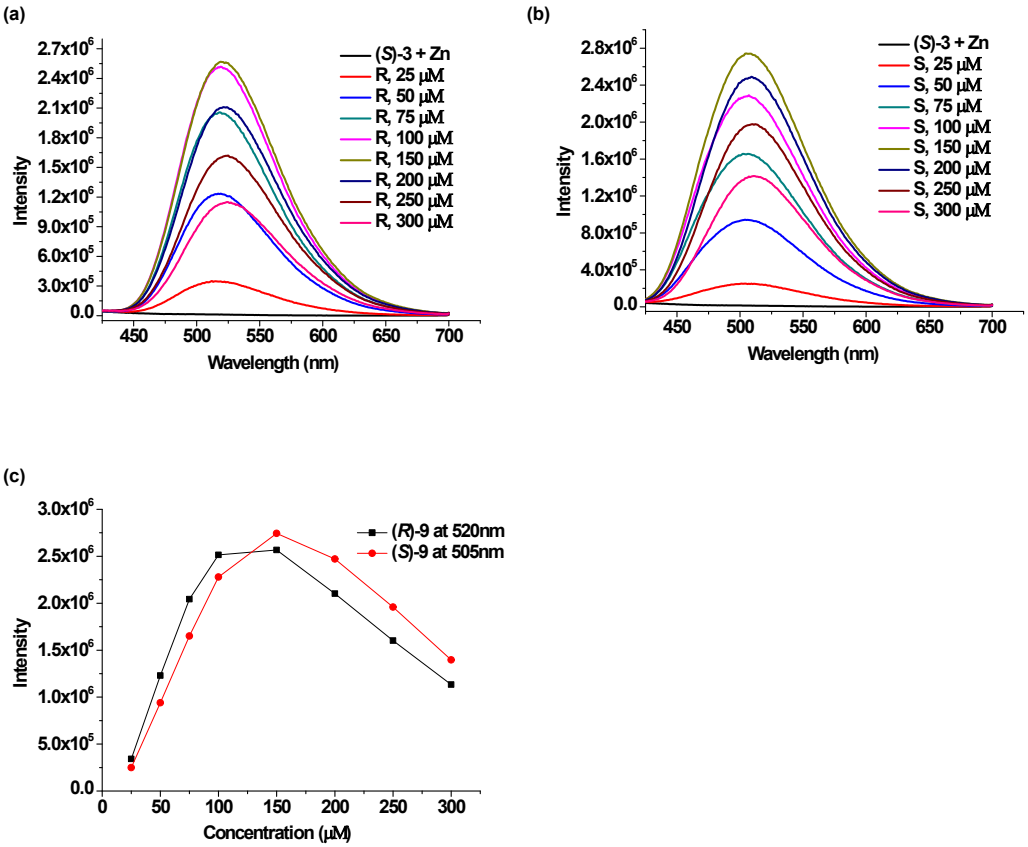


Figure S13. Fluorescent spectra of (*S*)-**3** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**9** (b). Fluorescence intensities versus concentrations of amino alcohol **9** (c). (λ_{ex} = 355 nm, slit: 4/4 nm).

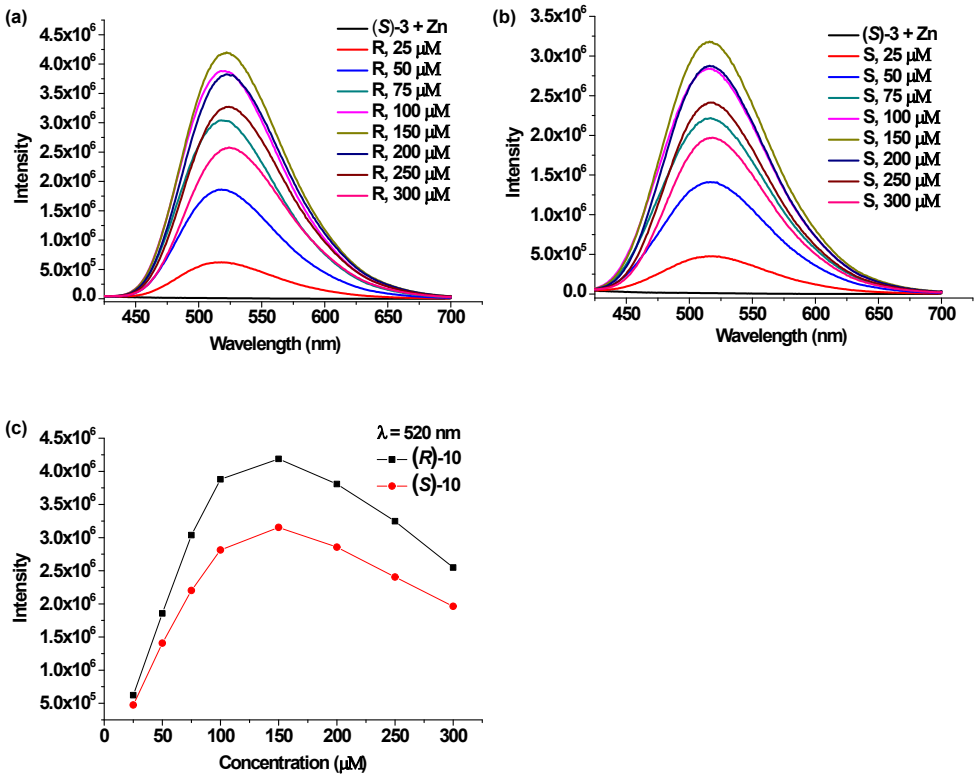


Figure S14. Fluorescent spectra of (*S*)-**3** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**10** (b). Fluorescence intensities versus concentrations of amino alcohol **10** (c). (λ_{ex} = 355 nm, slit: 4/4 nm).

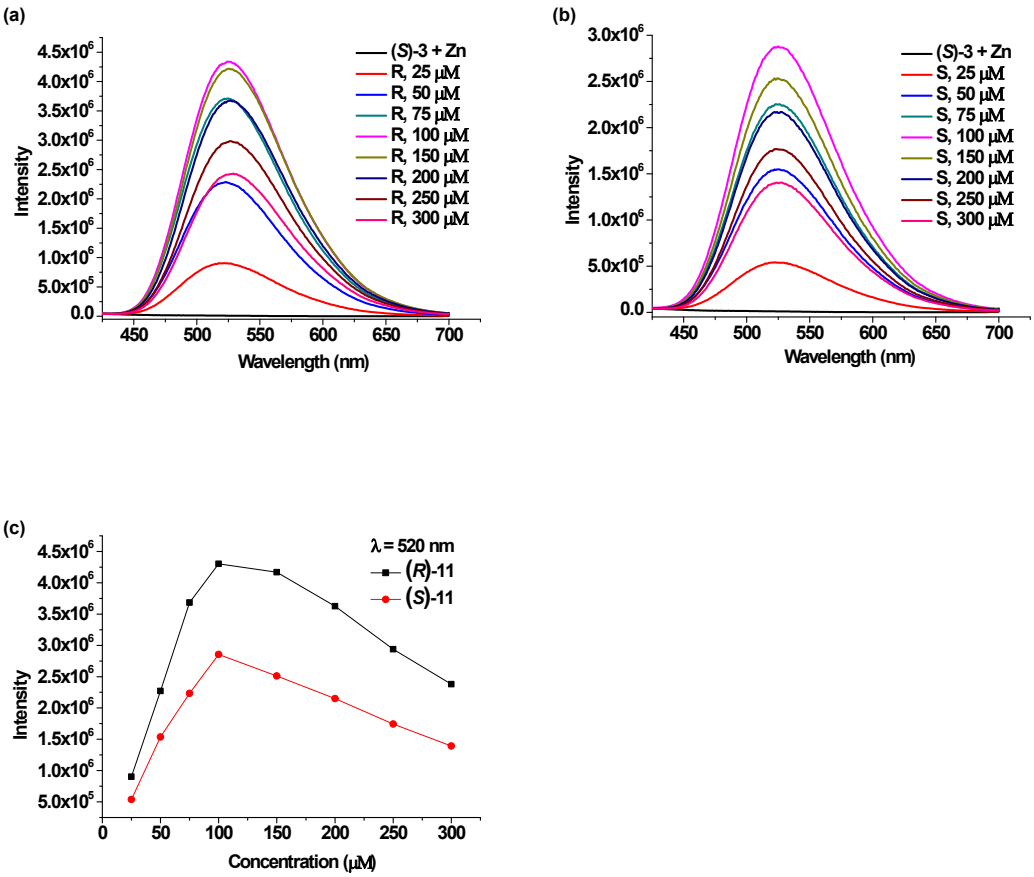


Figure S15. Fluorescent spectra of (*S*)-**3** (5.0 x 10^{-5} M) + Zn^{II} (1.0 x 10^{-4} M) in CH_2Cl_2 toward various concentrations of (*R*)- (a) and (*S*)-**11** (b). Fluorescence intensities versus concentrations of amino alcohol **11** (c). (λ_{ex} = 355 nm, slit: 4/4 nm).

NMR Spectra

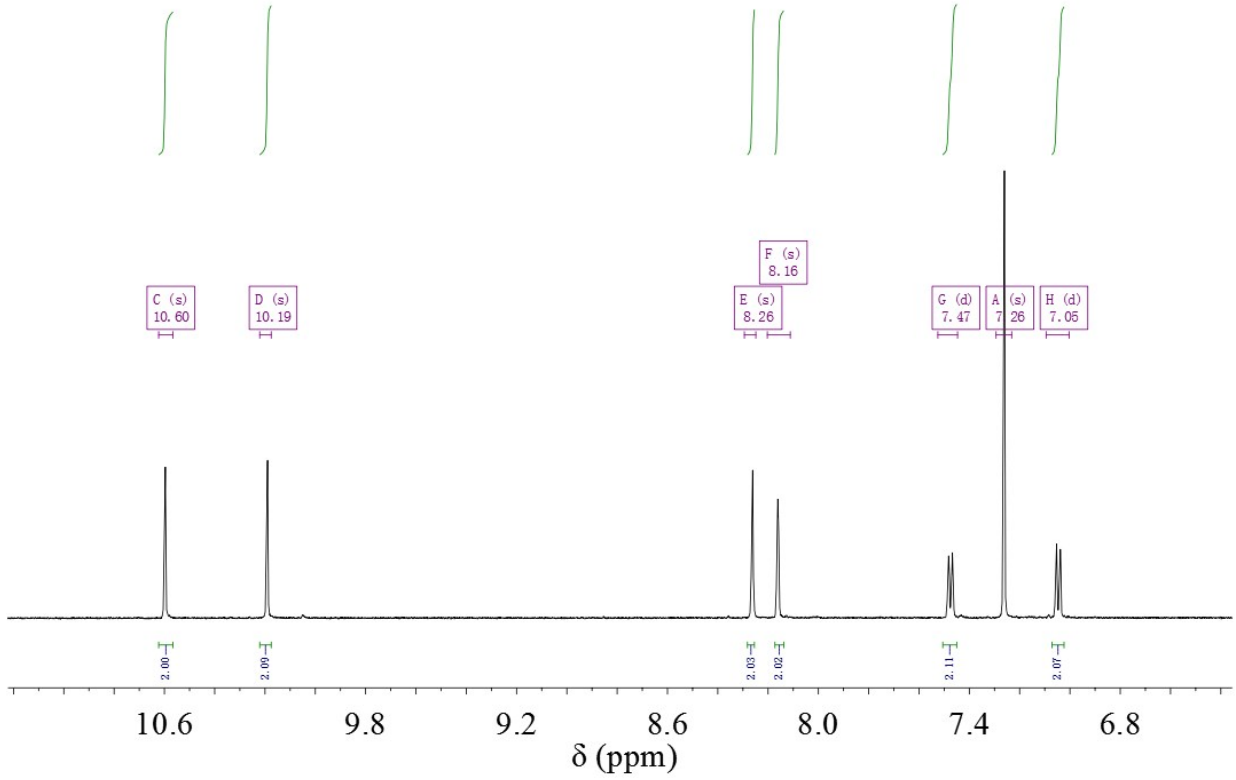


Figure S16. ^{1}H NMR spectrum of (*S*)-**4** in $CDCl_3$.

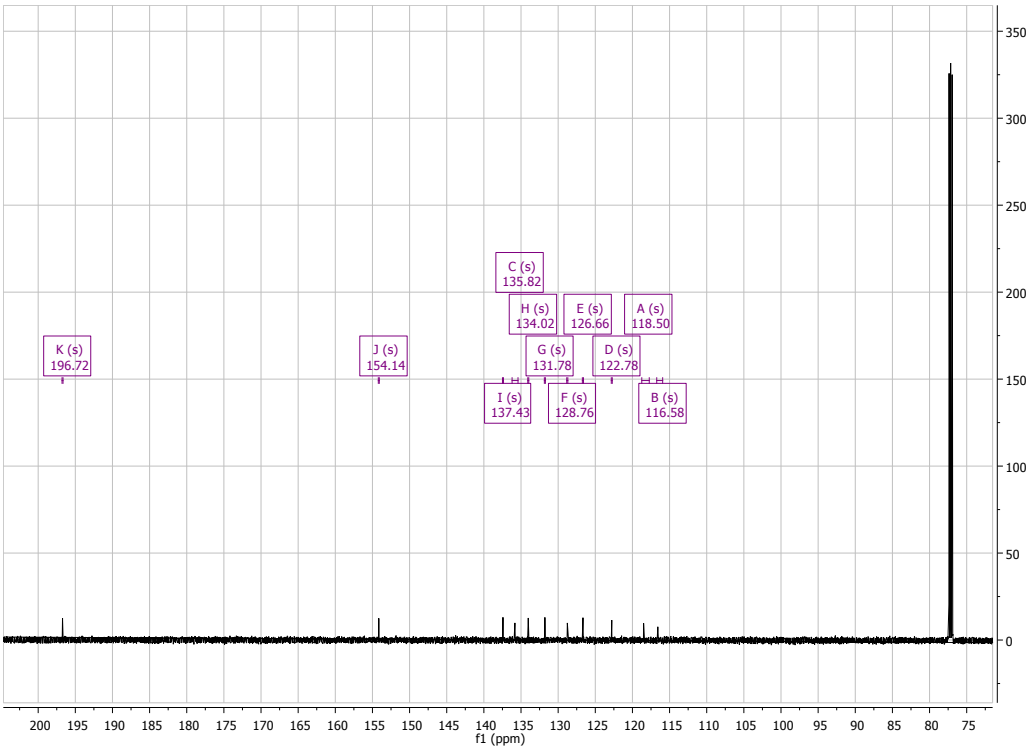


Figure S17. ^{13}C NMR spectrum of (*S*)-**4** in $CDCl_3$.

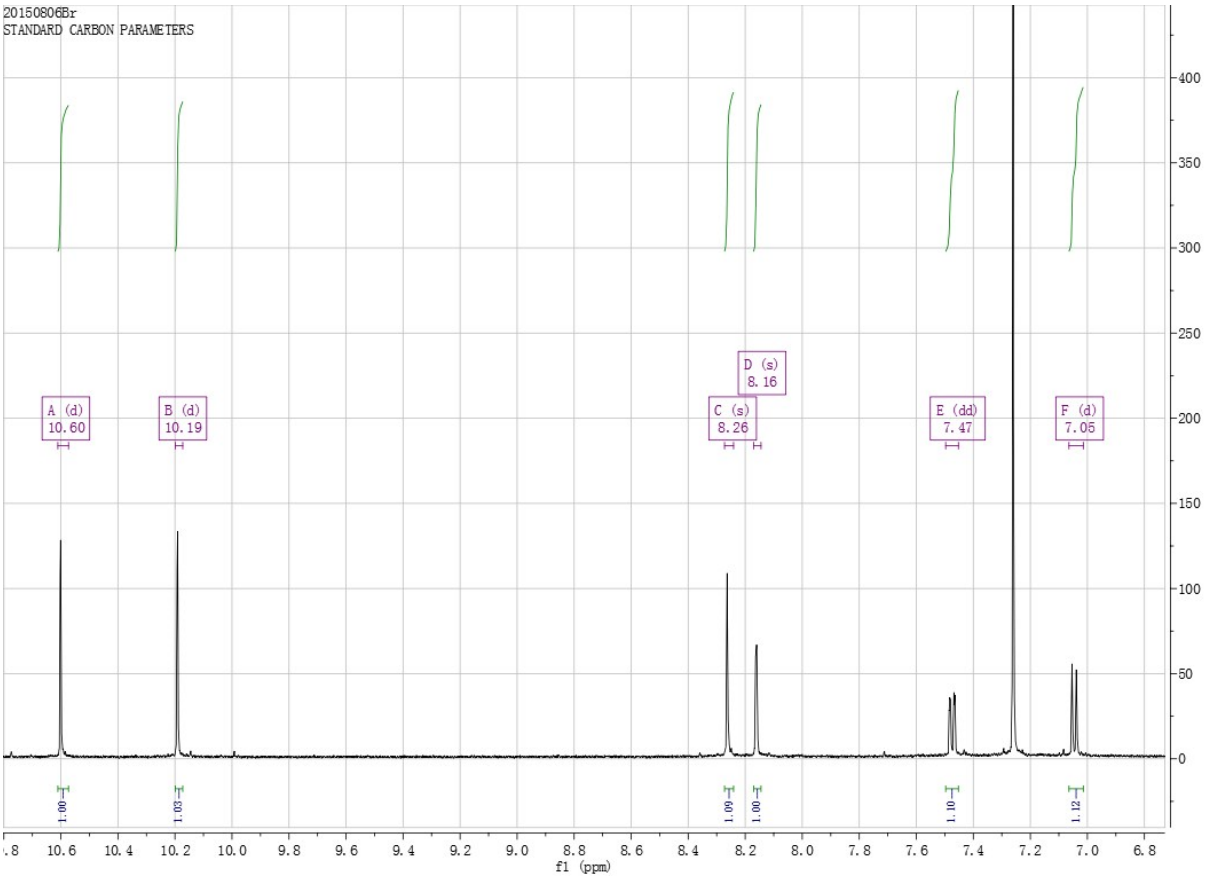


Figure S18. ^{1}H NMR spectrum of (*R*)-**4** in $CDCl_3$.

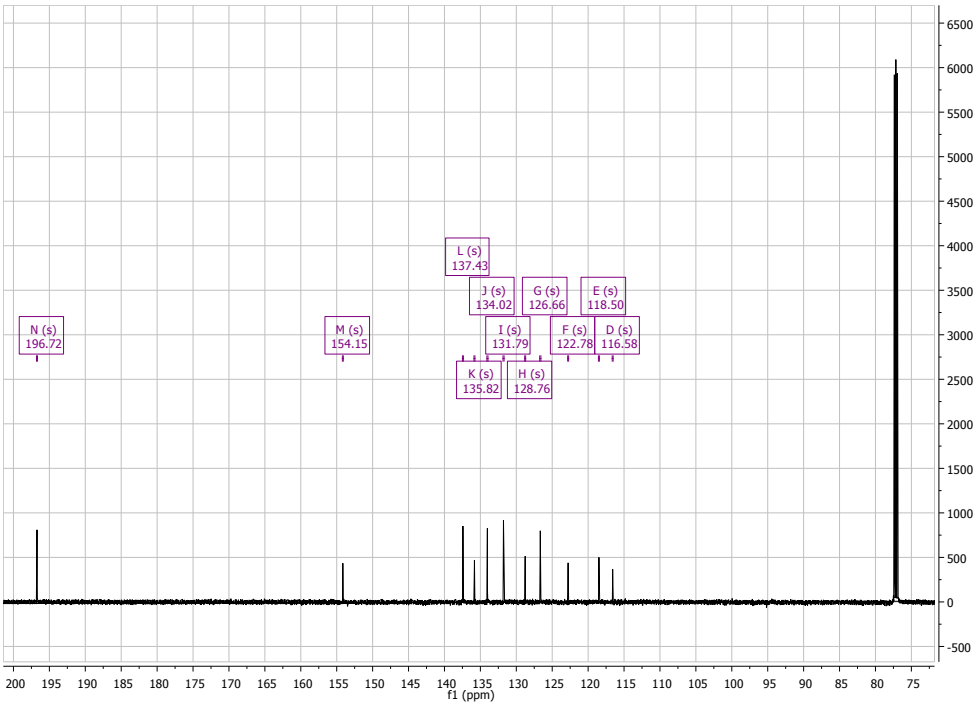


Figure S19. ^{13}C NMR spectrum of (*R*)-**4** in $CDCl_3$.

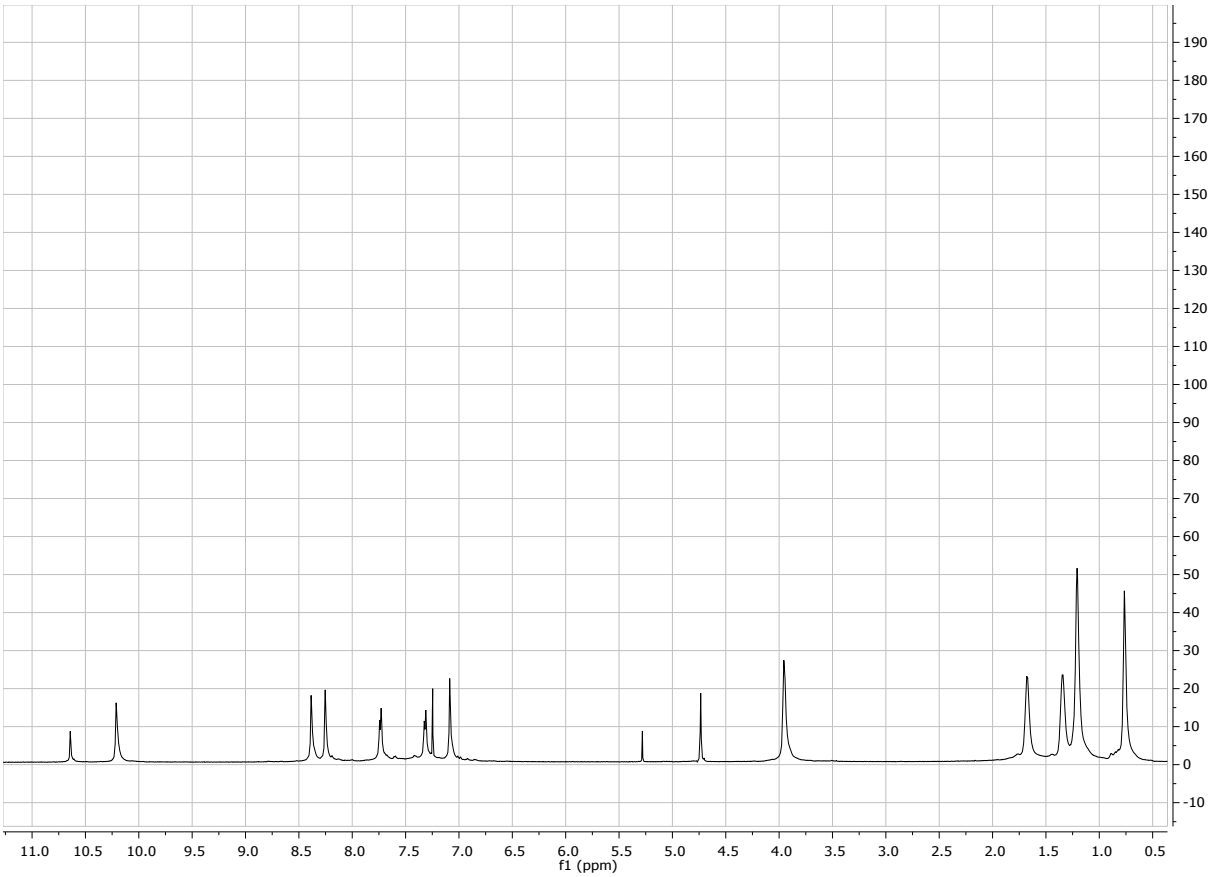


Figure S20. ^{1}H NMR spectrum of (*S*)-**6** in $CDCl_3$+D_2O (1% v/v).

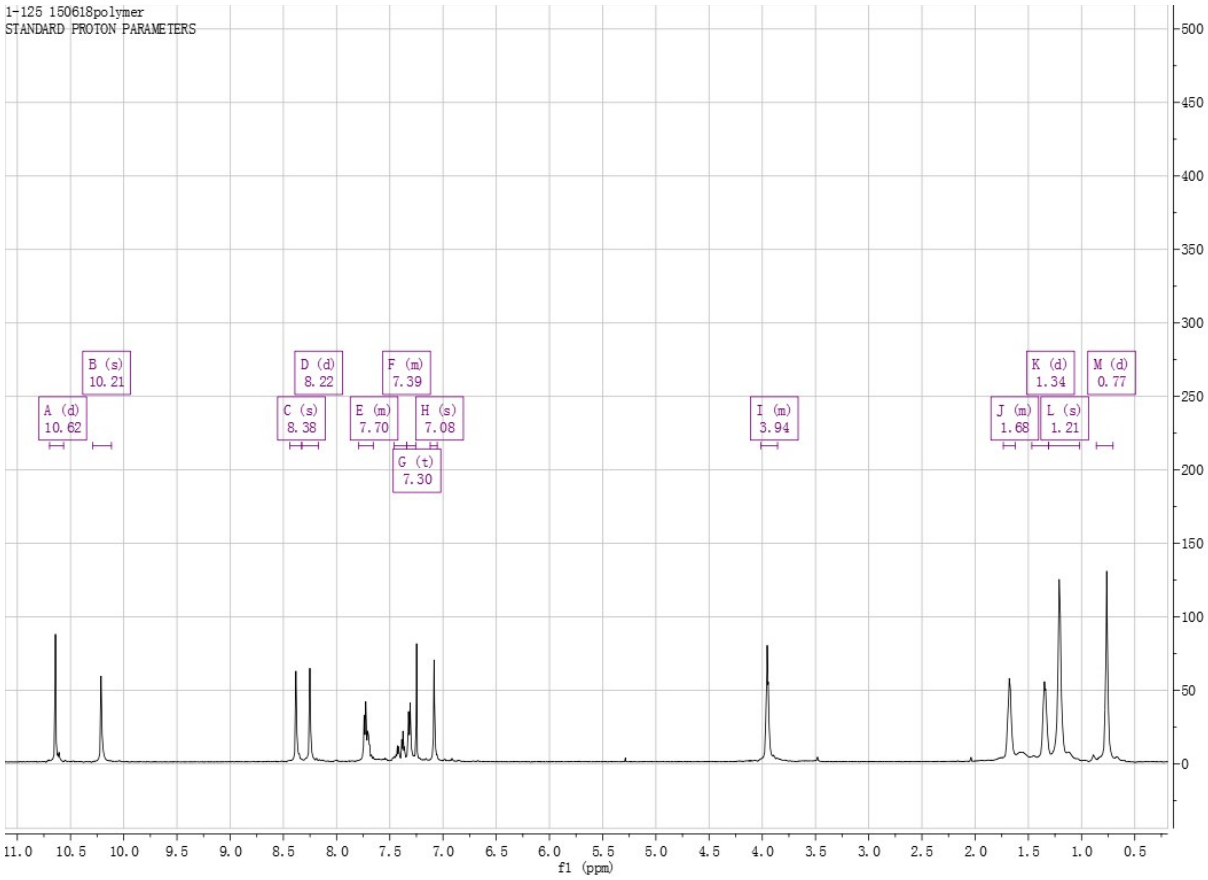


Figure S21. ^{1}H NMR spectrum of (*R*)-**6** in $CDCl_3$.

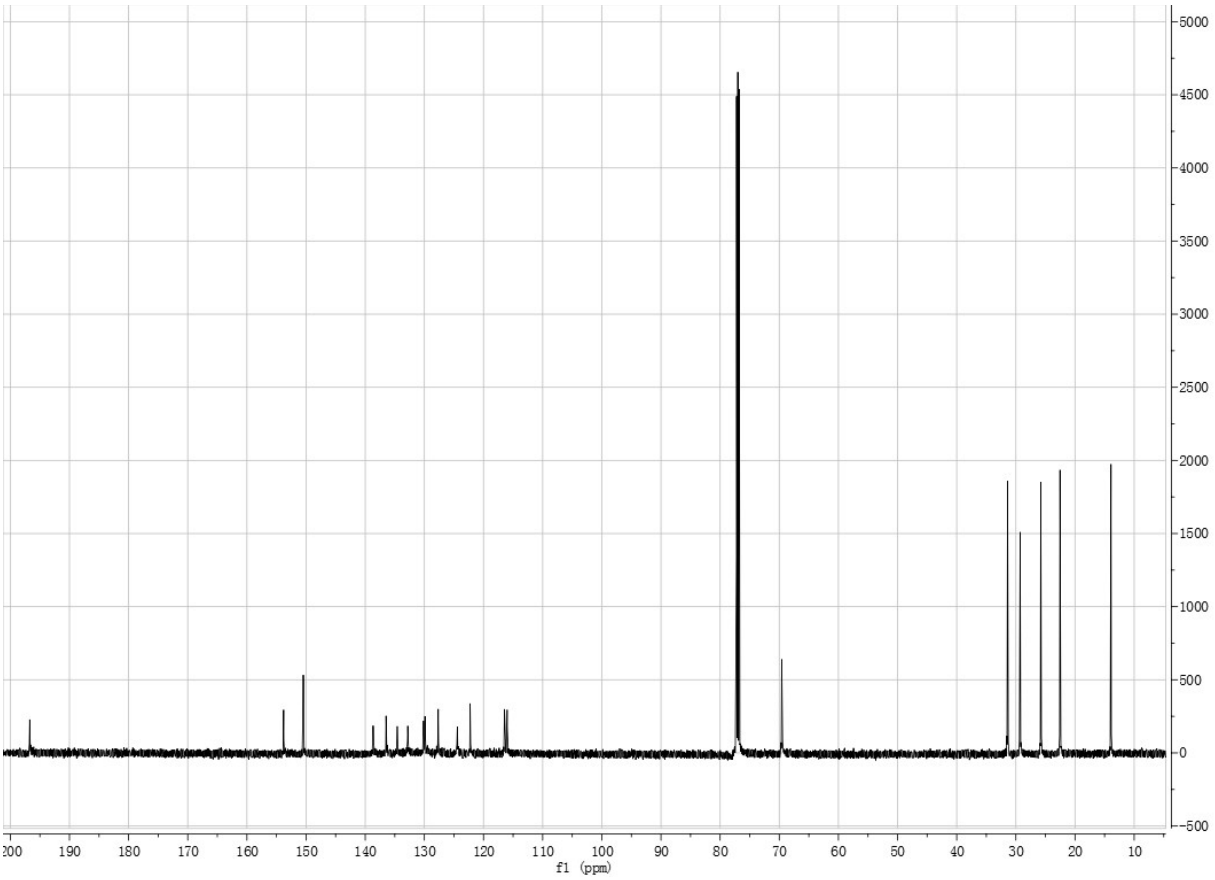


Figure S22. ^{13}C spectrum of (*S*)-**6** in $CDCl_3$.

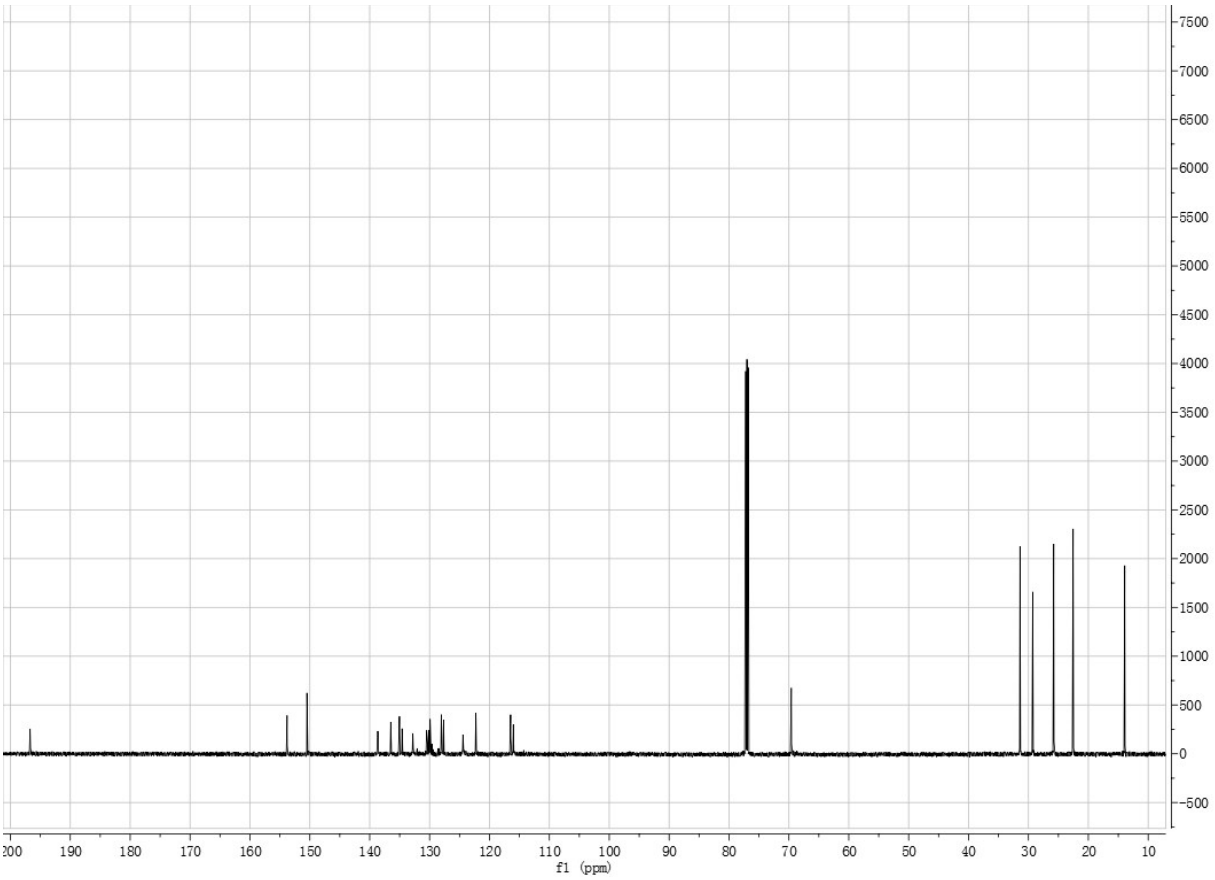


Figure S23. ^{13}C spectrum of (*R*)-**6** in $CDCl_3$.

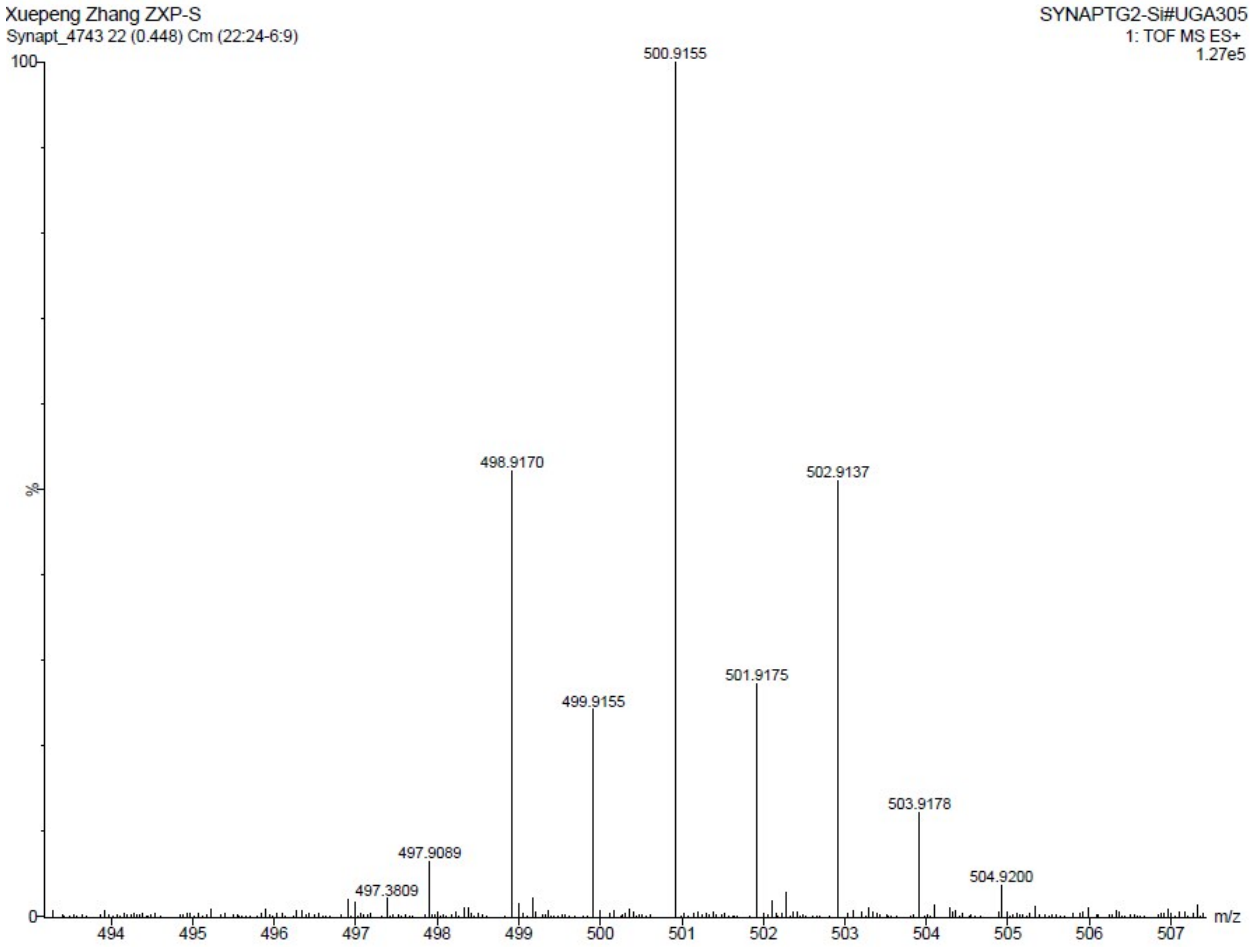


Figure S24. HRMS spectrum of (*S*)-**4**.

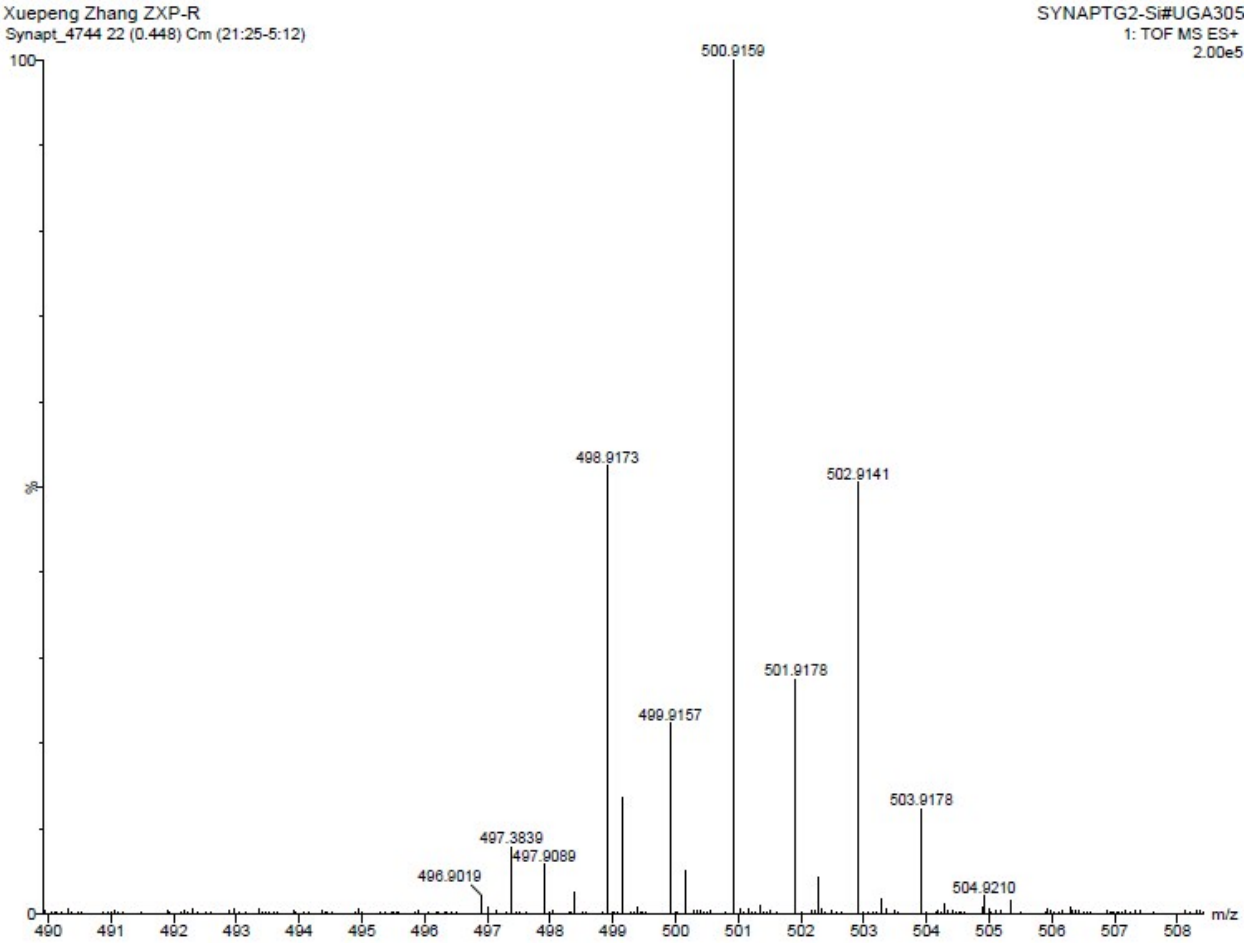
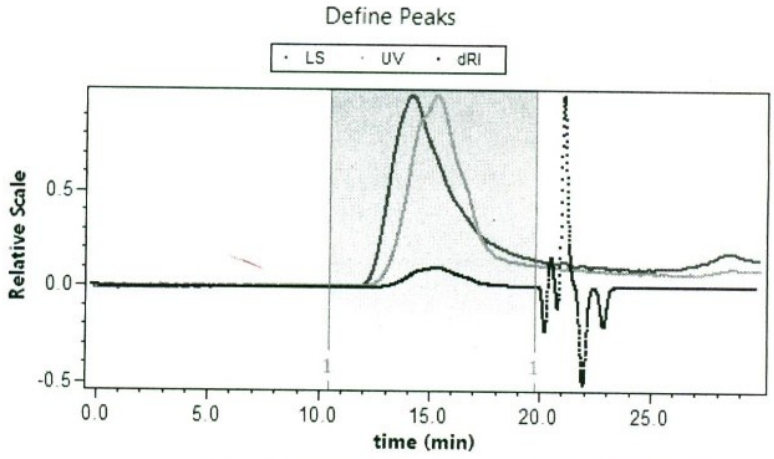


Figure S25. HRMS spectrum of (*R*)-**4**.

File Name: C:\Users\Admin\Desktop\Wyatt\Fraser\Tristan\XZ_Pu_P2a.afe6
Collection Operator: GPC\Admin (GPC\Admin (Admin))
Processing Operator: GPC\Admin (Admin)

Sample: sample



Peak Results

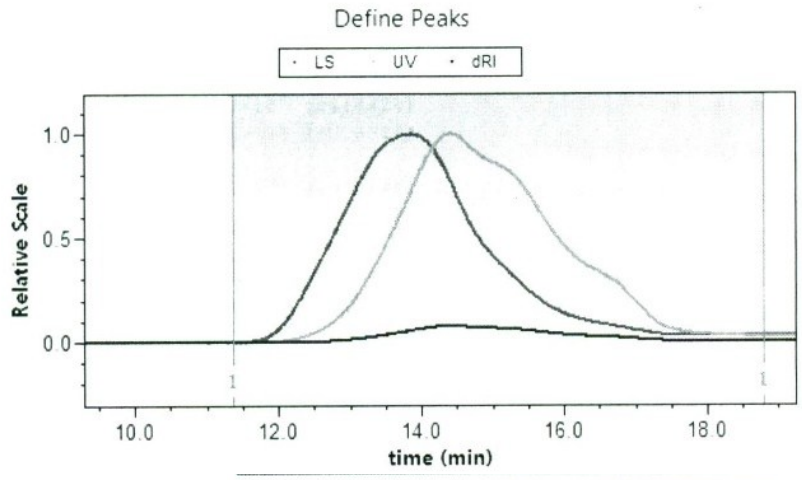
	Peak 1
General (mL/g)	
Masses	
Calculated Mass (µg)	50.00
Molar mass moments (g/mol)	
Mn	8.972×10^{4} (±2.498%)
Mp	6.948×10^{4} (±1.655%)
Mv	n/a
Mw	1.212×10^{5} (±3.039%)
Mz	3.230×10^{5} (±6.019%)
Polydispersity	
Mw/Mn	1.351 (±3.934%)
Mz/Mn	3.600 (±6.517%)
rms radius moments (nm)	
Rn	n/a
Rw	n/a
Rz	n/a

Figure S26. GPC data for (*S*)-**6**.

Wyatt Technology CORPORATION

File Name: Experiment1
Collection Operator: GPC\Admin (GPC\Admin (Admin))
Processing Operator: GPC\Admin (Admin)

Sample: sample



Peak Results

	Peak 1
General (mL/g)	
Masses	
Calculated Mass (µg)	50.00
Molar mass moments (g/mol)	
Mn	3.387×10^4 (±6.442%)
Mp	4.851×10^4 (±0.832%)
Mv	n/a
Mw	5.809×10^4 (±2.254%)
Mz	1.589×10^5 (±4.149%)
Polydispersity	
Mw/Mn	1.715 (±6.825%)
Mz/Mn	4.692 (±7.662%)
rms radius moments (nm)	
Rn	25.9 (±44.9%)
Rw	21.4 (±45.3%)
Rz	16.6 (±38.2%)

Figure S27. GPC data for (*R*)-**6**.