SUPPORTING INFORMATION

Asymmetric Synthesis of Contact Sex Pheromone of *Tetropium fuscum* and Its Enantiomer

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1. ^{1}H, ^{13}C NMR Spectra of the Products

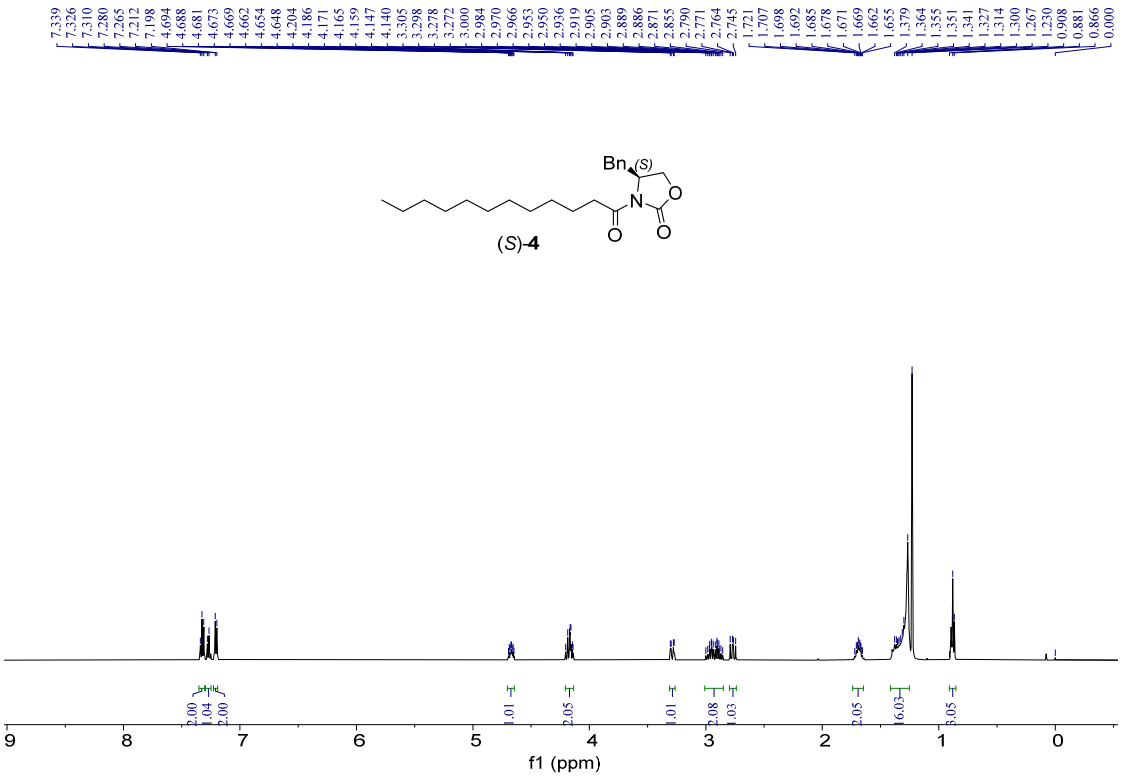


Figure S1. ^{1}H NMR Spectrum of (*S*)-4-benzyl-3-dodecanoyloxazolidin-2-one ((*S*)-**4**) (500 MHz, $CDCl_3$)

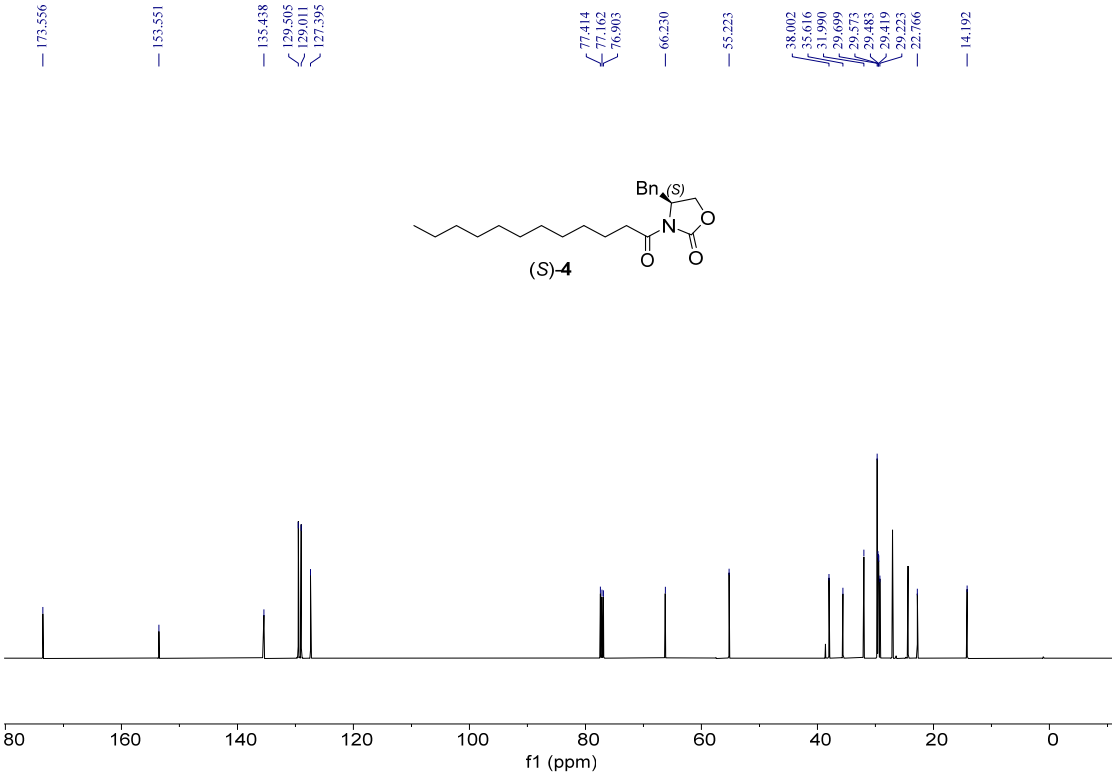


Figure S2. ^{13}C NMR Spectrum of (*S*)-4-benzyl-3-dodecanoyloxazolidin-2-one ((*S*)-**4**) (126 MHz, $CDCl_3$)

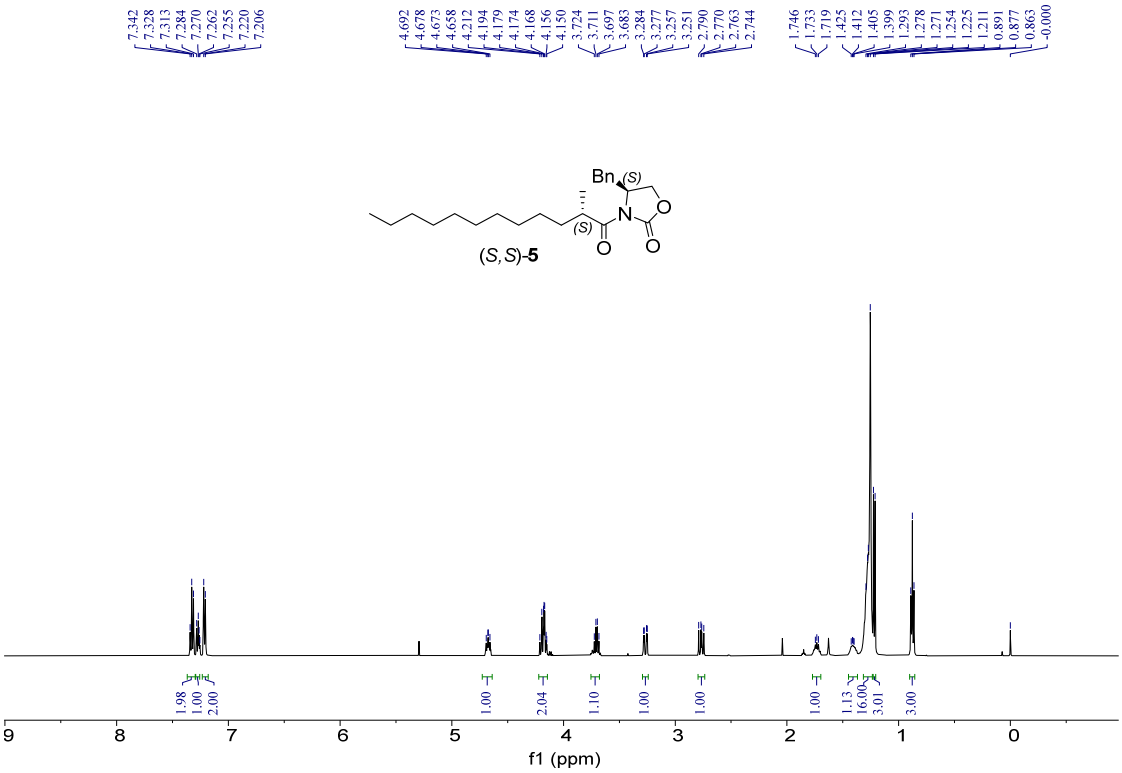


Figure S3. [1]H NMR Spectrum of (*S*)-4-benzyl-3-((S)-2-methyldodecanoyl)oxazolidin-2-one ((*S*,*S*)-**5**) (500 MHz, $CDCl_3$)

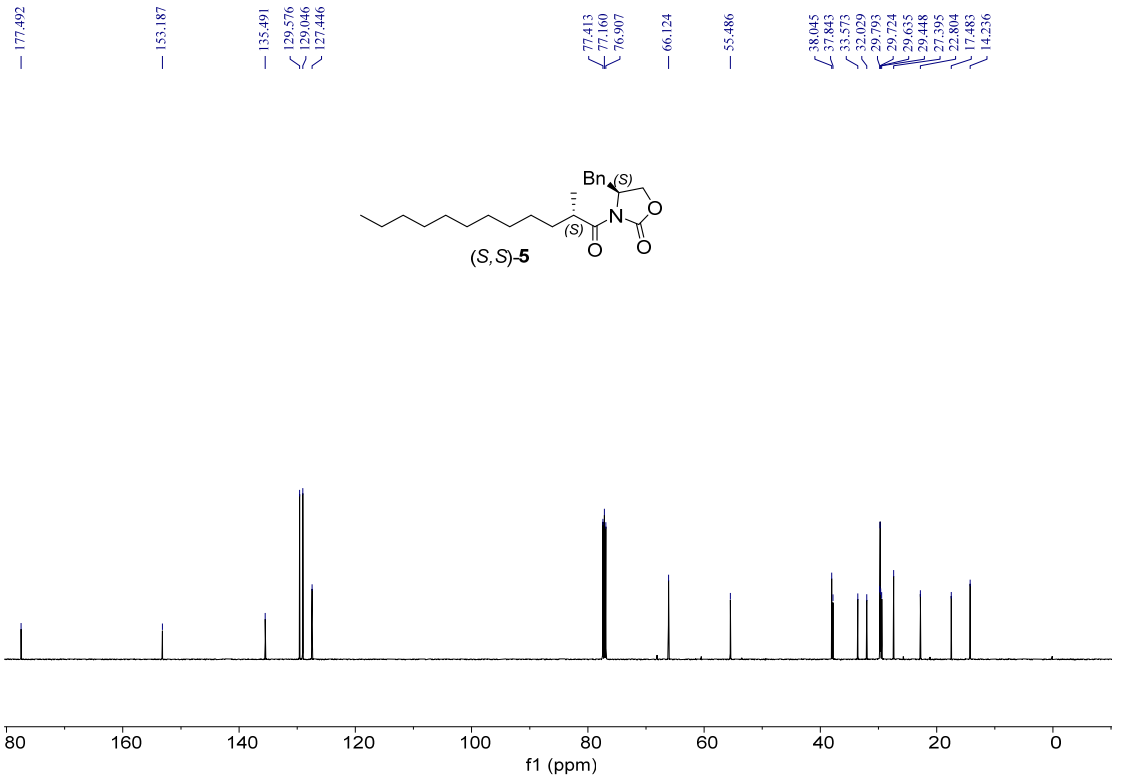


Figure S4. [13]C NMR Spectrum of (*S*)-4-benzyl-3-((S)-2-methyldodecanoyl)oxazolidin-2-one ((*S*,*S*)-**5**) (126 MHz, $CDCl_3$)

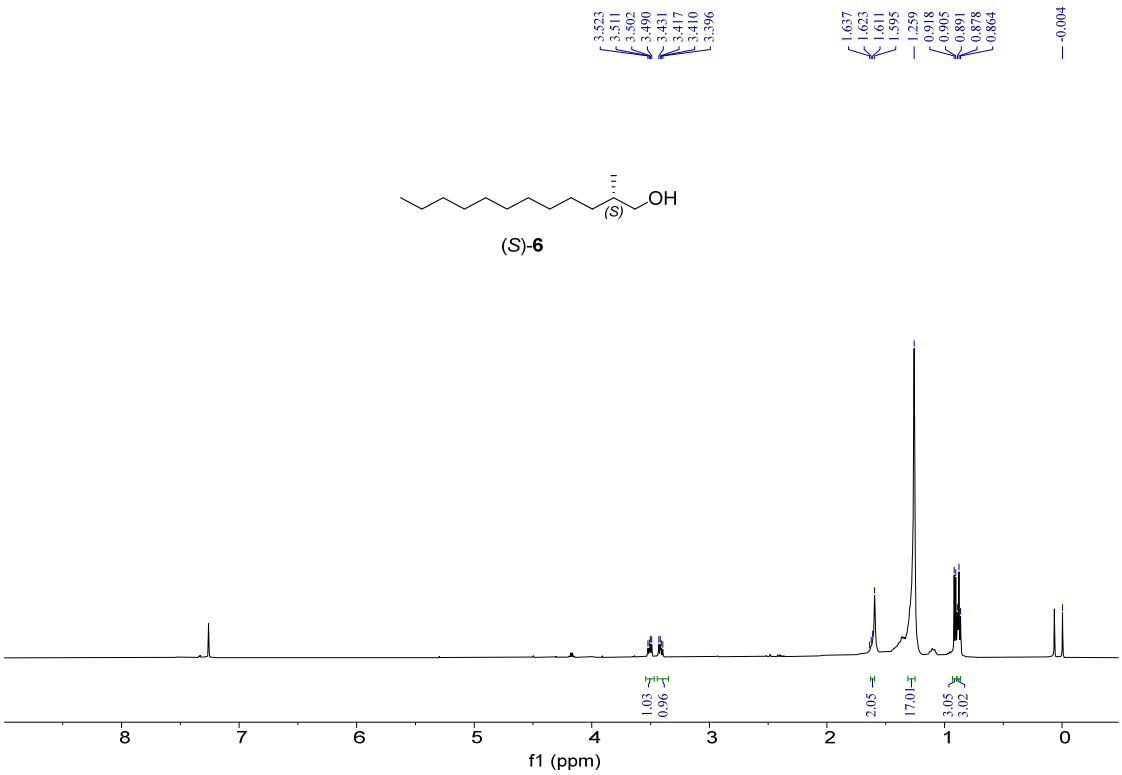


Figure S5. ^{1}H NMR Spectrum of(*S*)-2-methyldodecan-1-ol ((*S*)-**6**) (500 MHz, $CDCl_3$)

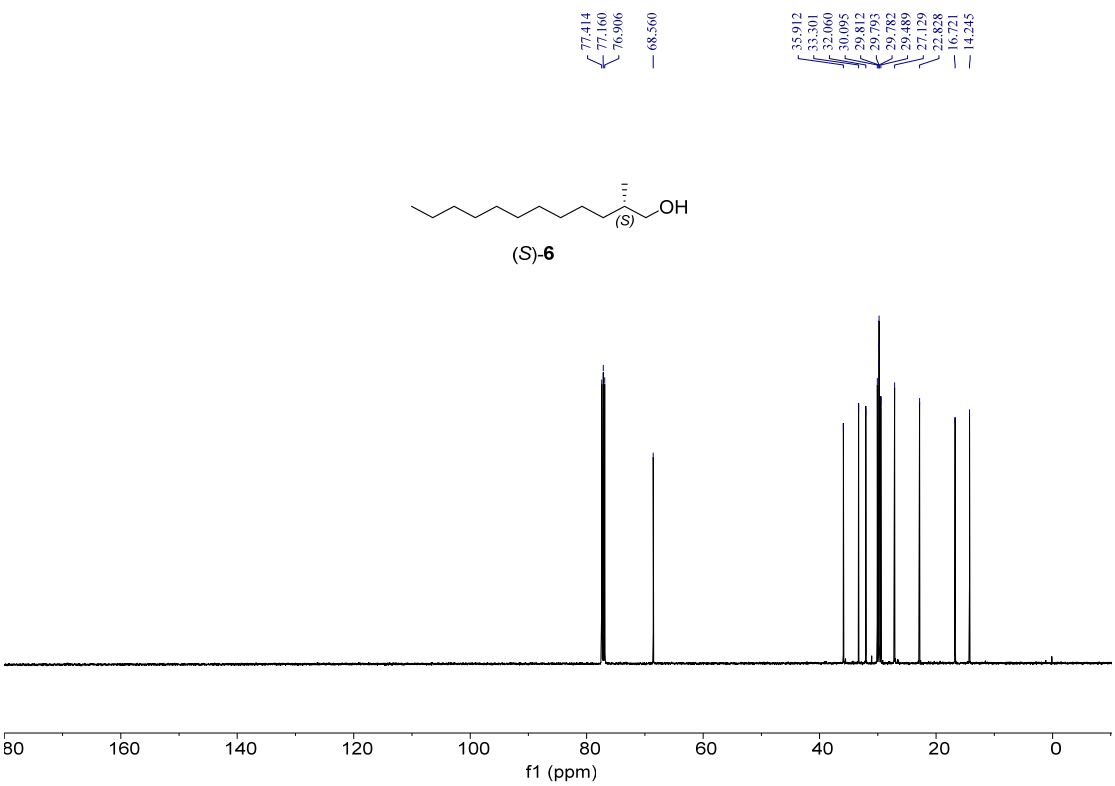


Figure S6. ^{13}C NMR Spectrum of (*S*)-2-methyldodecan-1-ol ((*S*)-**6**) (126 MHz, $CDCl_3$)

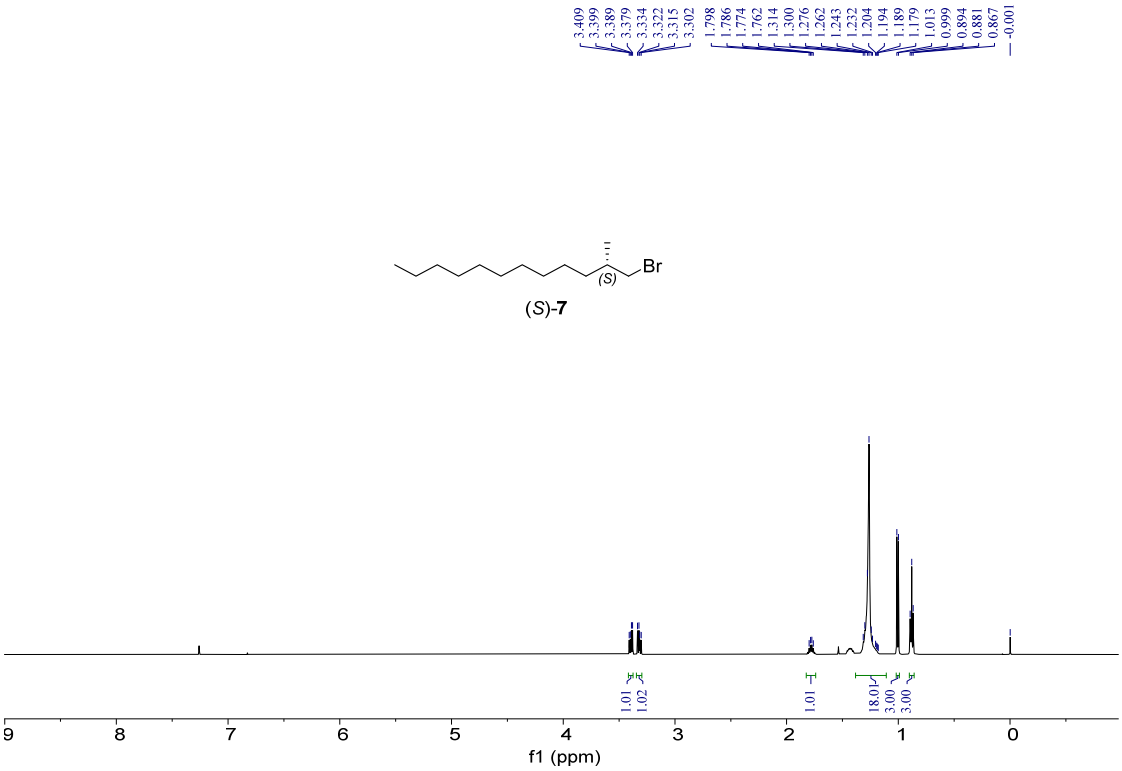


Figure S7. ^{1}H NMR Spectrum of (*S*)-1-bromo-2-methyldodecane ((*S*)-**7**) (500 MHz, $CDCl_3$)

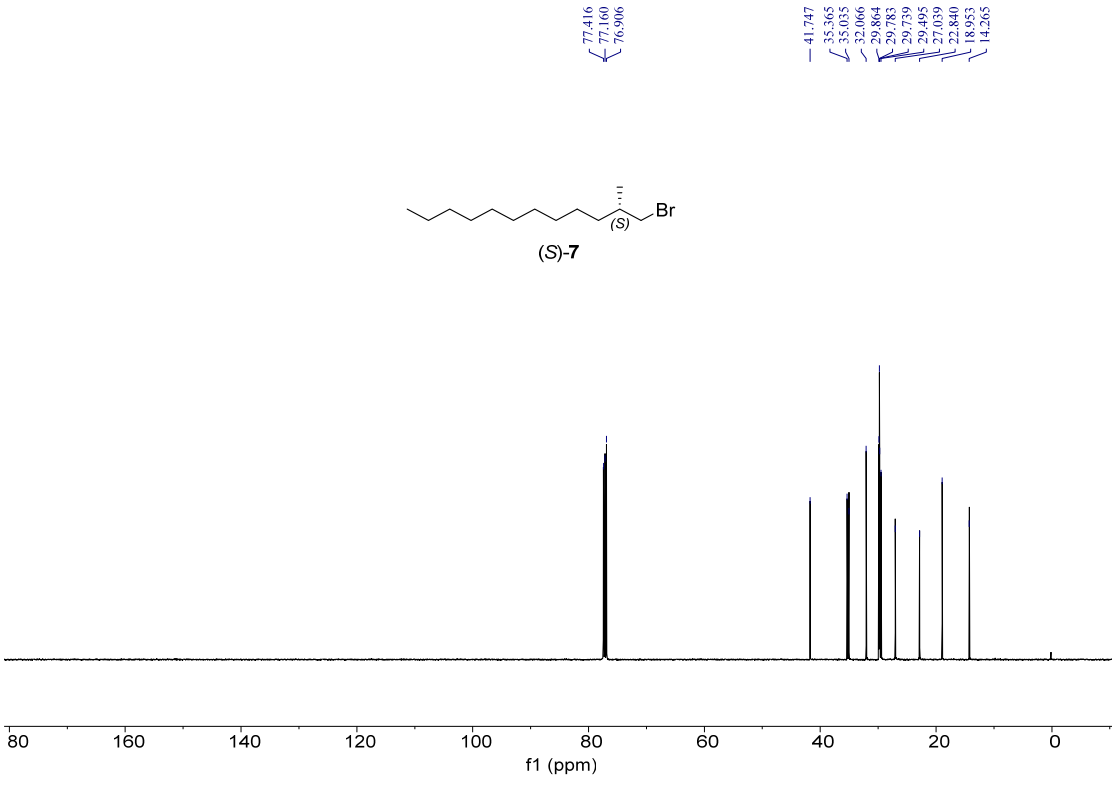


Figure S8. ^{13}C NMR Spectrum of (*S*)-1-bromo-2-methyldodecane ((*S*)-**7**) (126 MHz, $CDCl_3$)

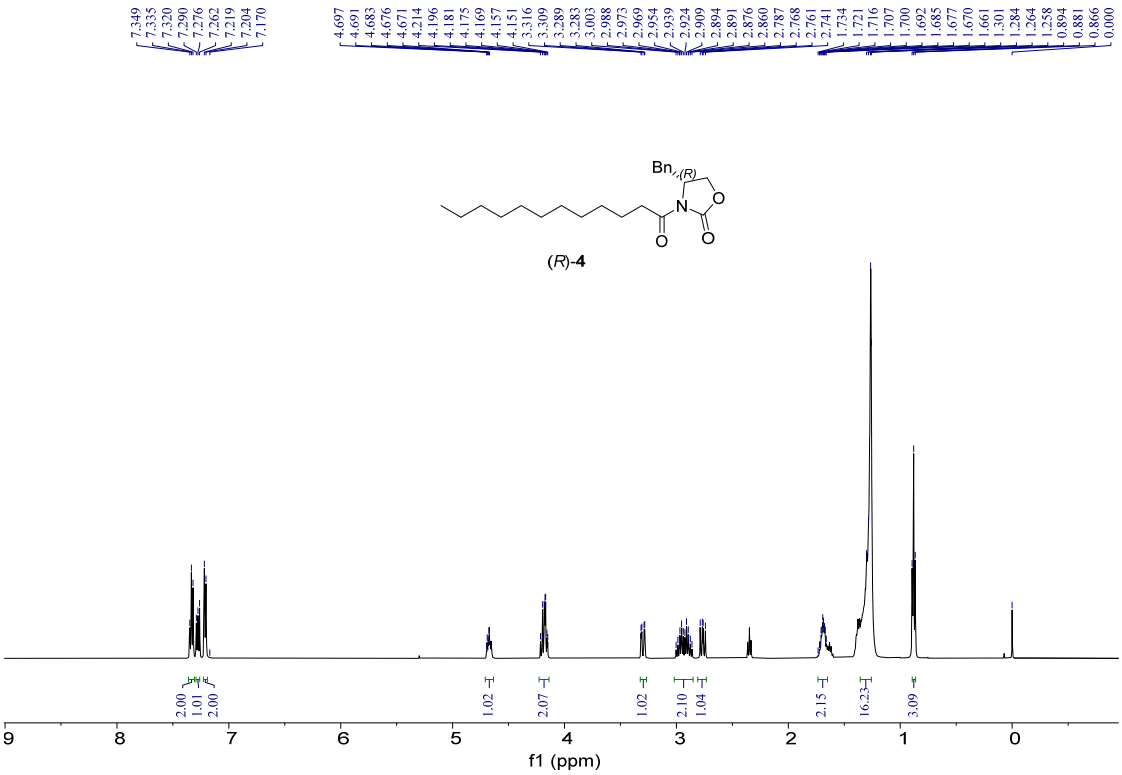


Figure S9. ^{1}H NMR Spectrum of (*R*)-4-benzyl-3-dodecanoyloxazolidin-2-one ((*R*)-**4**) (500 MHz, $CDCl_3$)

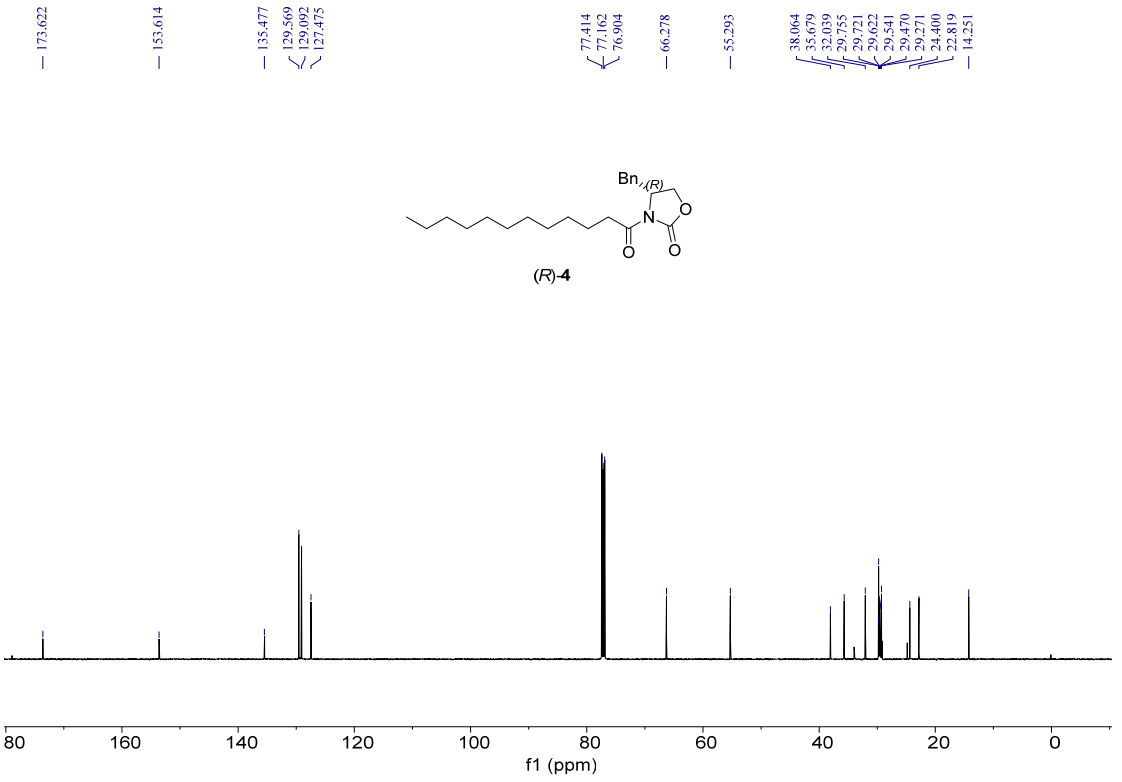


Figure S10. ^{13}C NMR Spectrum of (*R*)-4-benzyl-3-dodecanoyloxazolidin-2-one ((*R*)-**4**) (126 MHz, $CDCl_3$)

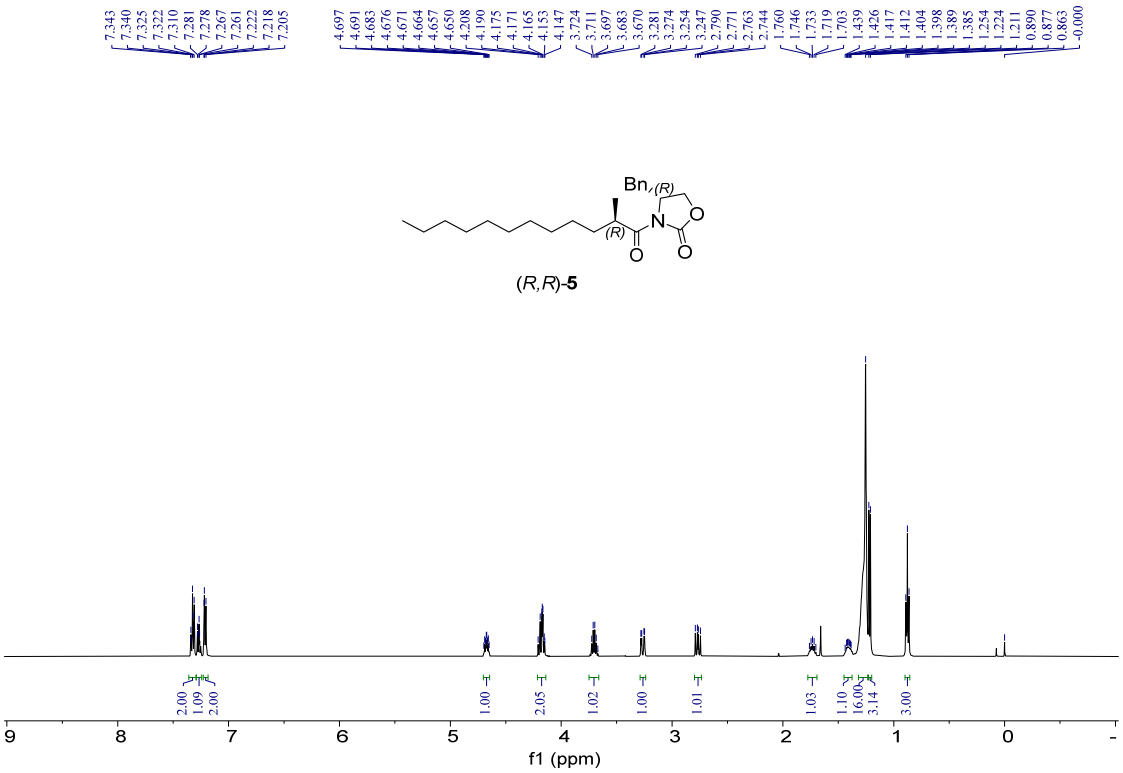


Figure S11. [1]H NMR Spectrum of (*R*)-4-benzyl-3-((*R*)-2-methyldodecanoyl)oxazolidin-2-one((*R,R*)-**5**) (500 MHz, $CDCl_3$)

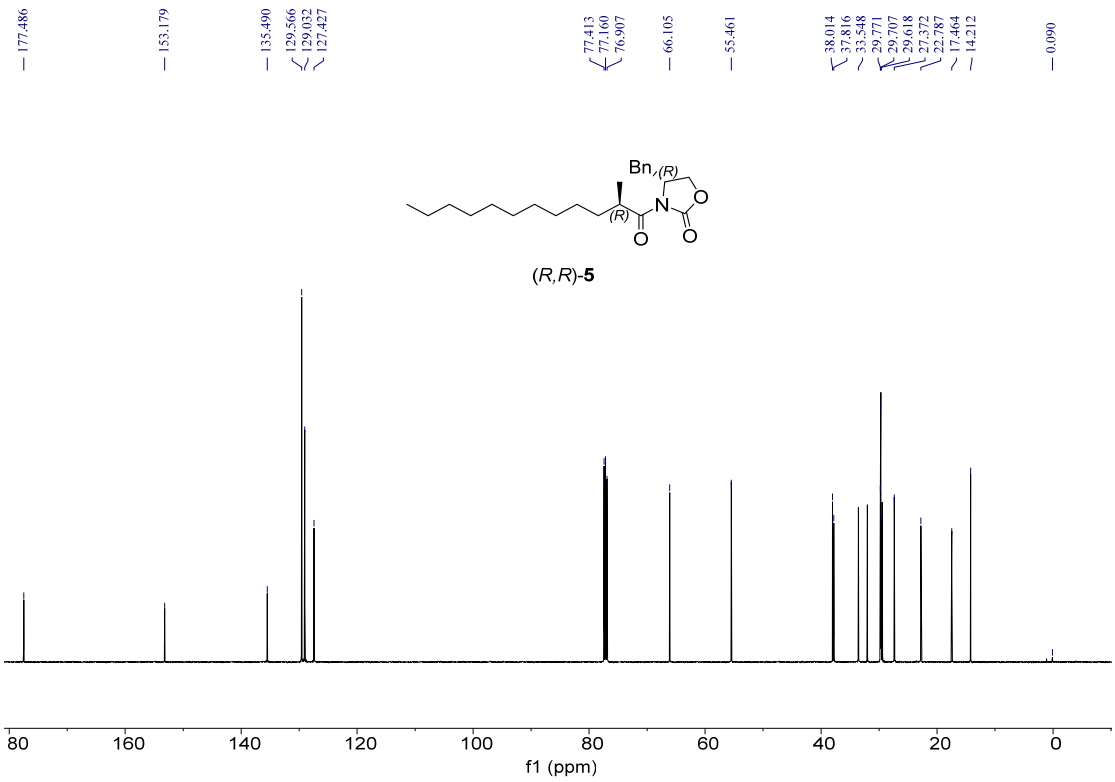


Figure S12. [13]C NMR Spectrum of (*R*)-4-benzyl-3-((*R*)-2-methyldodecanoyl)oxazolidin-2-one((*R,R*)-**5**) (126 MHz, $CDCl_3$)

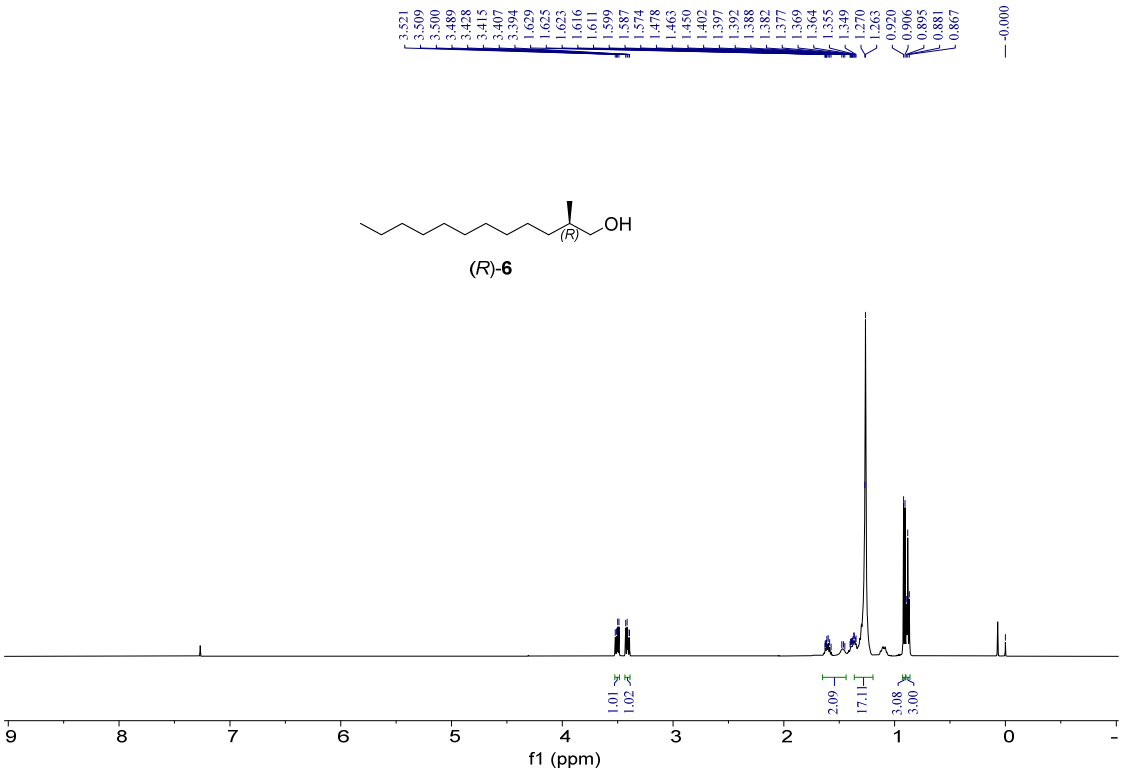


Figure S13. ^{1}H NMR Spectrum of (*R*)-2-methyldodecan-1-ol ((*R*)-**6**) (500 MHz, $CDCl_3$)

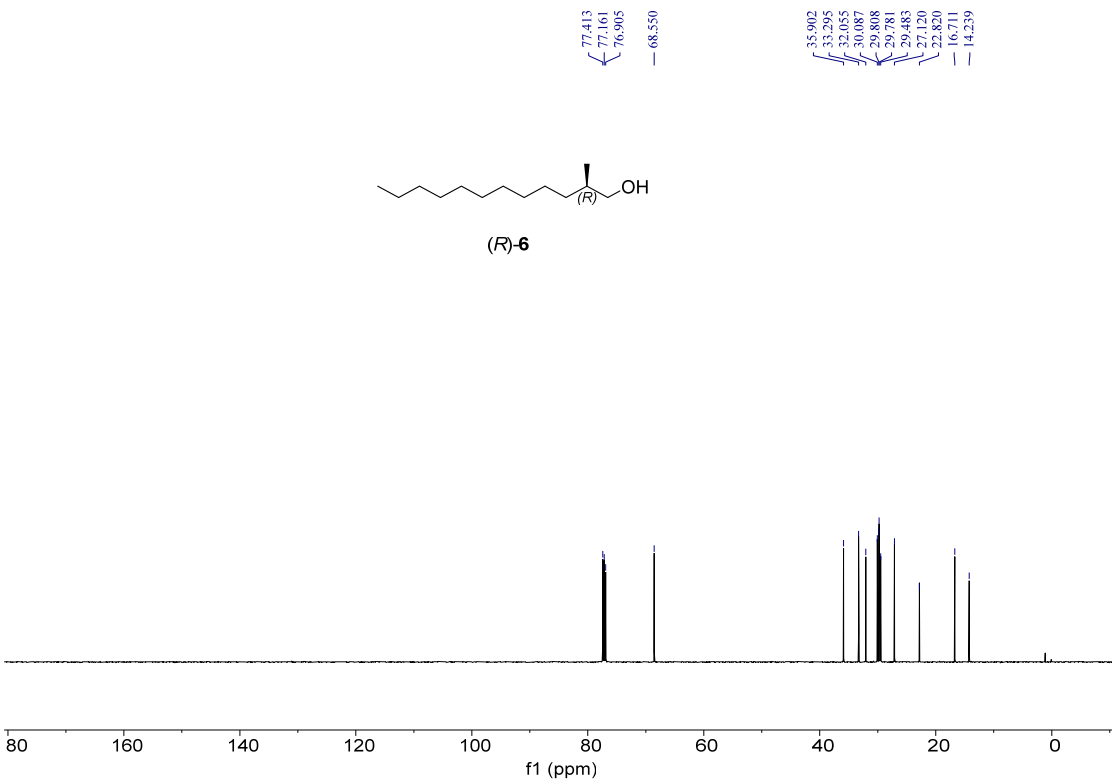


Figure S14. ^{13}C NMR Spectrum of (*R*)-2-methyldodecan-1-ol ((*R*)-**6**) (126 MHz, $CDCl_3$)

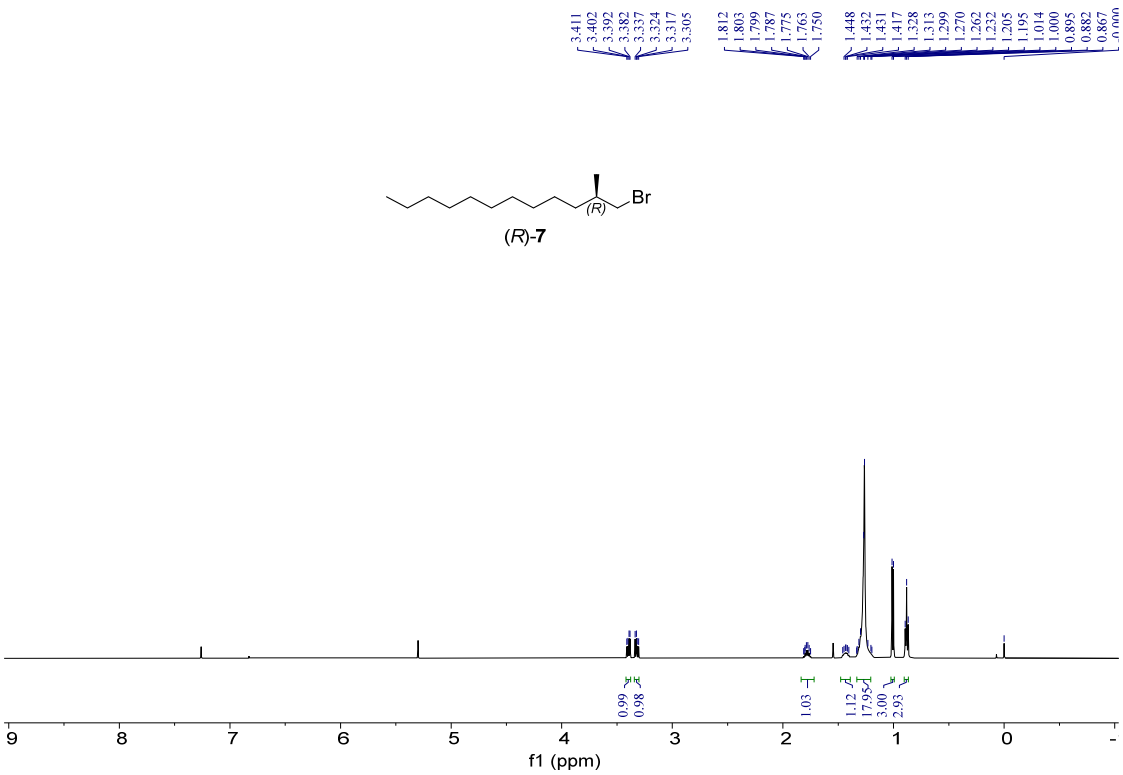


Figure S15. ^{1}H NMR Spectrum of (*R*)-1-bromo-2-methyldodecane ((*R*)-**7**) (500 MHz, $CDCl_3$)

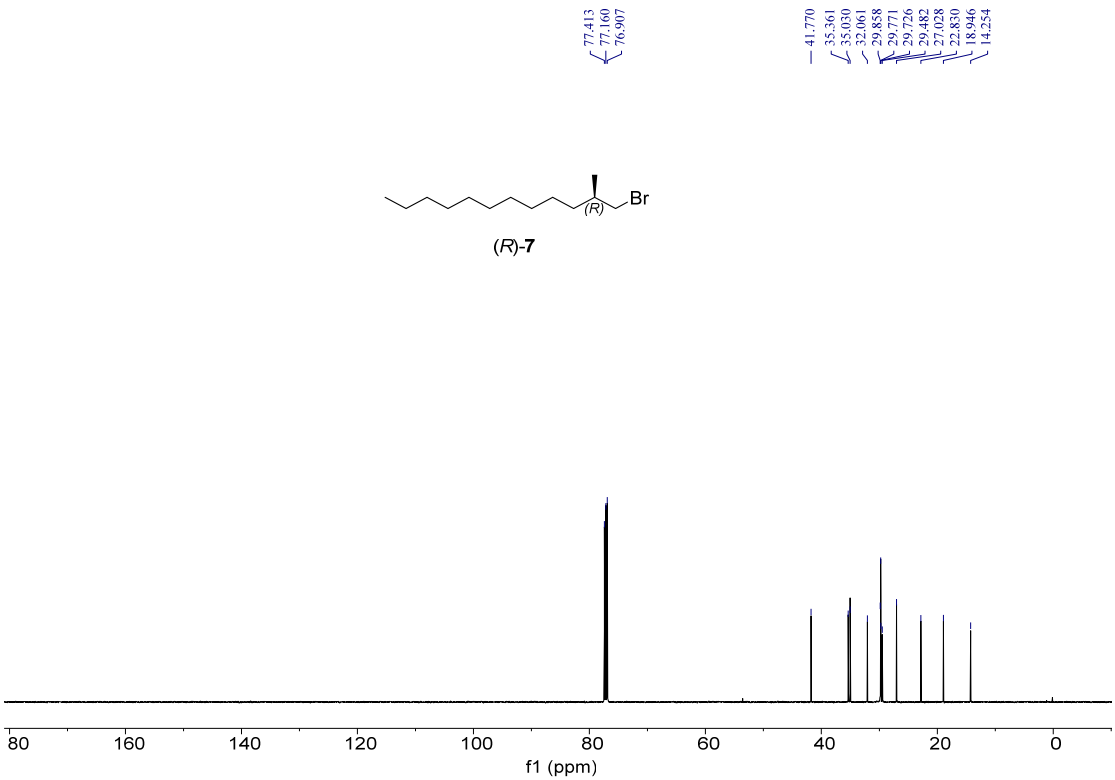


Figure S16. ^{13}C NMR Spectrum of (*R*)-1-bromo-2-methyldodecane ((*R*)-**7**) (126 MHz, $CDCl_3$)

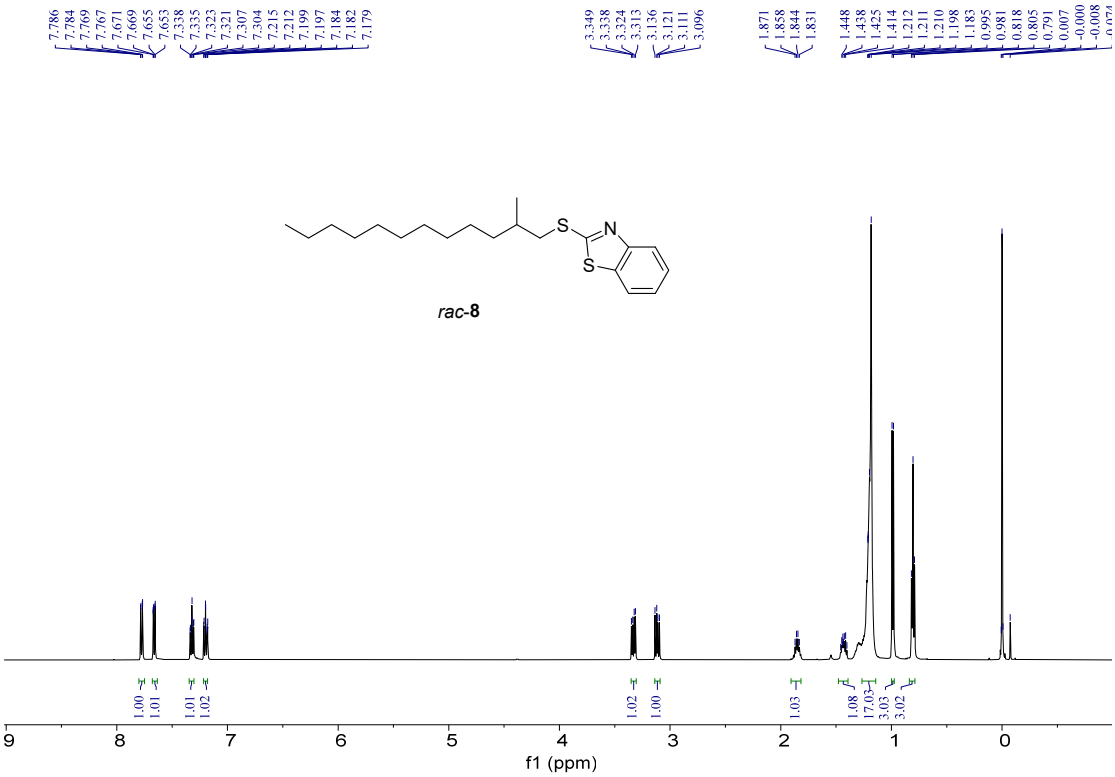


Figure S17. ^{1}H NMR Spectrum of 2-((2-methyldodecyl)thio)benzo[d]thiazole (*rac*-**8**) (500 MHz, $CDCl_3$)

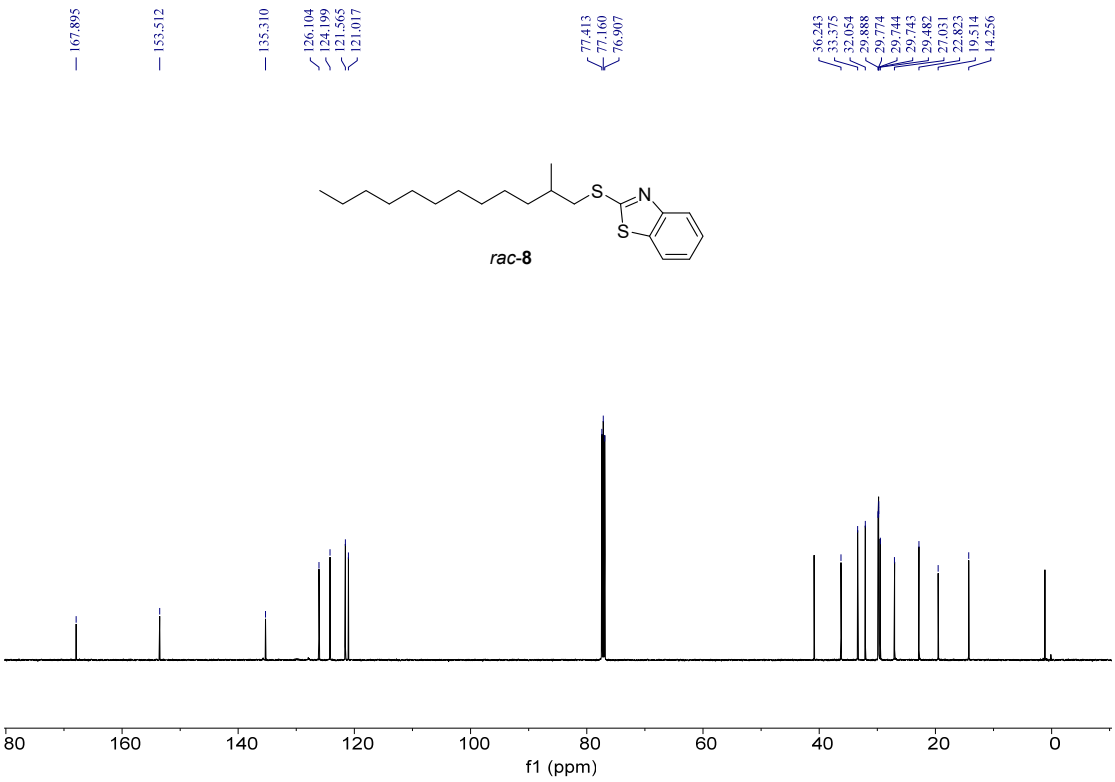


Figure S18. ^{13}C NMR Spectrum of 2-((2-methyldodecyl)thio)benzo[d]thiazole (*rac*-**8**) (126 MHz, $CDCl_3$)

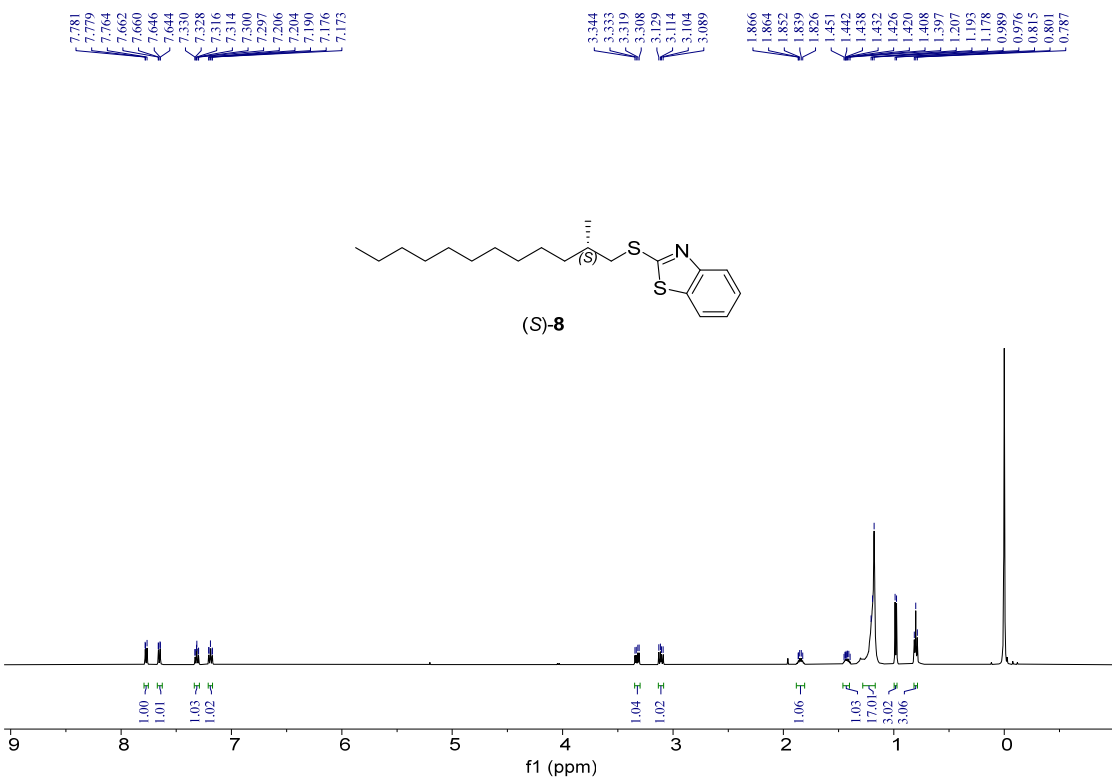


Figure S19. [1]H NMR Spectrum of (*S*)-2-((2-methyldodecyl)thio)benzo[d]thiazole ((*S*)-**8**) (500 MHz, $CDCl_3$)

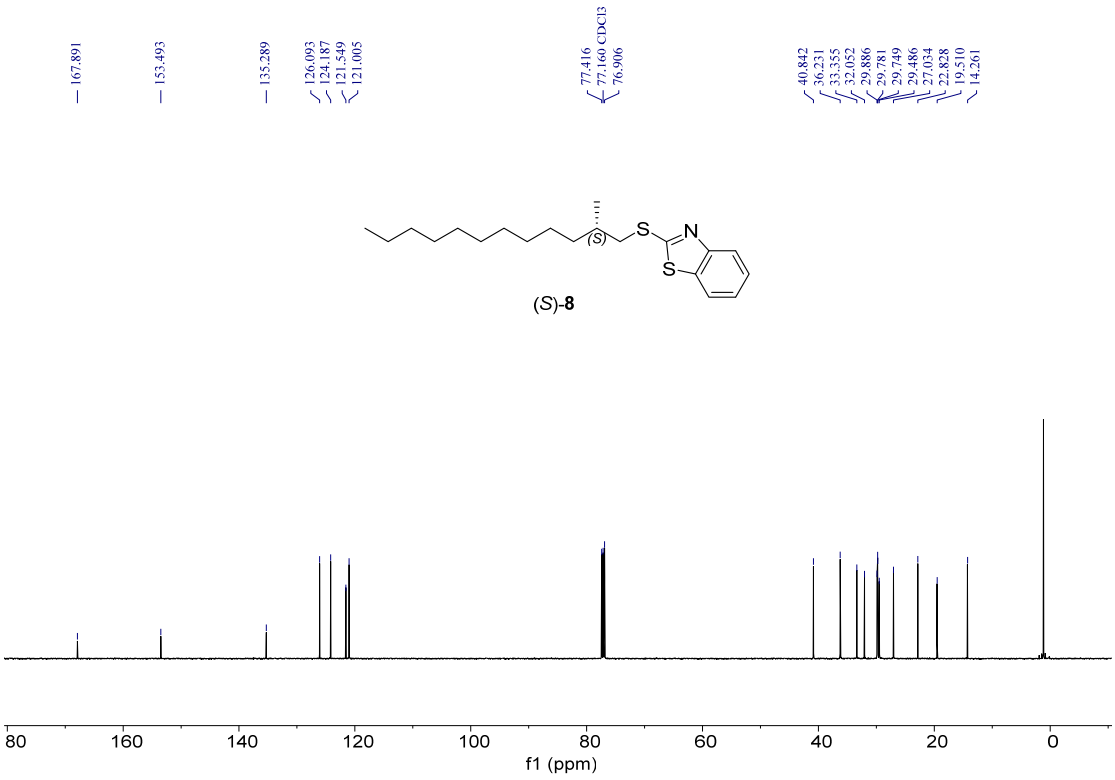


Figure S20. [13]C NMR Spectrum of (*S*)-2-((2-methyldodecyl)thio)benzo[d]thiazole ((*S*)-**8**) (126 MHz, $CDCl_3$)

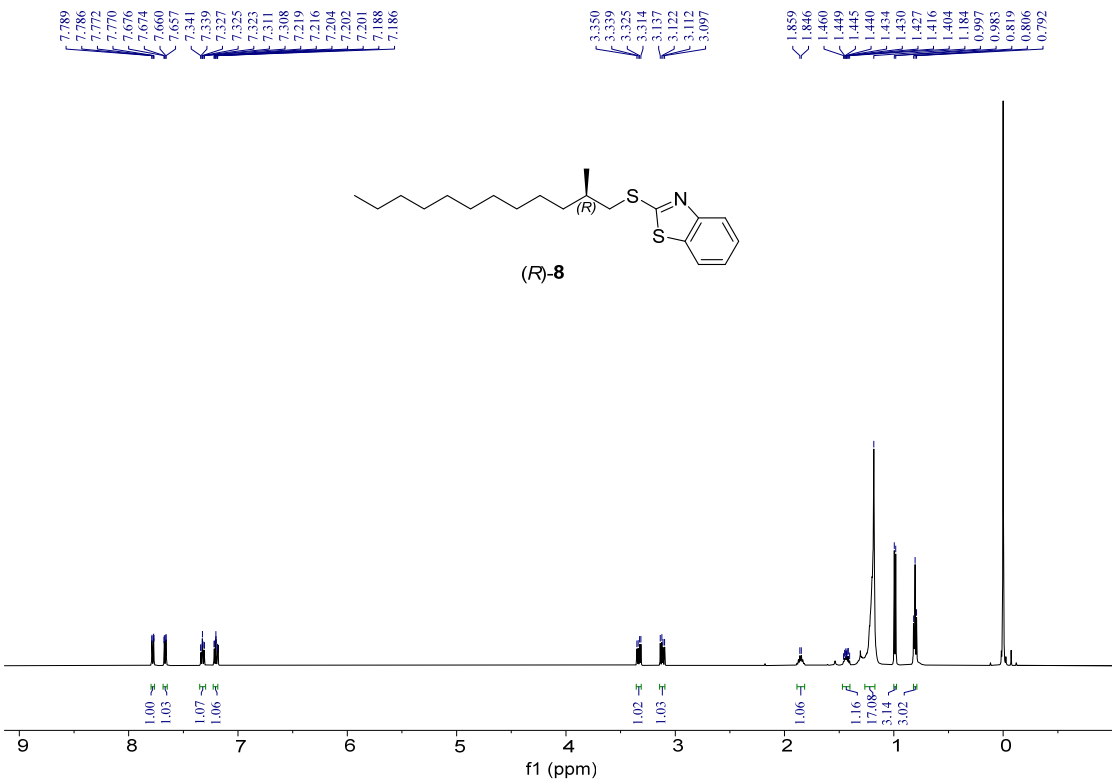


Figure S21. ^{1}H NMR Spectrum of (*R*)-2-((2-methyldodecyl)thio)benzo[d]thiazole ((*R*)-**8**) (500 MHz, $CDCl_3$)

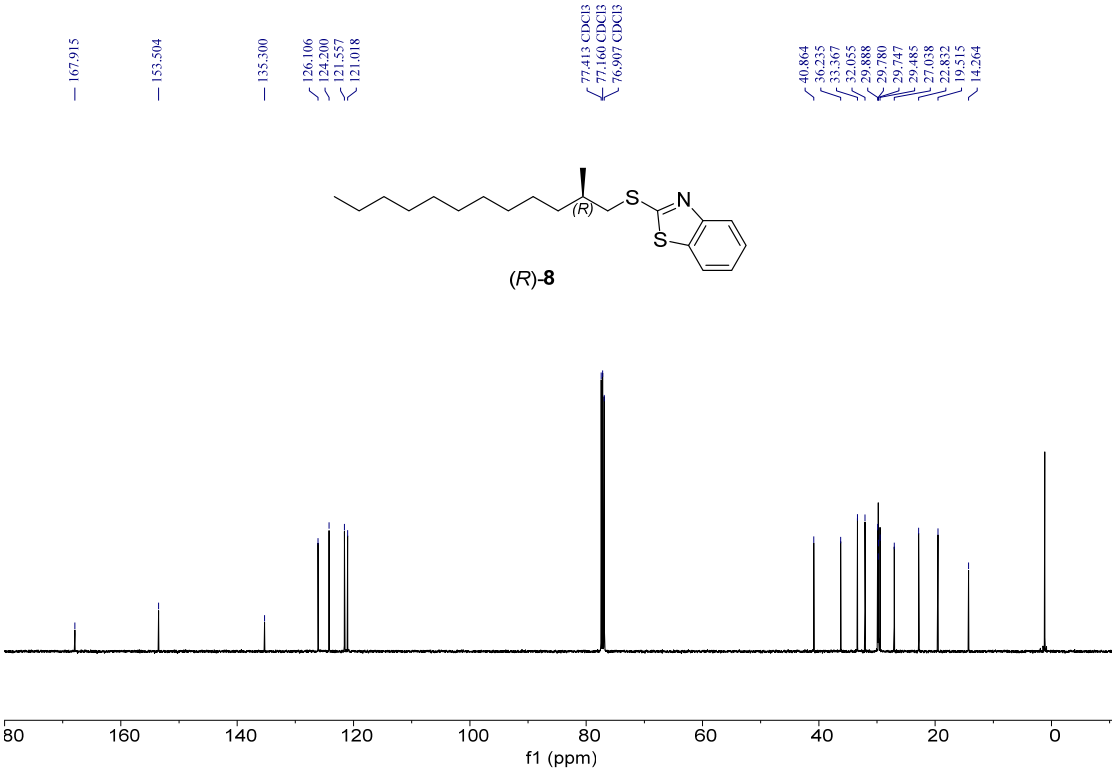


Figure S22. ^{13}C NMR Spectrum of (*R*)-2-((2-methyldodecyl)thio)benzo[d]thiazole ((*R*)-**8**) (126 MHz, $CDCl_3$)

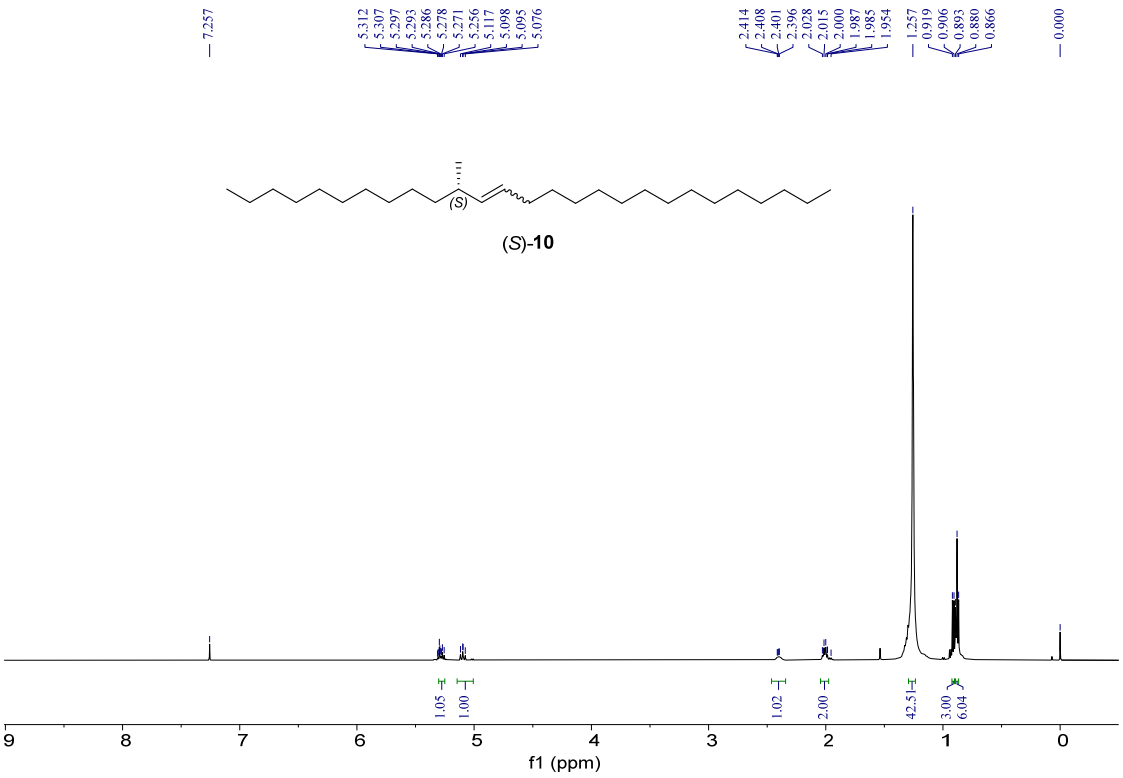


Figure S23. ^{1}H NMR Spectrum of (*S*)-11-methylheptacos-9-ene ((*S*)-**10**) (500 MHz, $CDCl_3$)

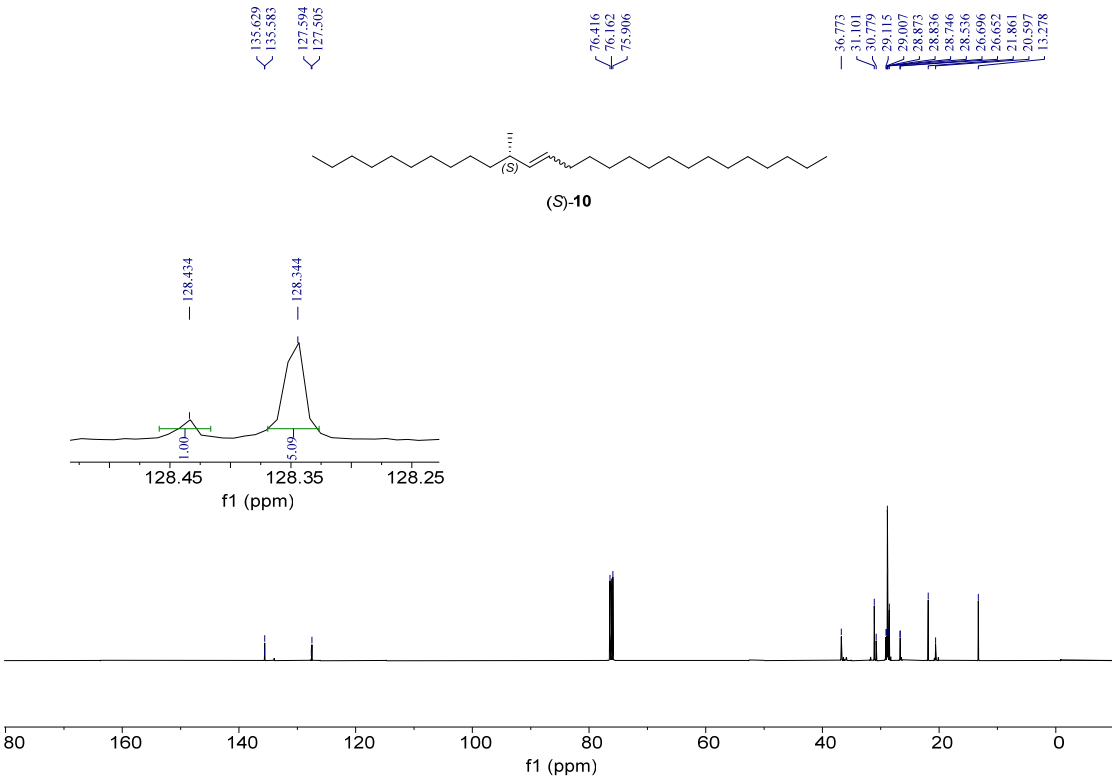


Figure S24. ^{13}C NMR Spectrum of (*S*)-11-methylheptacos-9-ene ((*S*)-**10**) (126 MHz, $CDCl_3$)

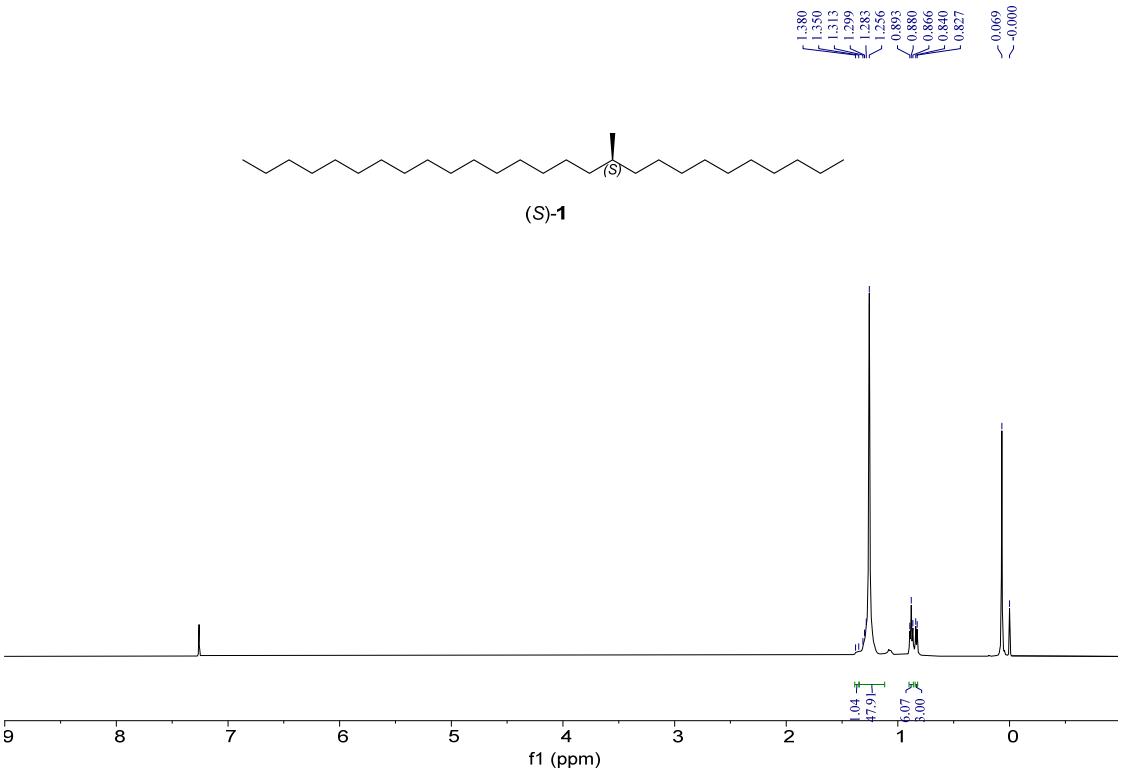


Figure S25. ^{1}H NMR Spectrum of (*S*)-11-methylheptacosane ((*S*)-**1**) (500 MHz, $CDCl_3$)

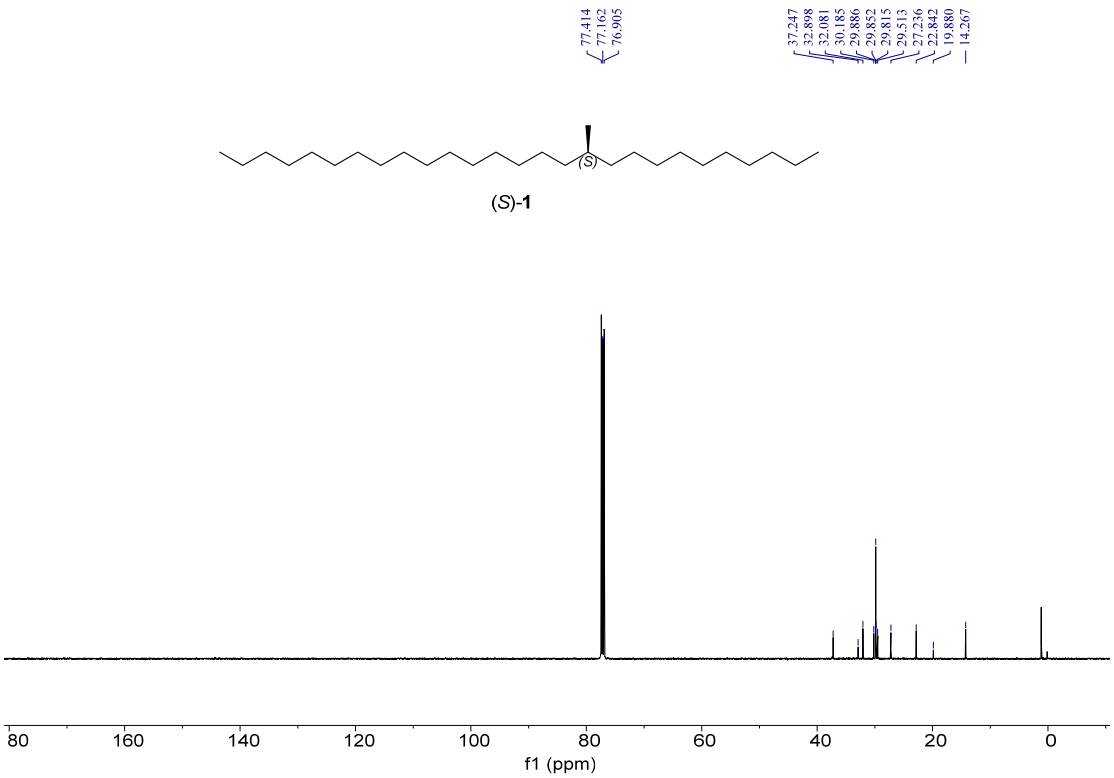


Figure S26. ^{13}C NMR Spectrum of (*S*)-11-methylheptacosane ((*S*)-**1**) (126 MHz, $CDCl_3$)

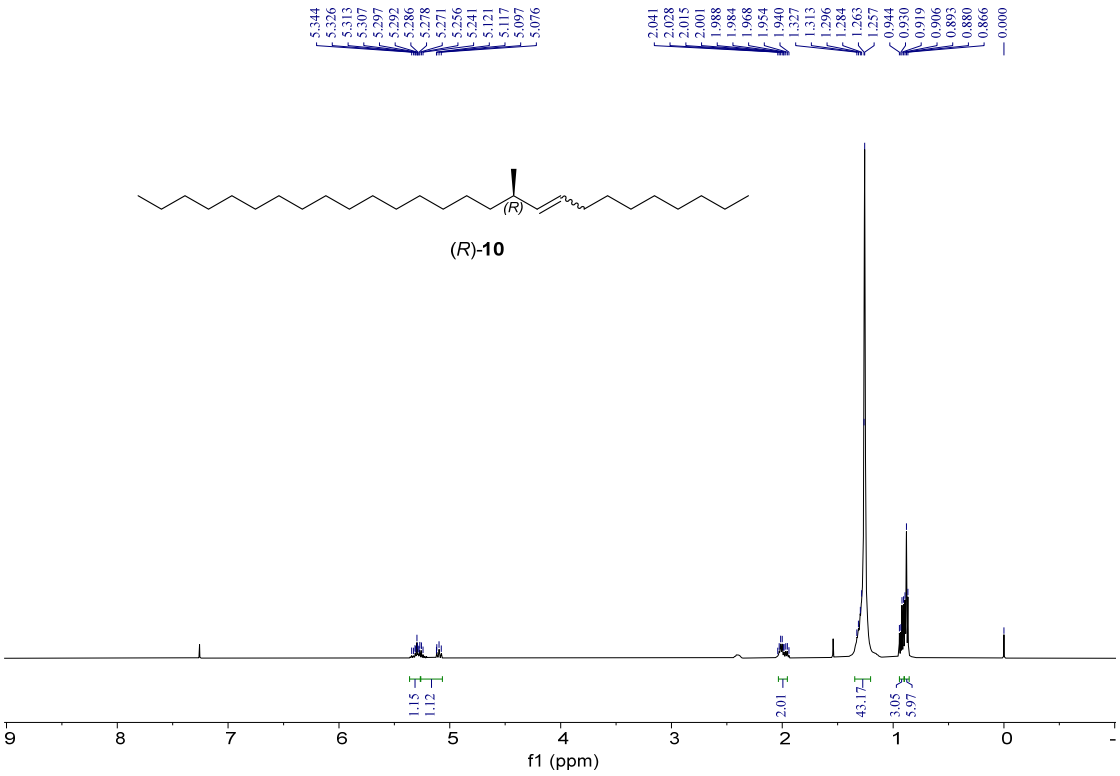


Figure S27. ^{1}H NMR Spectrum of (*R*)-11-methylheptacos-9-ene ((*R*)-**10**) (500 MHz, $CDCl_3$)

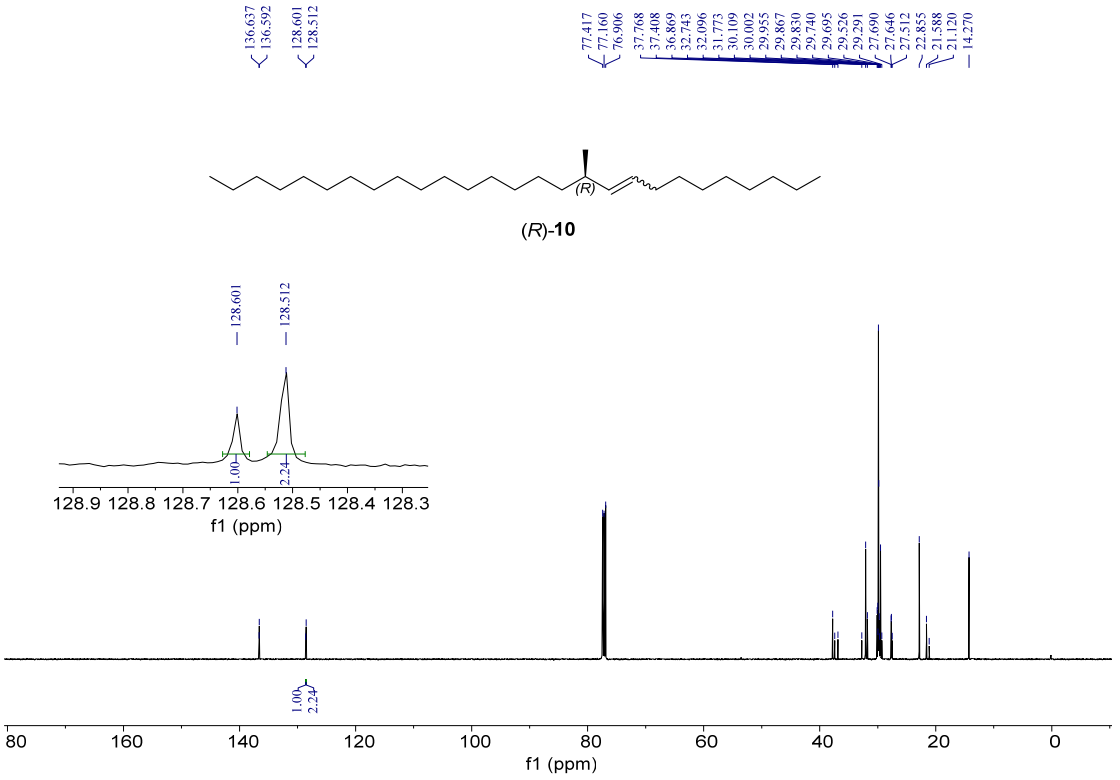


Figure S28. ^{13}C NMR Spectrum of (*R*)-11-methylheptacos-9-ene ((*R*)-**10**) (126 MHz, $CDCl_3$)

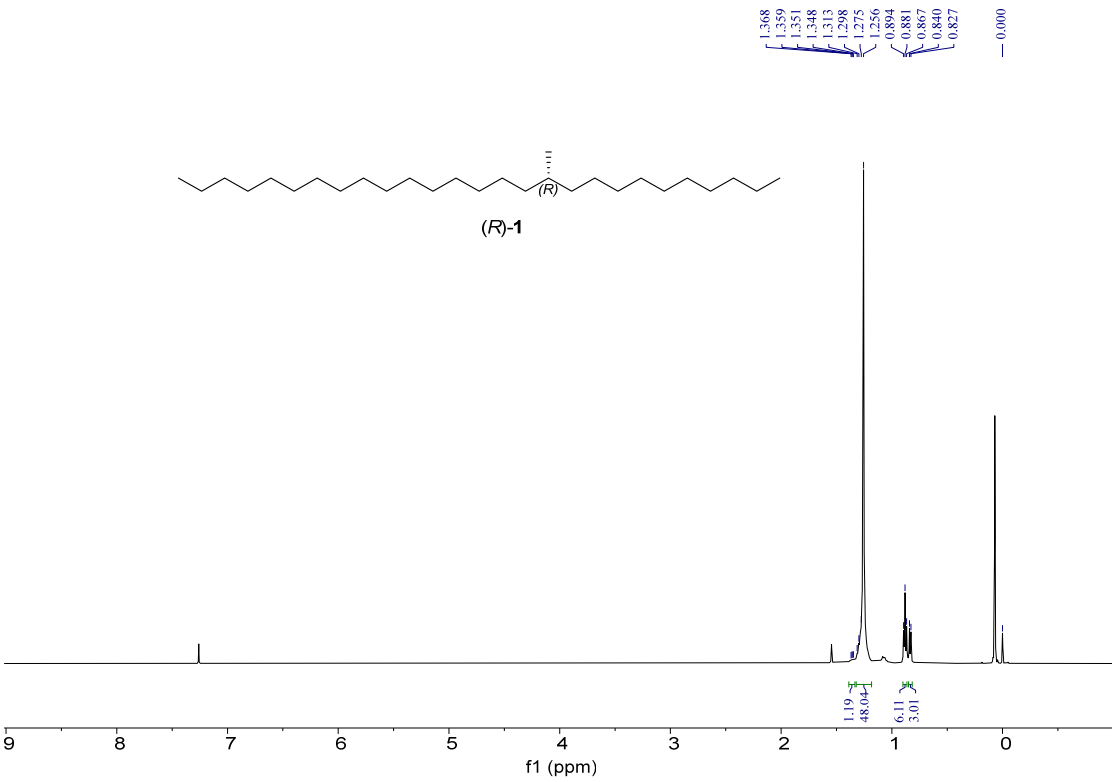


Figure S29. ^{1}H NMR Spectrum of (*R*)-11-methylheptacosane ((*R*)-**1**) (500 MHz, $CDCl_3$)

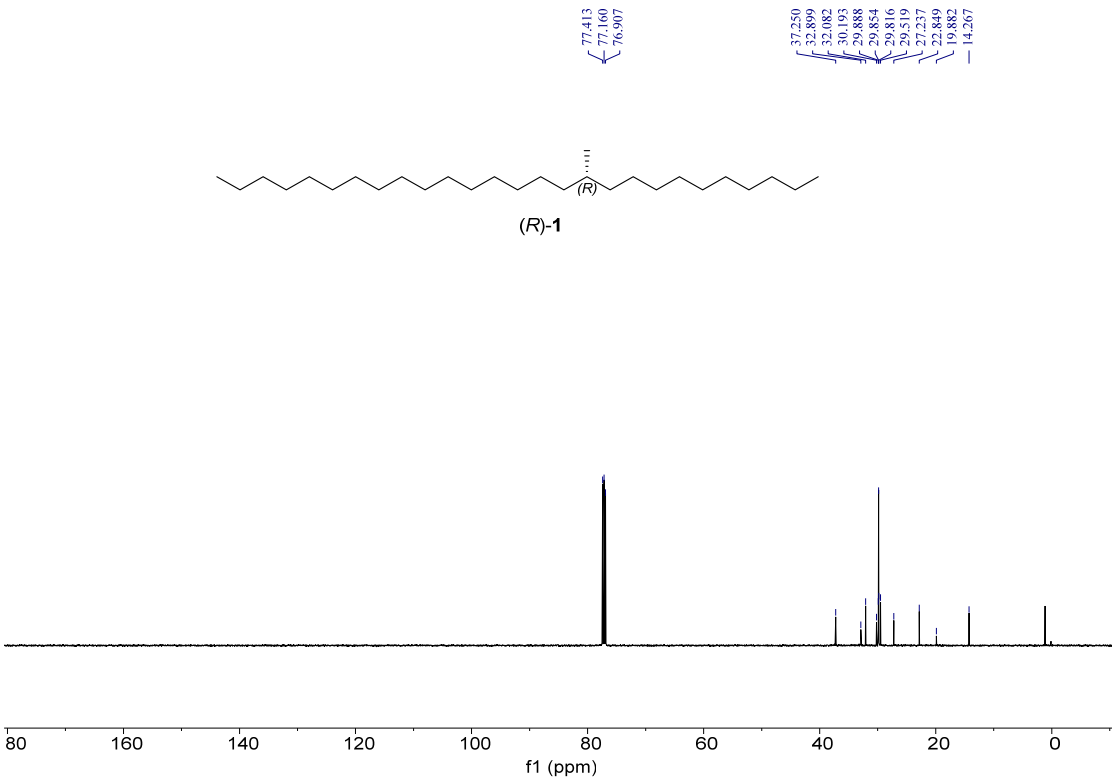
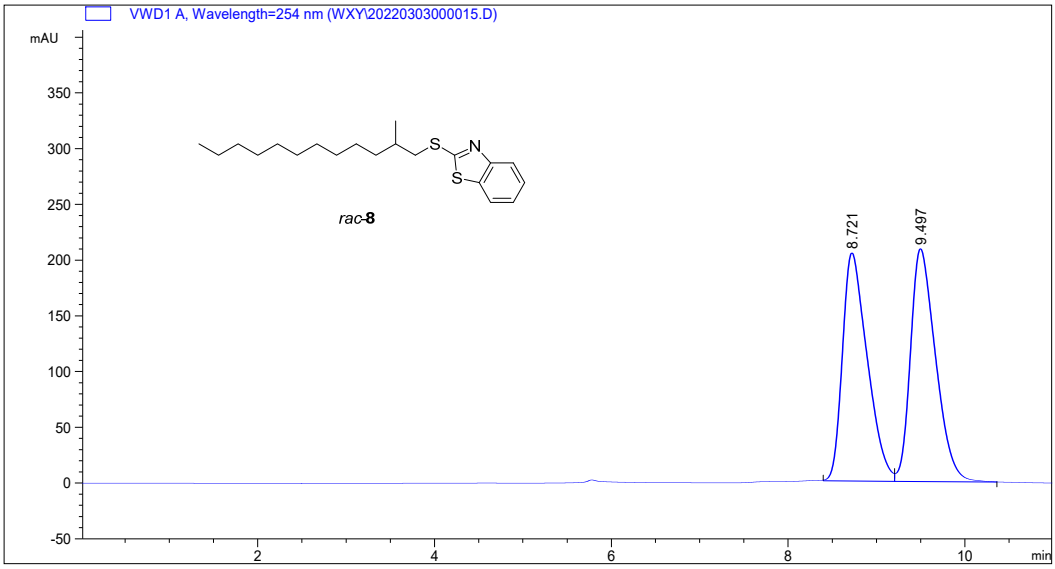


Figure S30. ^{13}C NMR Spectrum of (*R*)-11-methylheptacosane ((*R*)-**1**) (126 MHz, $CDCl_3$)

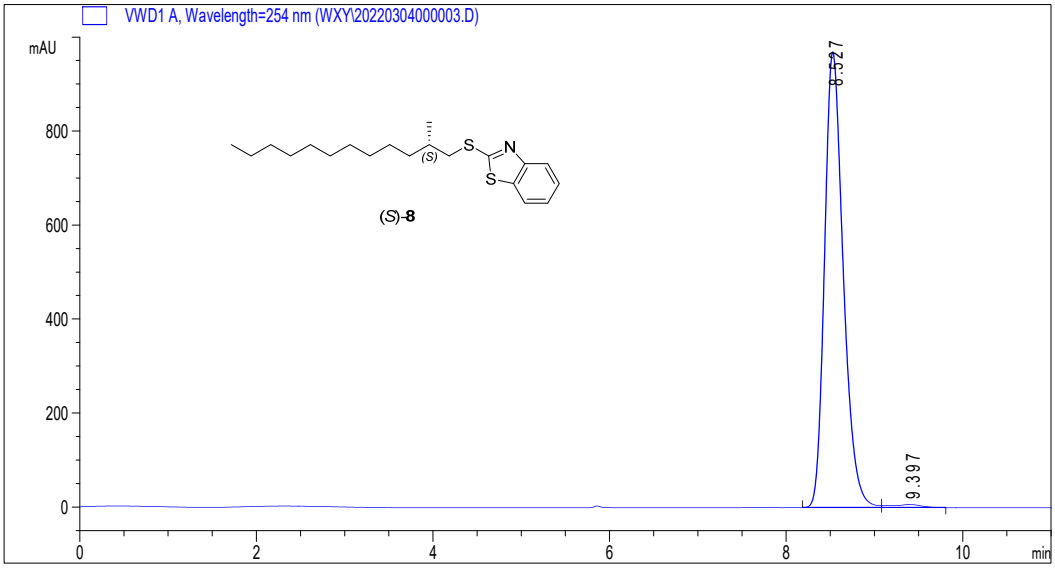
2. HPLC Chromatography of the Compounds

Figure S31. HPLC Chromatography of racemic 2-((2-methyldodecyl)thio)benzo[d]thiazole (*rac*-**8**) (Daicel Chiralcel OD-H column; *n*-hexane/*i*-propanol = 99:1, 0.7 mL/min, 254 nm)



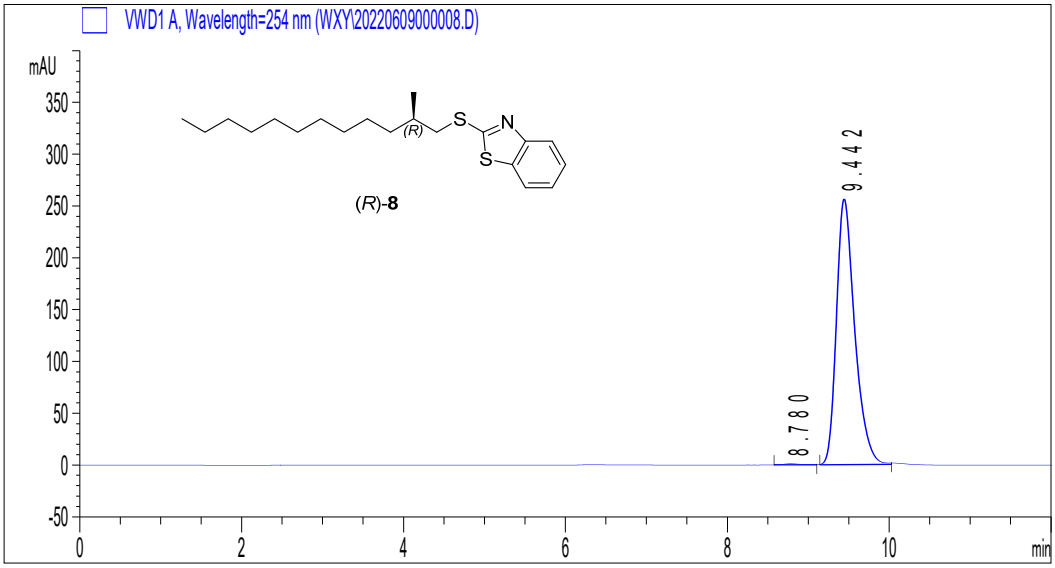
Peak #	RetTime [min]	Type	Width [min]	Area mAU*s	Height [mAU]	Area %
1	8.721	BV	0.2900	3992.59229	204.86427	49.1413
2	9.497	VB	0.3005	4132.12256	209.07364	50.8587
Totals:				8124.71484	413.93791	

Figure S32. HPLC Chromatography of (*S*)-2-((2-methyldodecyl)thio)benzo[d]thiazole ((*S*)-**8**) (Daicel Chiralcel OD-H column; *n*-hexane/*i*-propanol = 99:1, 0.7 mL/min, 254 nm)



Peak #	RetTime [min]	Type	Width [min]	Area mAU*s	Height [mAU]	Area %
1	8.527	BV	0.2240	1.42628e4	969.64209	98.8850
2	9.397	VB	0.3263	160.82082	6.88656	1.1150
Totals:				1.44236e4	976.52865	

Figure S33. HPLC Chromatography of (*R*)-2-((2-methyldodecyl)thio)benzo[d]thiazole ((*R*)-**8**) (Daicel Chiralcel OD-H column; *n*-hexane/*i*-propanol = 99:1, 0.7 mL/min, 254 nm)



Peak	RetTime	Type	Width	Area	Height	Area
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1	8.780	BB	0.2182	16.30239	1.11812	0.4028
2	9.442	BB	0.2372	4031.32129	256.58481	99.5972
Totals:				4047.62368	257.70293	