

Supplementary Materials

1. Copies of NMR Spectra of Most Relevant Key Intermediates and Final Adducts

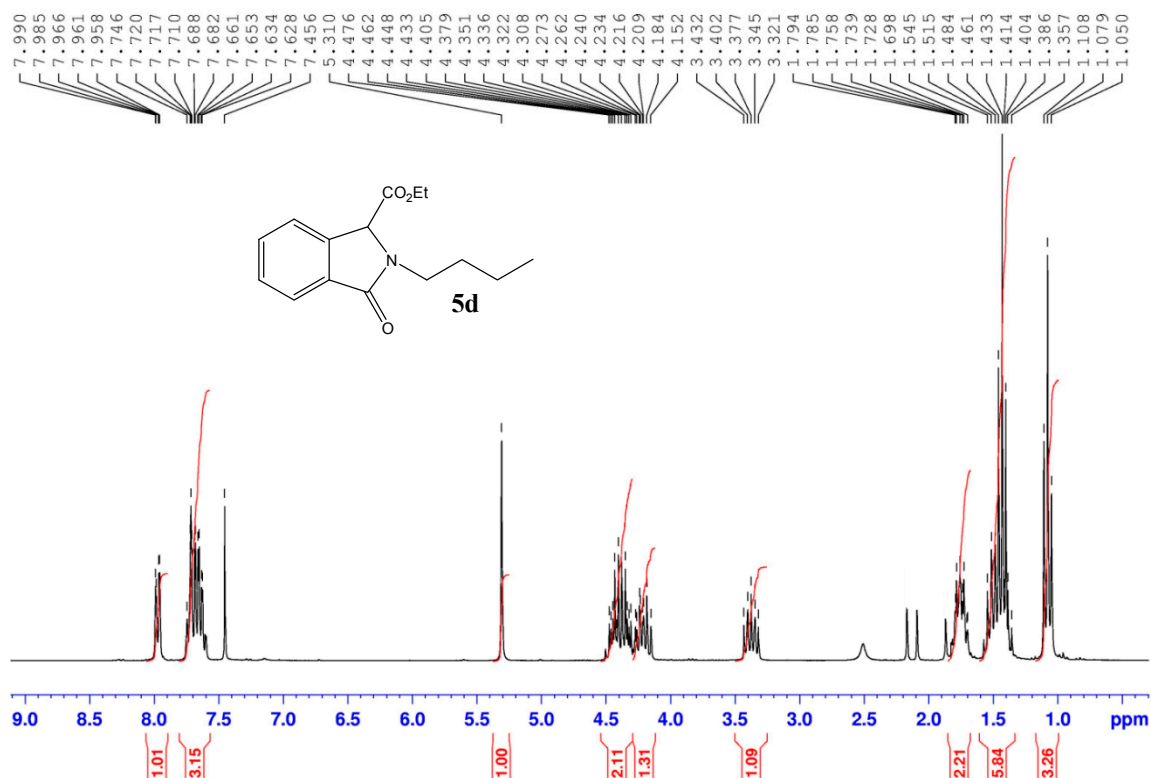


Figure S1. ¹H-NMR of compound 5d.

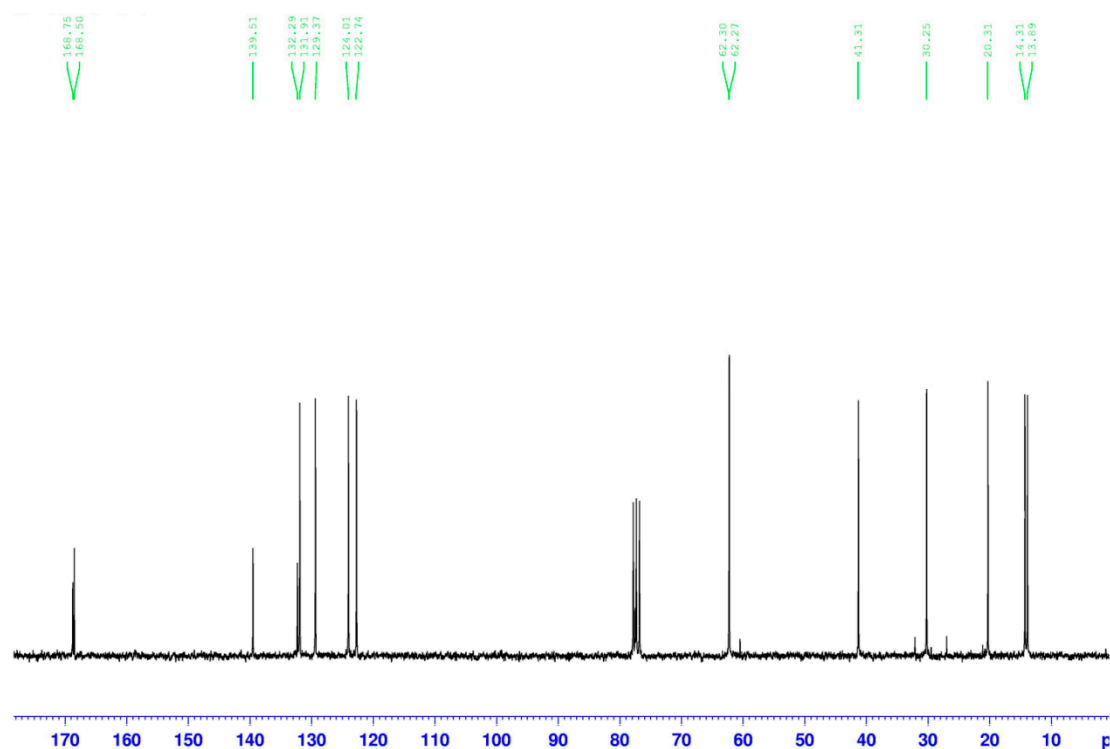
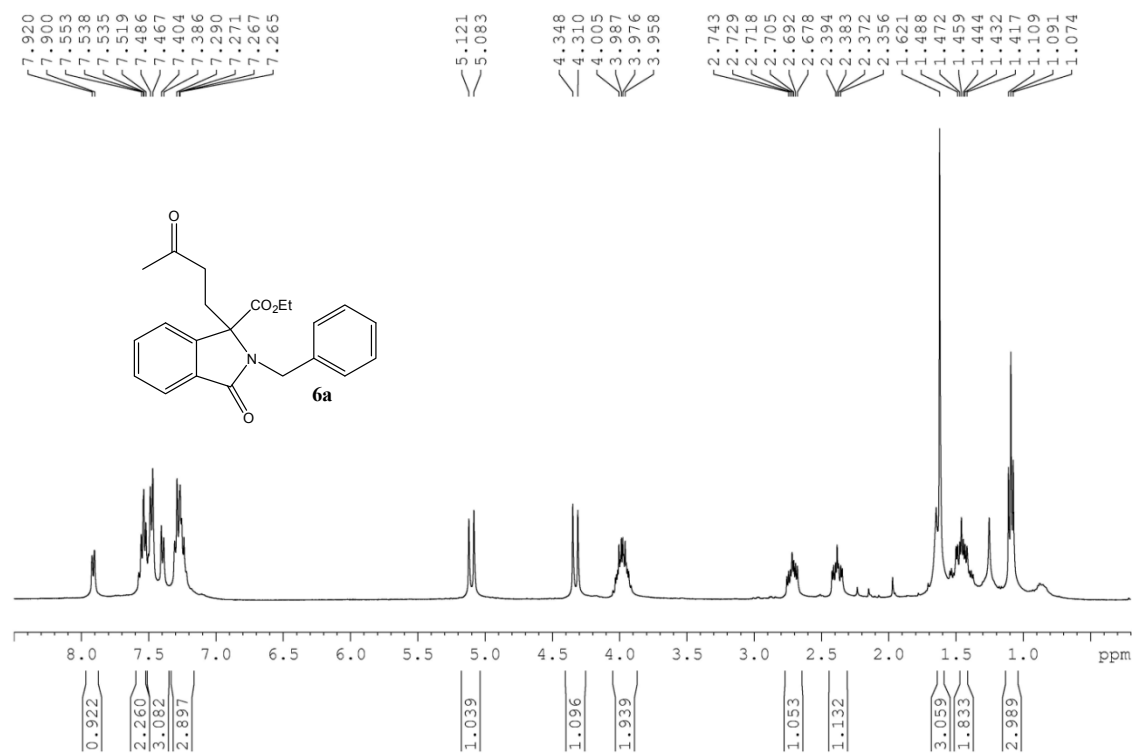
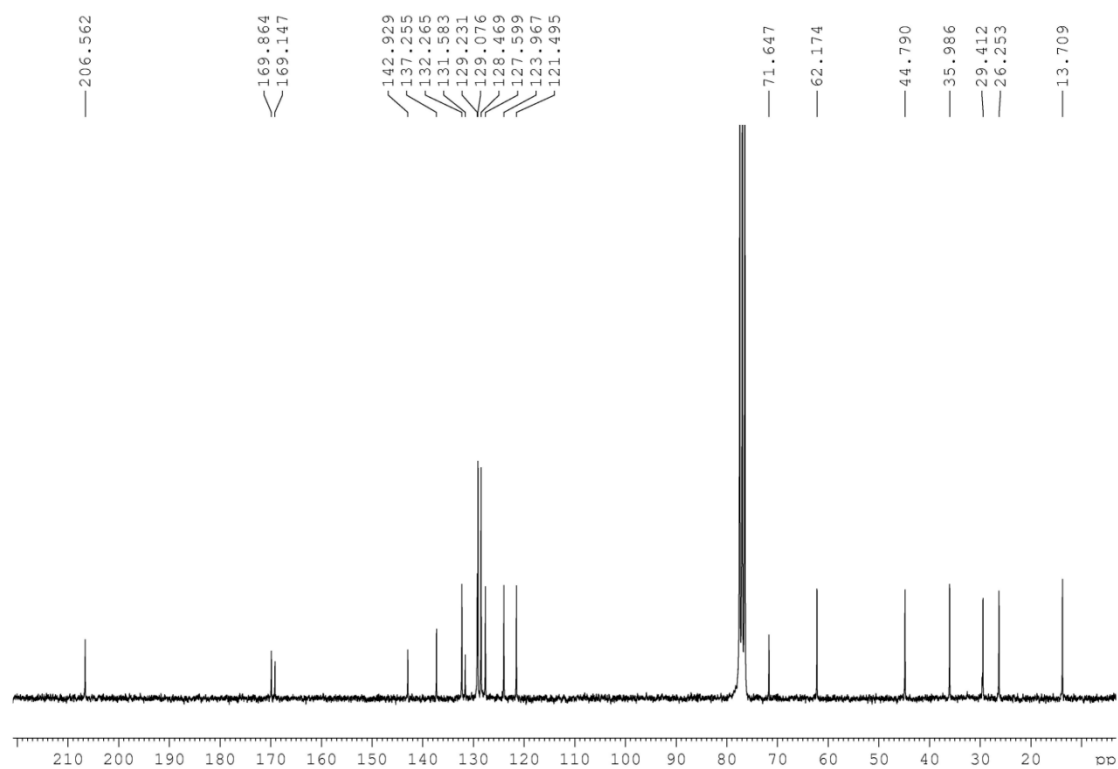


Figure S2. ¹³C-NMR of compound 5d.

Figure S3. ¹H-NMR of compound **6a**.Figure S4. ¹³C-NMR of compound **6a**.

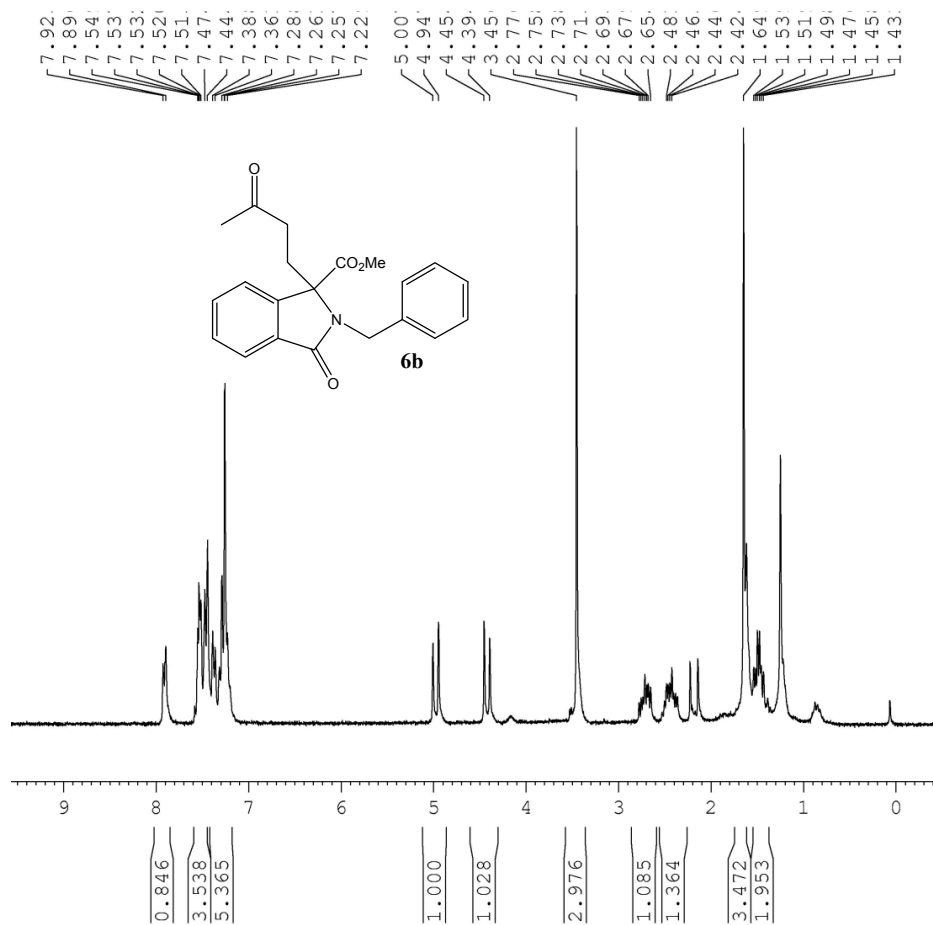


Figure S5. ^1H -NMR of compound **6b**.

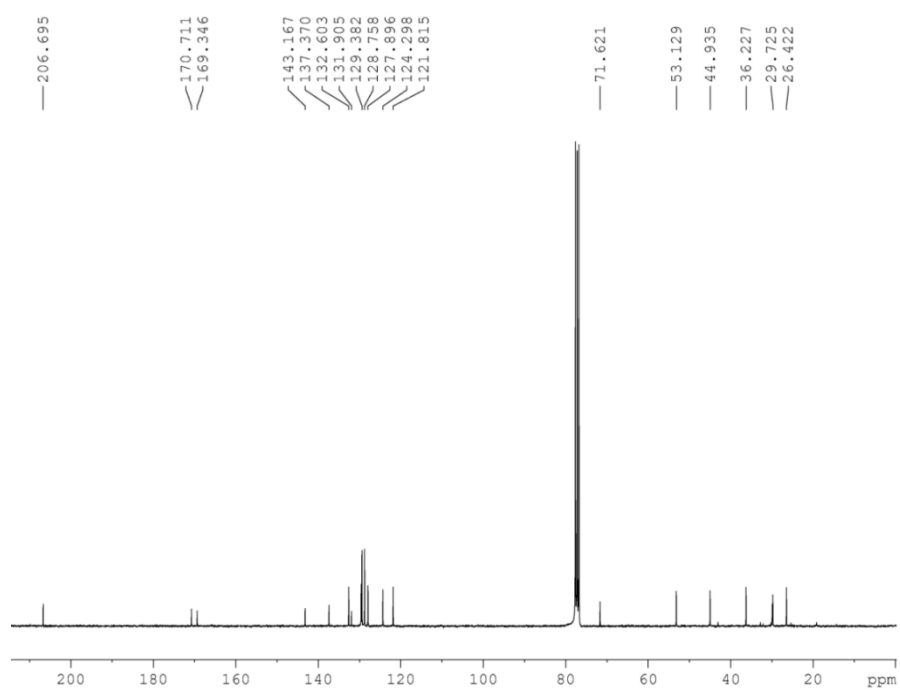


Figure S6. ^{13}C -NMR of compound **6b**.

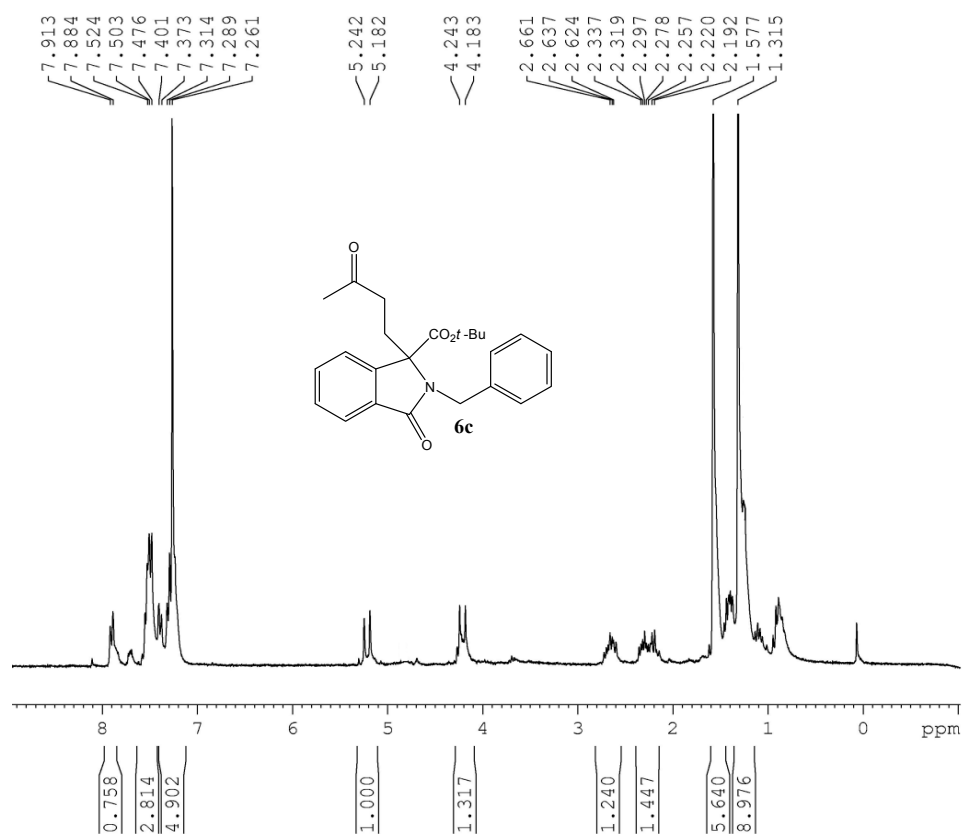


Figure S7. ^1H -NMR of compound **6c**.

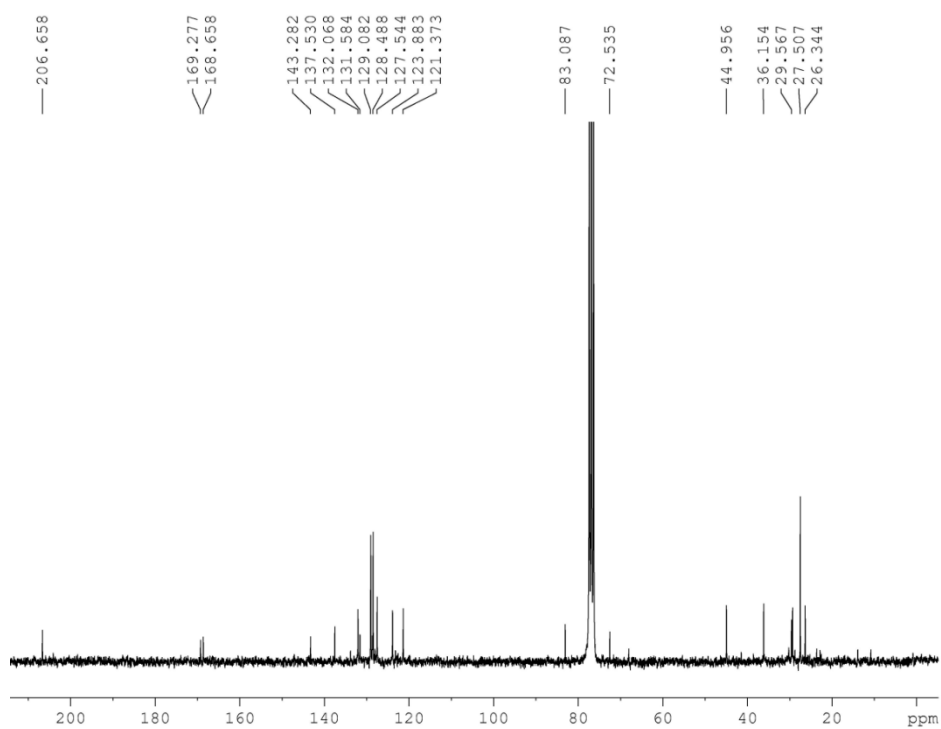
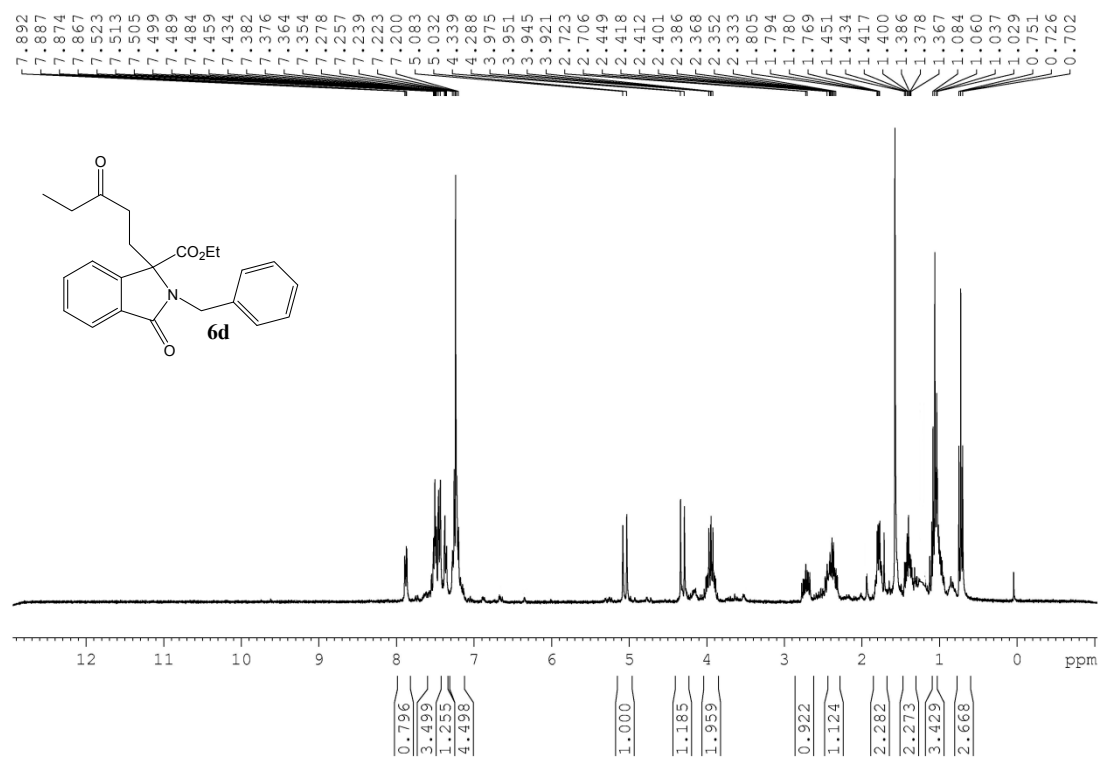
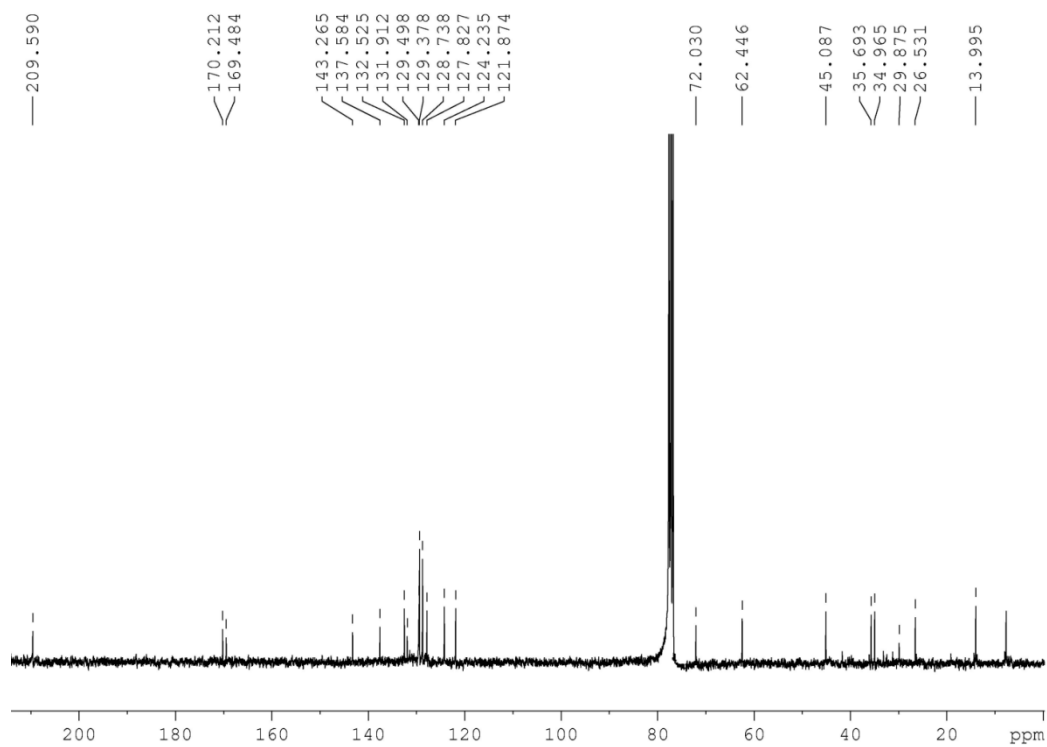


Figure S8. ^{13}C -NMR of compound **6c**.

Figure S9. ¹H-NMR of compound **6d**.Figure S10. ¹³C-NMR of compound **6d**.

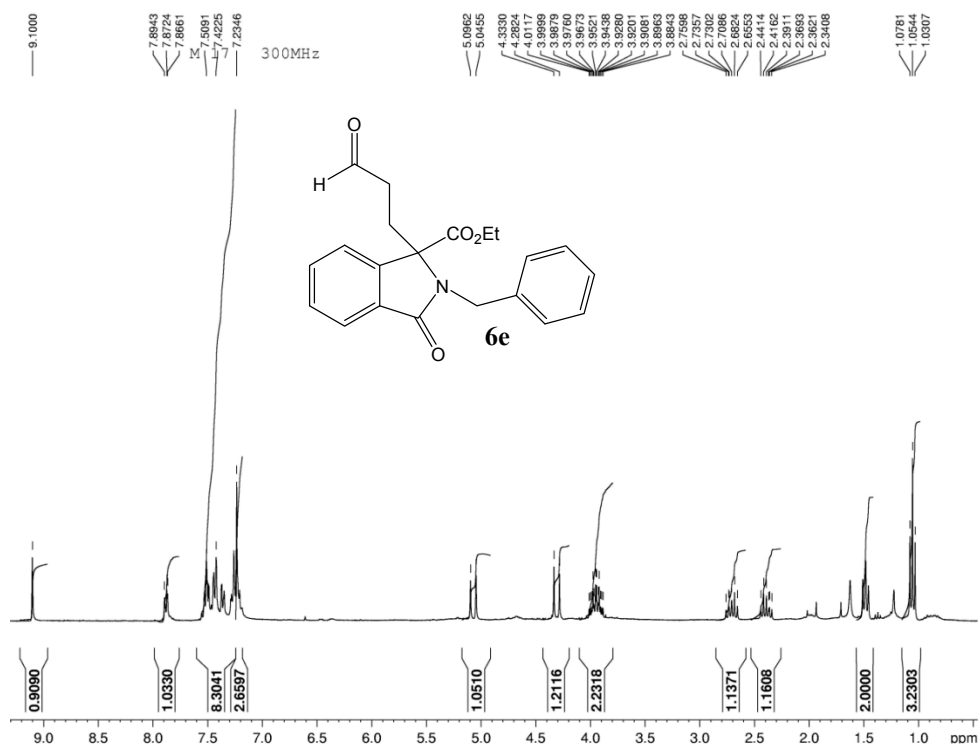


Figure S11. ¹H-NMR of compound **6e**.

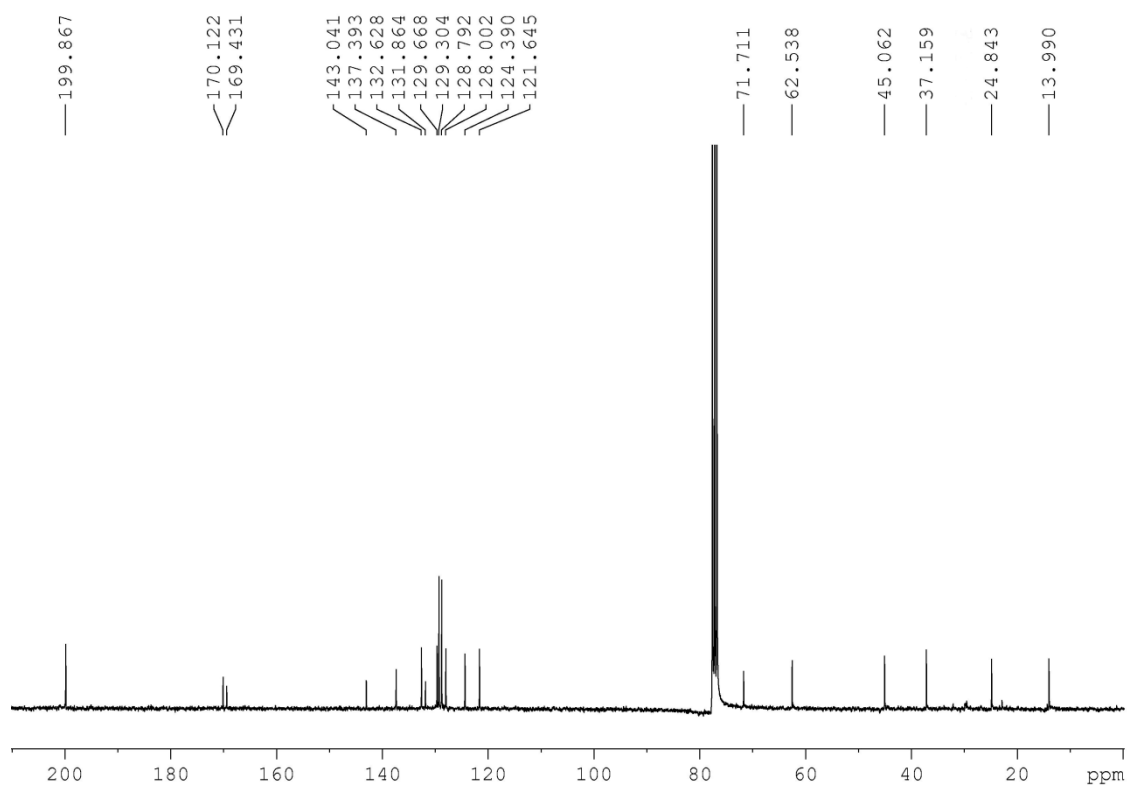
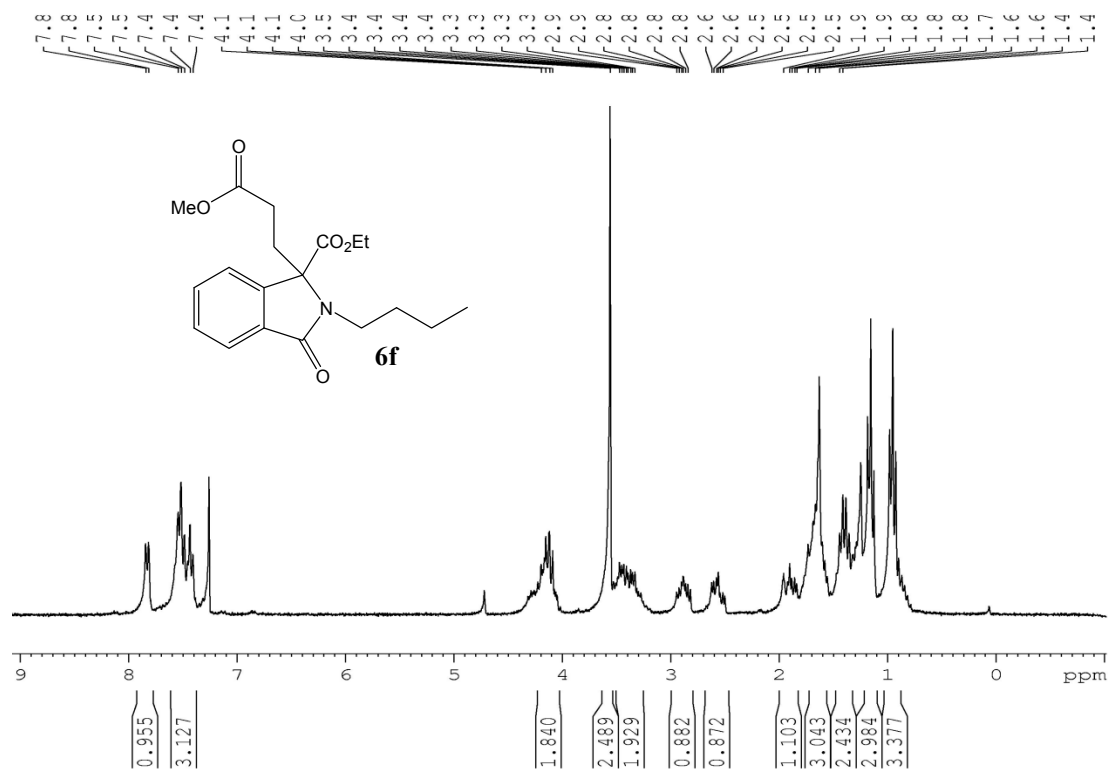
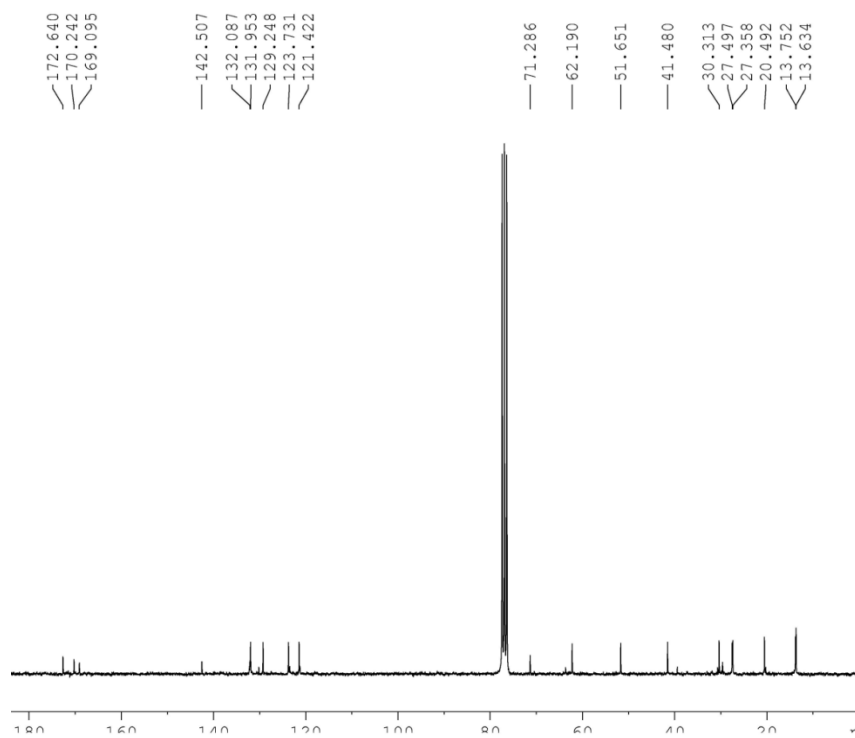
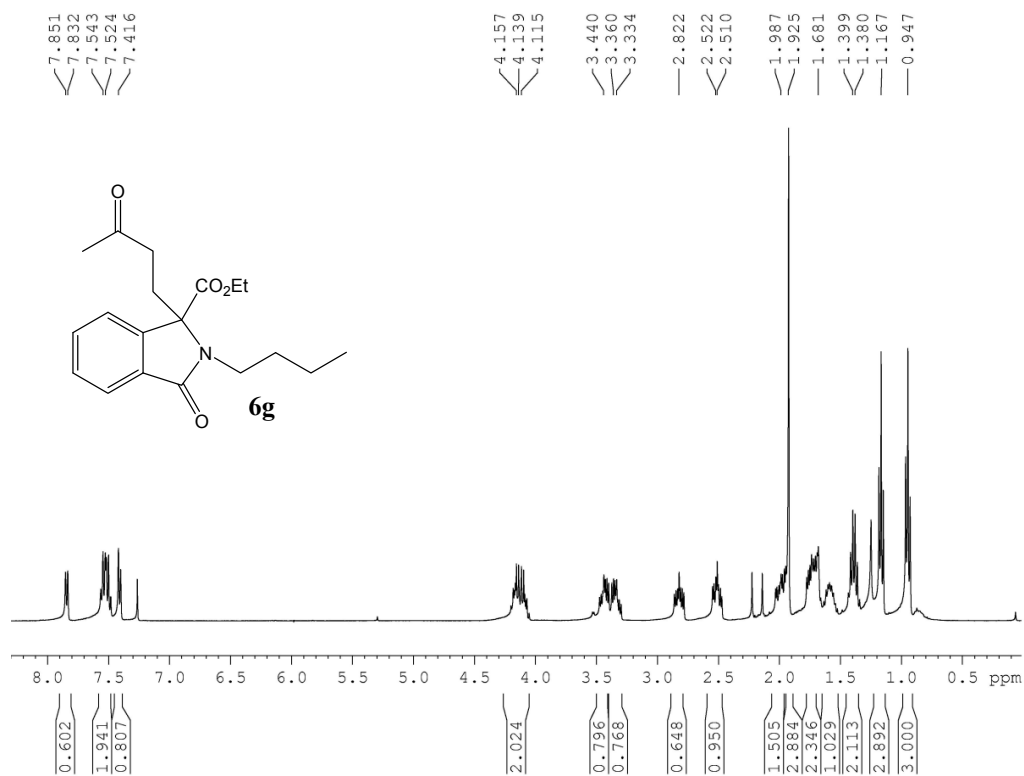
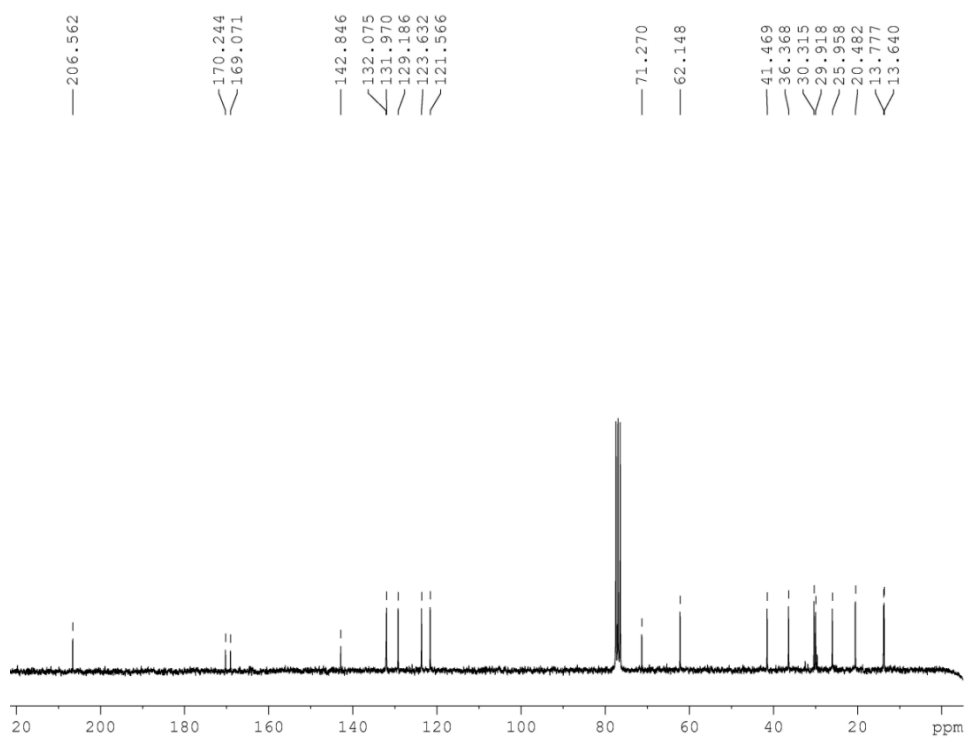


Figure S12. ¹³C-NMR of compound **6e**.

Figure S13. ^1H -NMR of compound **6f**.Figure S14. ^{13}C -NMR of compound **6f**.

Figure S15. ¹H-NMR of compound **6g**.Figure S16. ¹³C-NMR of compound **6g**.

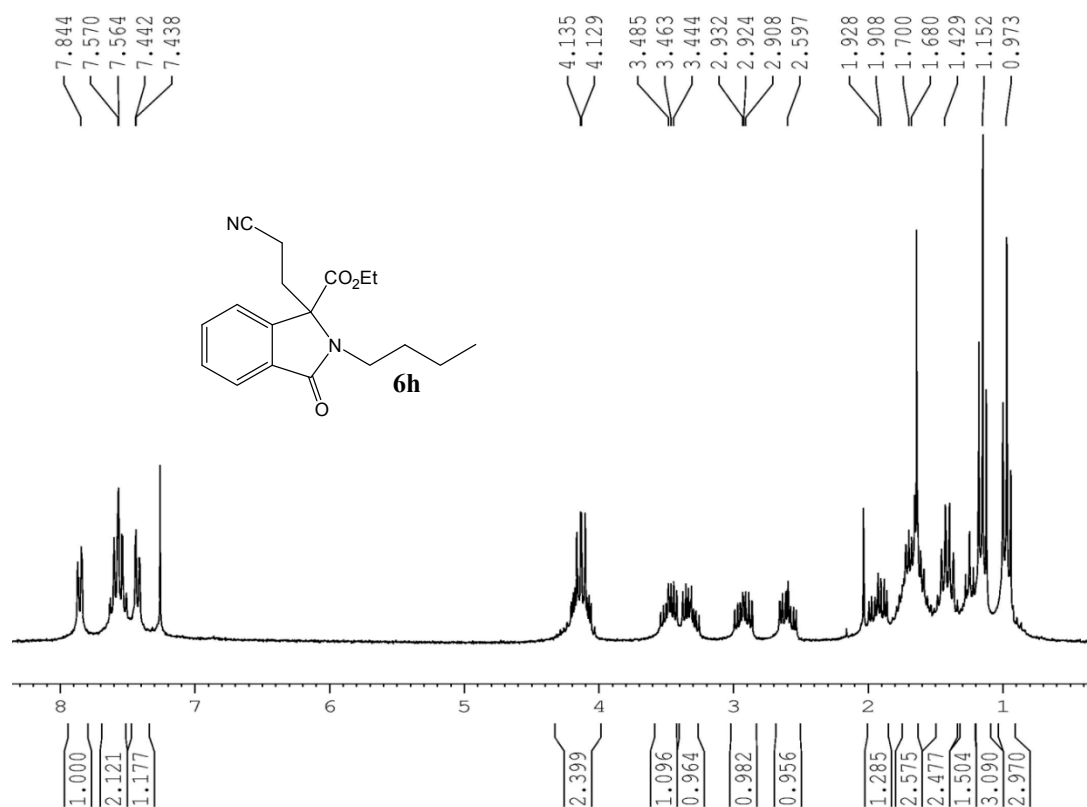


Figure S17. ¹H-NMR of compound **6h**.

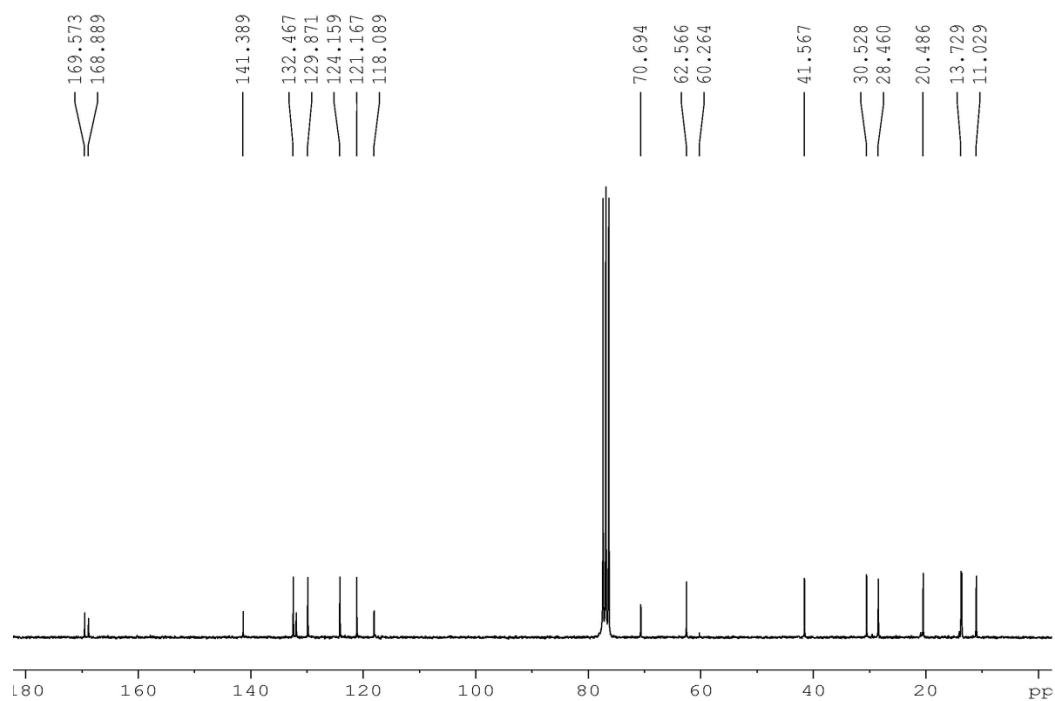
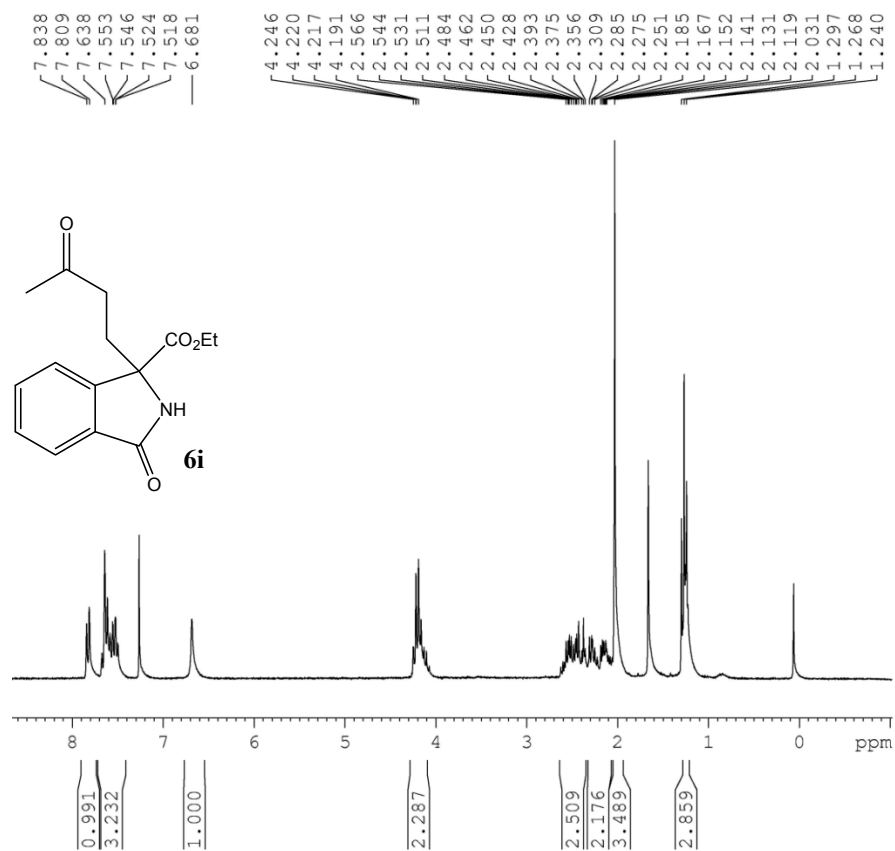
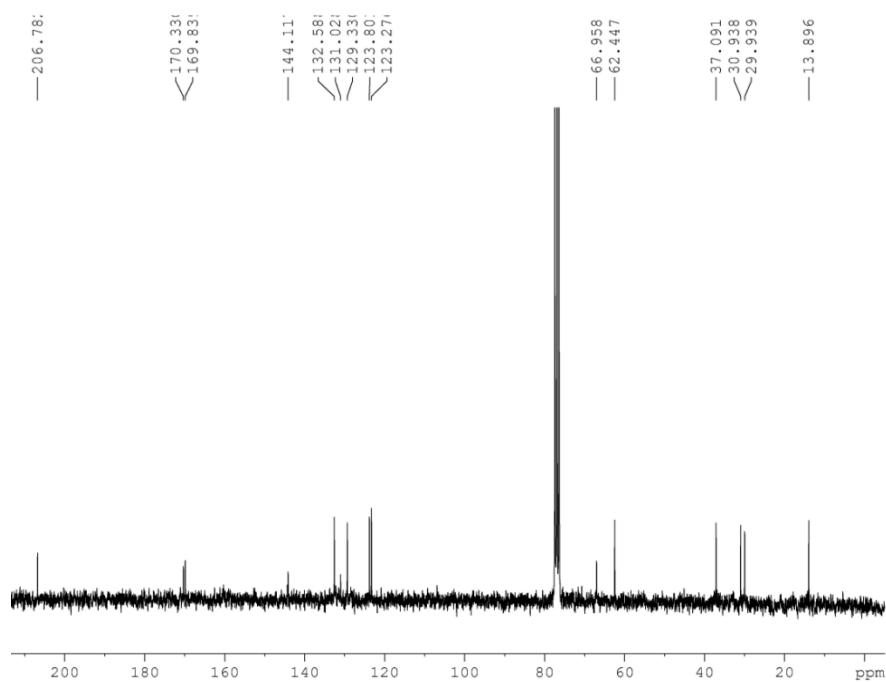
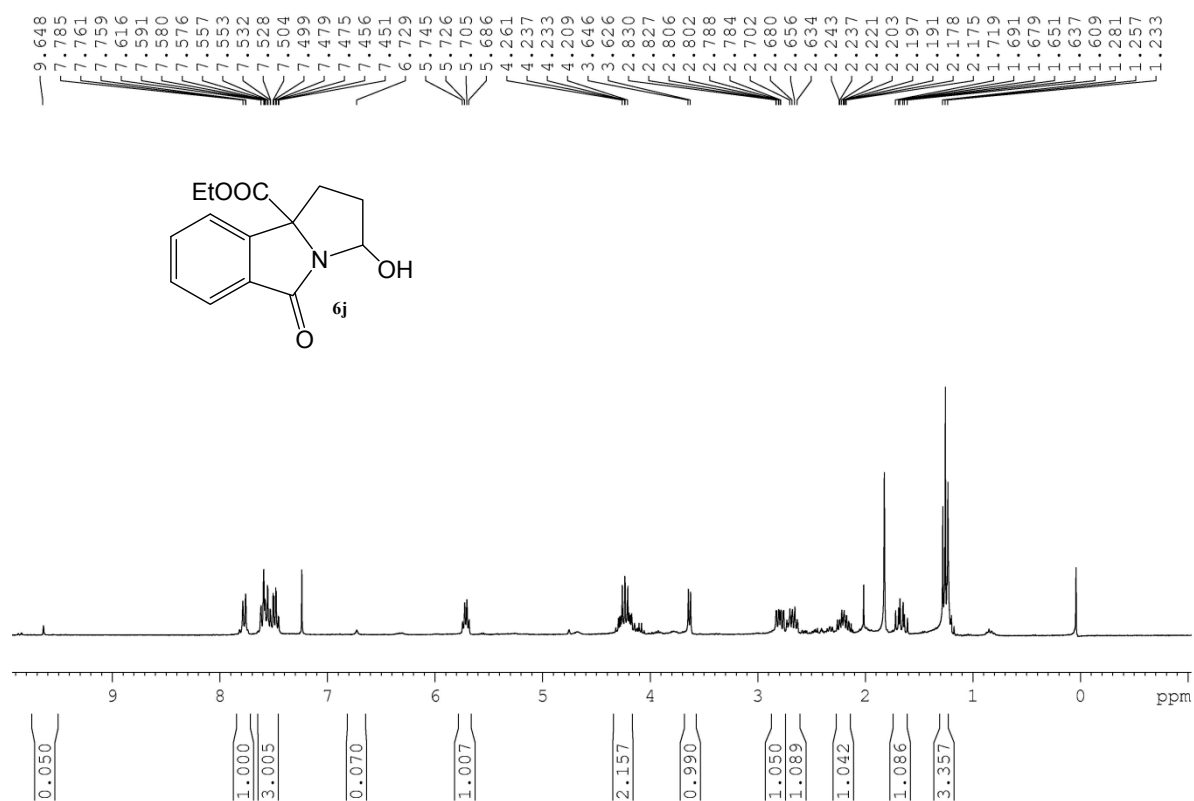
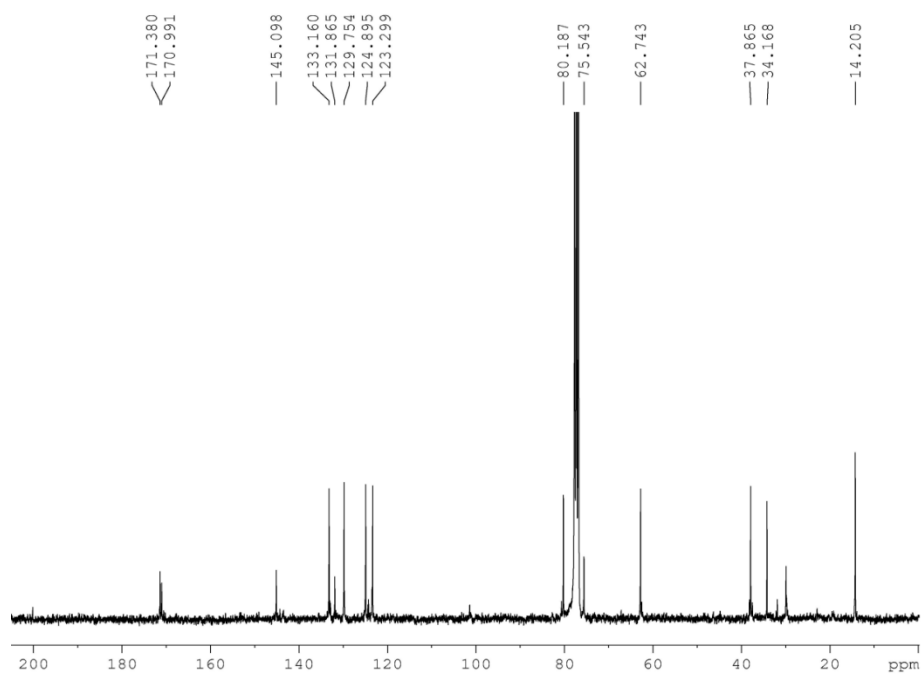


Figure S18. ¹³C-NMR of compound **6h**.

Figure S19. ¹H-NMR of compound 6i.Figure S20. ¹³C-NMR of compound 6i.

Figure S21. ¹H-NMR of compound **6j**.Figure S22. ¹³C-NMR of compound **6j**.

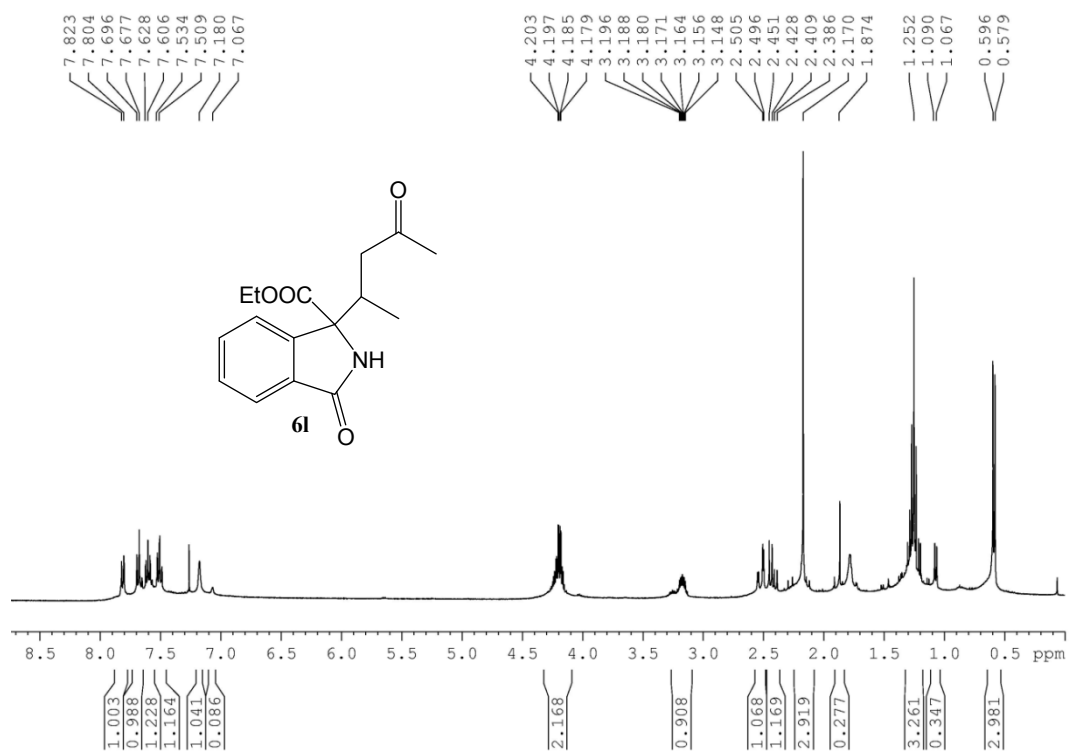


Figure S23. ¹H-NMR of compound **6l**.

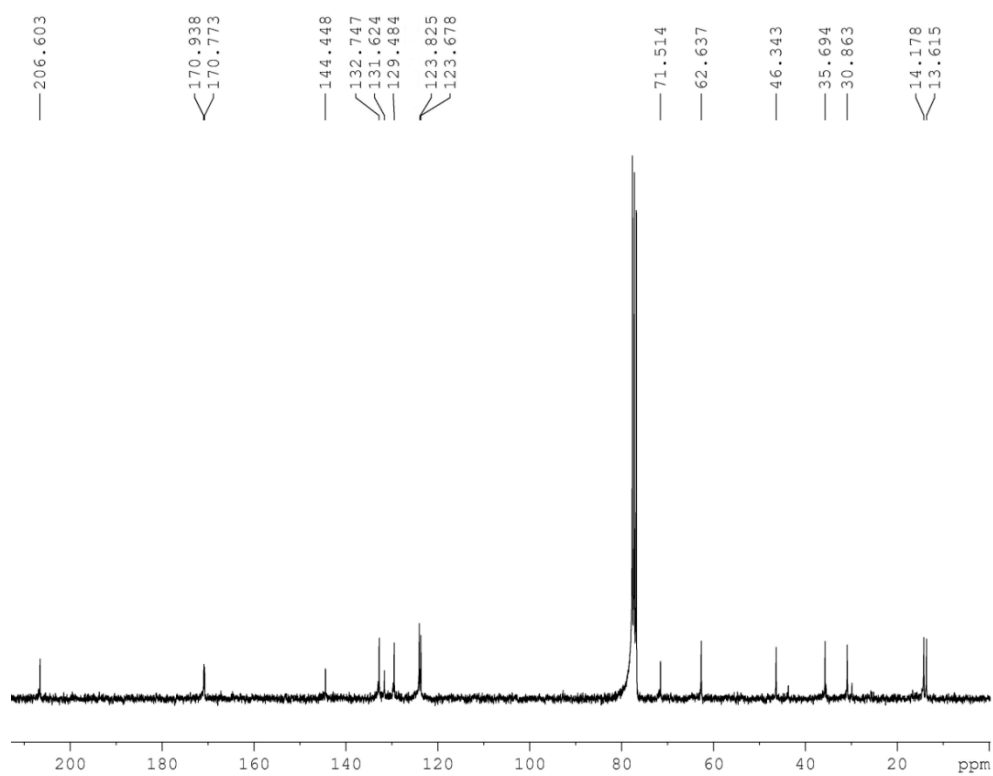
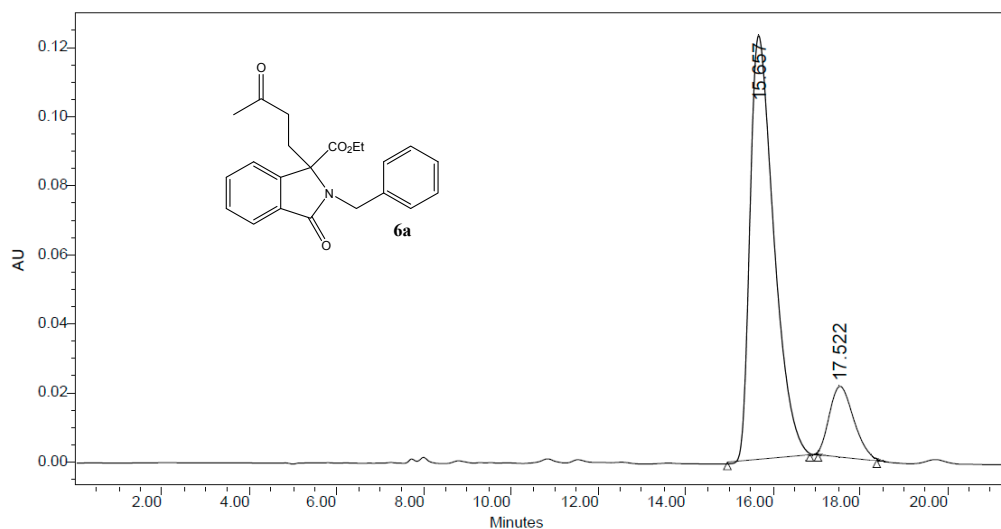
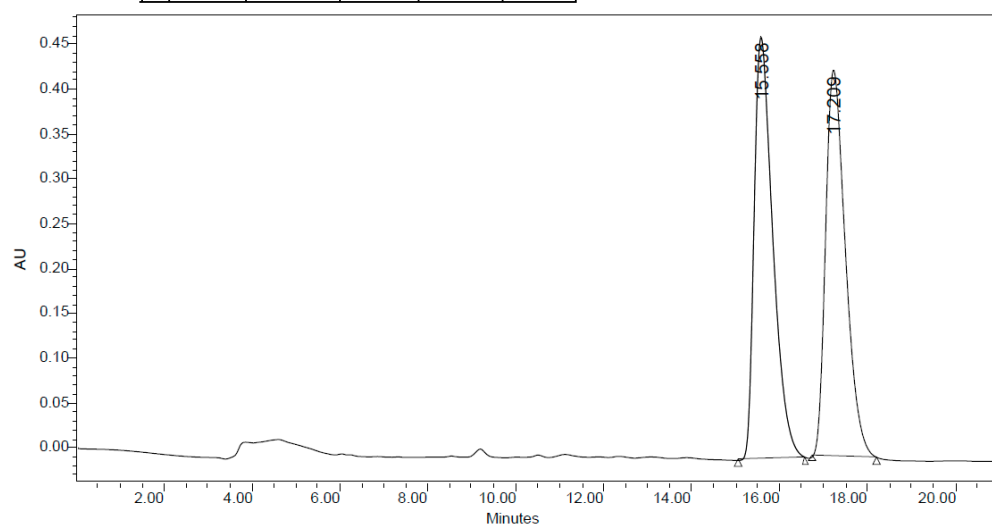


Figure S24. ¹³C-NMR of compound **6l**.

2. Selected HPLC-Chromatograms(Chiral Stationary Phase)

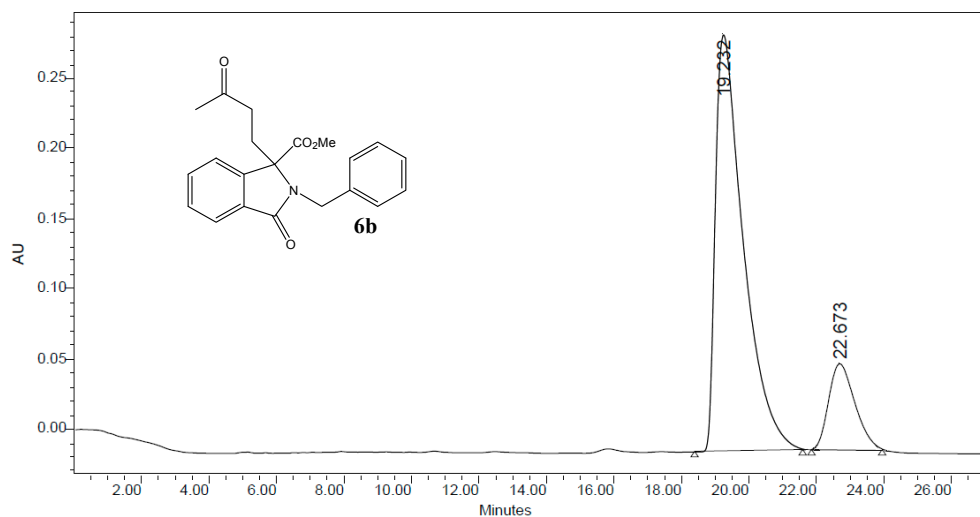


	RT (min)	Area (V*sec)	% Area	Height (V)	% Height
1	15.657	4679656	86.62	122939	86.29
2	17.522	722552	13.38	19535	13.71

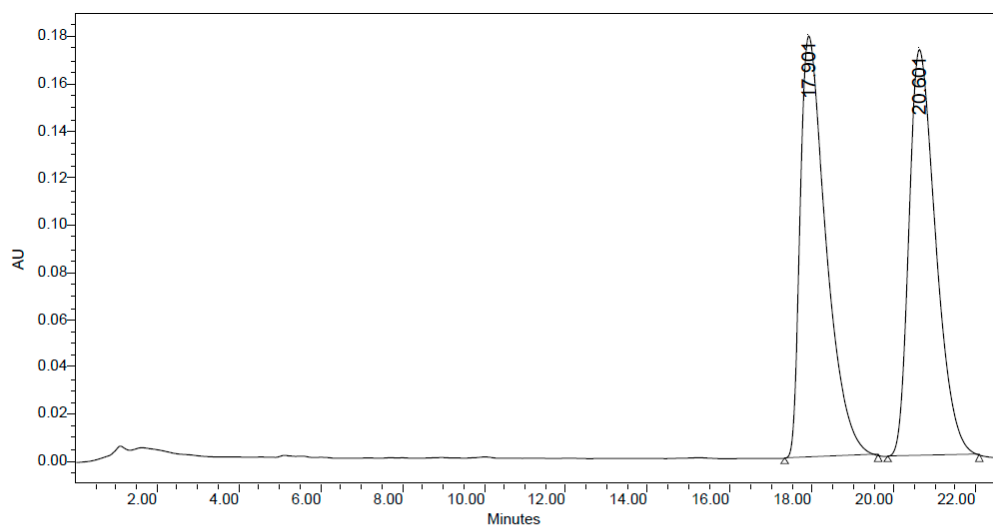


	RT (min)	Area (V*sec)	% Area	Height (V)	% Height
1	15.558	13900619	50.73	471059	52.25
2	17.209	13498637	49.27	430555	47.75

Figure S25. HPLC traces of enantioenriched and racemic compound **6a**.



	RT (min)	Area (V*sec)	% Area	Height (V)	% Height
1	19.232	17109418	84.88	297081	83.41
2	22.673	3047868	15.12	59079	16.59



	RT (min)	Area (V*sec)	% Area	Height (V)	% Height
1	17.901	7851411	50.07	178739	50.92
2	20.601	7828373	49.93	172305	49.08

Figure S26. HPLC traces of enantioenriched and racemic compound **6b**.

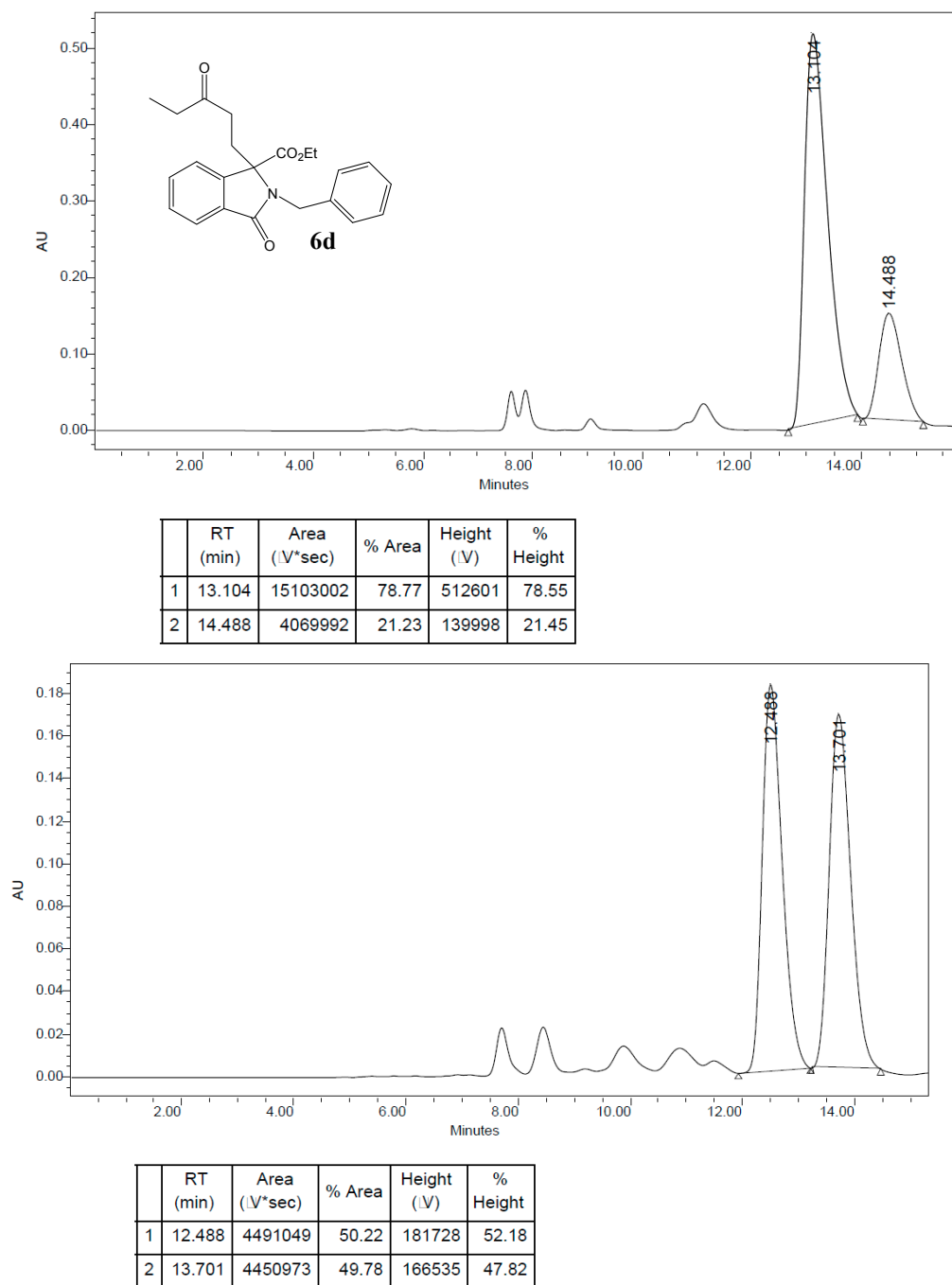
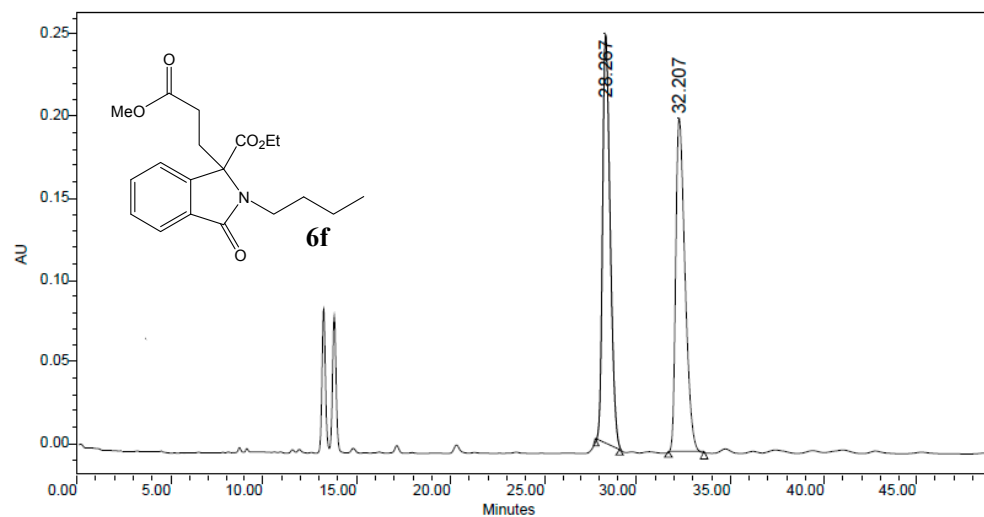
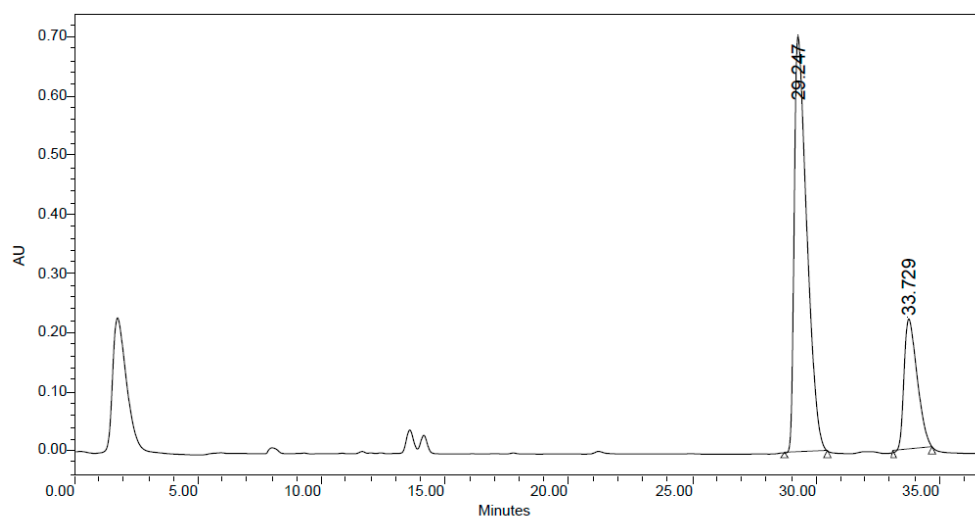


Figure S27. HPLC traces of enantioenriched and racemic compound **6d**.



	RT (min)	Area ($\Delta V \cdot \text{sec}$)	% Area	Height (ΔV)	% Height
1	28.267	7041053	49.92	249223	55.02
2	32.207	7064857	50.08	203764	44.98



	RT (min)	Area ($\Delta V \cdot \text{sec}$)	% Area	Height (ΔV)	% Height
1	29.247	25027896	75.04	704285	75.96
2	33.729	8323442	24.96	222852	24.04

Figure S28. HPLC traces of enantioenriched and racemic compound **6f**.

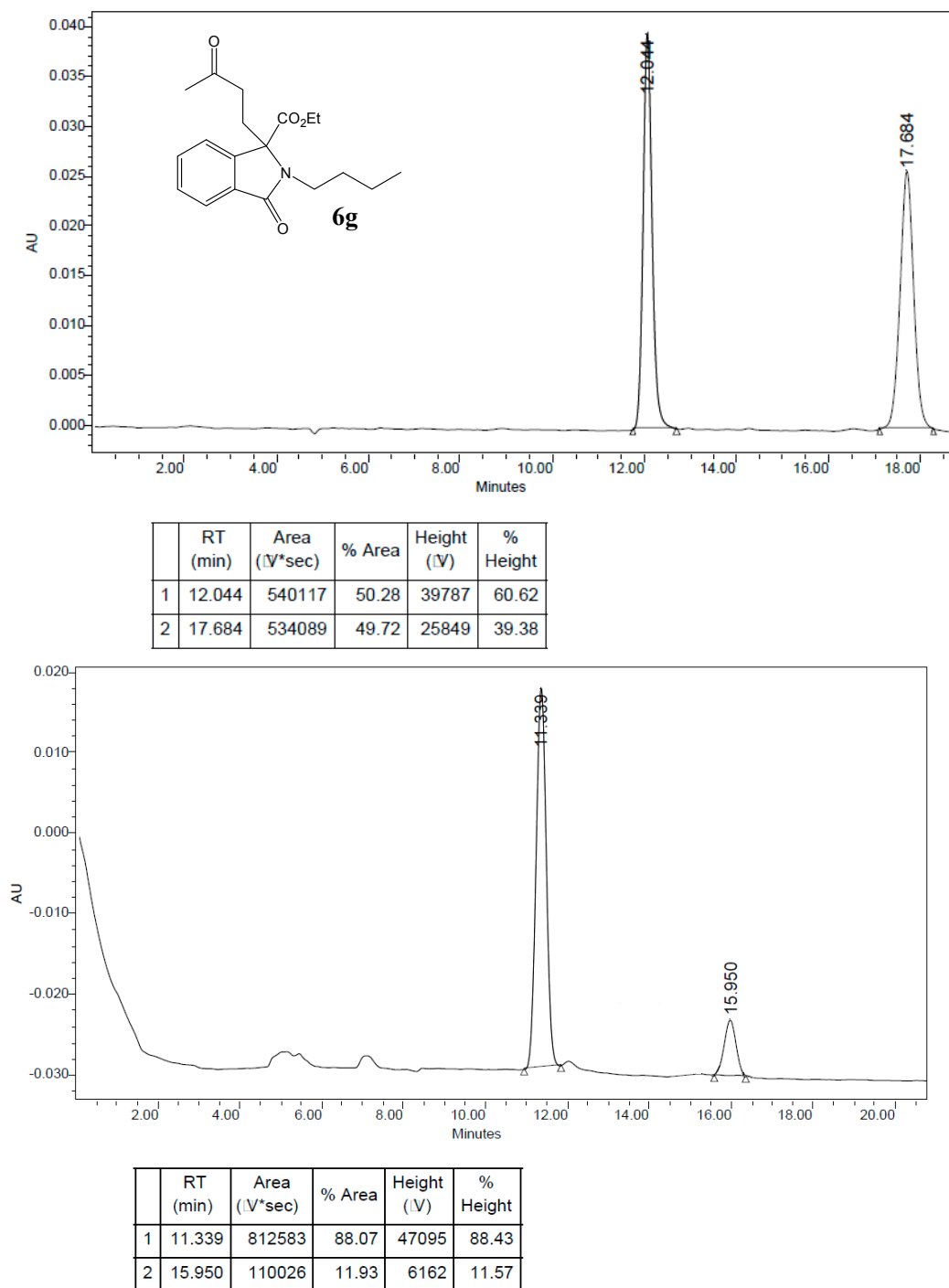


Figure S29. HPLC traces of enantioenriched and racemic compound **6g**.