

## Article

# Pyrrolizine and Indolizine Derived Spirooxindoles: Synthesis, Antibacterial Activity and Inverse Docking Analysis

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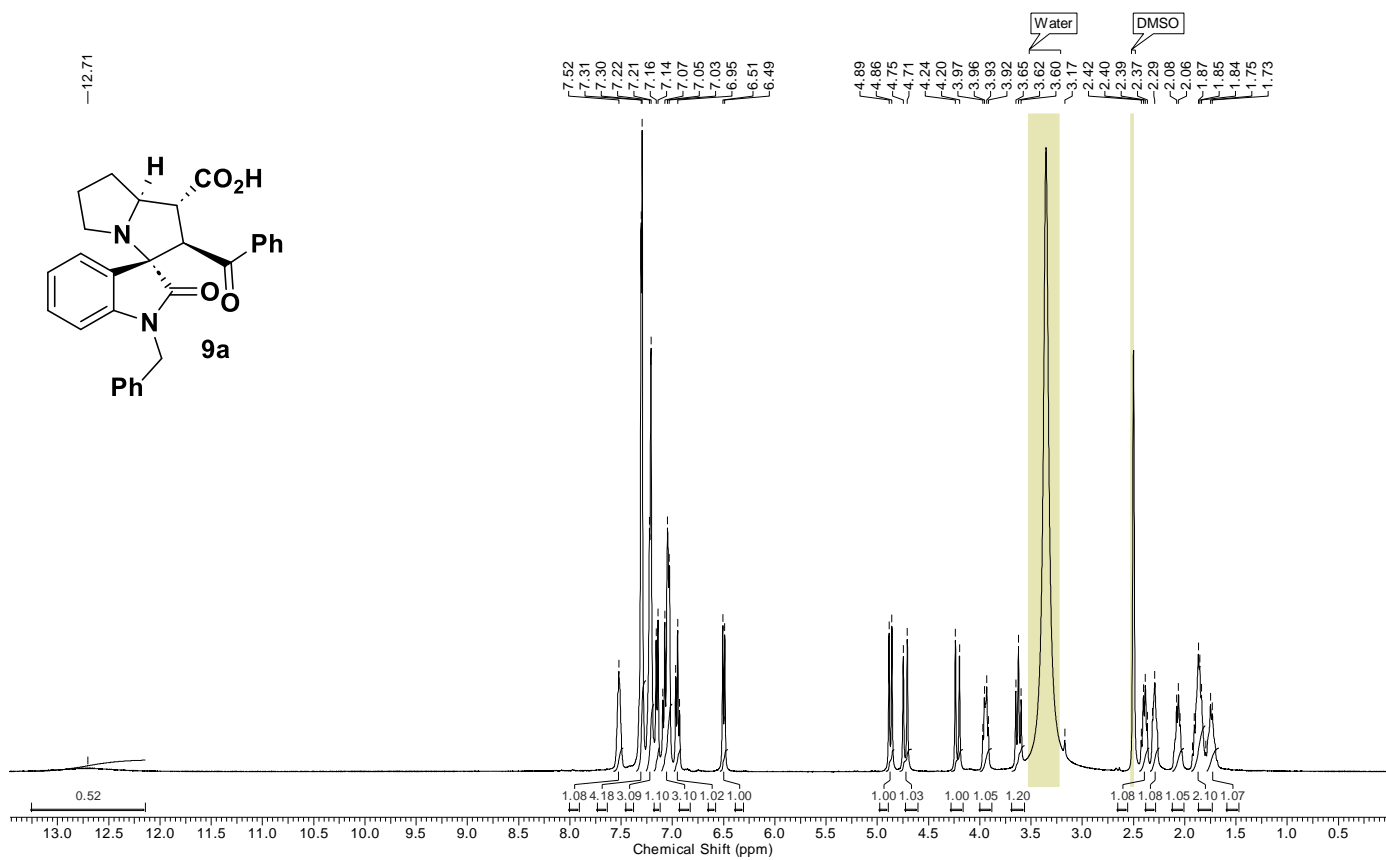
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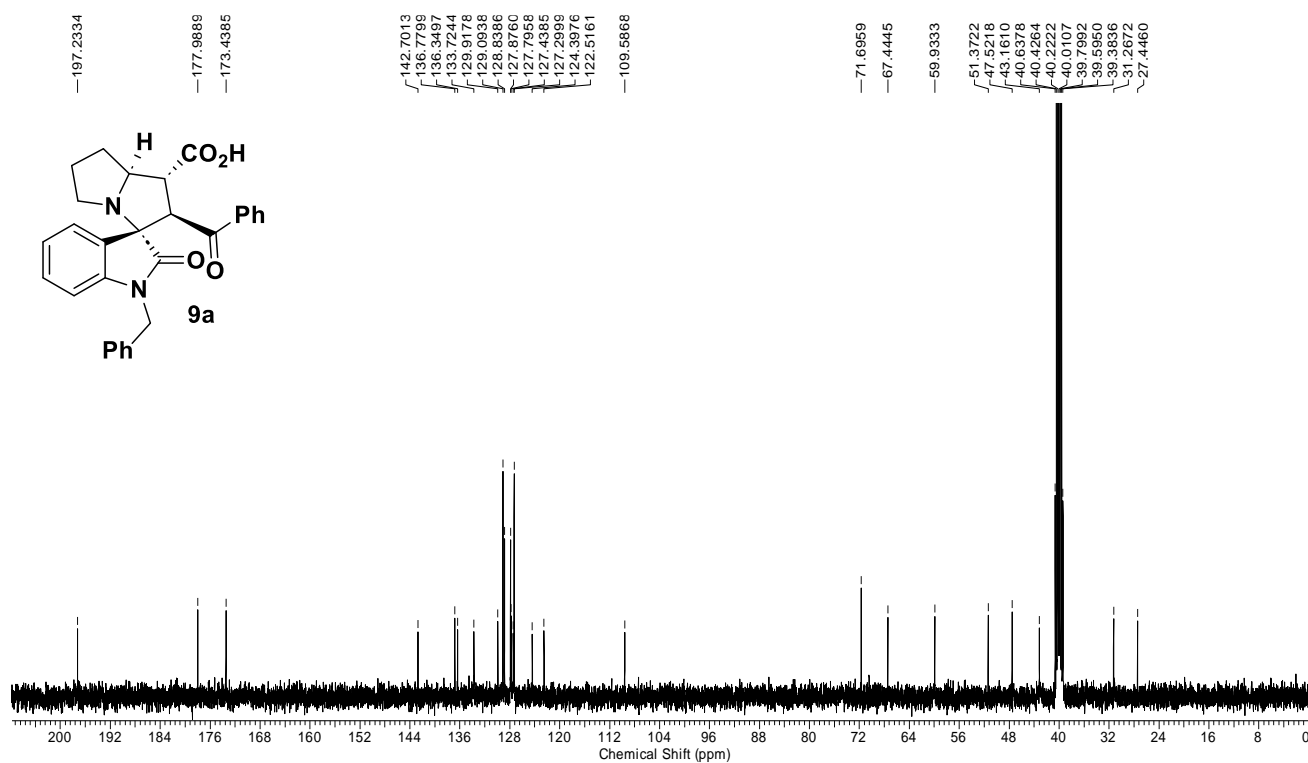
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\* jairo.quiroga@correounivalle.edu.co (J.Q.); rodrigo.abonia@correounivalle.edu.co (R.A.)

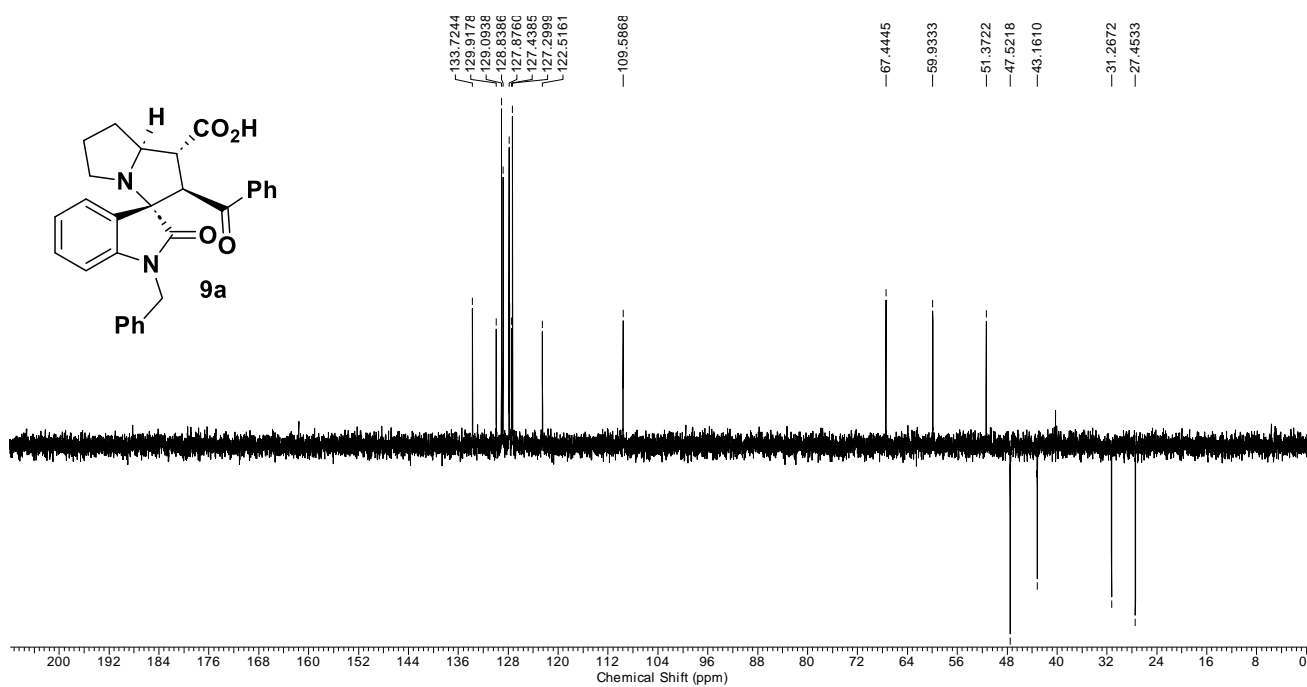
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**Figure S1.**  $^1\text{H}$  NMR spectra of compound **9a** recorded at 400 MHz in  $\text{DMSO}-d_6$

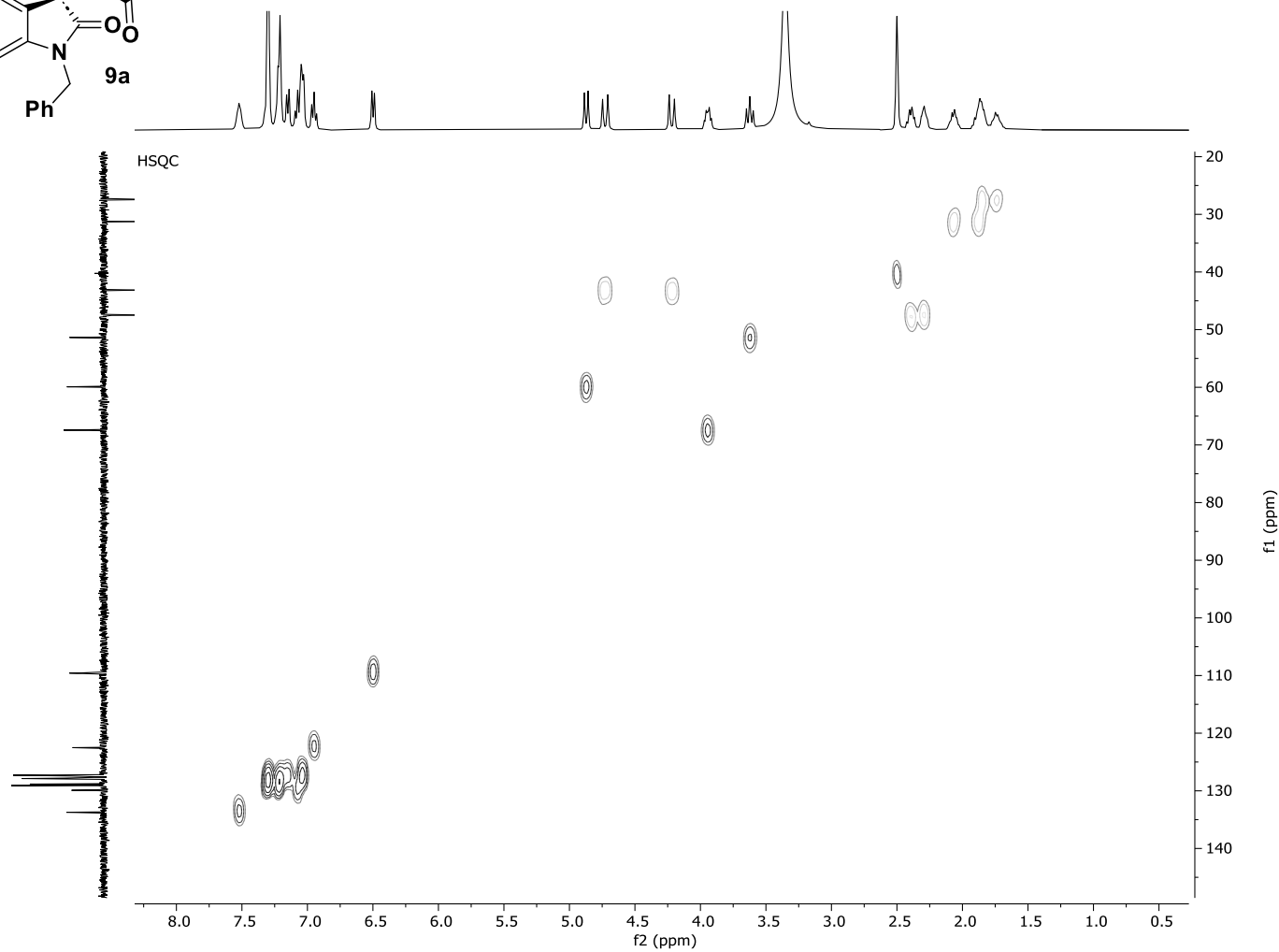
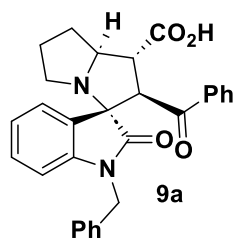


**Figure S2.** <sup>13</sup>C NMR spectra of compound **9a** recorded at 100 MHz in DMSO-*d*<sub>6</sub>

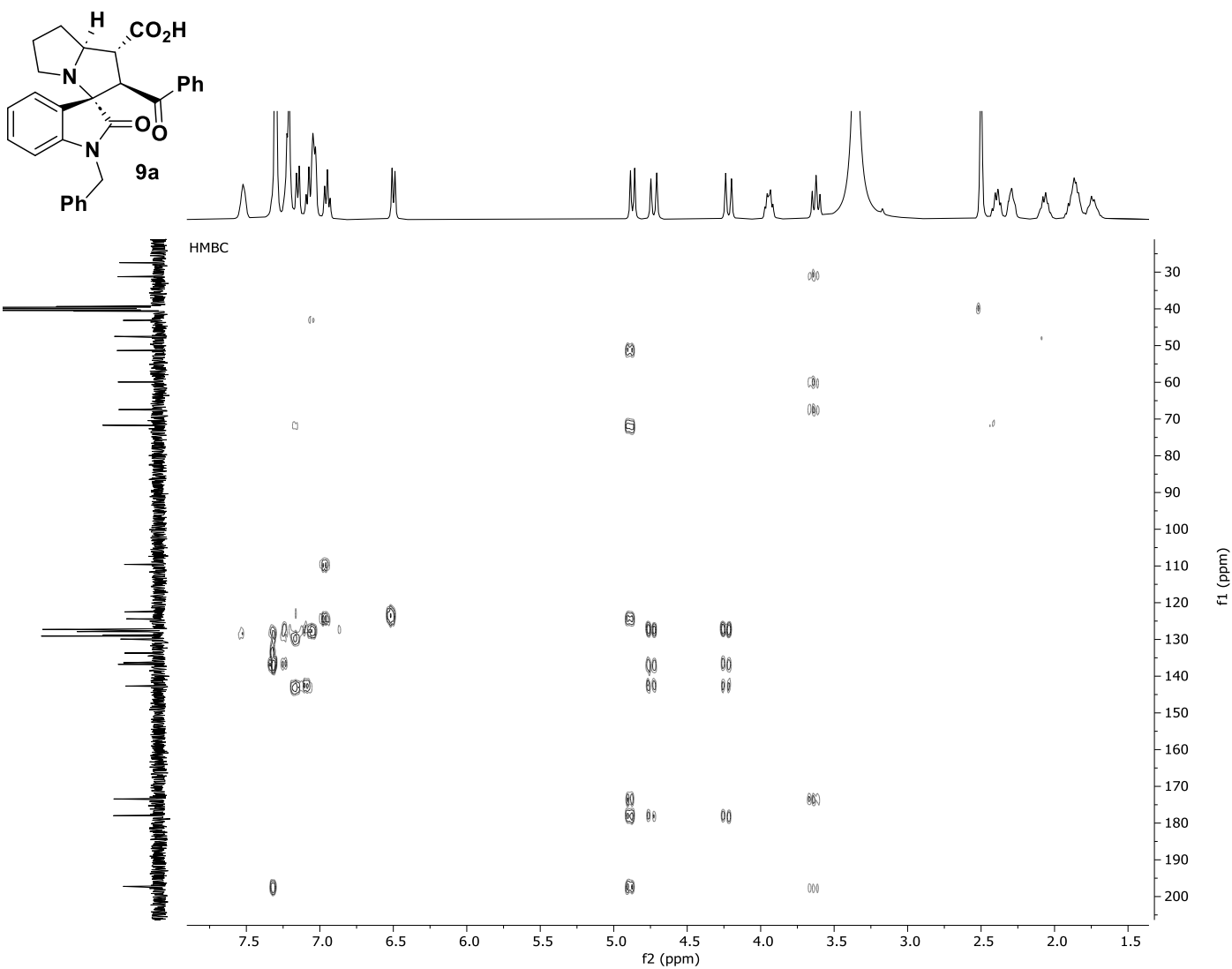


**Figure S3.** DEPT-135 experiment of compound **9a** in  $\text{DMSO}-d_6$

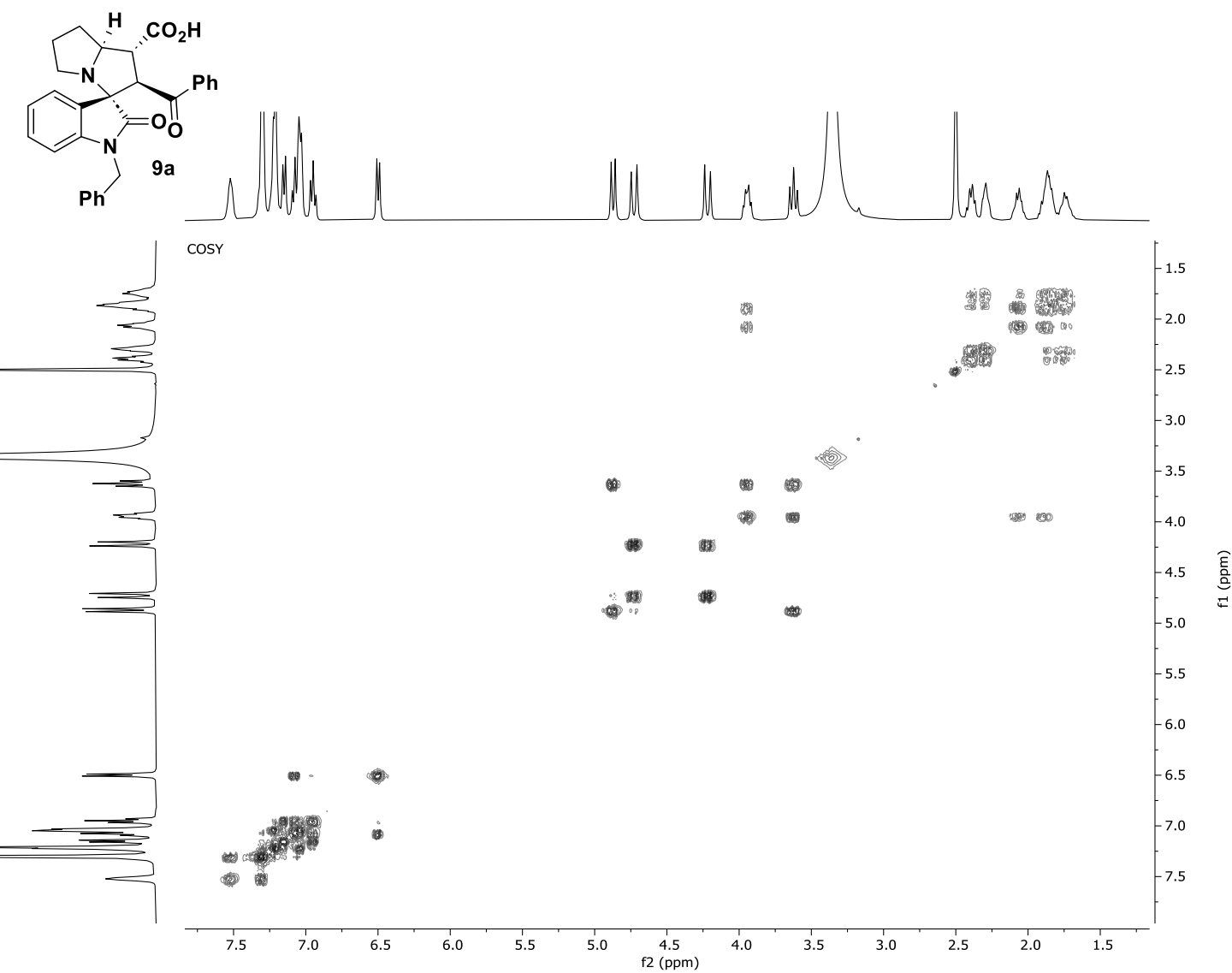




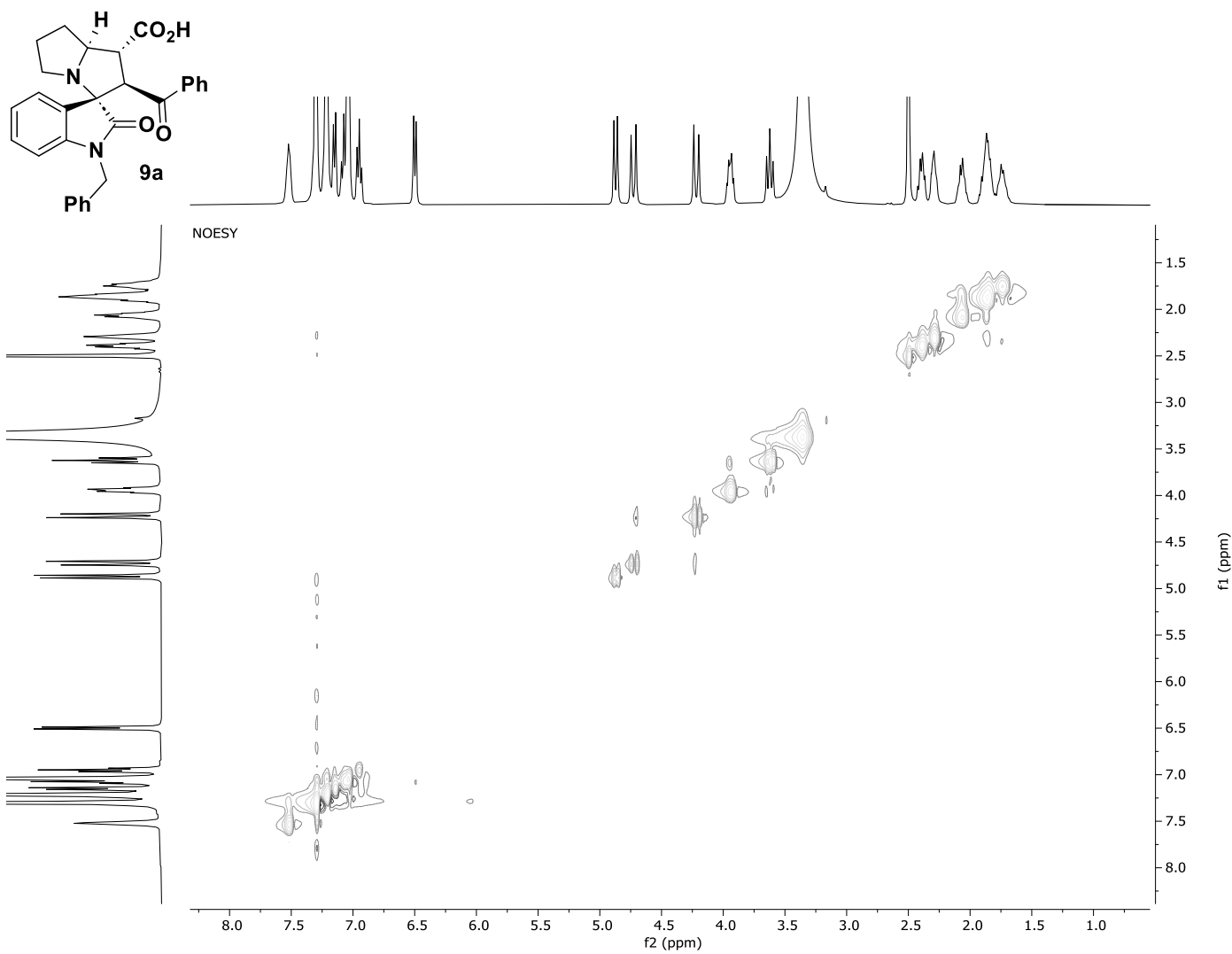
**Figure S4.** HSQC experiment of compound **9a** in DMSO- $d_6$



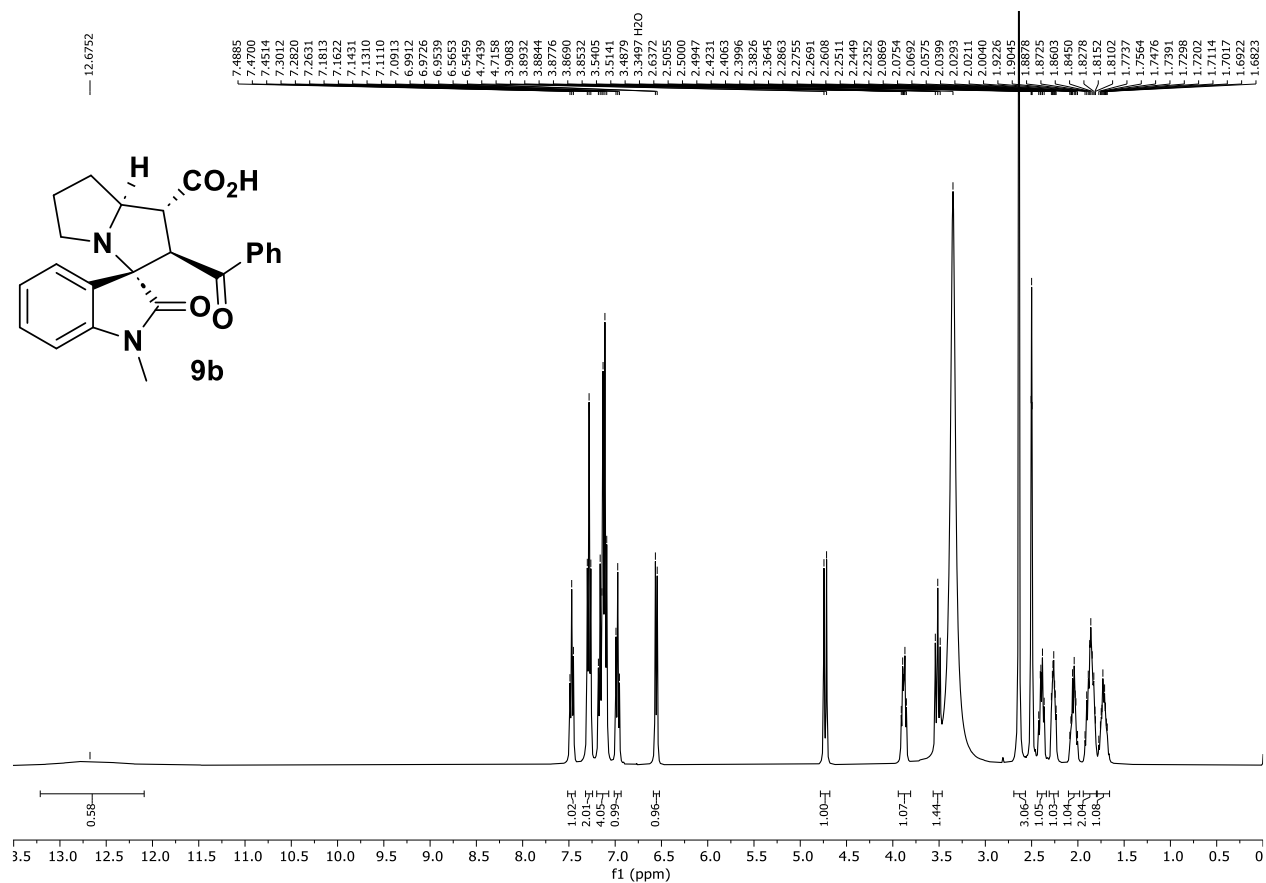
**Figure S5.** HMBC experiment of compound **9a** in  $\text{DMSO}-d_6$



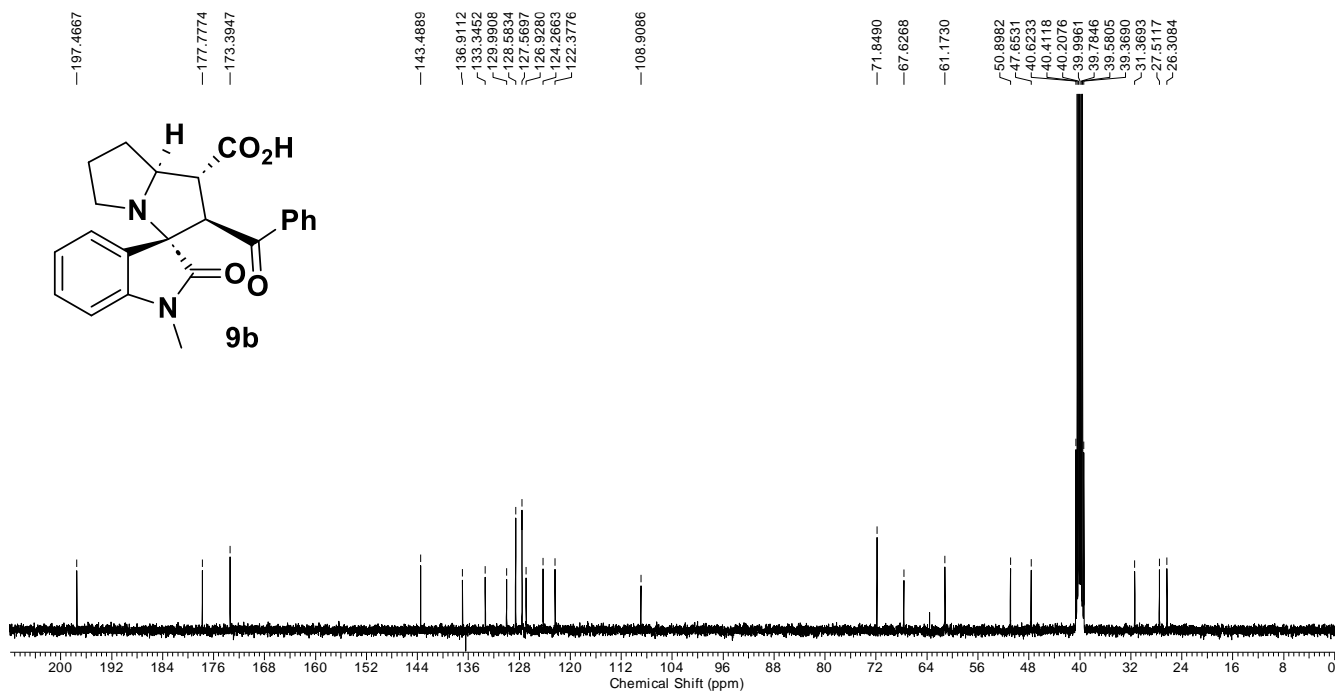
**Figure S6.** COSY experiment of compound **9a** in  $\text{DMSO}-d_6$



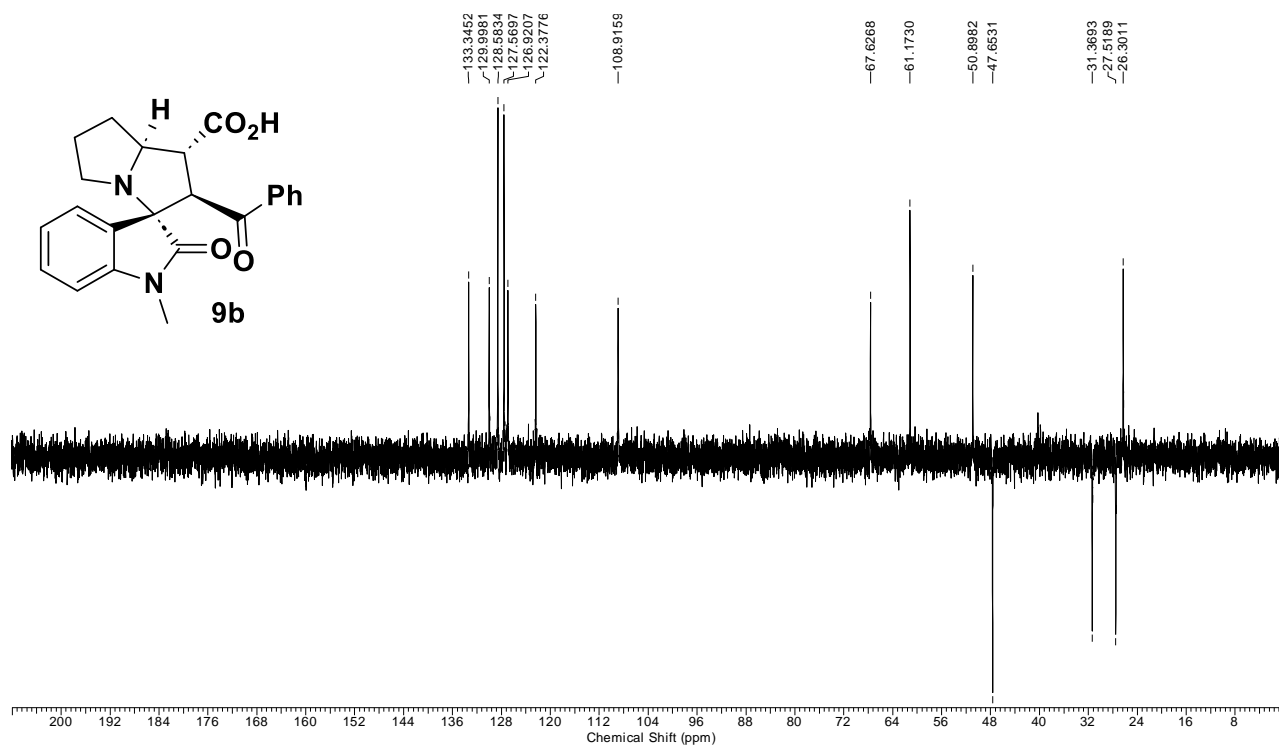
**Figure S7.** NOESY experiment of compound **9a** in DMSO-*d*<sub>6</sub>



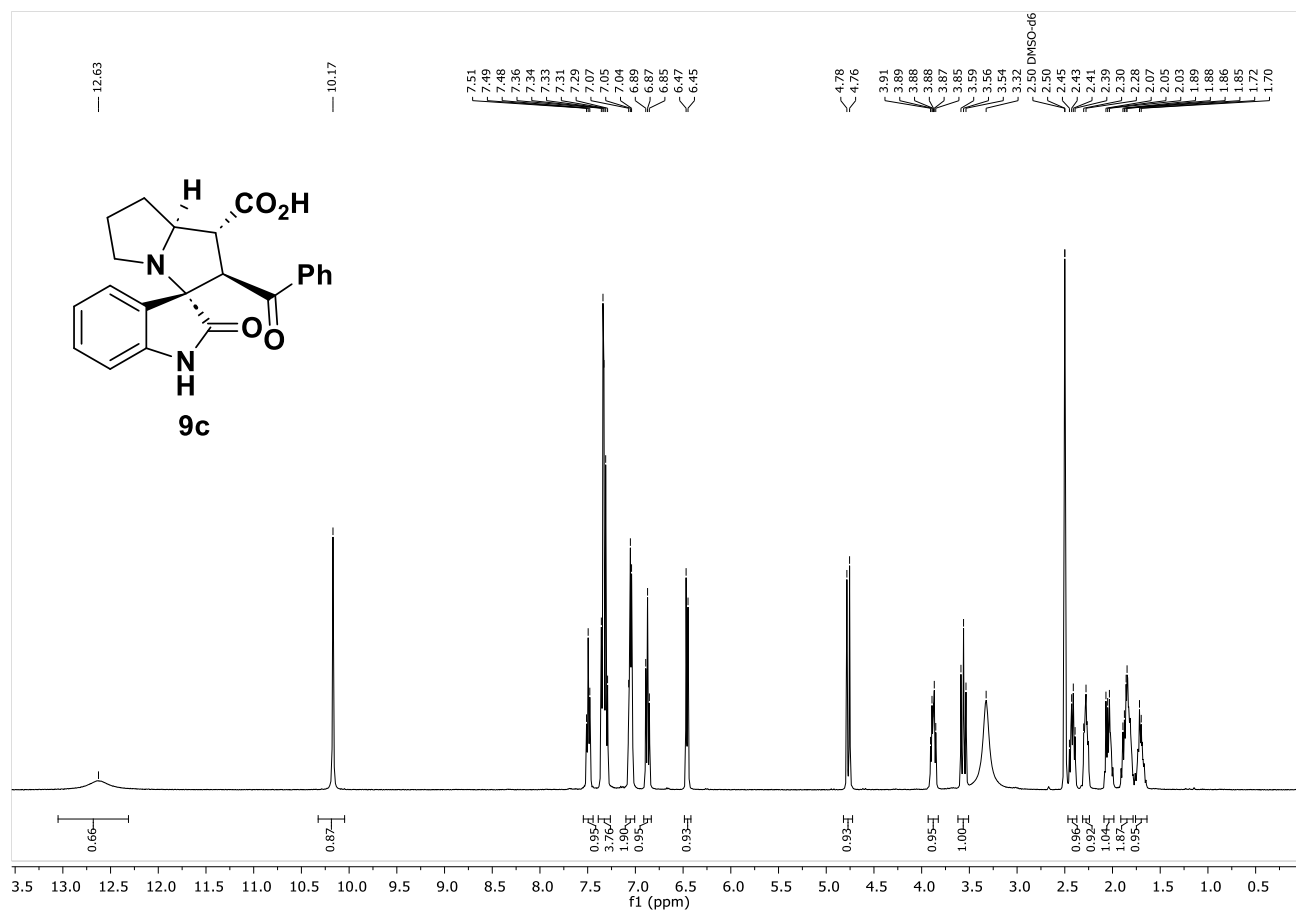
**Figure S8.**  $^1\text{H}$  NMR spectra of compound **9b** recorded at 400 MHz in  $\text{DMSO}-d_6$



**Figure S9.** <sup>13</sup>C NMR spectra of compound **9b** recorded at 100 MHz in DMSO-*d*<sub>6</sub>

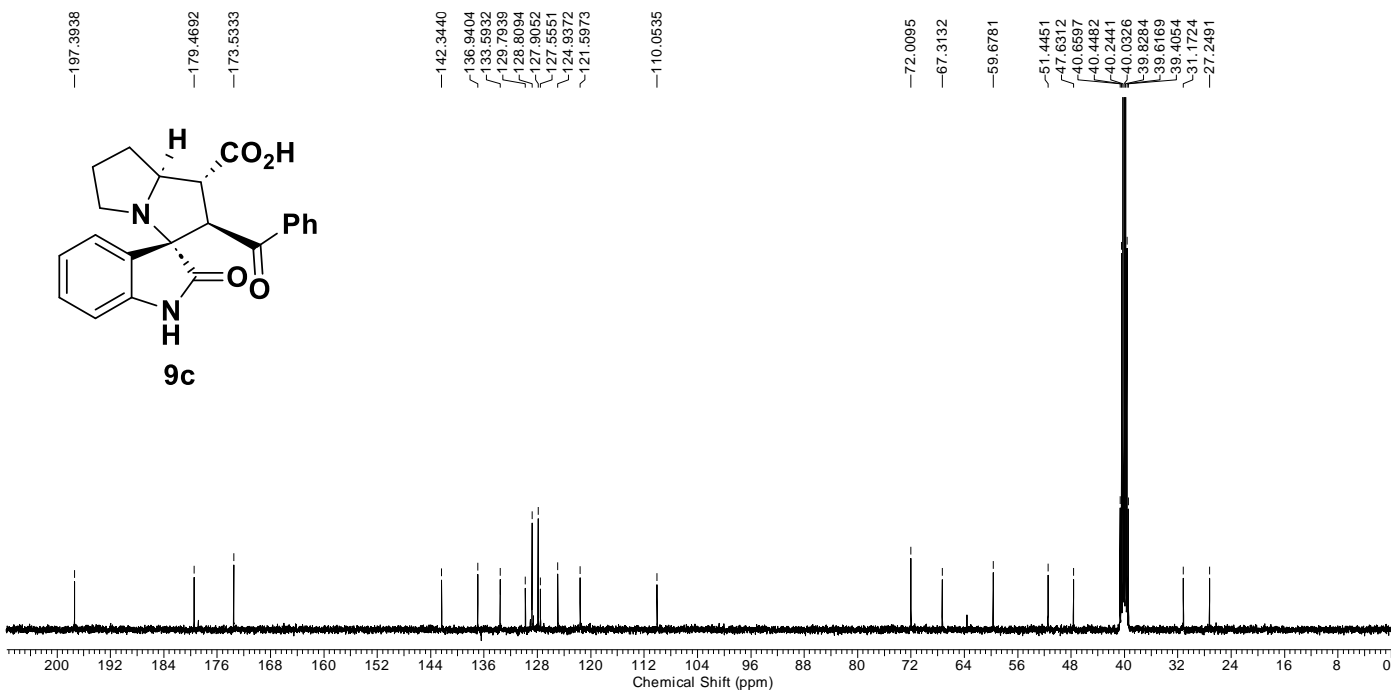


**Figure S10.** DEPT-135 experiment of compound **9b** in  $\text{DMSO}-d_6$

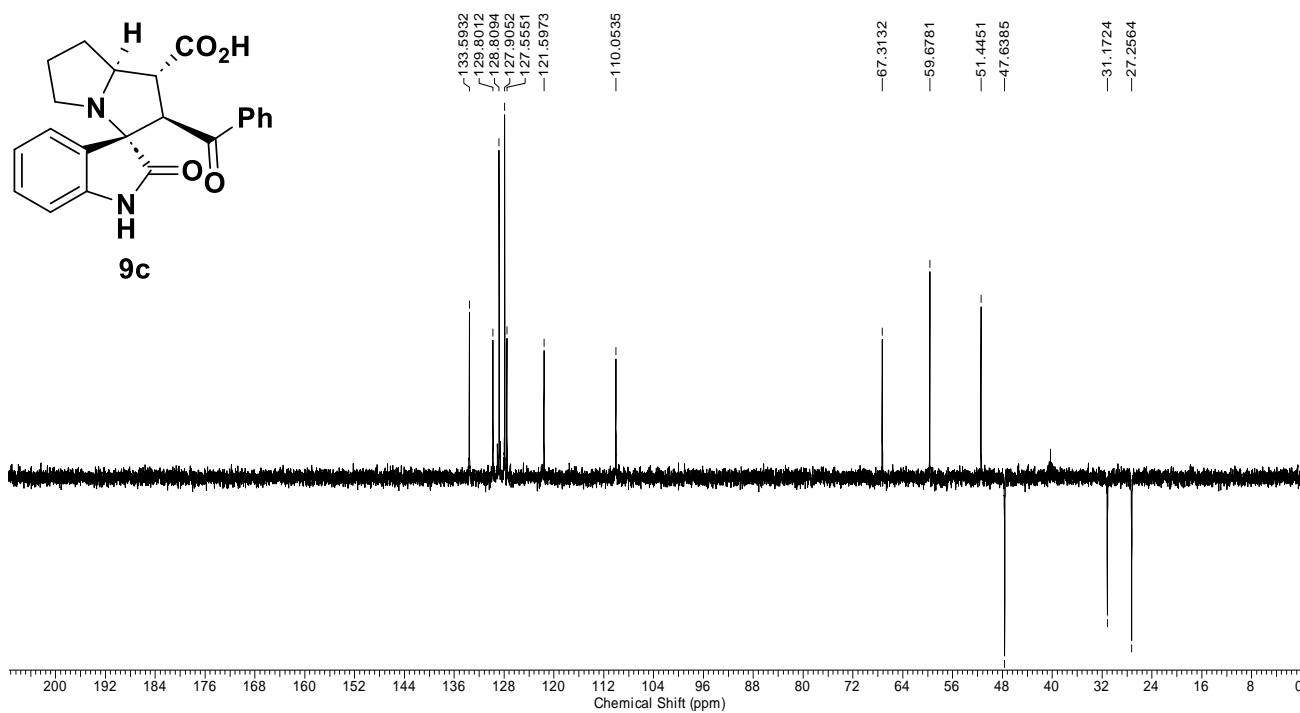


**Figure S11.**  $^1\text{H}$  NMR spectra of compound **9c** recorded at 400 MHz in  $\text{DMSO}-d_6$

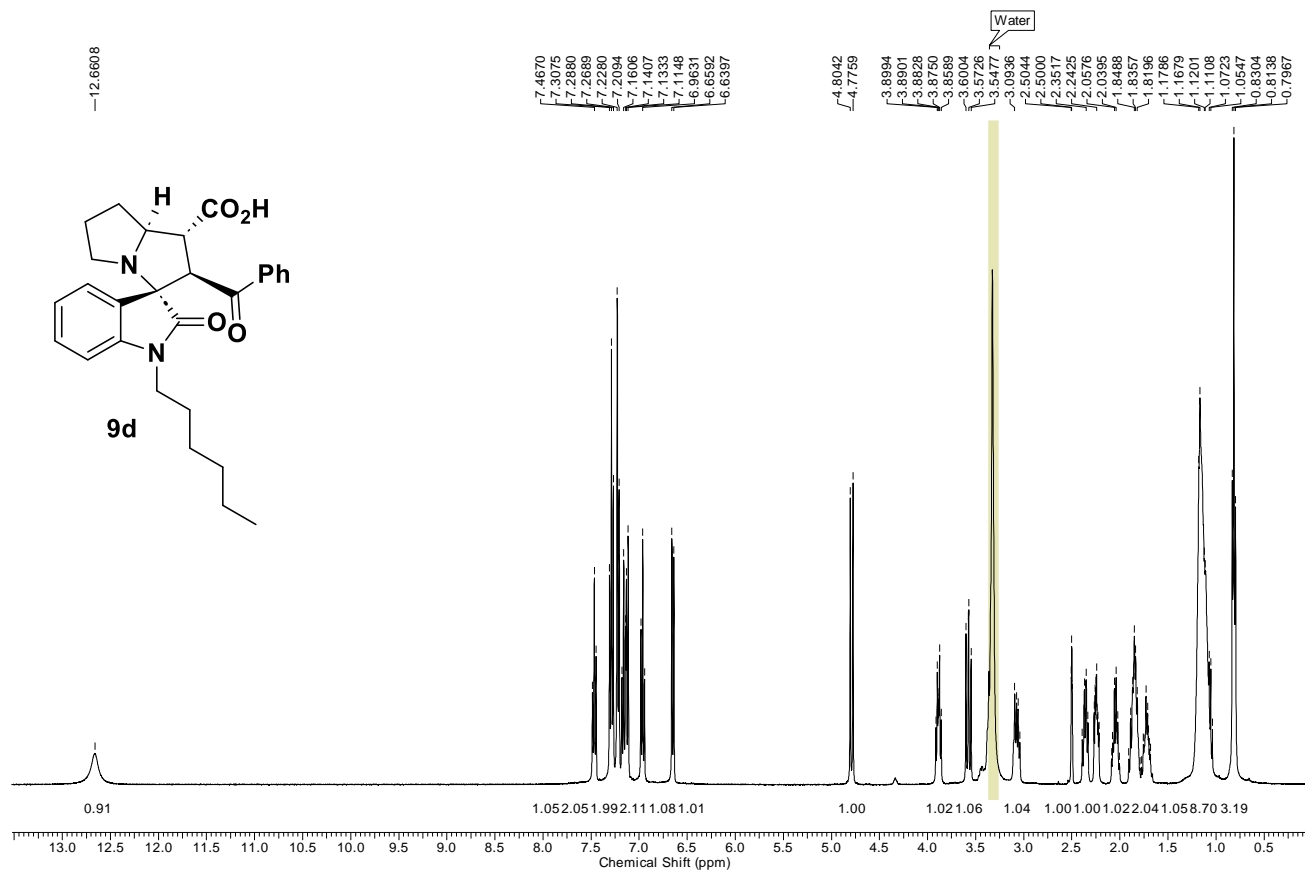




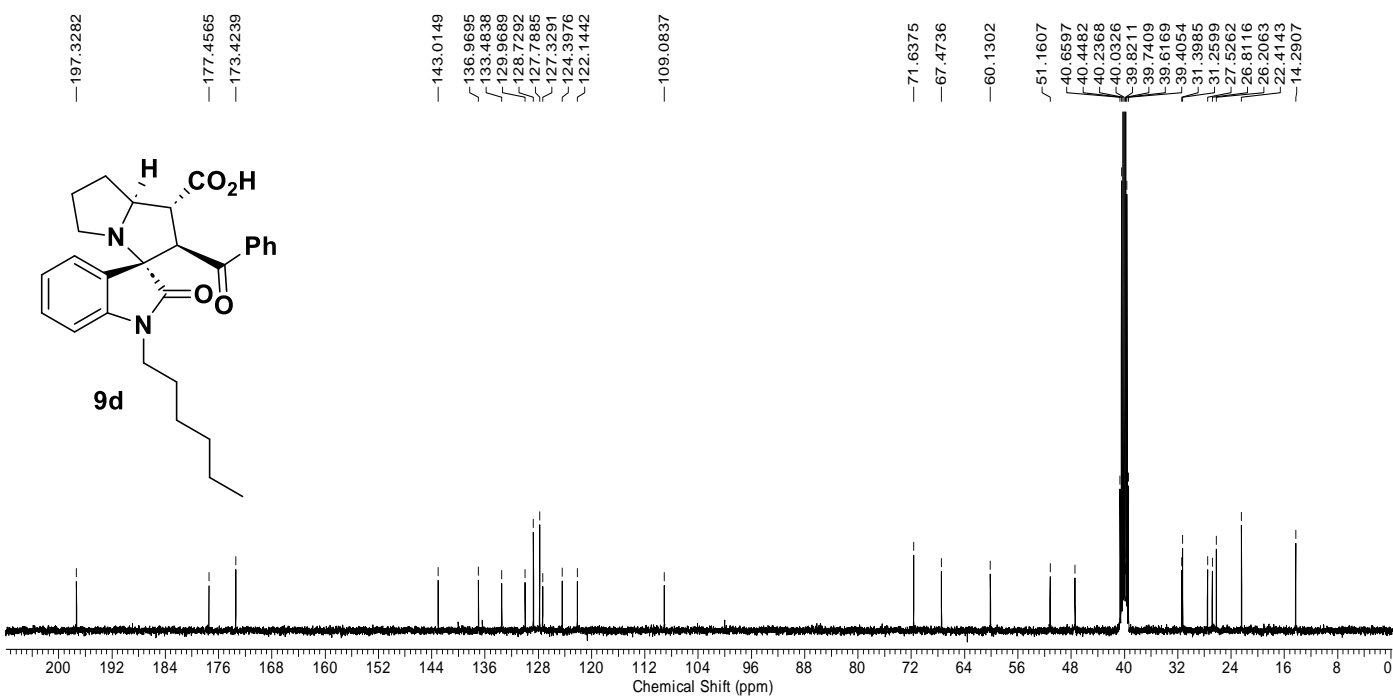
**Figure S12.** <sup>13</sup>C NMR spectra of compound **9c** recorded at 100 MHz in DMSO-*d*<sub>6</sub>



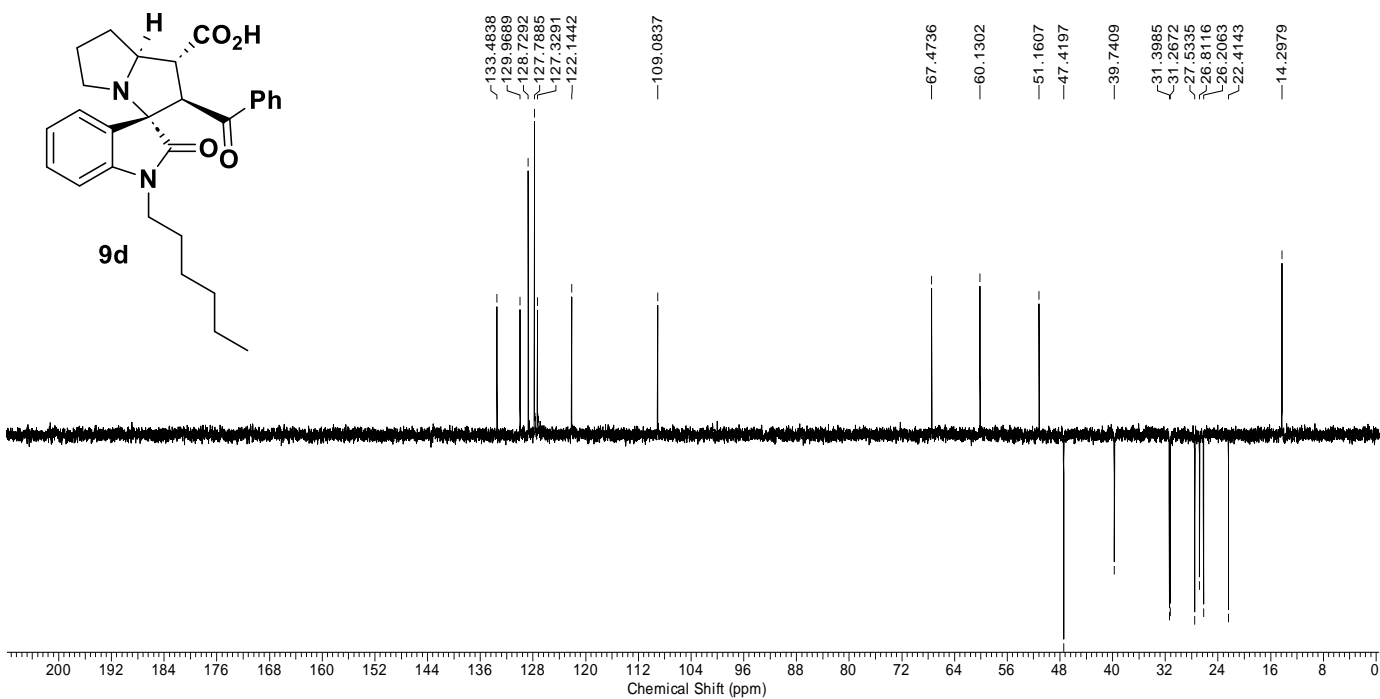
**Figure S13.** DEPT-135 experiment of compound **9c** in DMSO- $d_6$



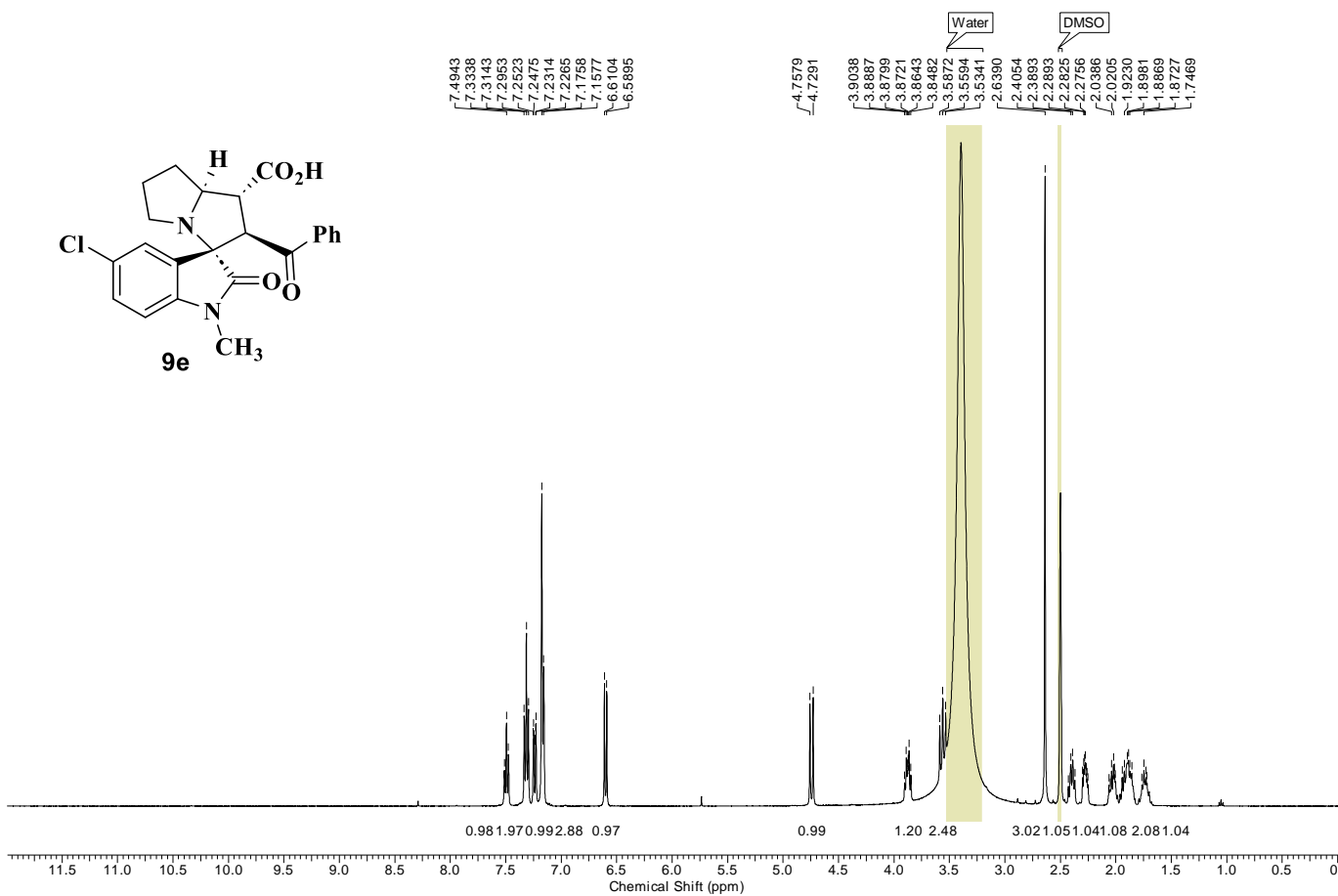
**Figure S14.**  $^1\text{H}$  NMR spectra of compound **9d** recorded at 400 MHz in  $\text{DMSO}-d_6$



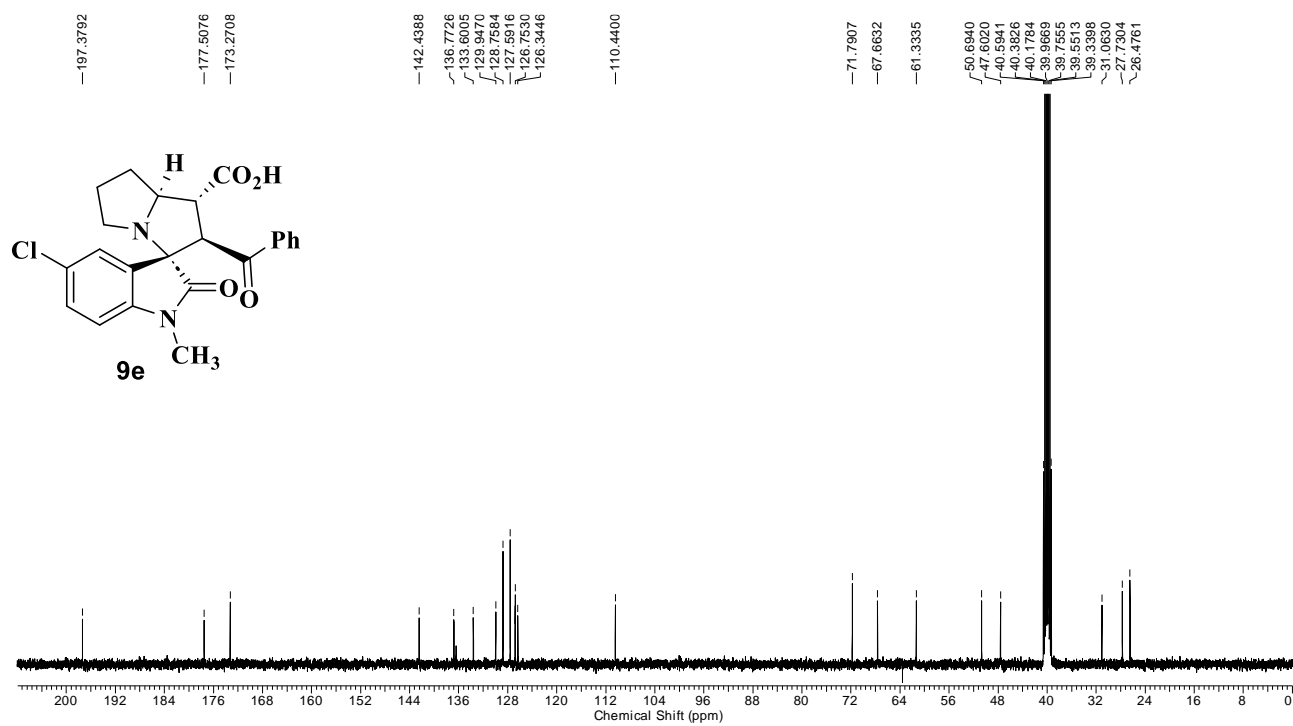
**Figure S15.**  $^{13}\text{C}$  NMR spectra of compound **9d** recorded at 100 MHz in  $\text{DMSO}-d_6$



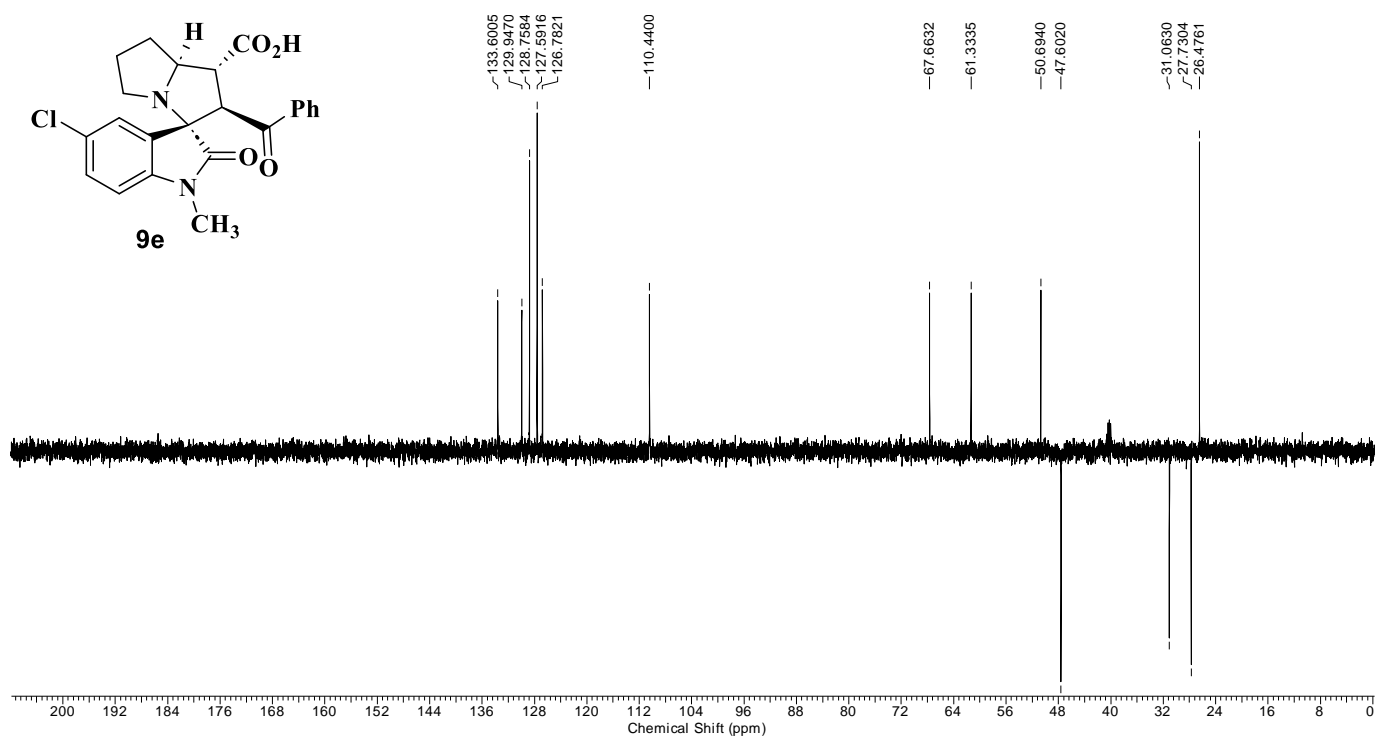
**Figure S16.** DEPT-135 experiment of compound **9d** in DMSO-*d*<sub>6</sub>



**Figure S17.** <sup>1</sup>H NMR spectra of compound **9e** recorded at 400 MHz in DMSO-*d*<sub>6</sub>

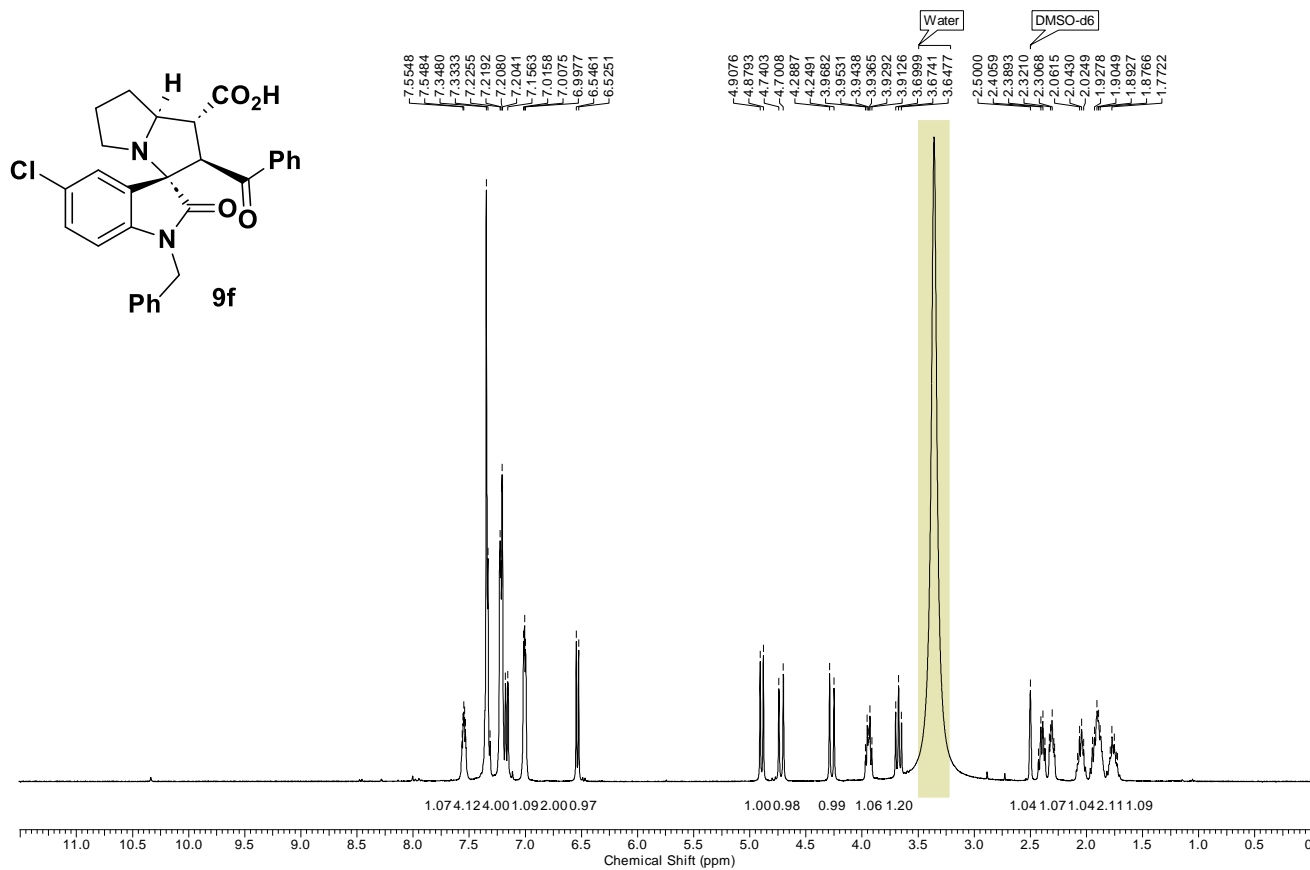


**Figure S18.**  $^{13}\text{C}$  NMR spectra of compound **9e** recorded at 100 MHz in  $\text{DMSO}-d_6$

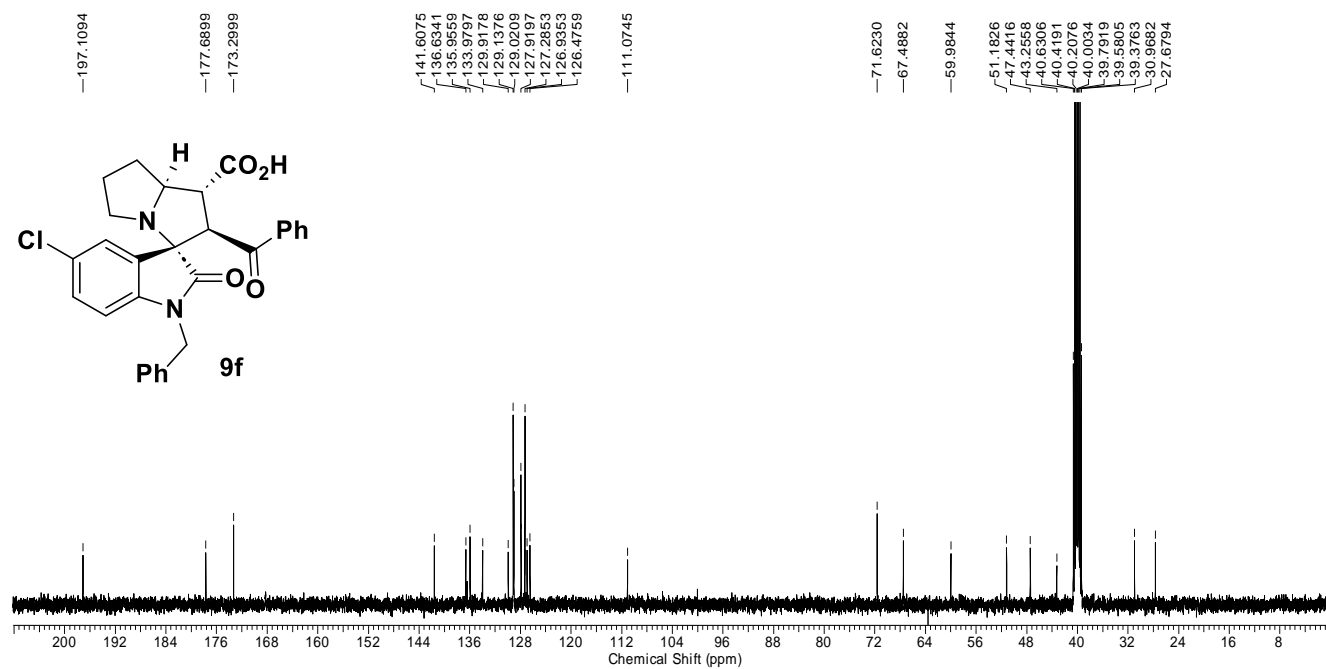


**Figure S19.** DEPT-135 experiment of compound **9e** in DMSO-*d*<sub>6</sub>

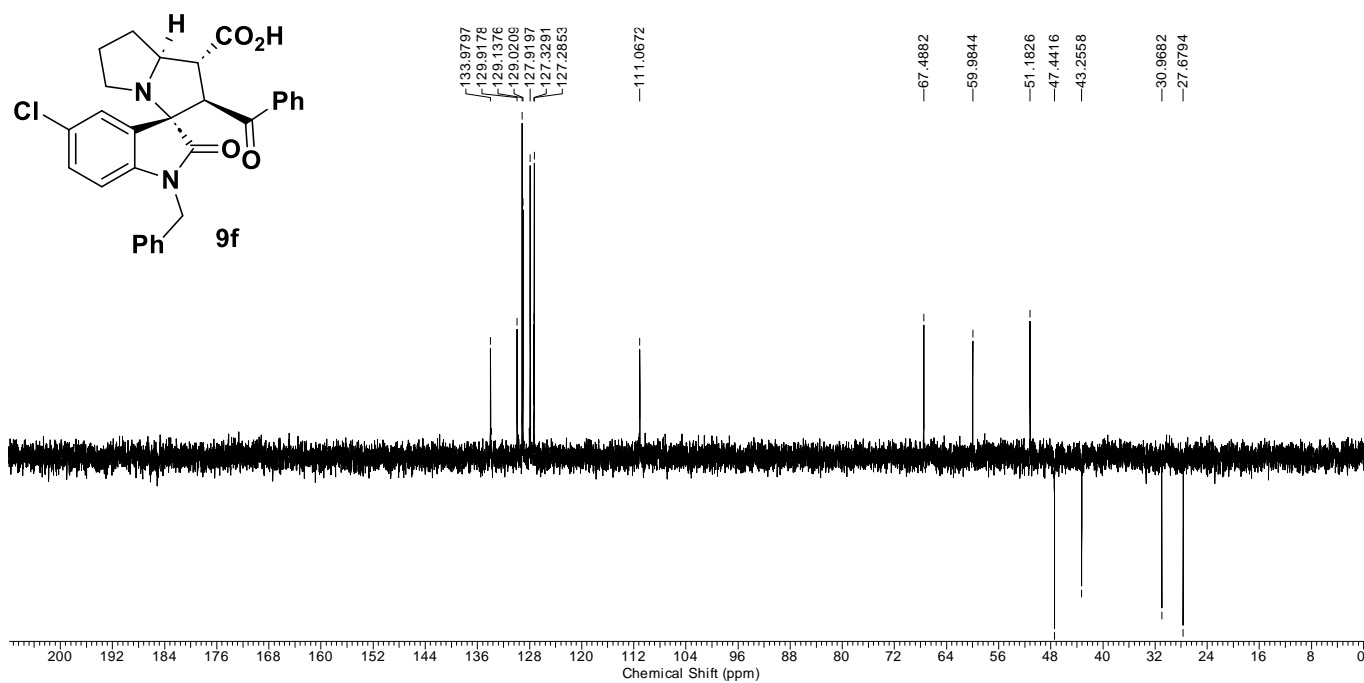




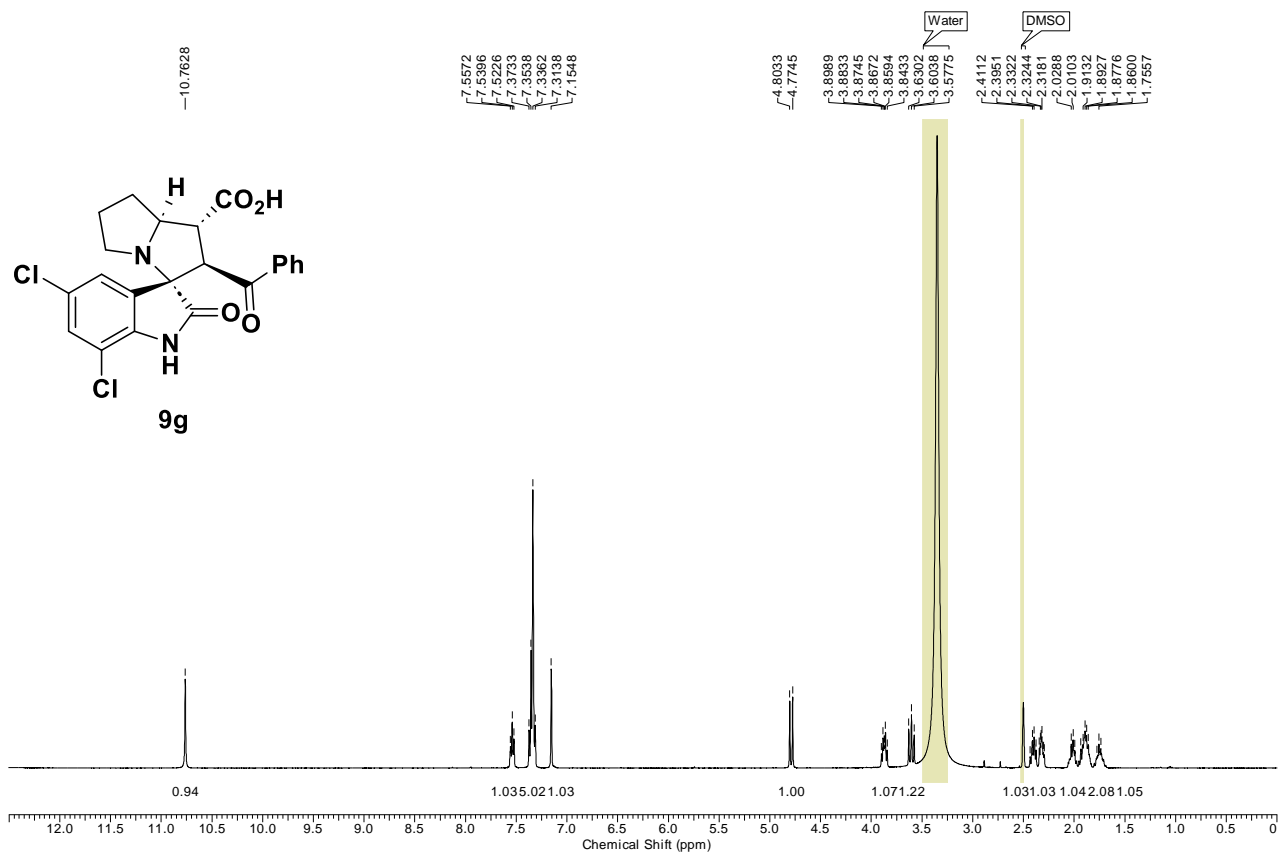
**Figure S20.**  $^1\text{H}$  NMR spectra of compound **9f** recorded at 400 MHz in  $\text{DMSO}-d_6$



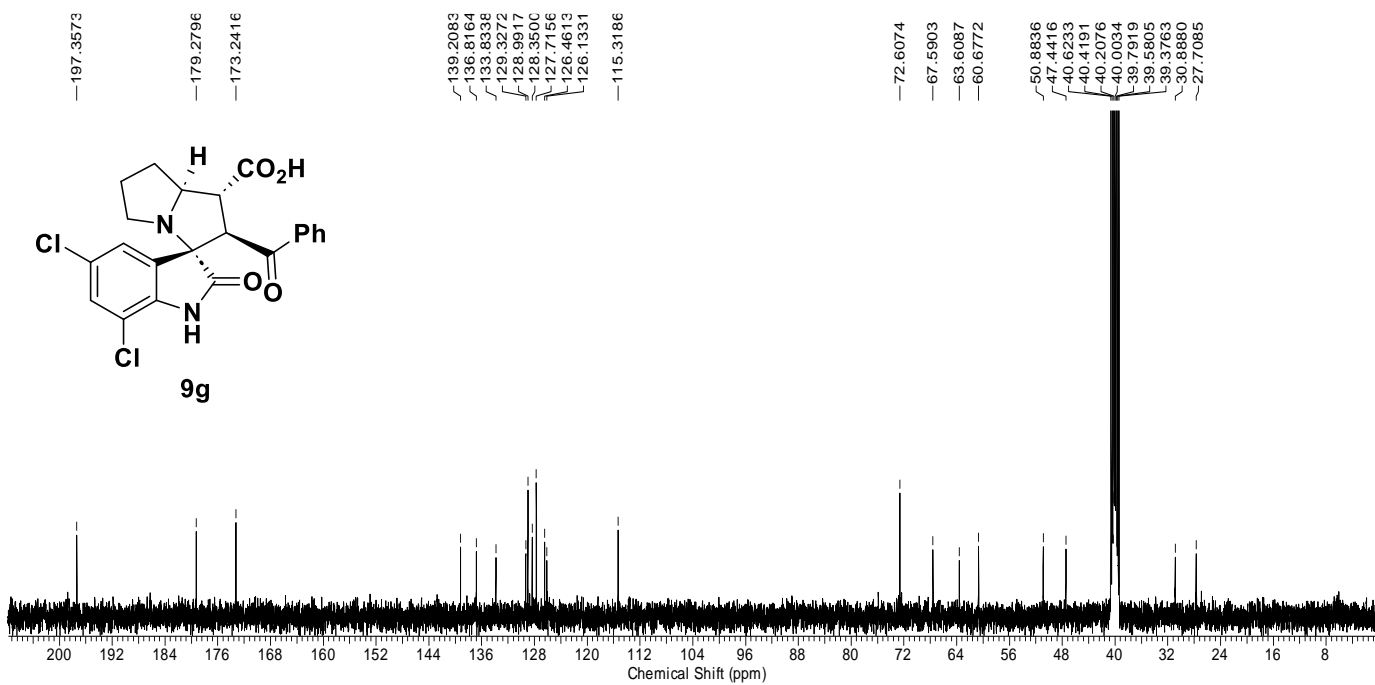
**Figure S21.**  $^{13}\text{C}$  NMR spectra of compound **9f** recorded at 100 MHz in  $\text{DMSO}-d_6$



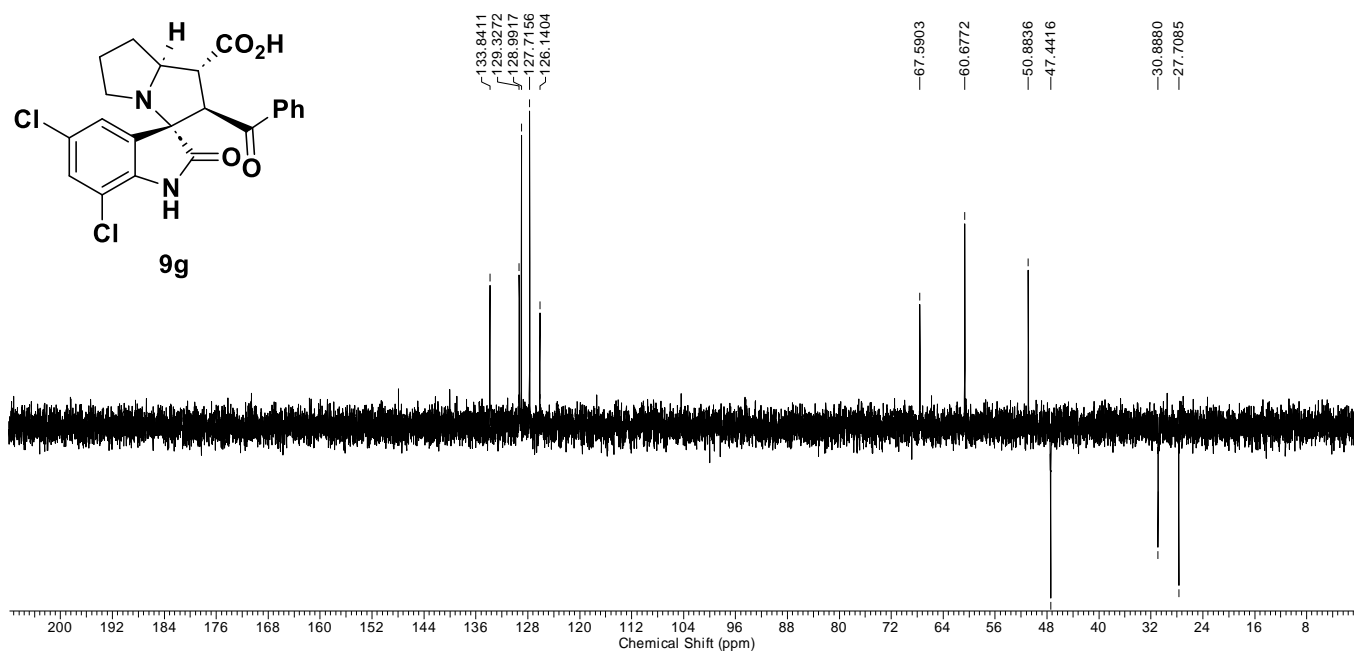
**Figure S22.** DEPT-135 experiment of compound **9f** in DMSO- $d_6$



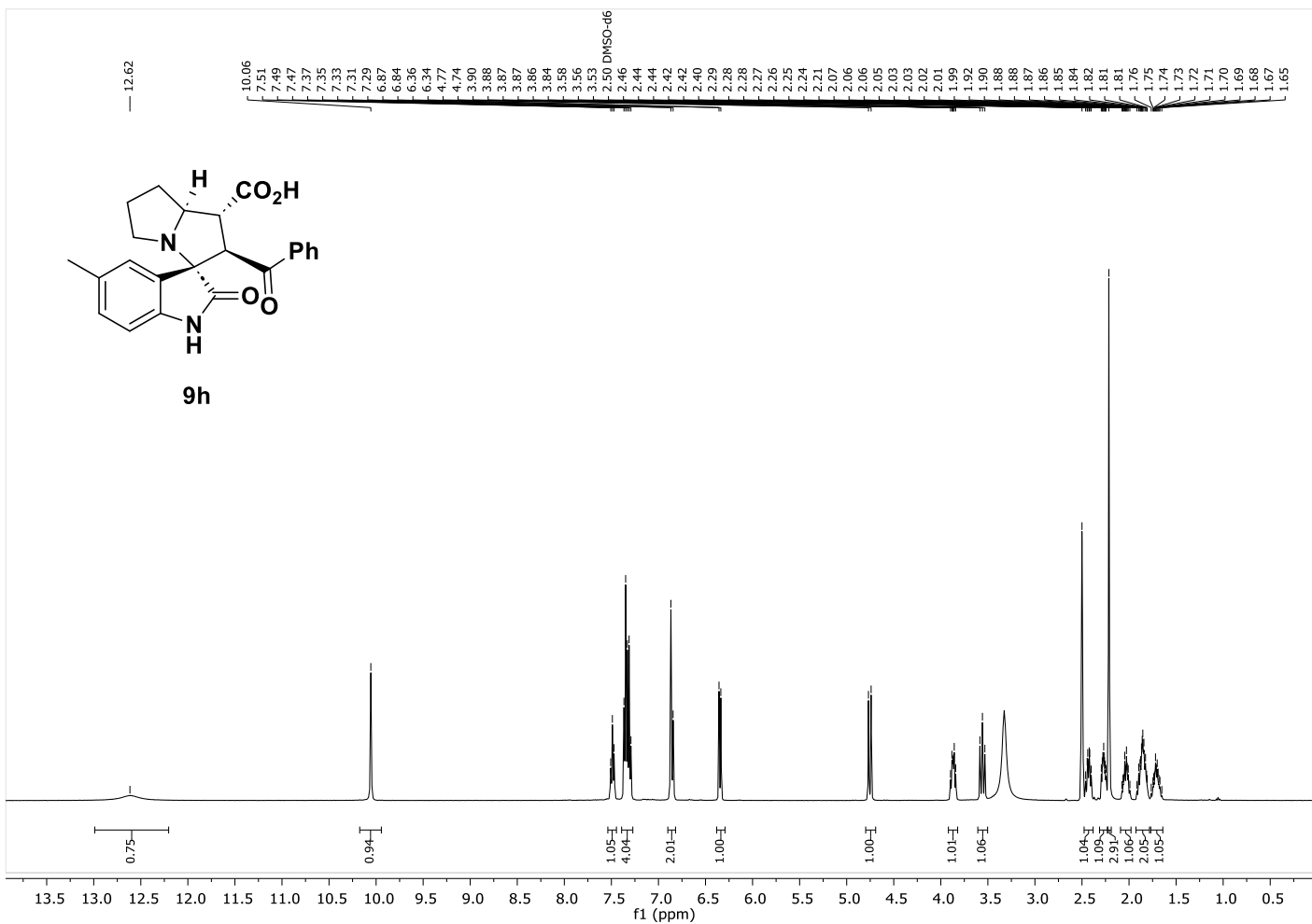
**Figure S23.**  $^1\text{H}$  NMR spectra of compound **9g** recorded at 400 MHz in  $\text{DMSO}-d_6$



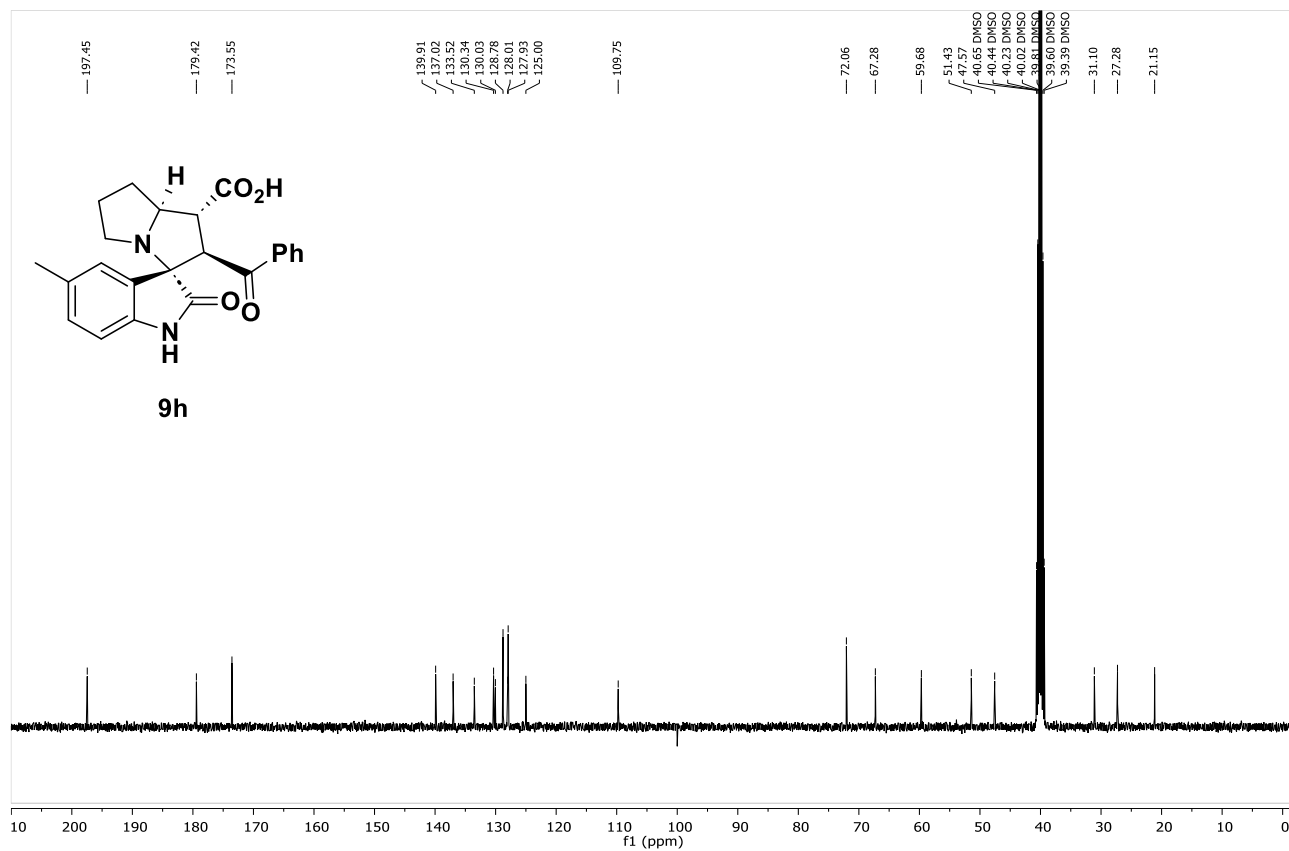
**Figure S24.** <sup>13</sup>C NMR spectra of compound **9g** recorded at 100 MHz in DMSO-*d*<sub>6</sub>



**Figure S25.** DEPT-135 experiment of compound **9g** in  $\text{DMSO-}d_6$

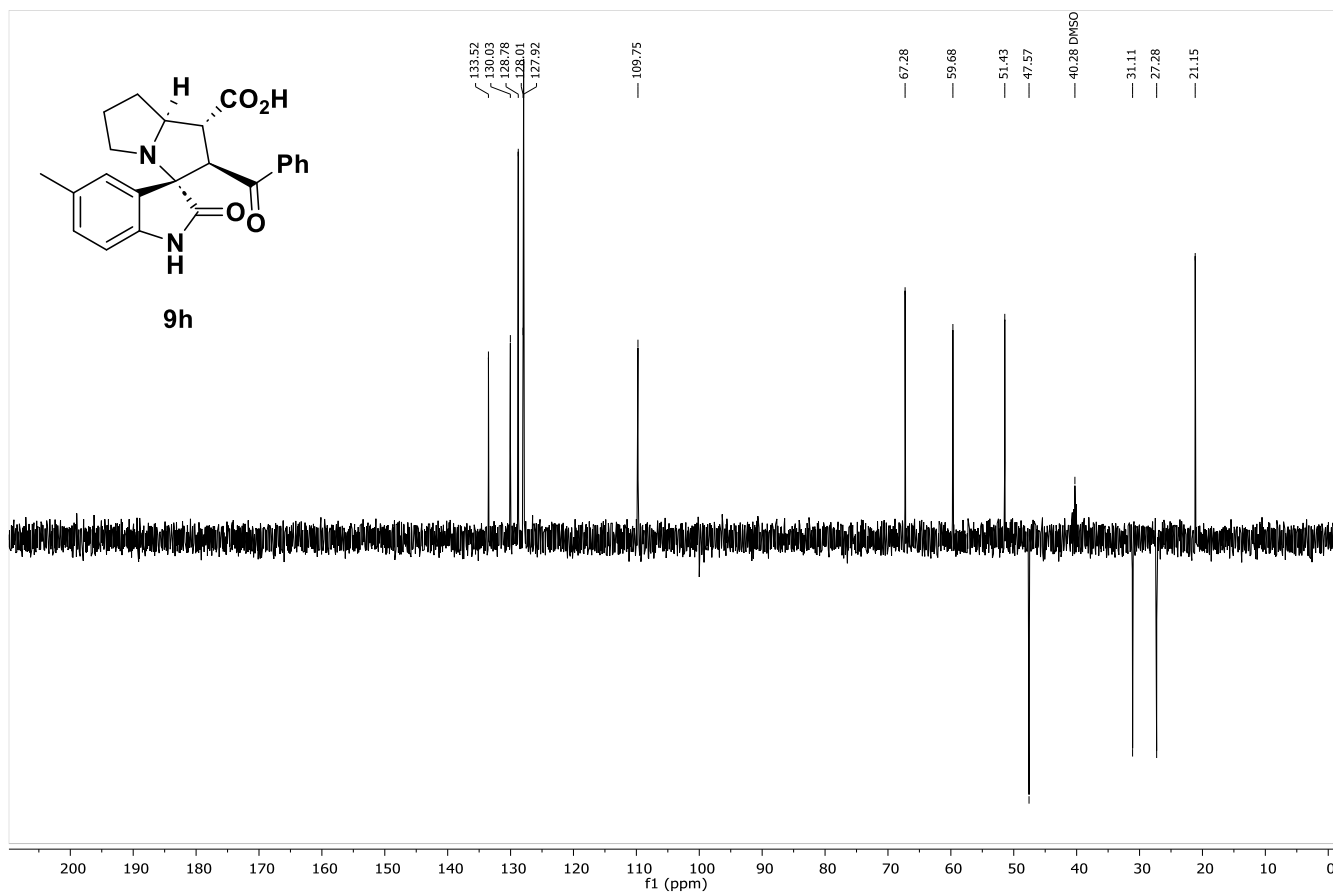


**Figure S26.**  $^1\text{H}$  NMR spectra of compound **9h** recorded at 400 MHz in  $\text{DMSO}-d_6$

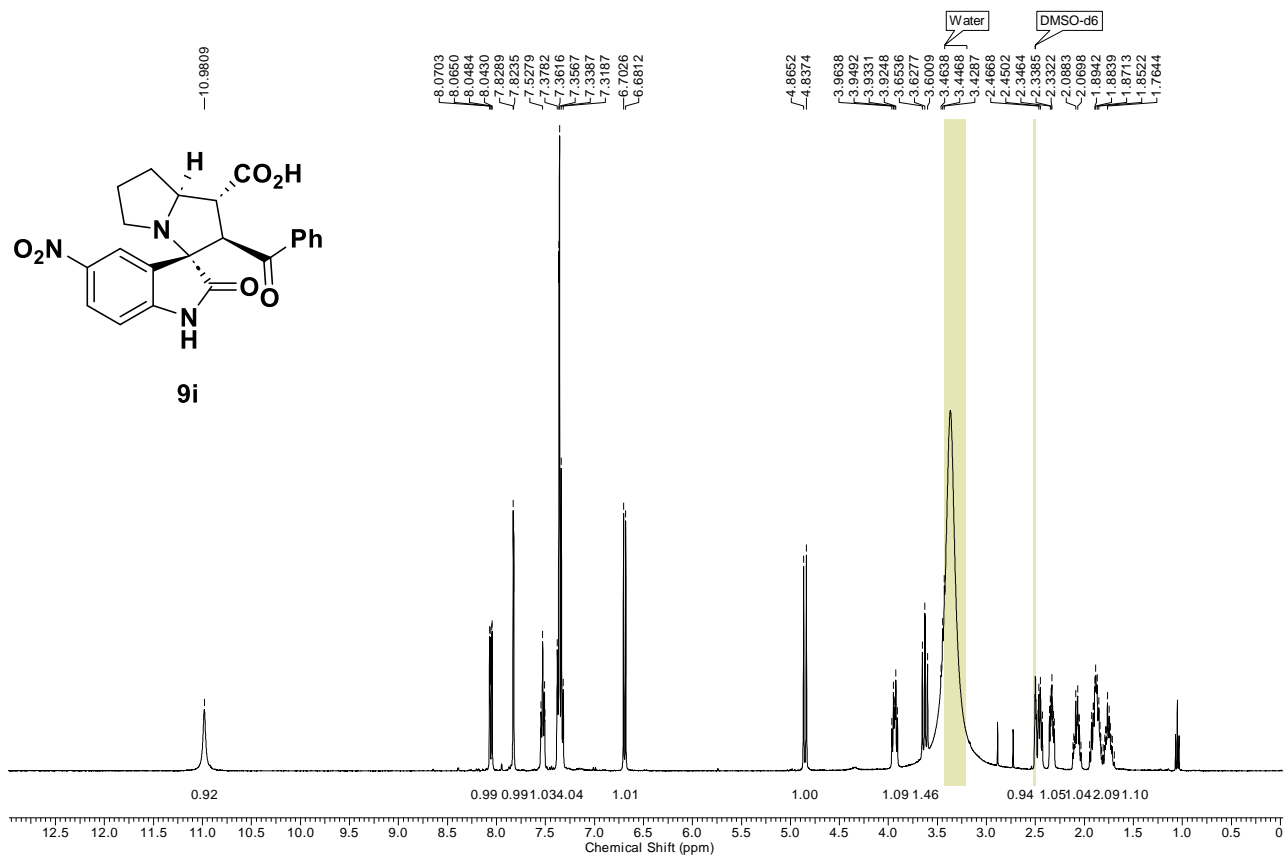


**Figure S27.**  $^{13}\text{C}$  NMR spectra of compound **9h** recorded at 100 MHz in  $\text{DMSO}-d_6$

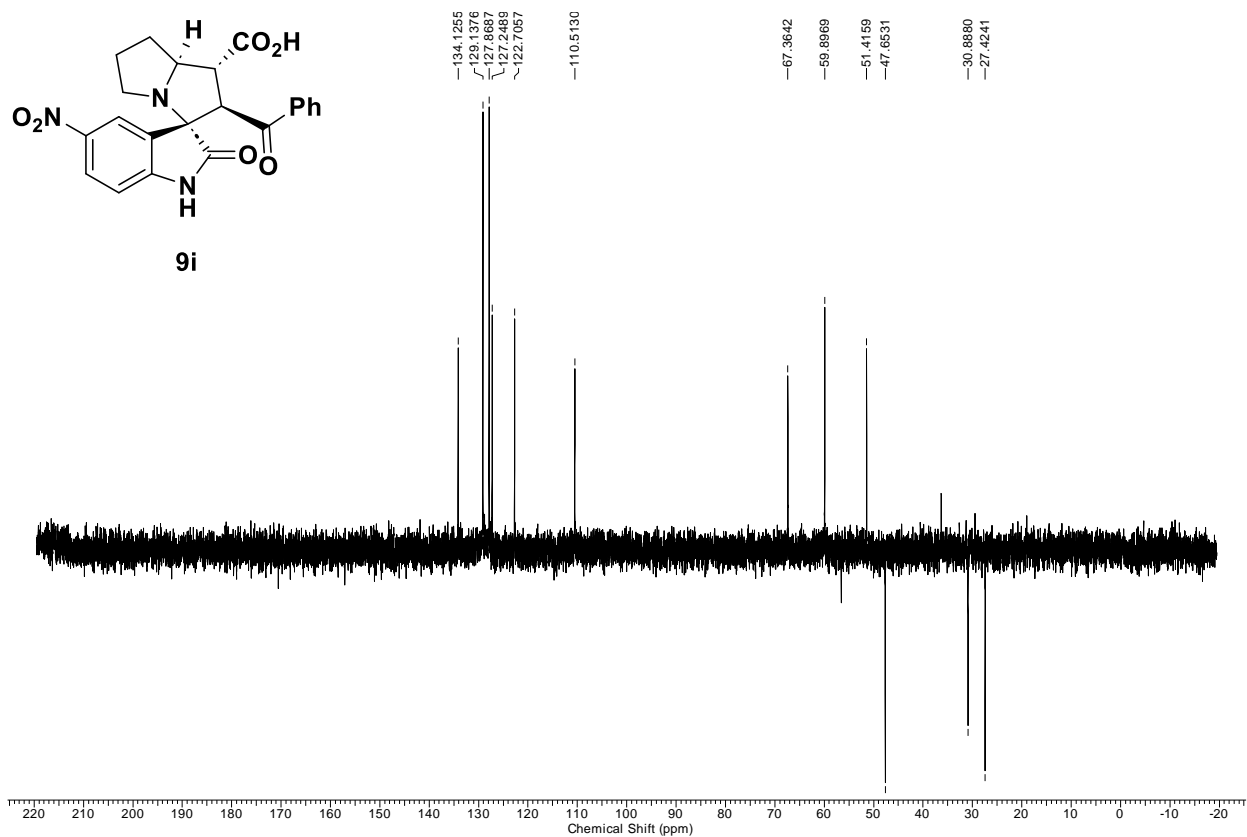




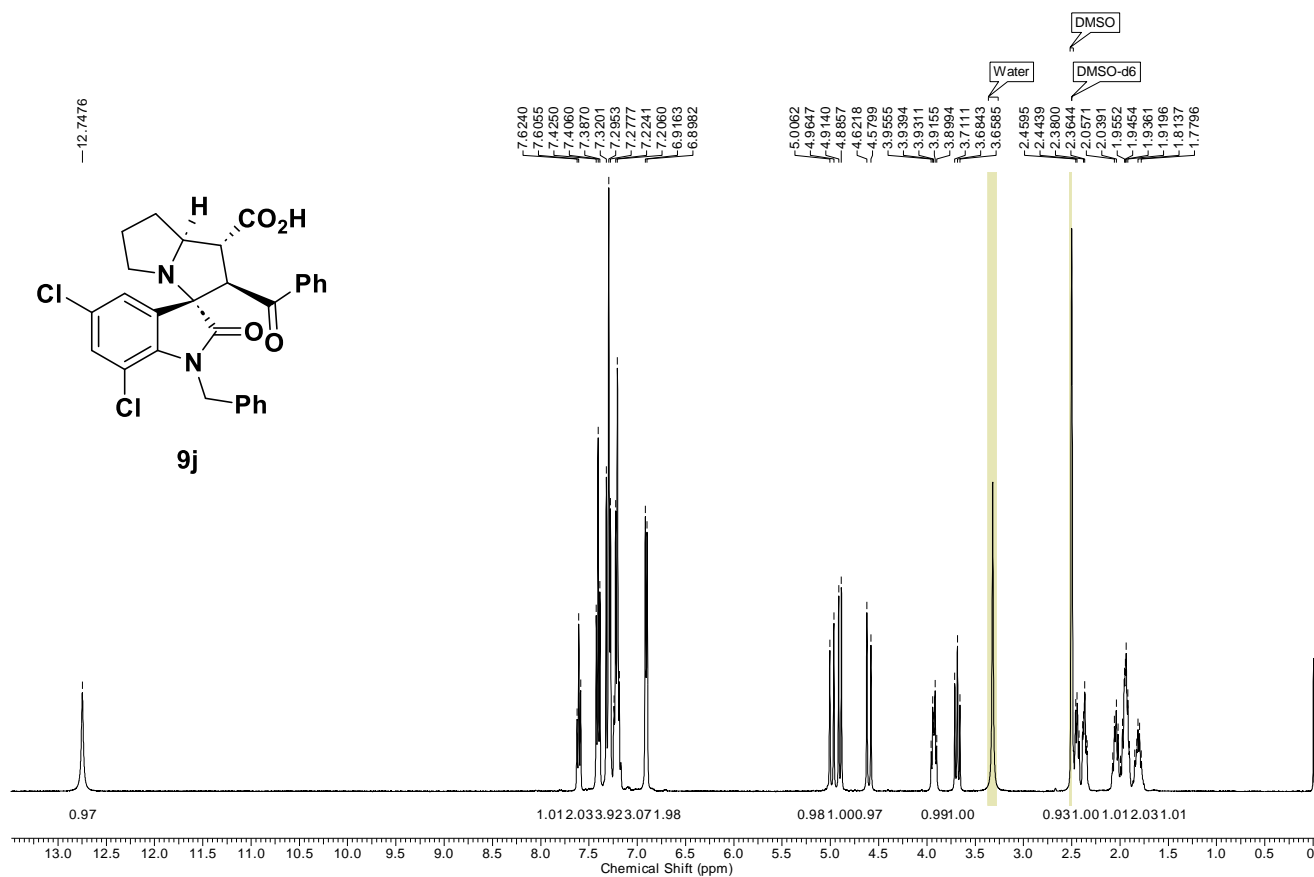
**Figure S28.** DEPT-135 experiment of compound **9h** in  $\text{DMSO-}d_6$



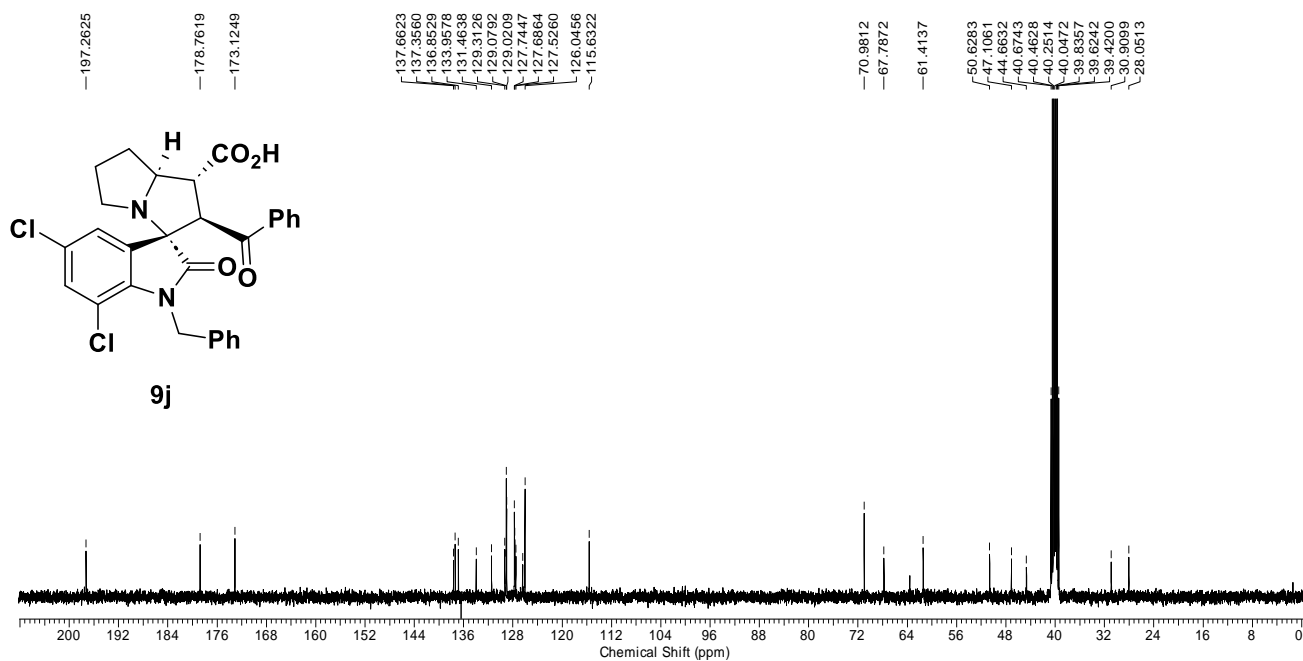
**Figure S29.** <sup>1</sup>H NMR spectra of compound **9i** recorded at 400 MHz in DMSO-*d*<sub>6</sub>



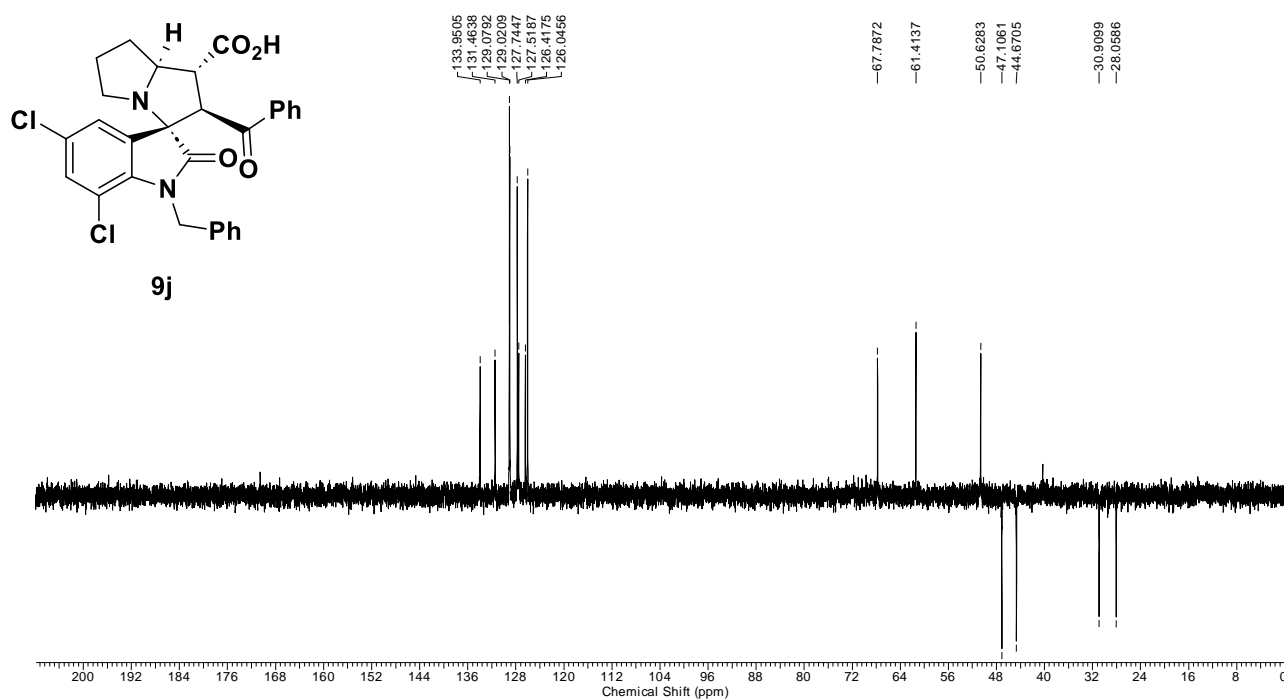
**Figure S30.** DEPT-135 experiment of compound **9i** in  $\text{DMSO}-d_6$



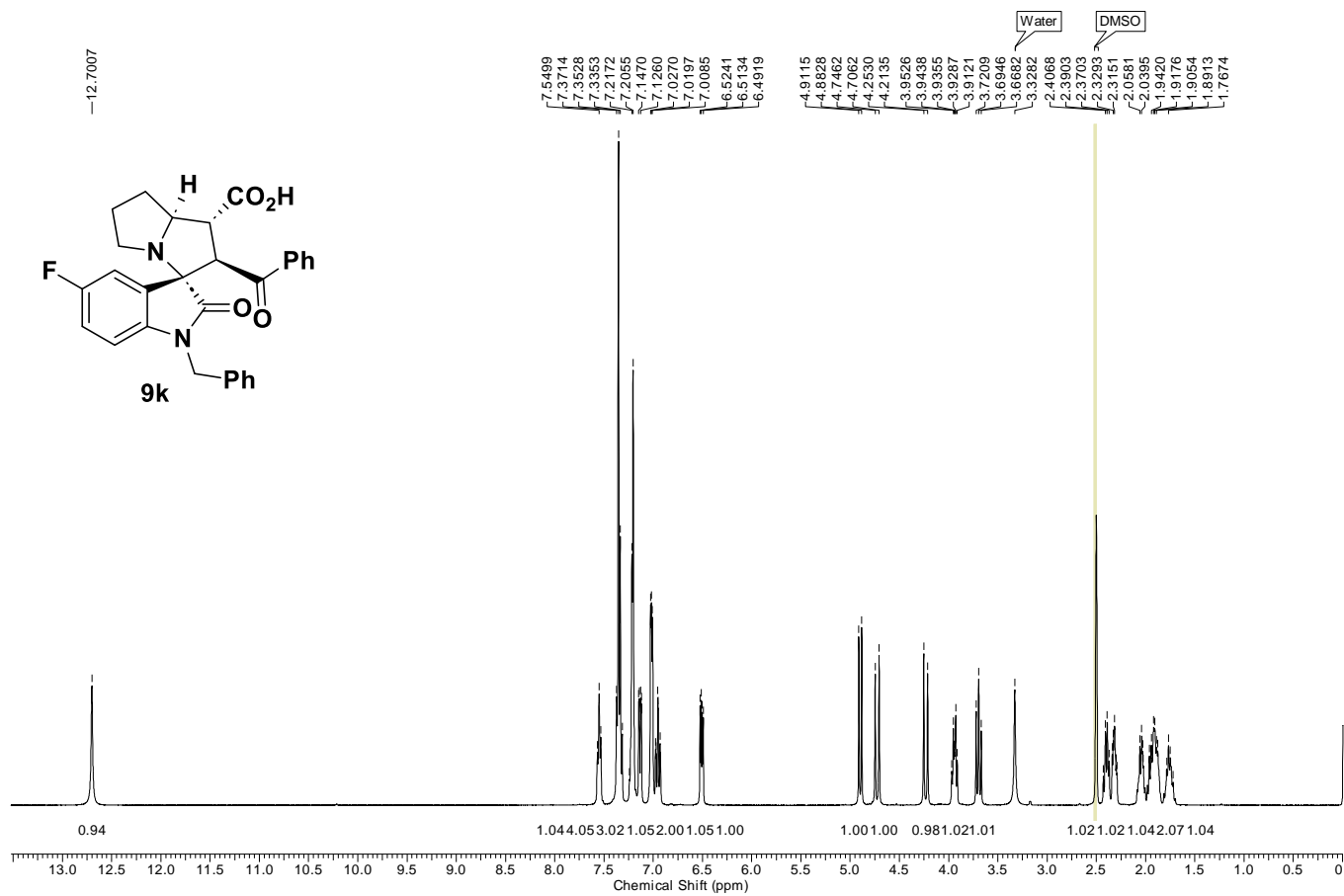
**Figure S31.**  $^1\text{H}$  NMR spectra of compound **9j** recorded at 400 MHz in  $\text{DMSO-d}_6$



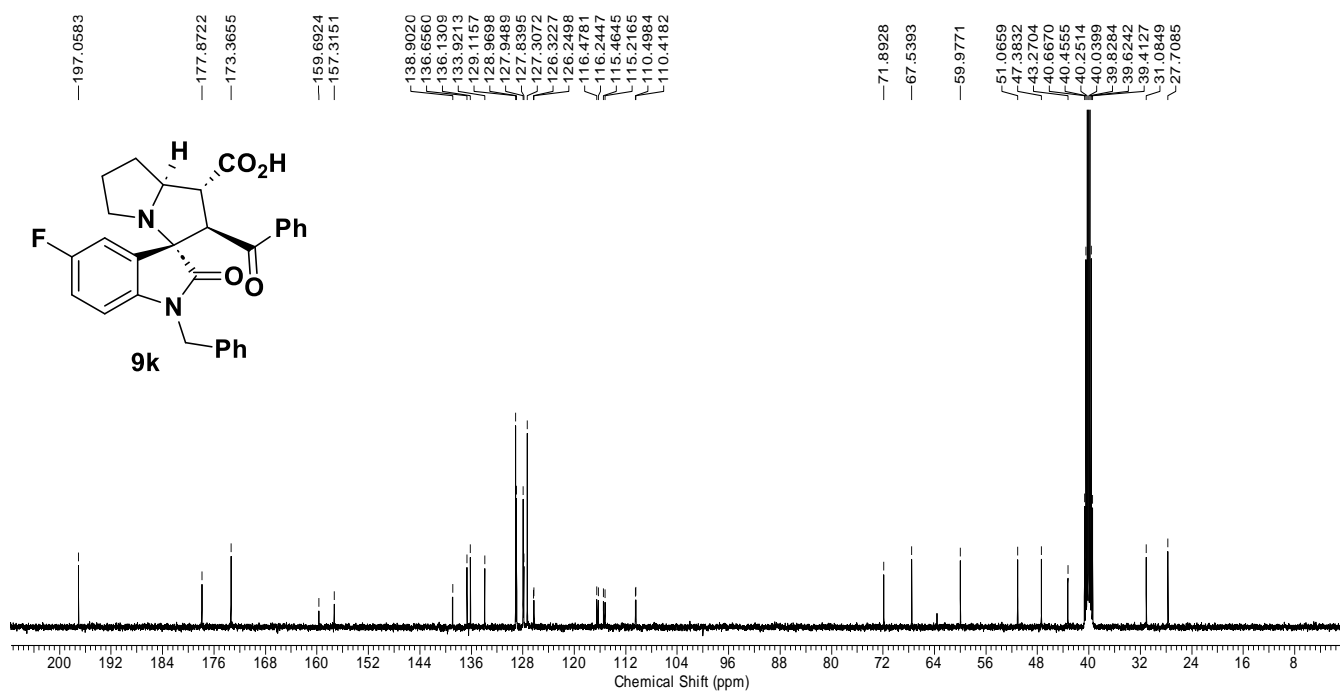
**Figure S32.**  $^{13}\text{C}$  NMR spectra of compound **9j** recorded at 100 MHz in  $\text{DMSO}-d_6$



**Figure S33.** DEPT-135 experiment of compound **9j** in DMSO- $d_6$

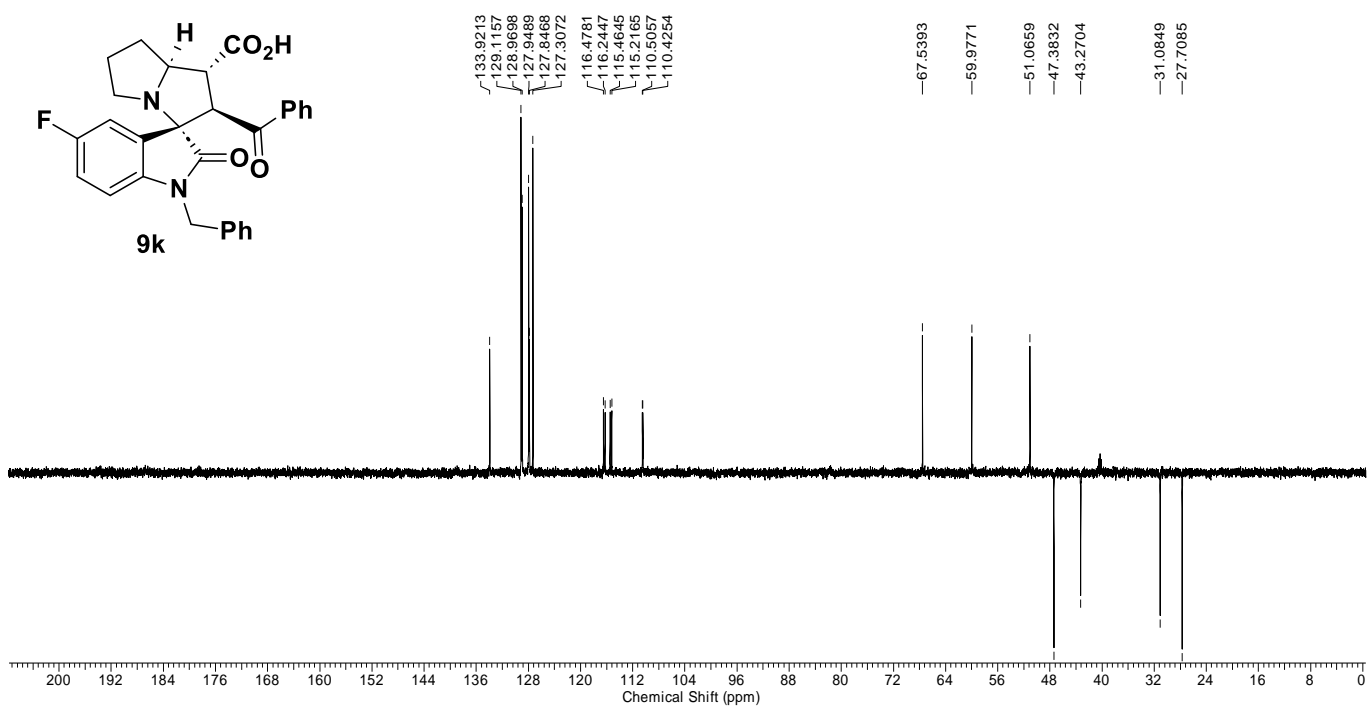


**Figure S34.**  $^1\text{H}$  NMR spectra of compound **9k** recorded at 400 MHz in  $\text{DMSO}-d_6$

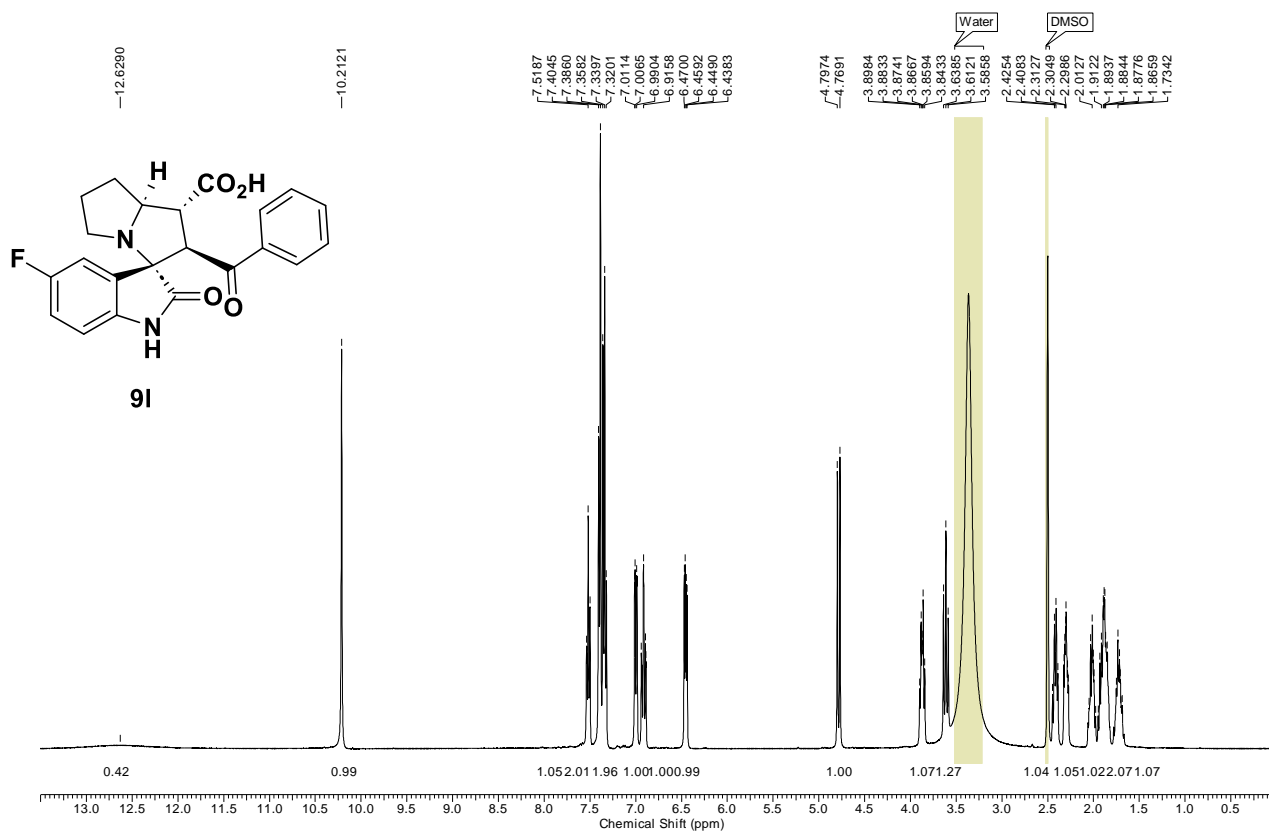


**Figure S35.**  $^{13}\text{C}$  NMR spectra of compound **9k** recorded at 100 MHz in  $\text{DMSO}-d_6$

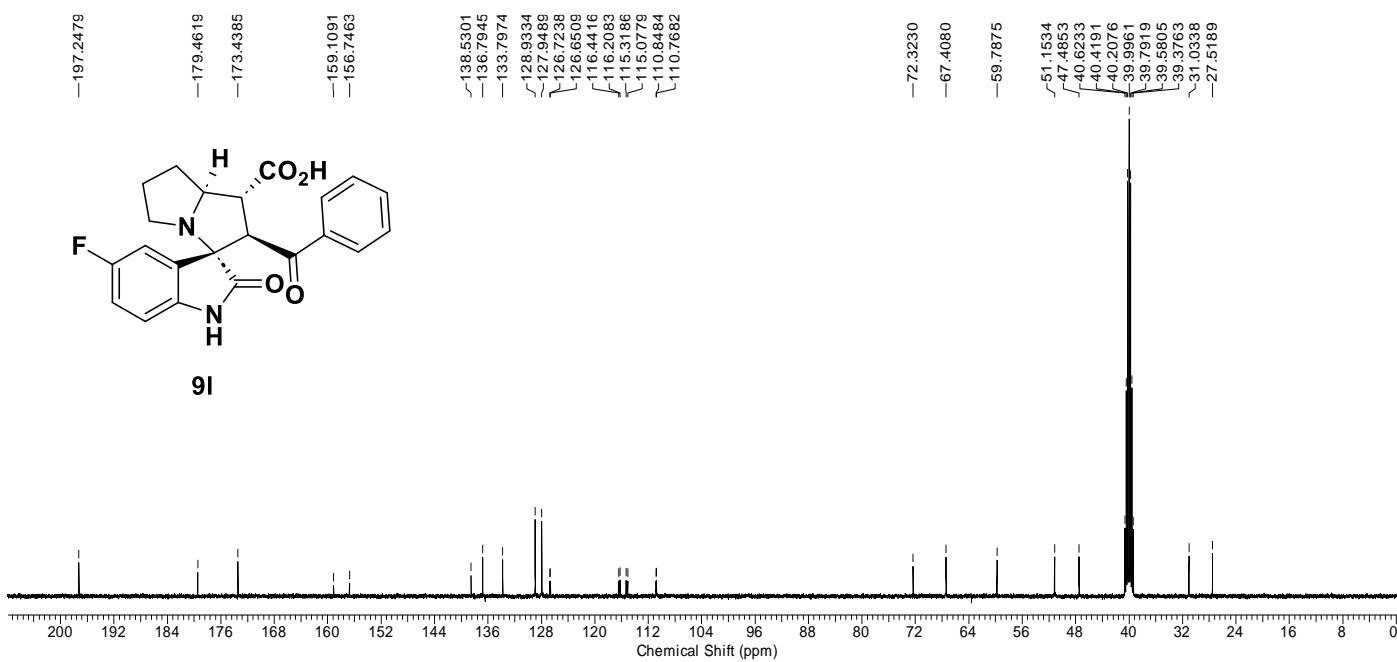




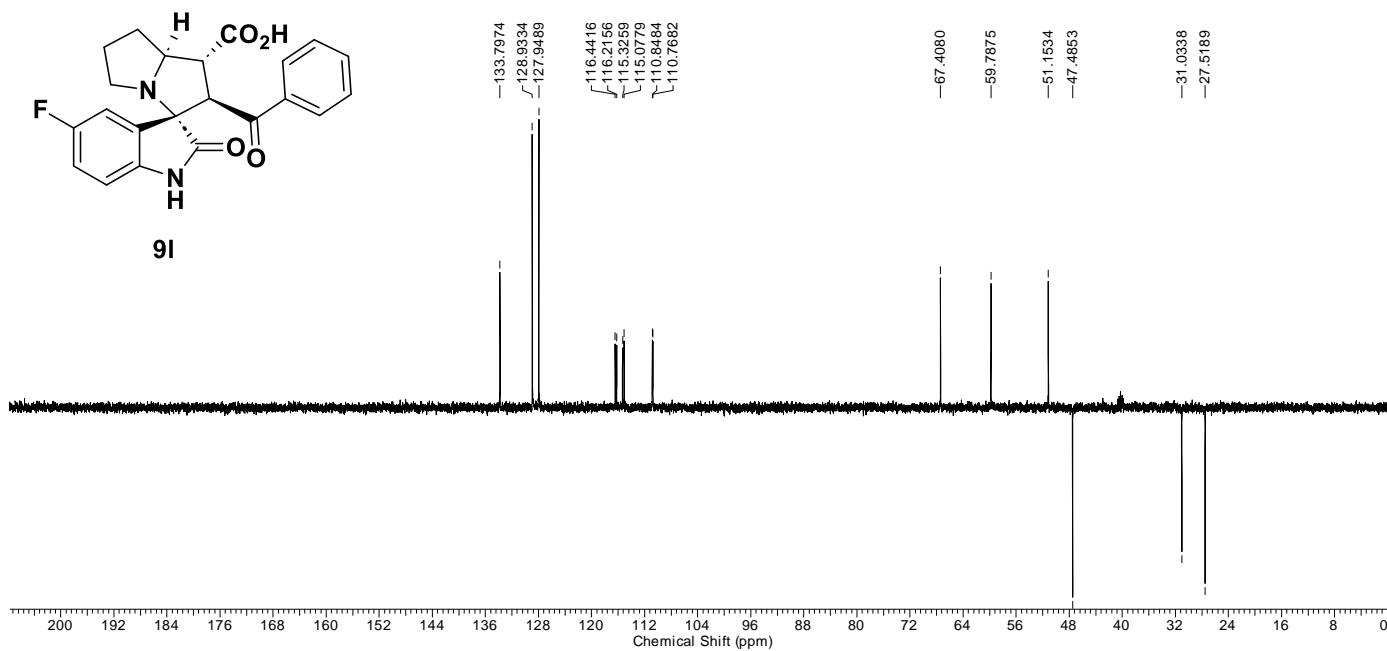
**Figure S36.** DEPT-135 experiment of compound **9k** in DMSO- $d_6$



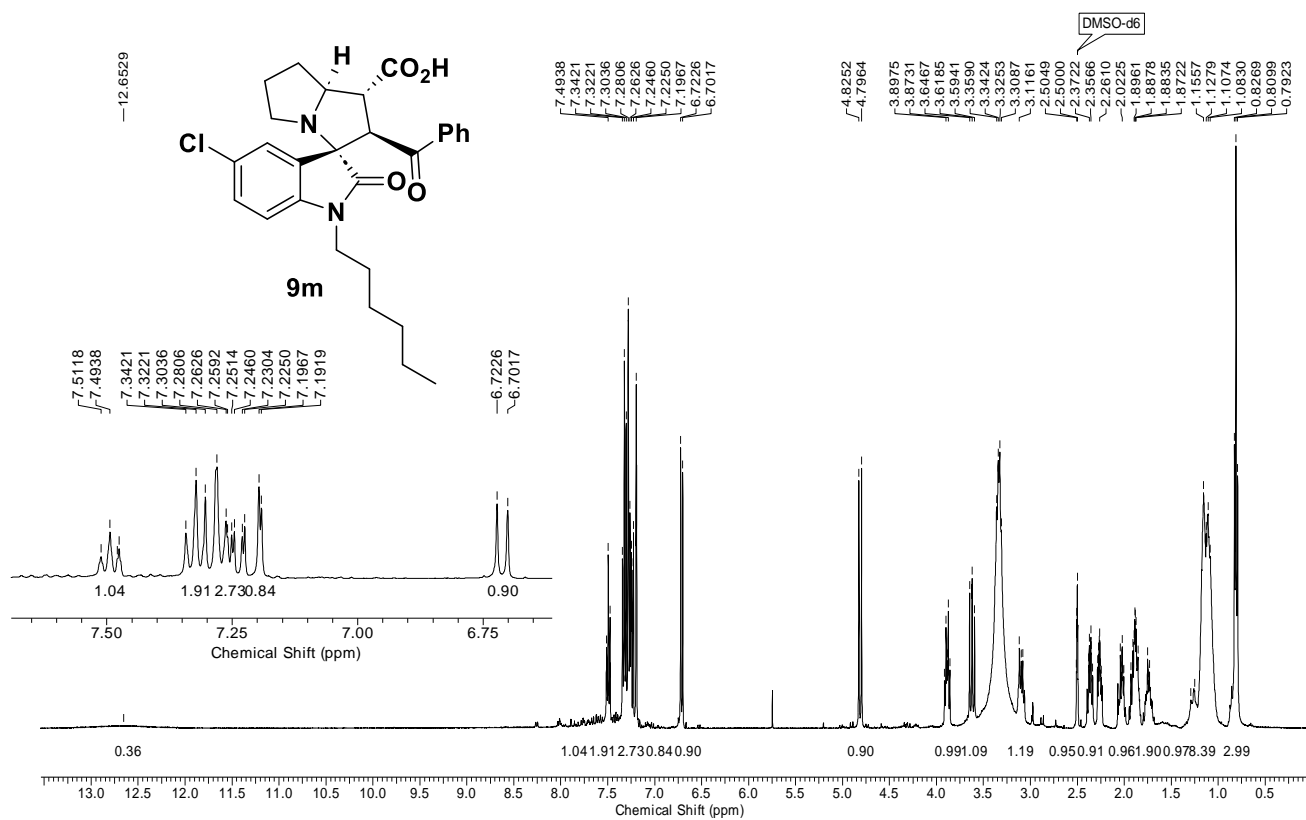
**Figure S37.**  $^1\text{H}$  NMR spectra of compound **9l** recorded at 400 MHz in  $\text{DMSO}-d_6$



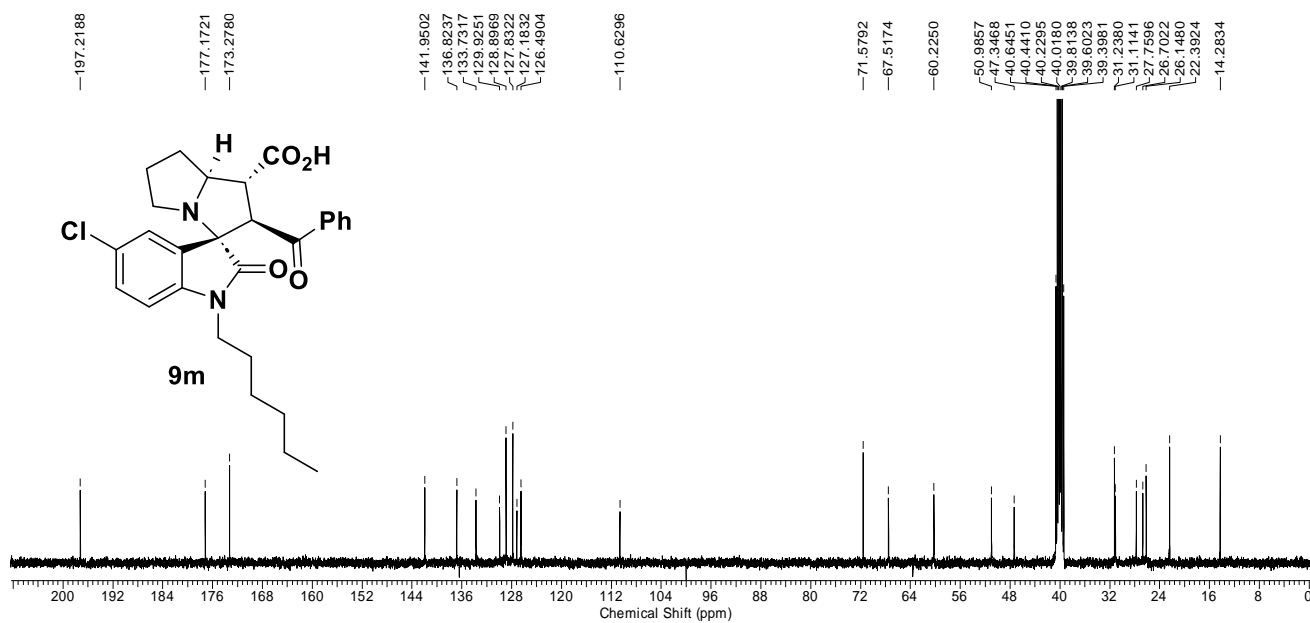
**Figure S38.**  $^{13}\text{C}$  NMR spectra of compound **9l** recorded at 100 MHz in  $\text{DMSO-}d_6$



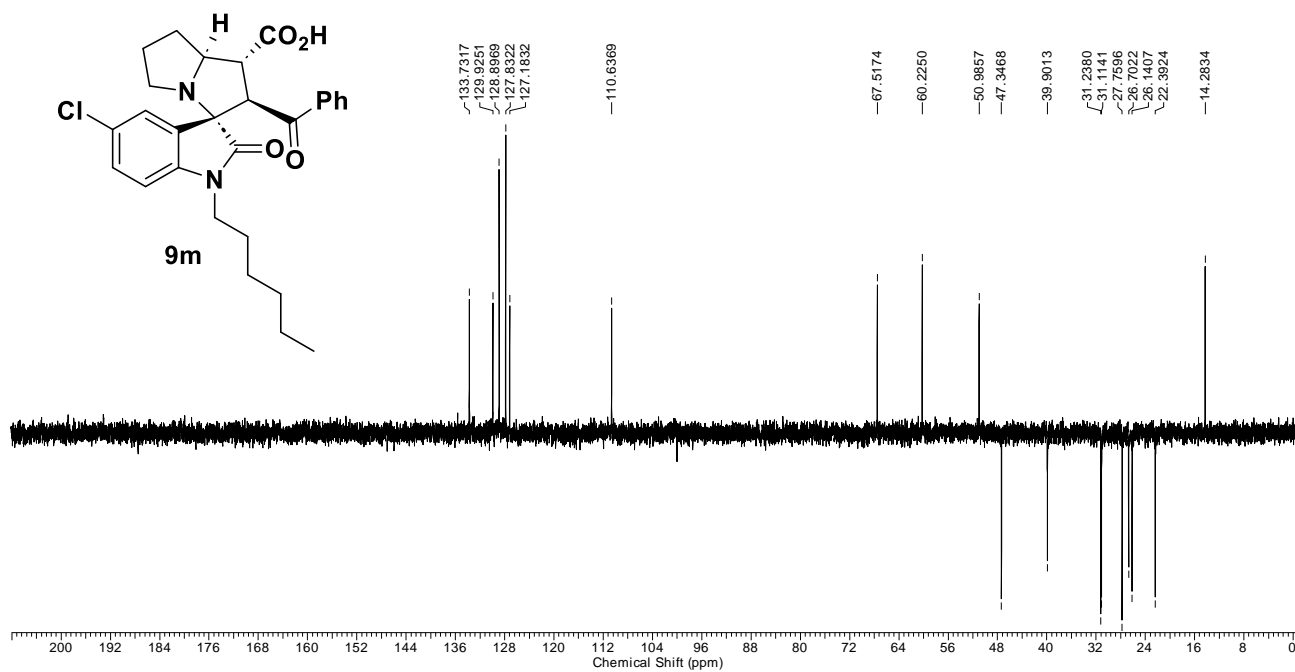
**Figure S39.** DEPT-135 experiment of compound **9l** in  $\text{DMSO-}d_6$



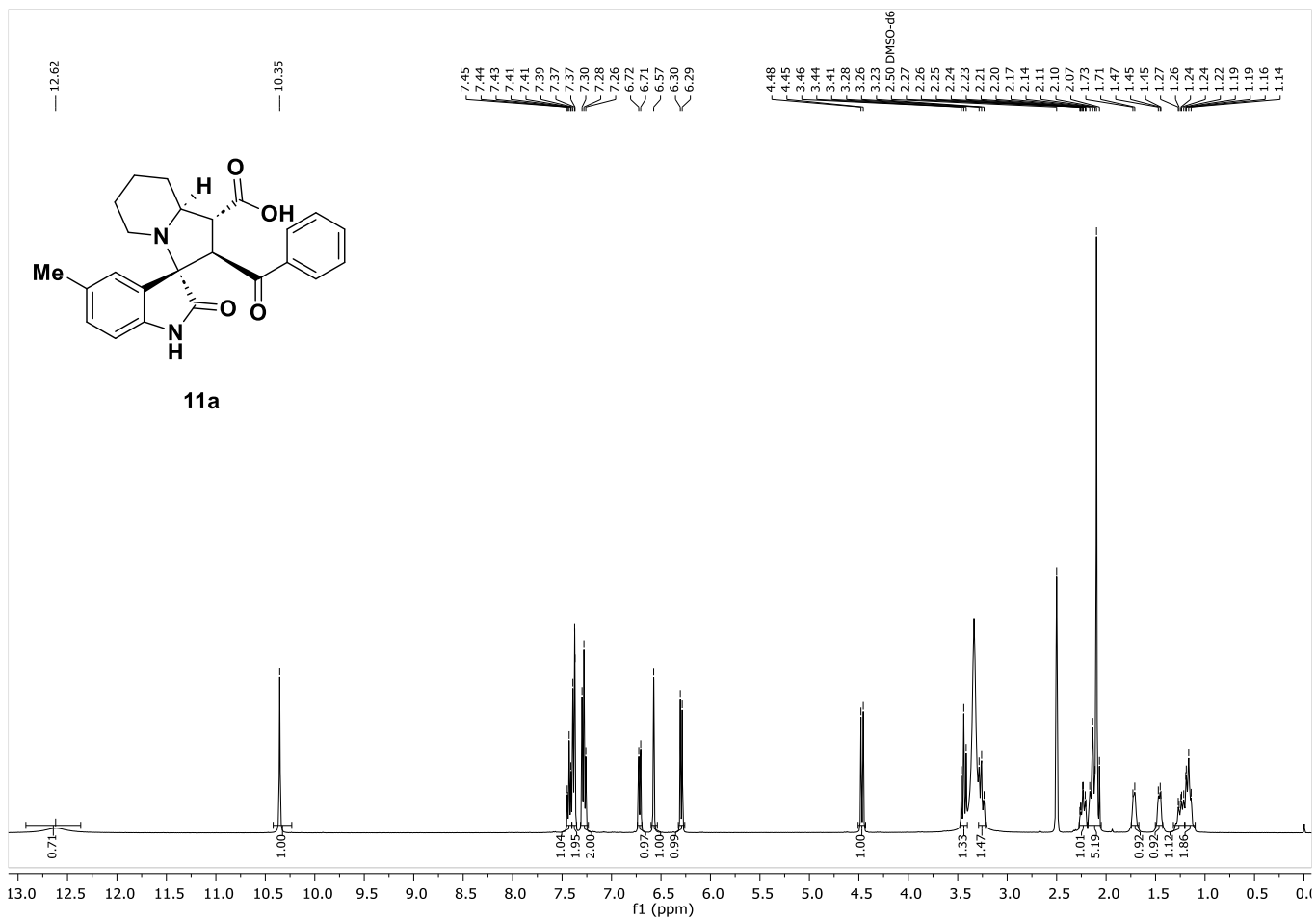
**Figure S40.**  $^1\text{H}$  NMR spectra of compound **9m** recorded at 400 MHz in  $\text{DMSO}-d_6$



**Figure S41.** <sup>13</sup>C NMR spectra of compound **9m** recorded at 100 MHz in DMSO-*d*<sub>6</sub>

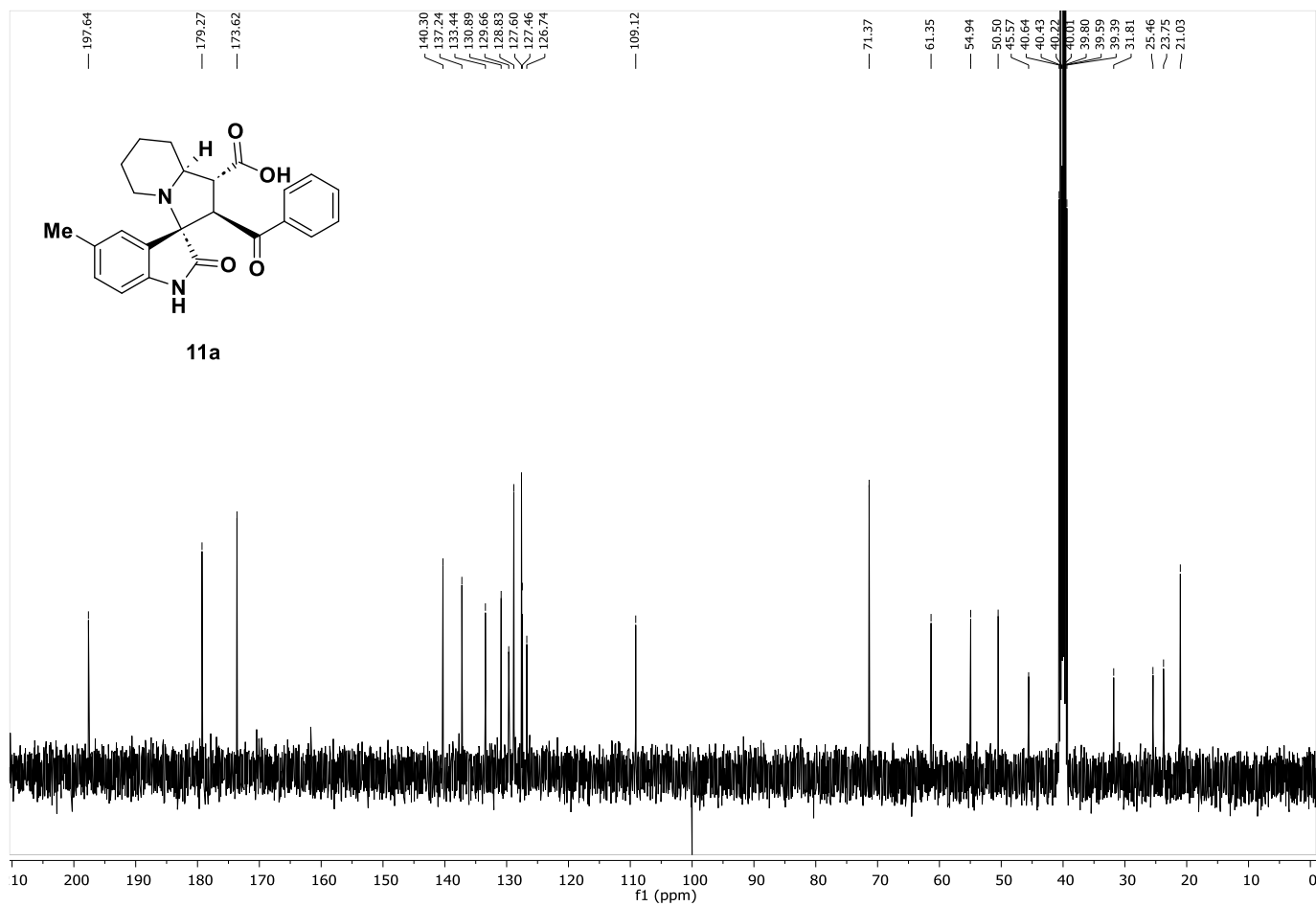


**Figure S42.** DEPT-135 experiment of compound **9m** in DMSO- $d_6$

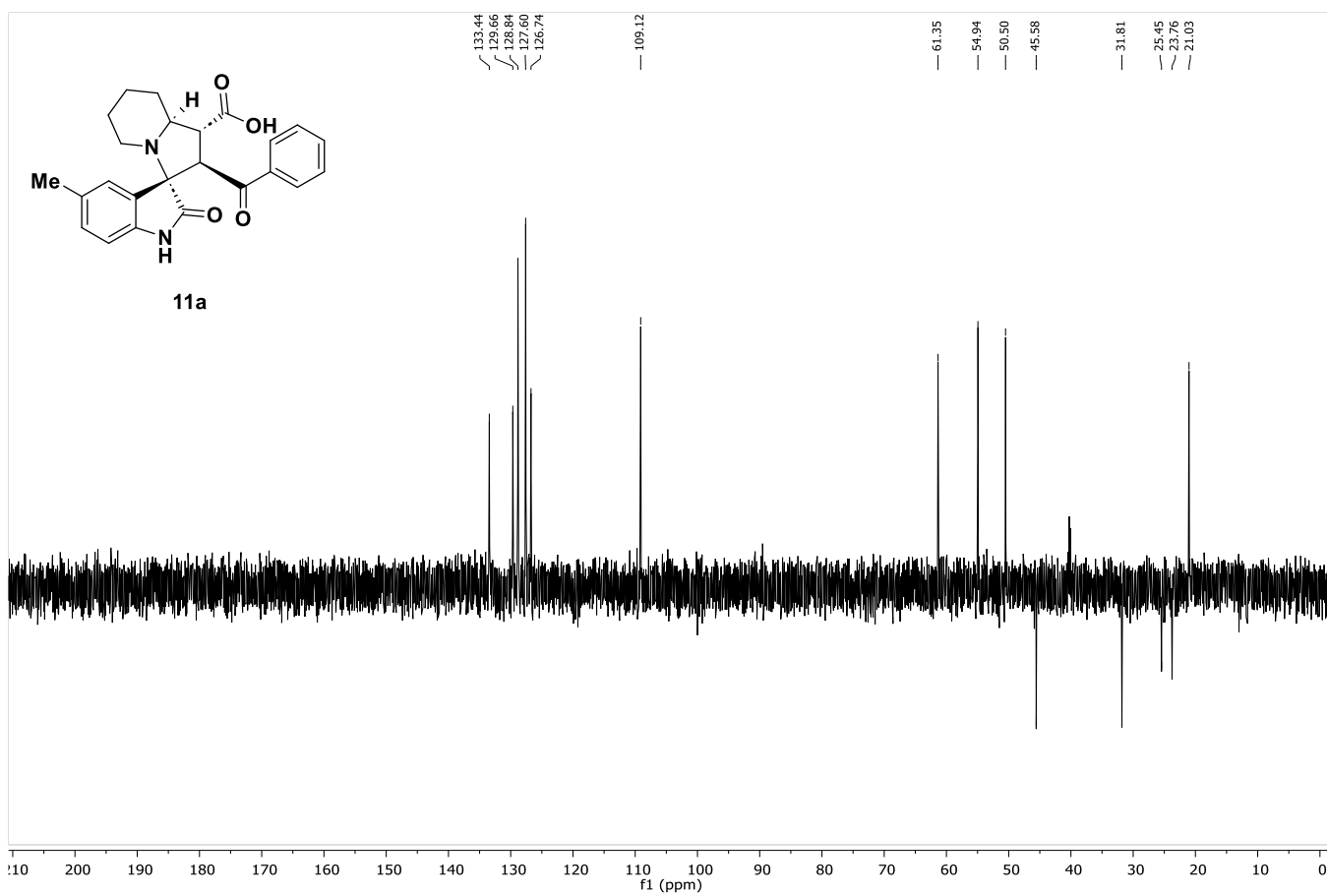


**Figure S43.** <sup>1</sup>H NMR spectra of compound **11a** recorded at 400 MHz in DMSO-*d*<sub>6</sub>

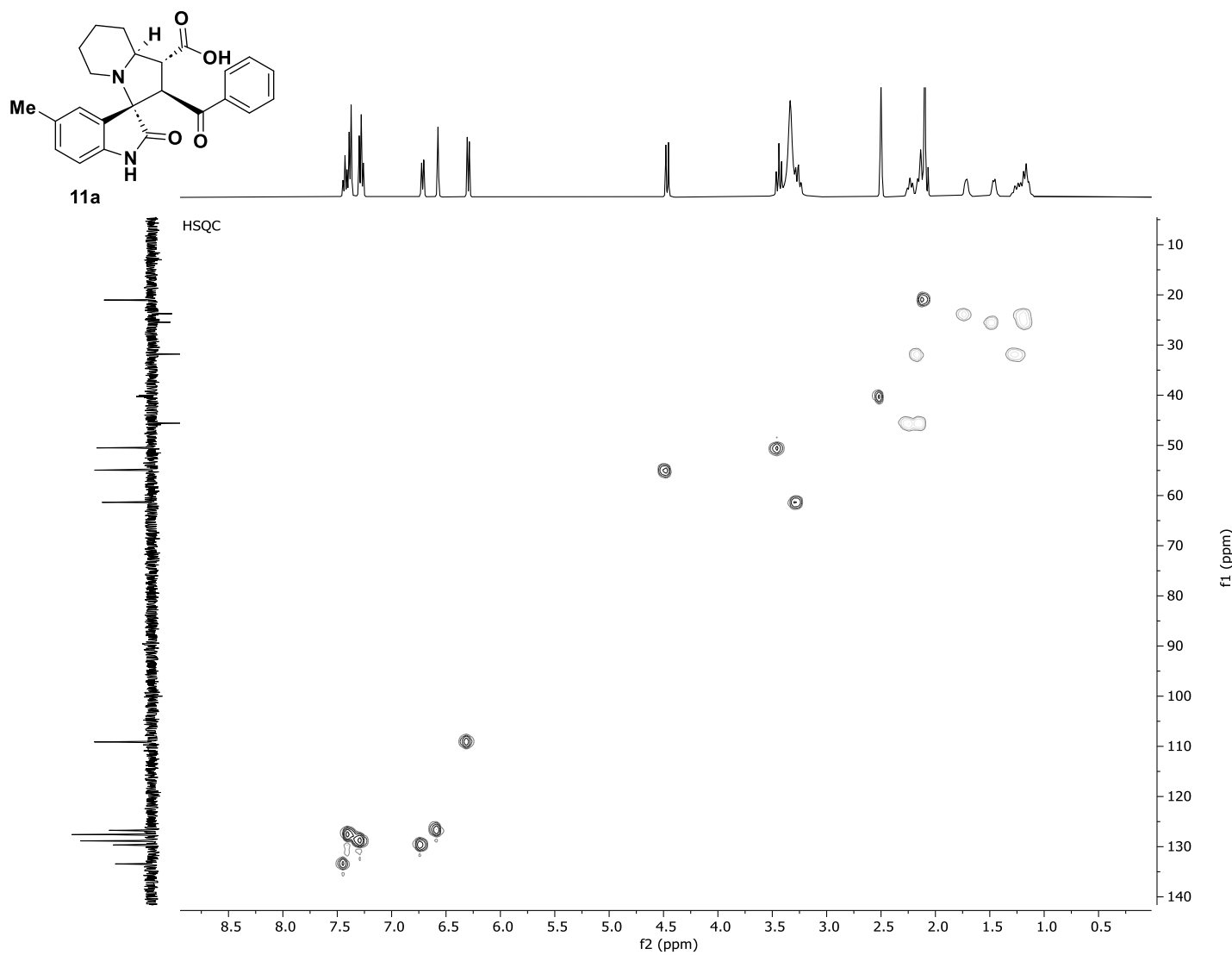




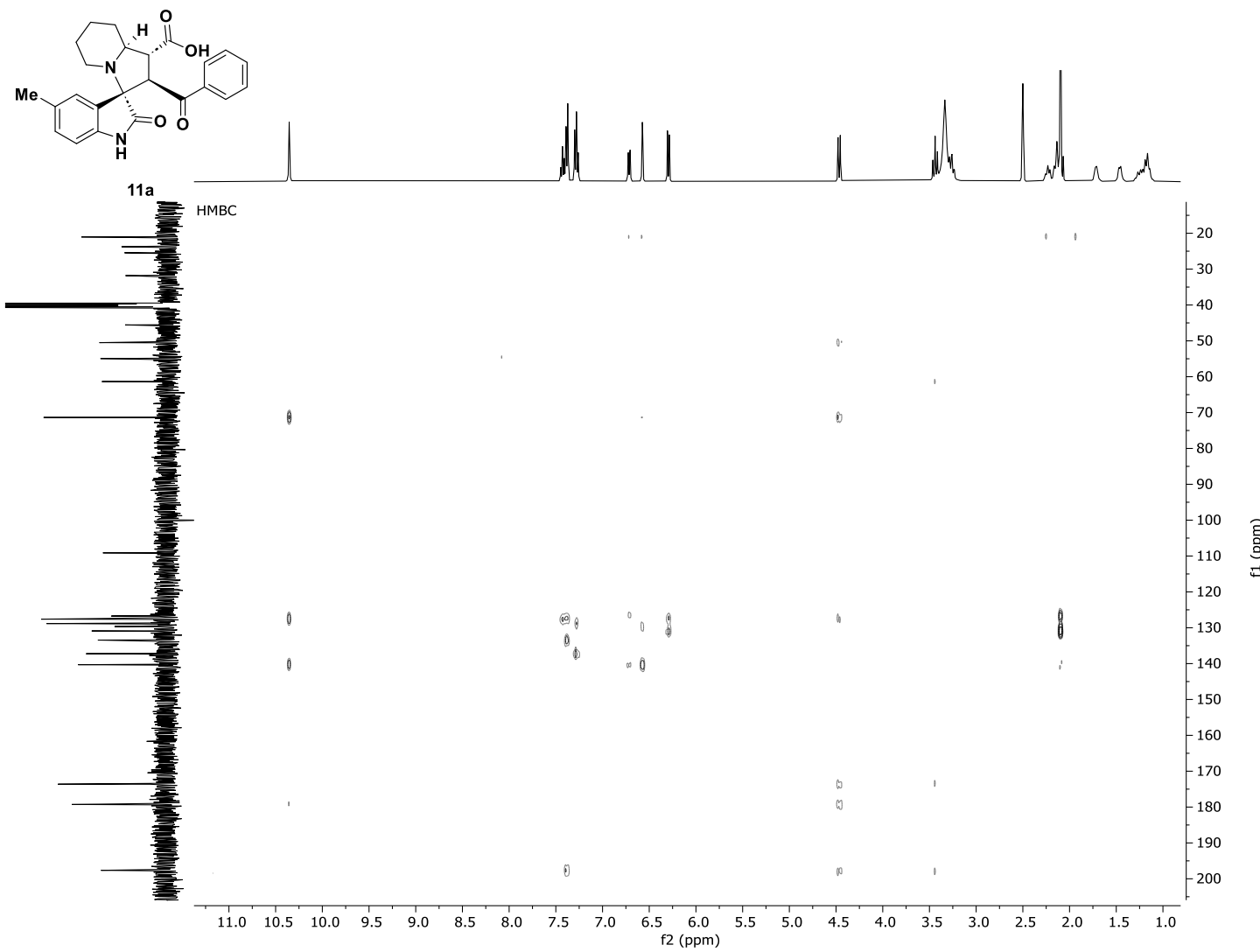
**Figure S44.**  $^{13}\text{C}$  NMR spectra of compound **11a** recorded at 100 MHz in  $\text{DMSO}-d_6$



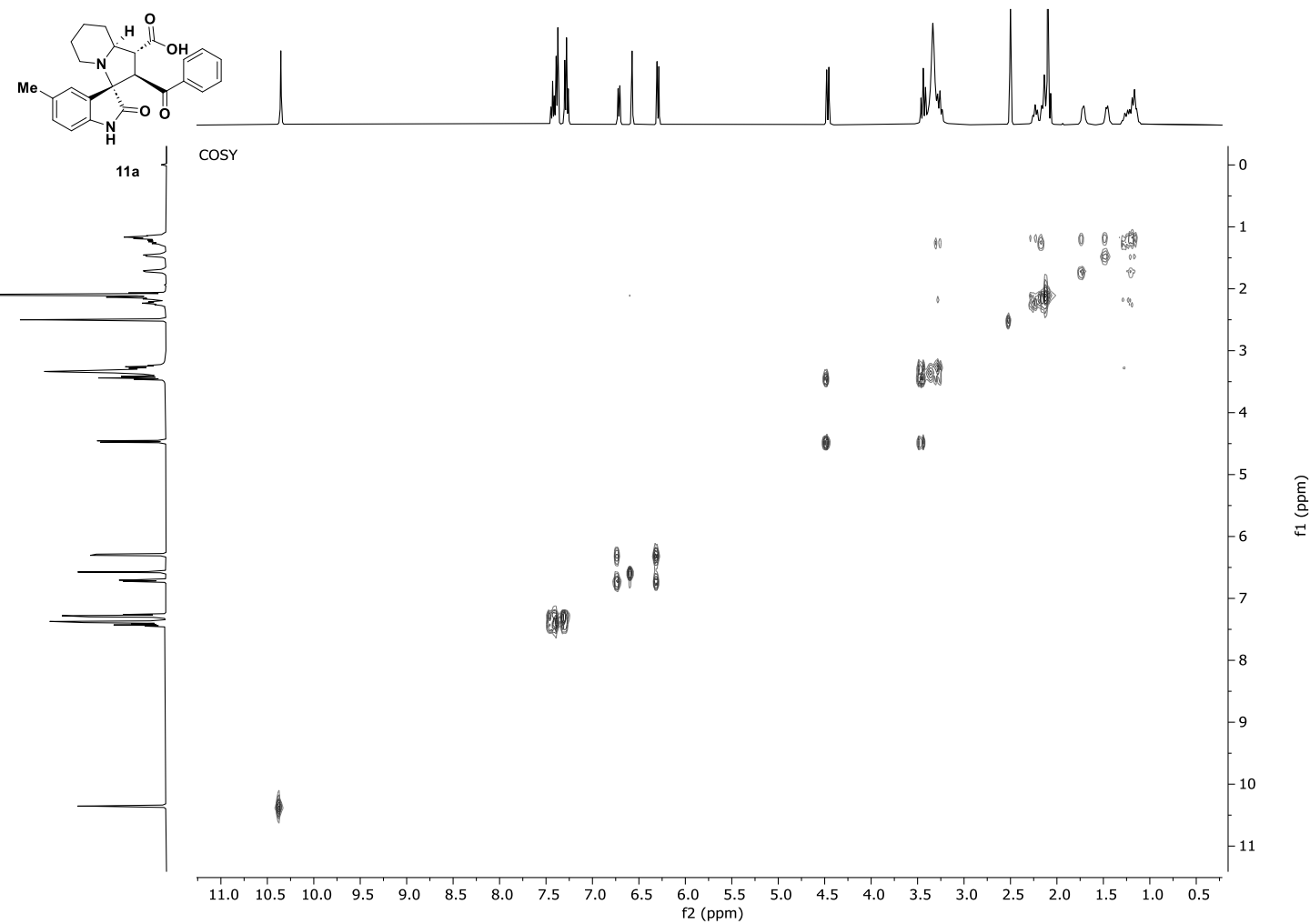
**Figure S45.** DEPT-135 experiment of compound **11a** in DMSO-*d*<sub>6</sub>



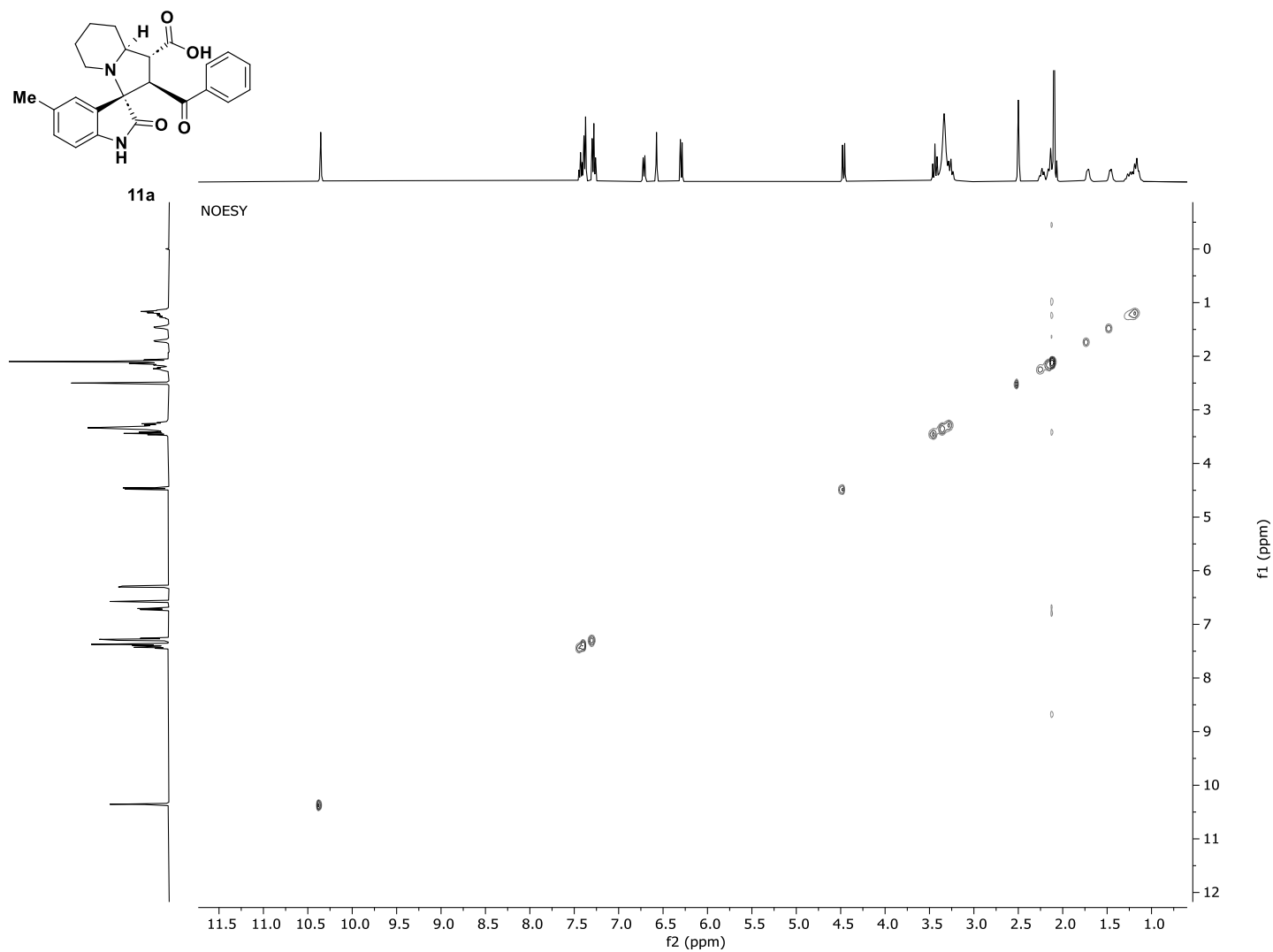
**Figure S46.** HSQC experiment of compound **11a** in DMSO- $d_6$



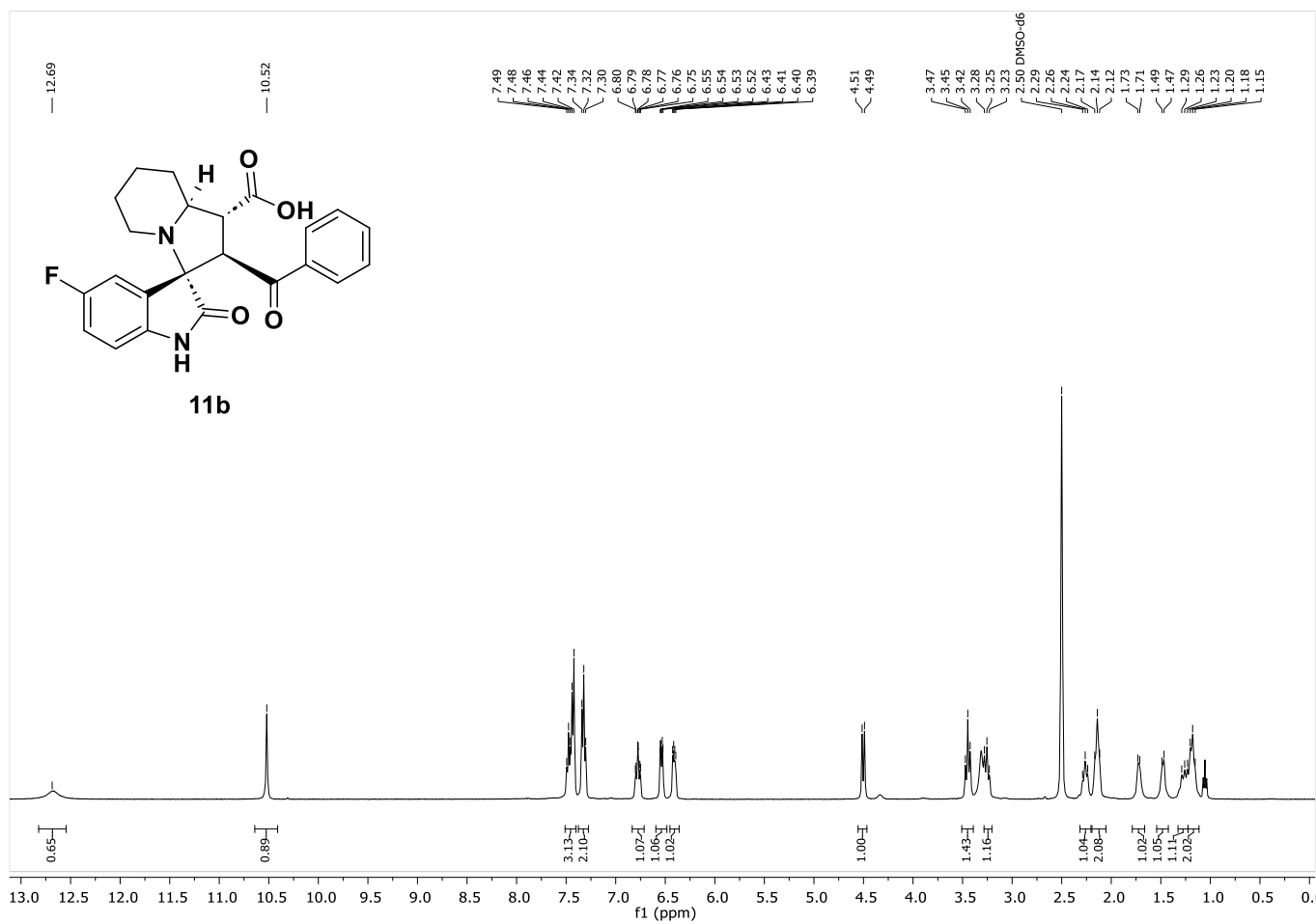
**Figure S47.** HMBC experiment of compound **11a** in DMSO- $d_6$



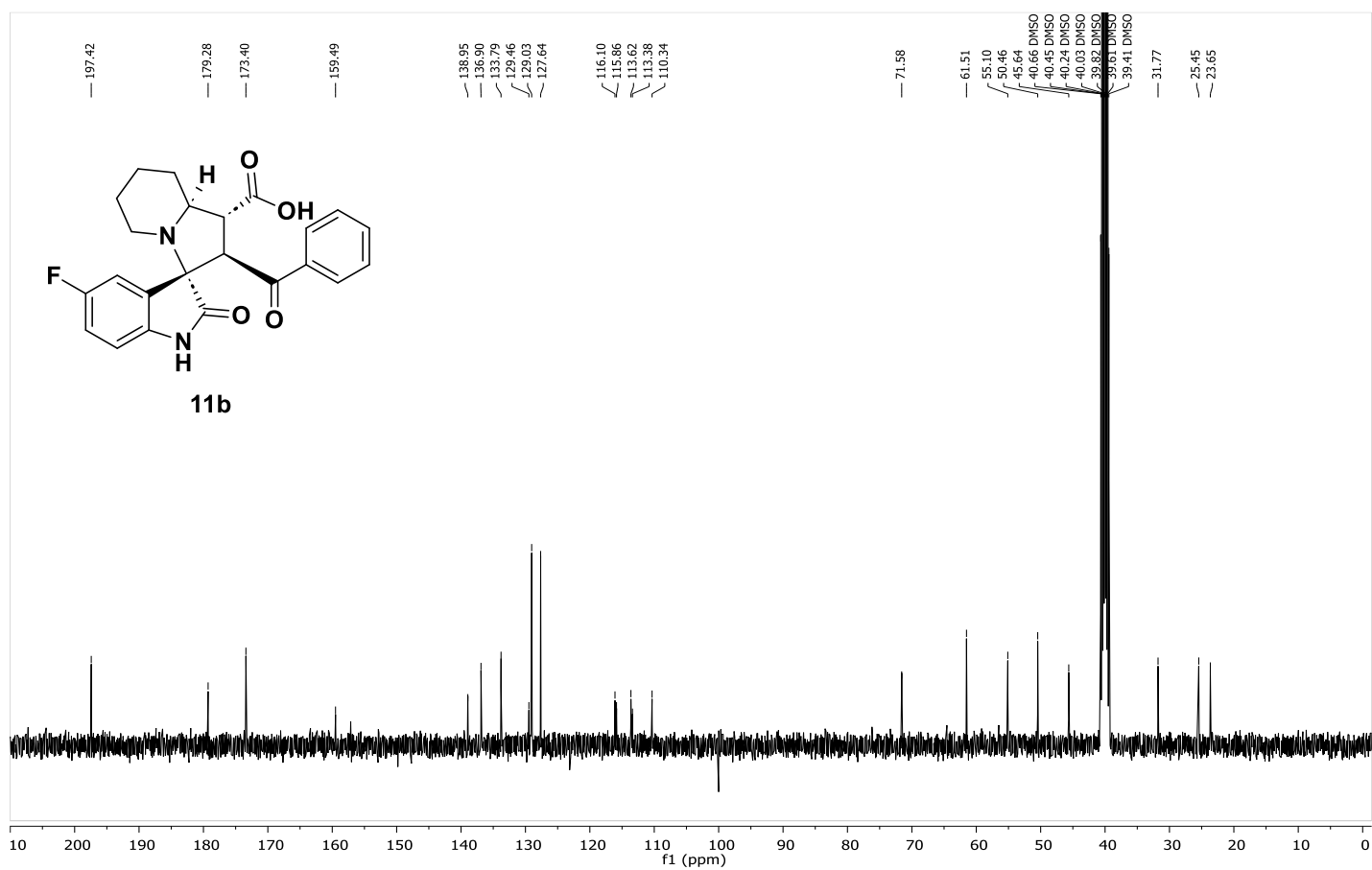
**Figure S48.** COSY experiment of compound **11a** in  $\text{DMSO}-d_6$



**Figure S49.** NOESY experiment of compound **11a** in DMSO- $d_6$

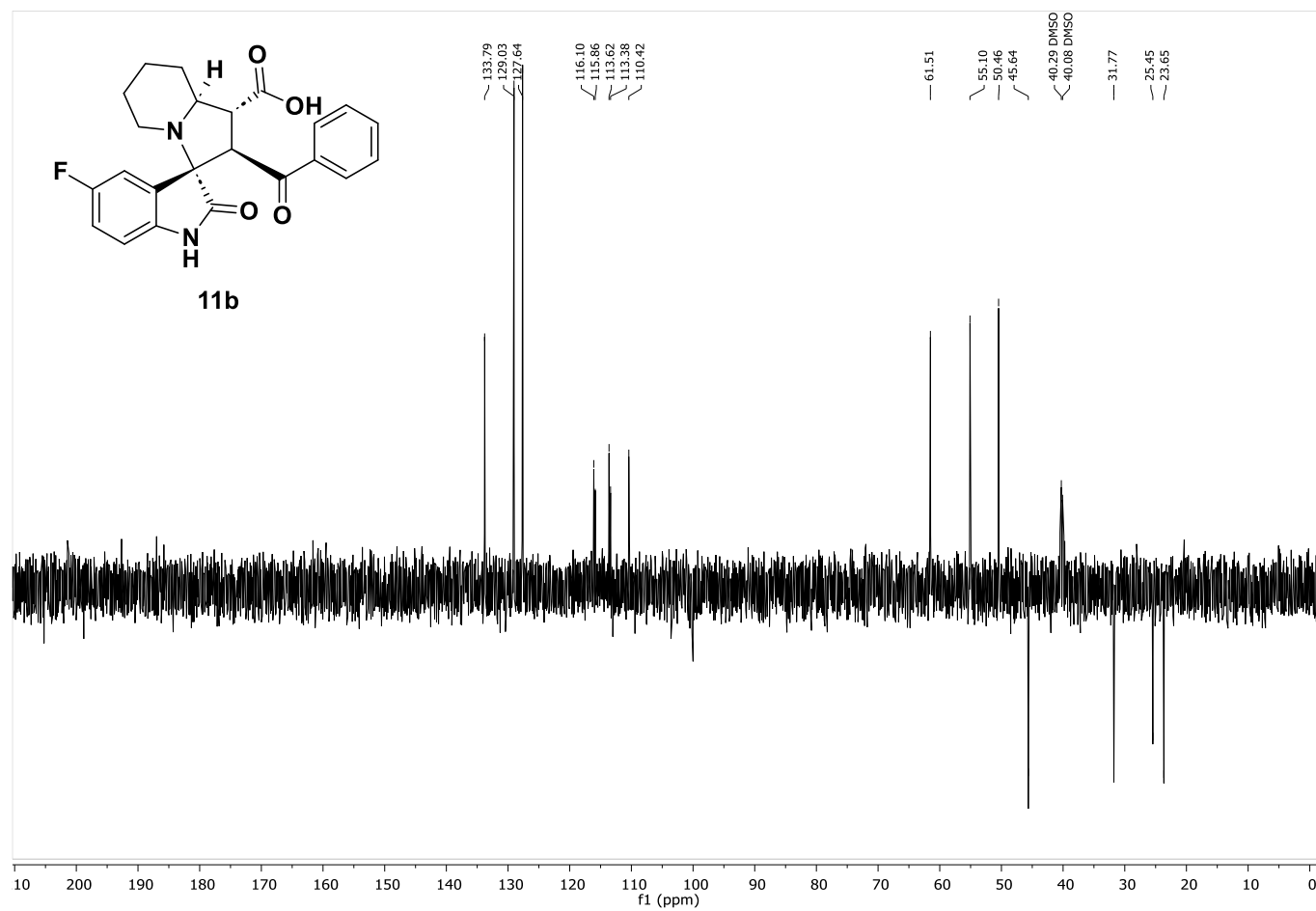


**Figure S50.** <sup>1</sup>H NMR spectra of compound **11b** recorded at 400 MHz in DMSO-*d*<sub>6</sub>

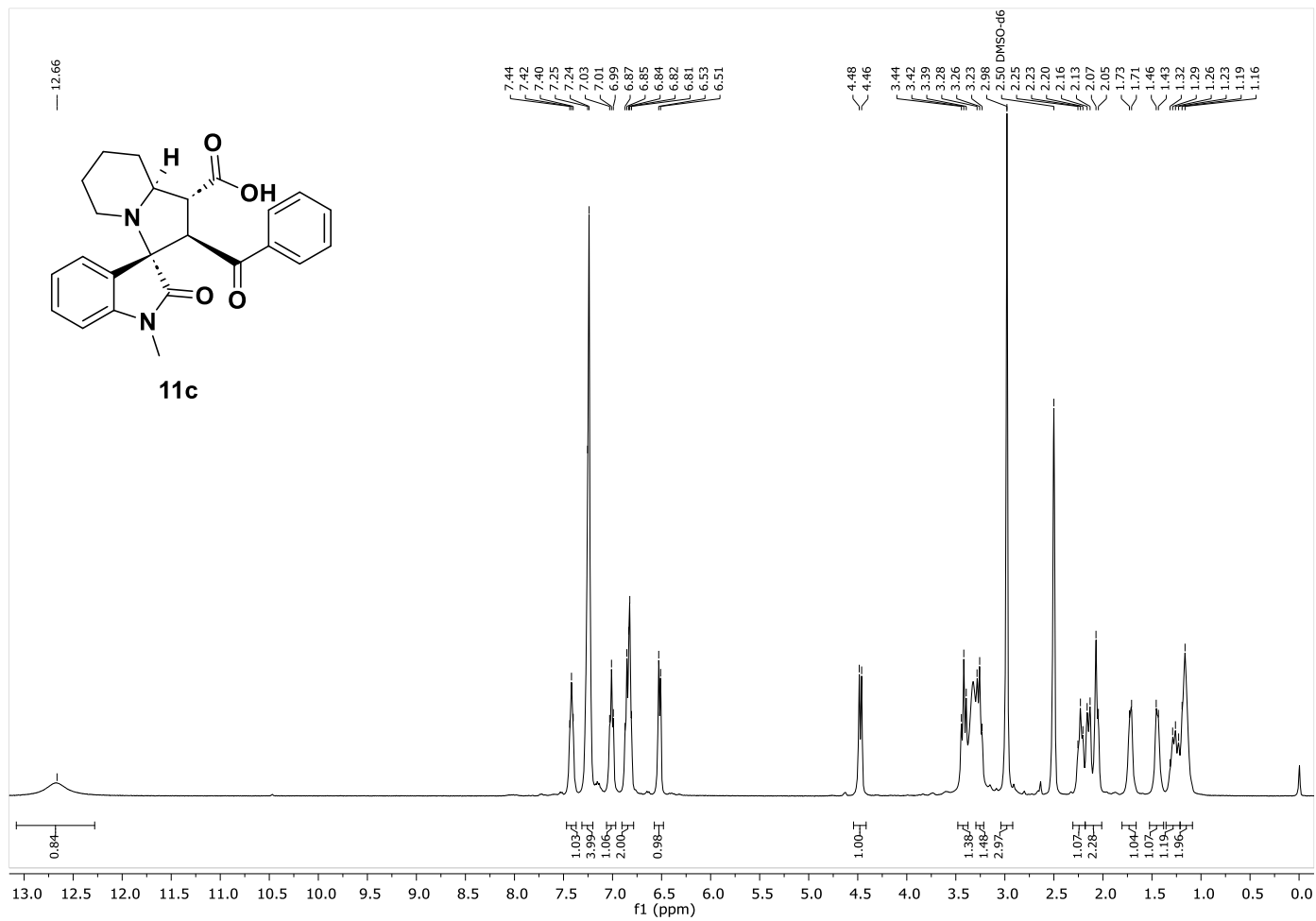


**Figure S51.**  $^{13}\text{C}$  NMR spectra of compound **11b** recorded at 100 MHz in  $\text{DMSO}-d_6$

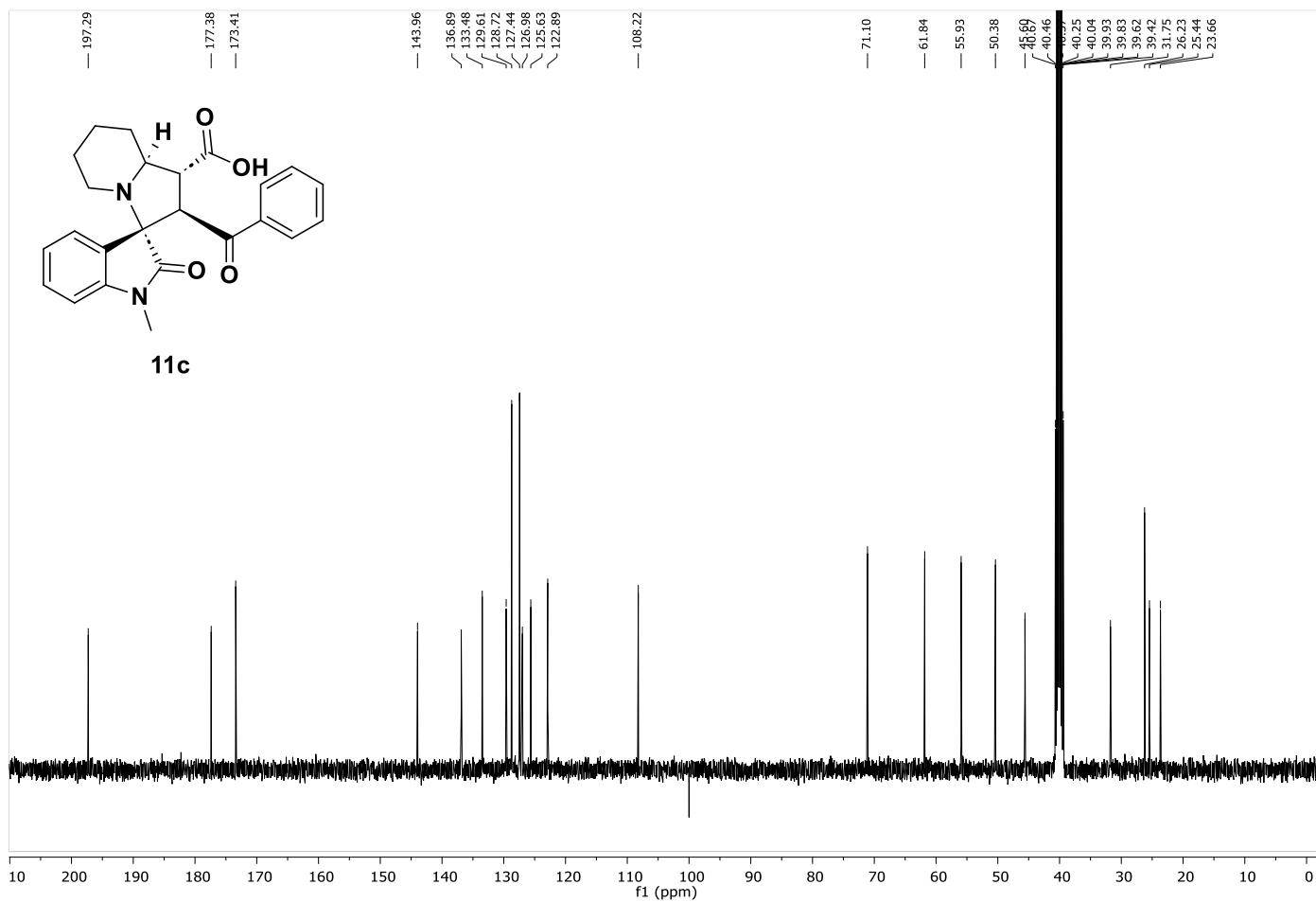




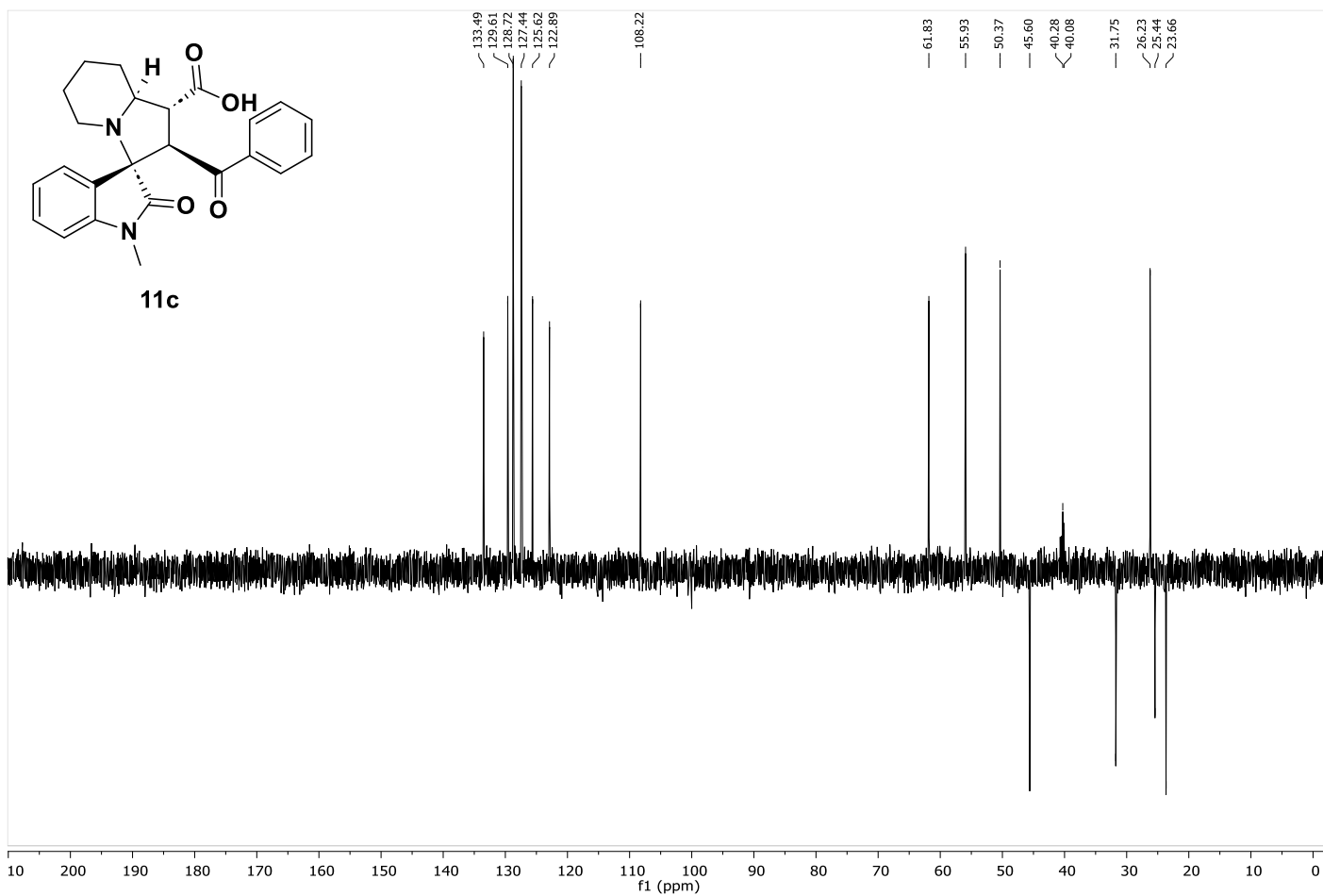
**Figure S52.** DEPT-135 experiment of compound **11b** in DMSO- $d_6$



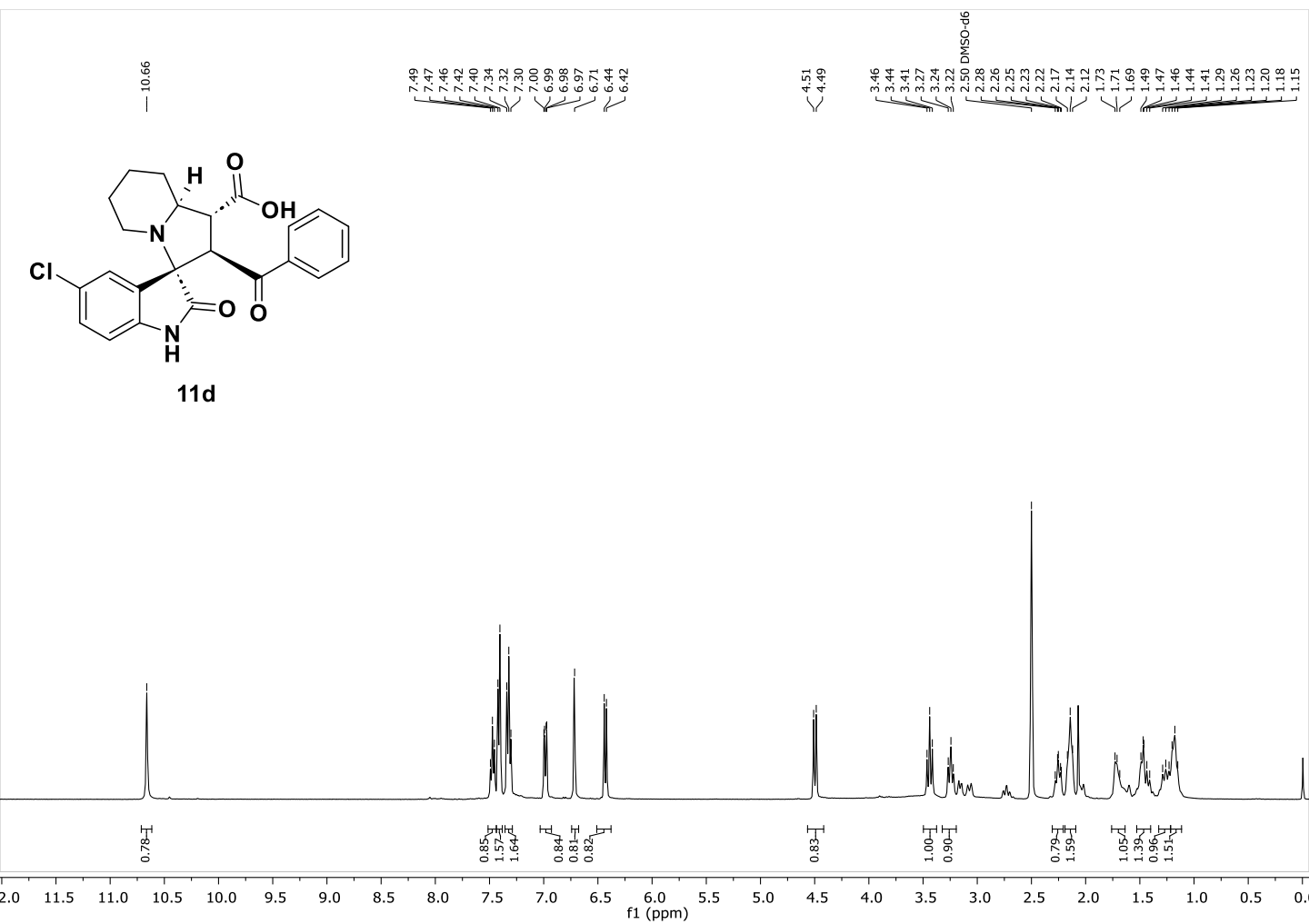
**Figure S53.**  $^1\text{H}$  NMR spectra of compound **11c** recorded at 400 MHz in  $\text{DMSO-}d_6$



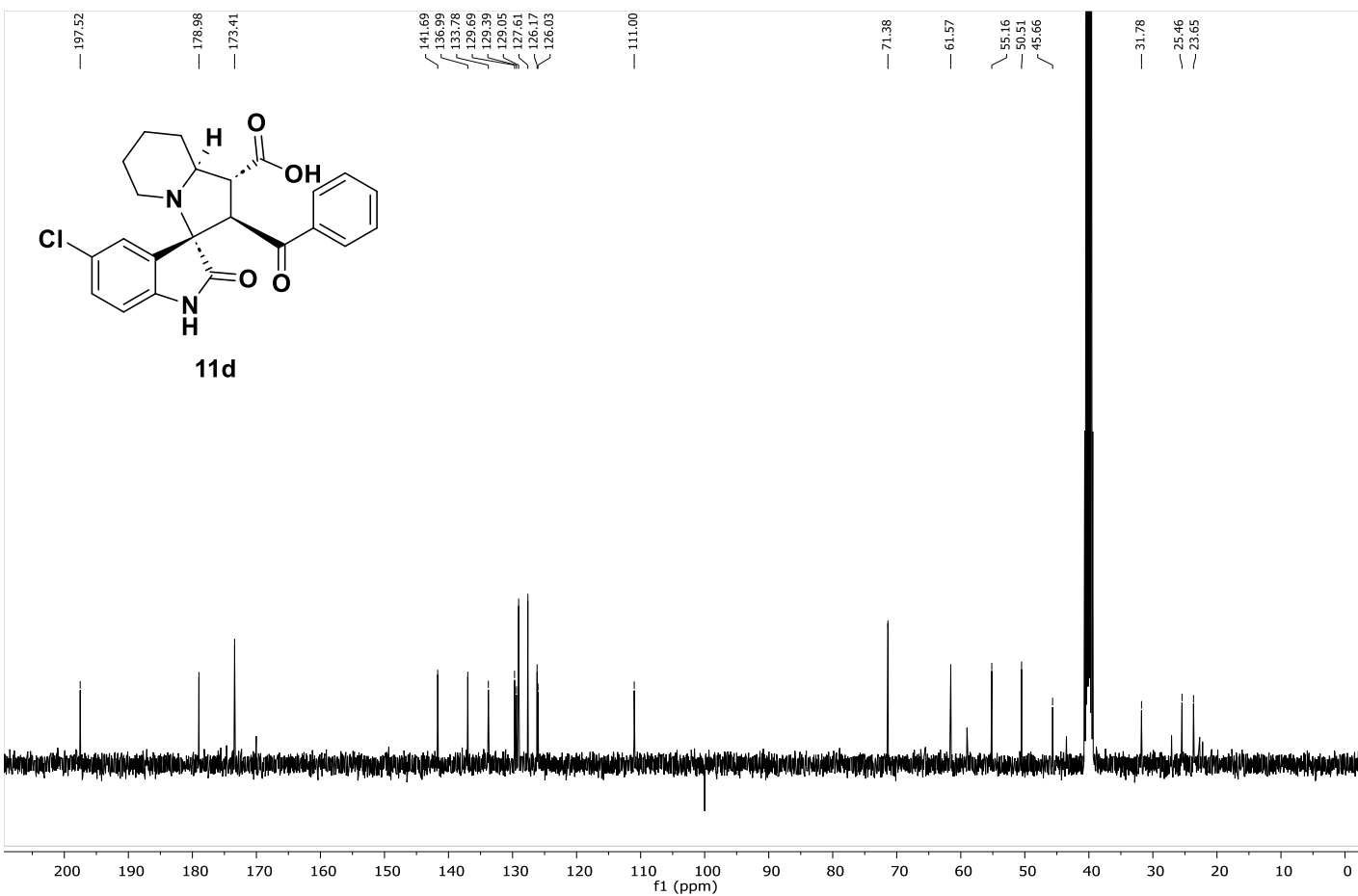
**Figure S54.**  $^{13}\text{C}$  NMR spectra of compound **11c** recorded at 100 MHz in  $\text{DMSO}-d_6$



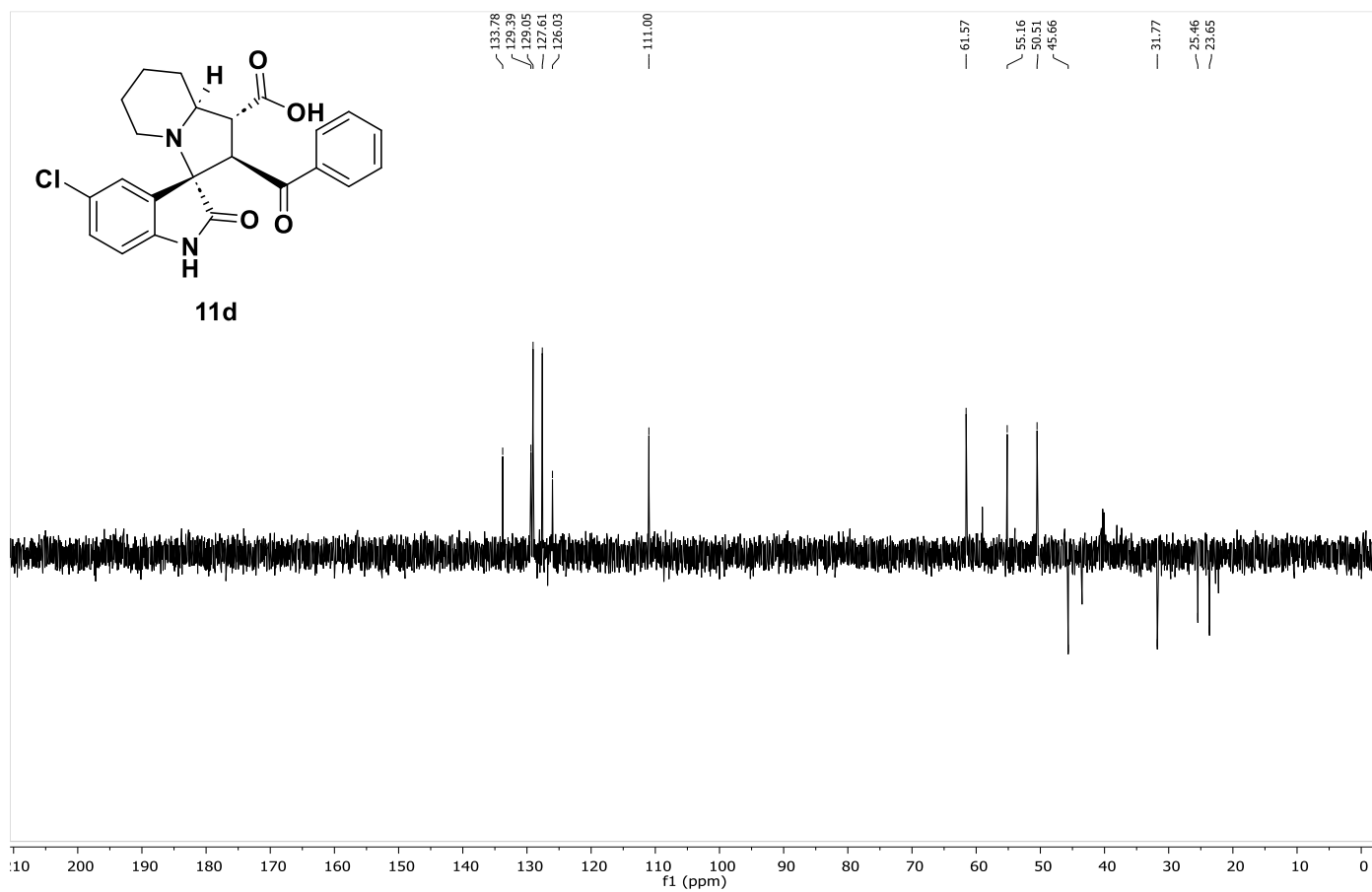
**Figure S55.** DEPT-135 experiment of compound **11c** in DMSO- $d_6$



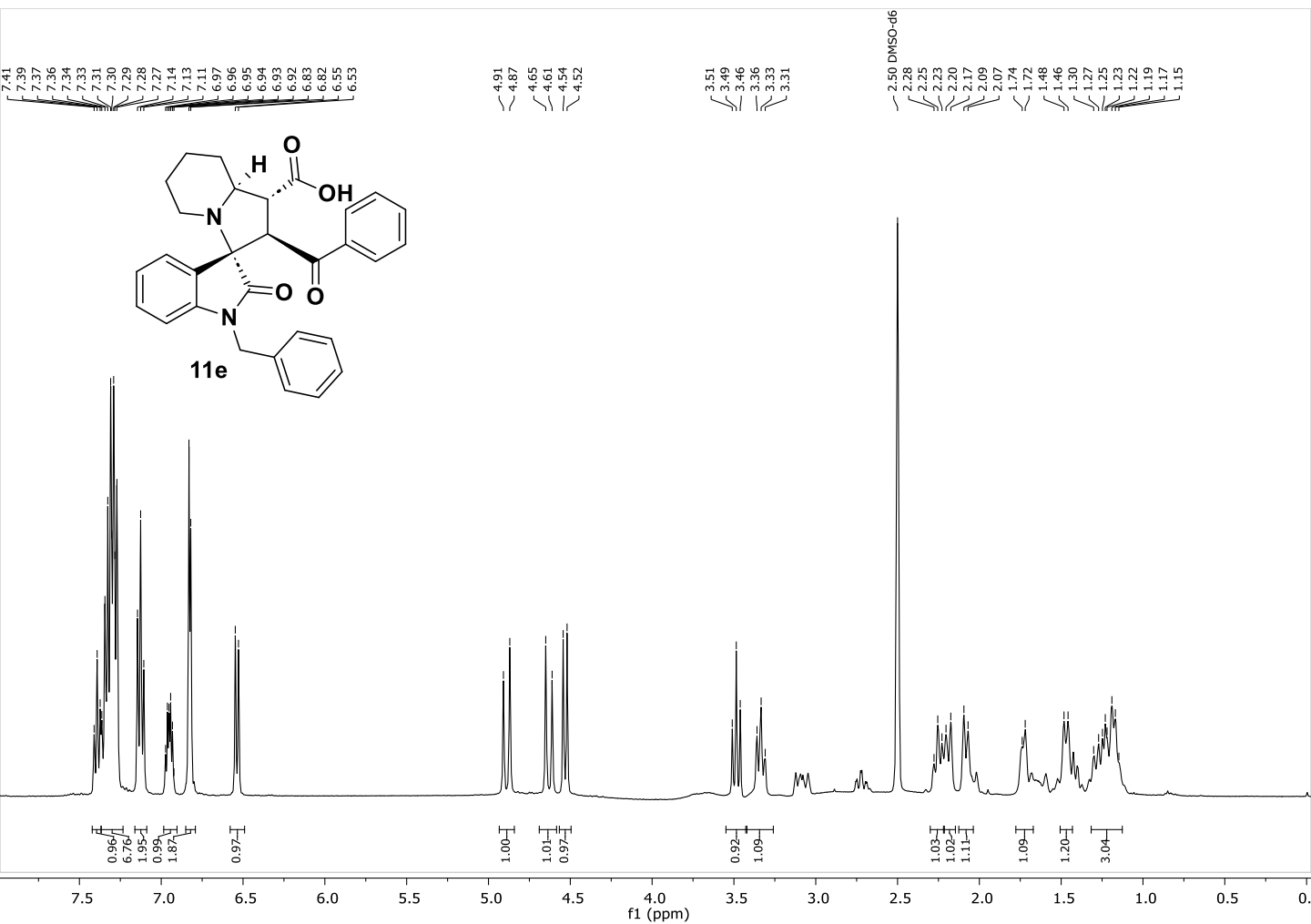
**Figure S56.**  $^1\text{H}$  NMR spectra of compound **11d** recorded at 400 MHz in  $\text{DMSO}-d_6$



**Figure S57.**  $^{13}\text{C}$  NMR spectra of compound **11d** recorded at 100 MHz in DMSO- $d_6$

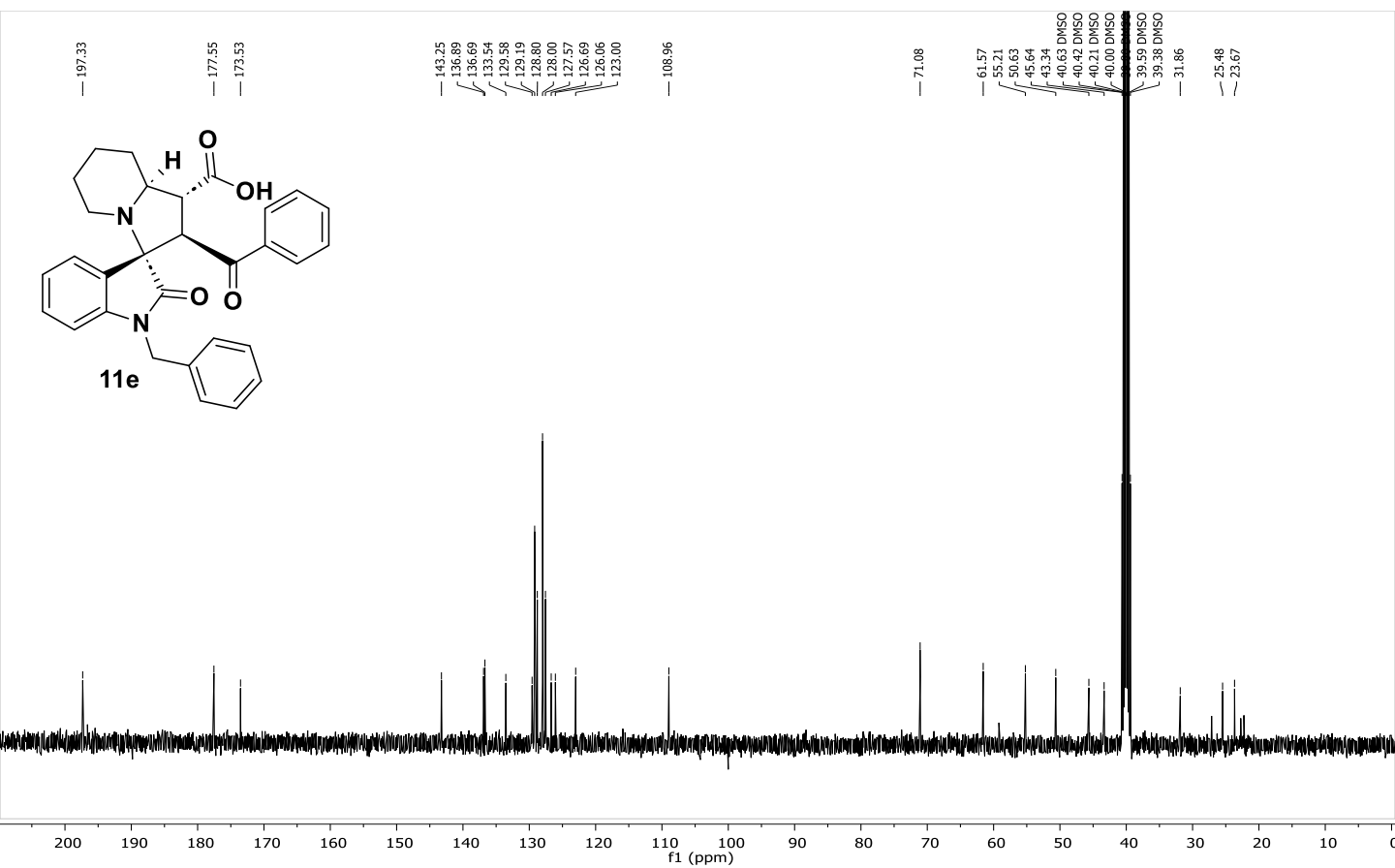


**Figure S58.** DEPT-135 experiment of compound **11d** in DMSO- $d_6$

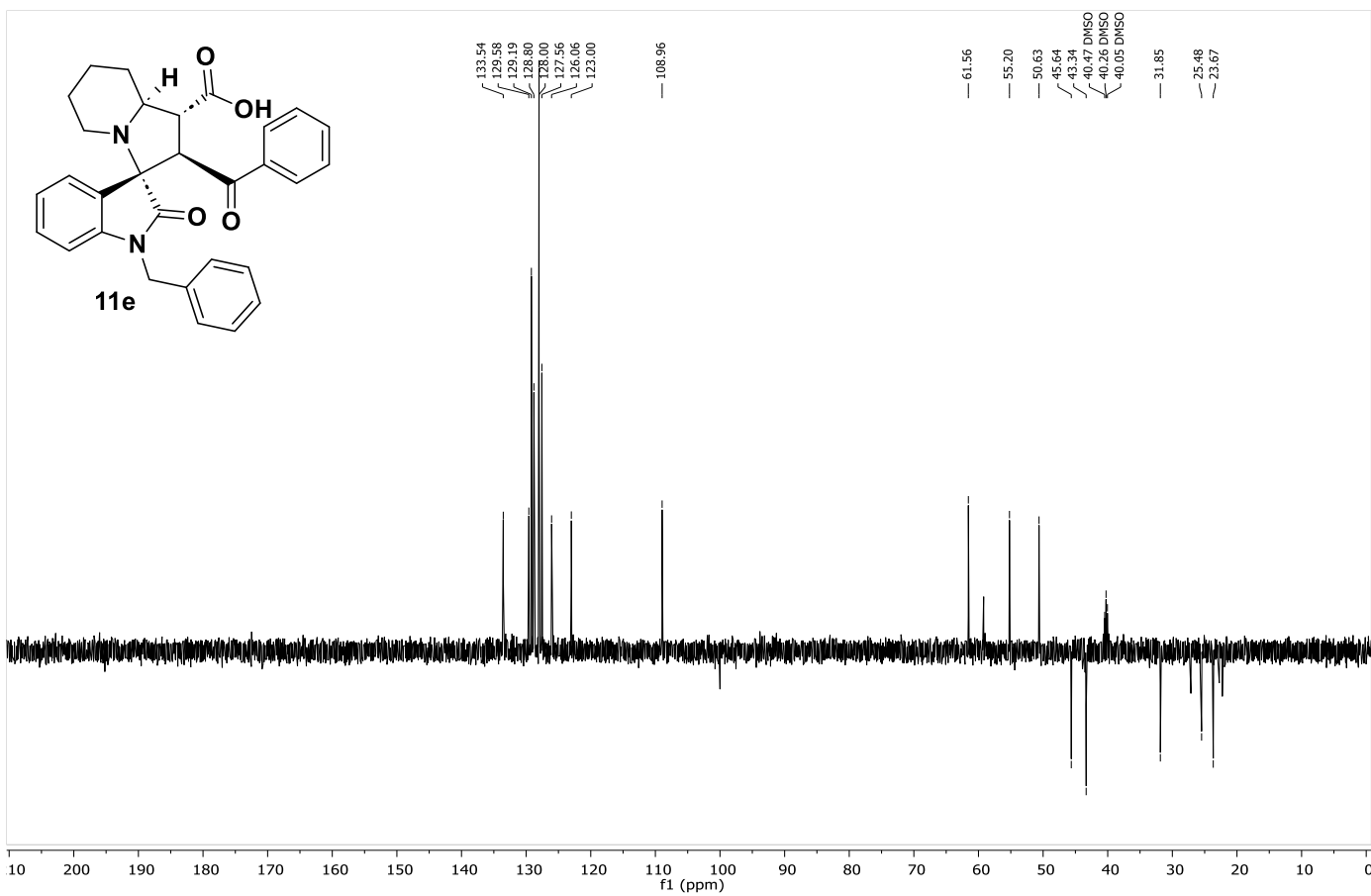


**Figure S59.** <sup>1</sup>H NMR spectra of compound **11e** recorded at 400 MHz in DMSO-*d*<sub>6</sub>

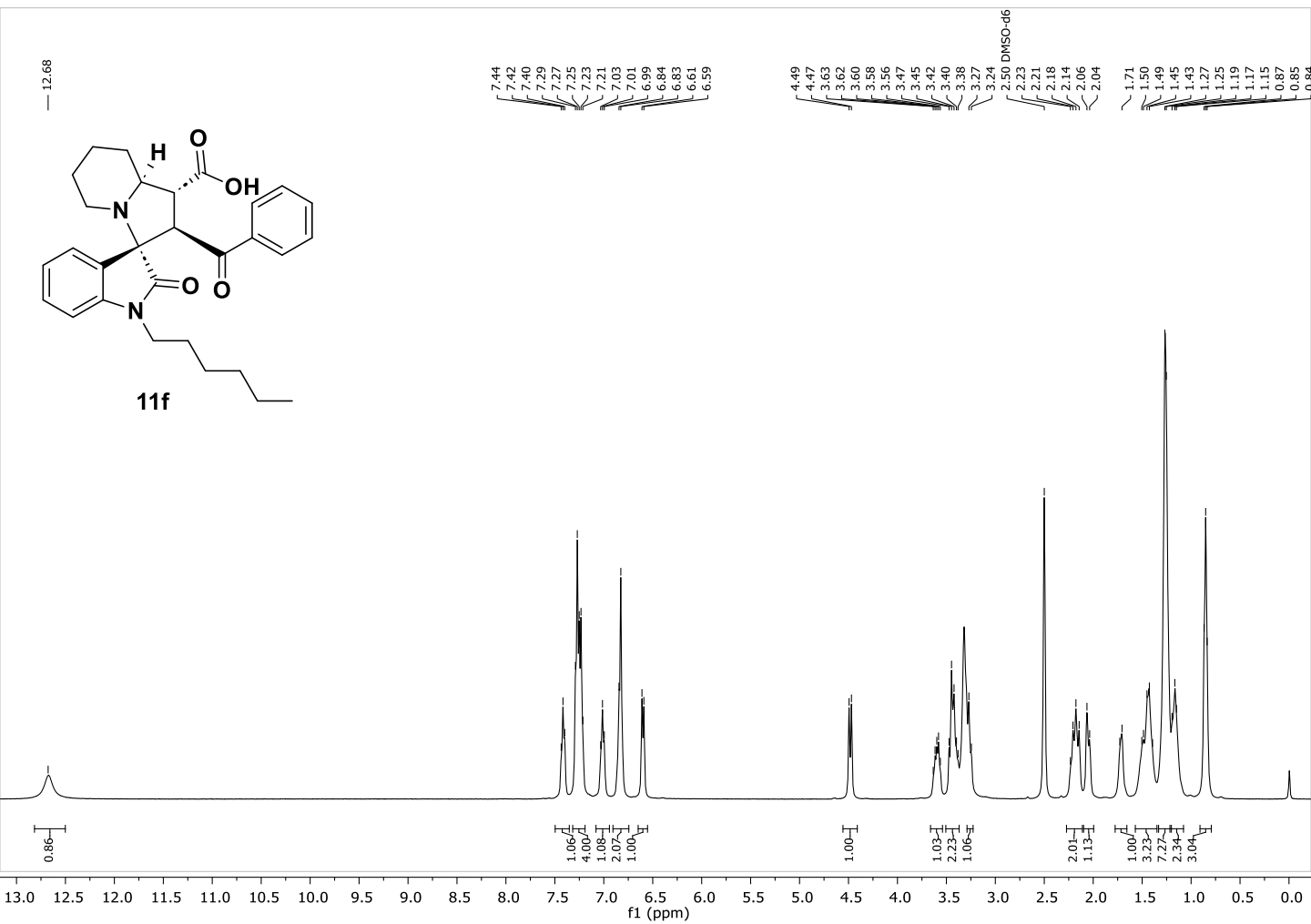




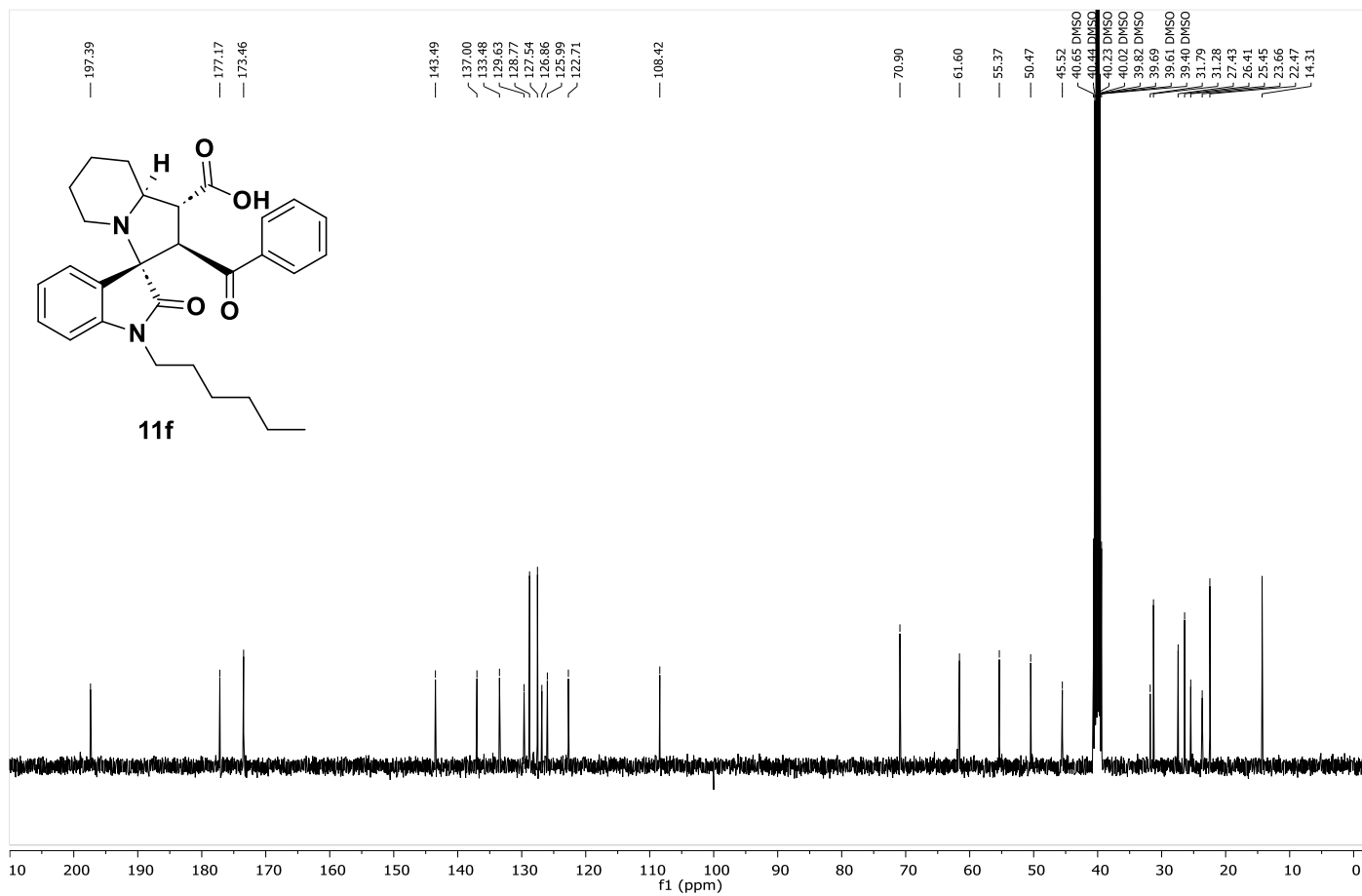
**Figure S60.**  $^{13}\text{C}$  NMR spectra of compound **11e** recorded at 100 MHz in  $\text{DMSO}-d_6$



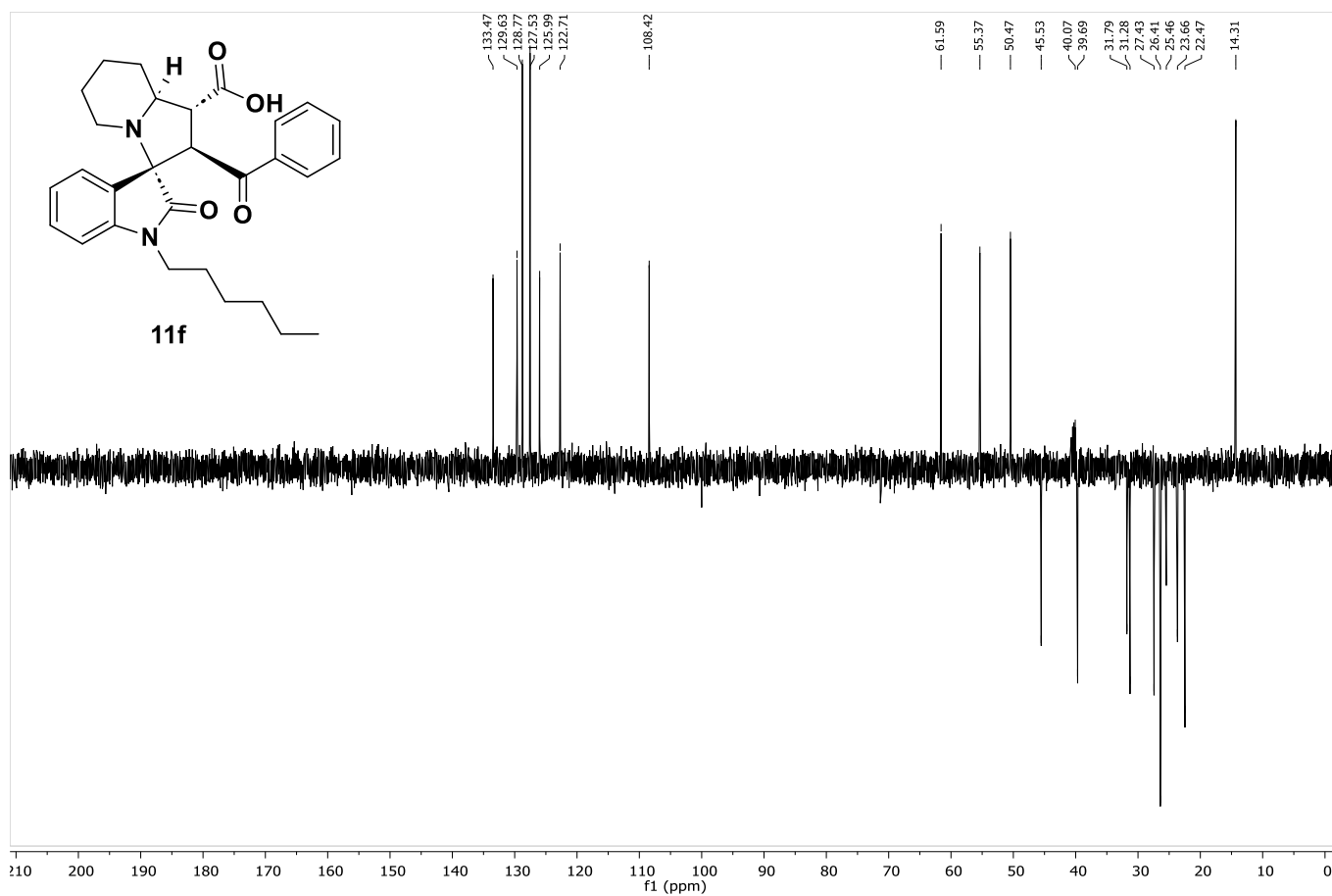
**Figure S61.** DEPT-135 experiment of compound **11e** in DMSO- $d_6$



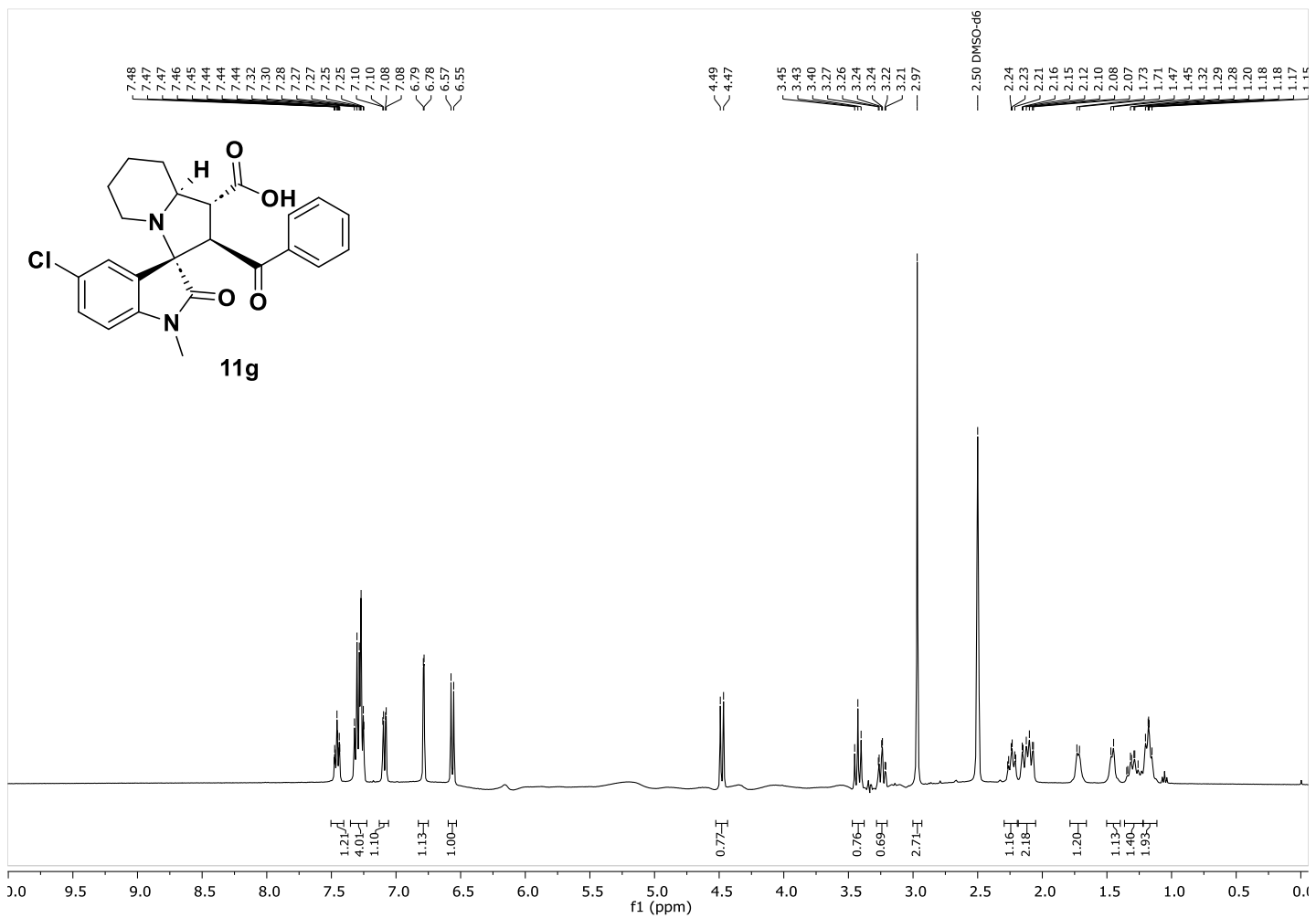
**Figure S62.**  $^1\text{H}$  NMR spectra of compound **11f** recorded at 400 MHz in  $\text{DMSO}-d_6$



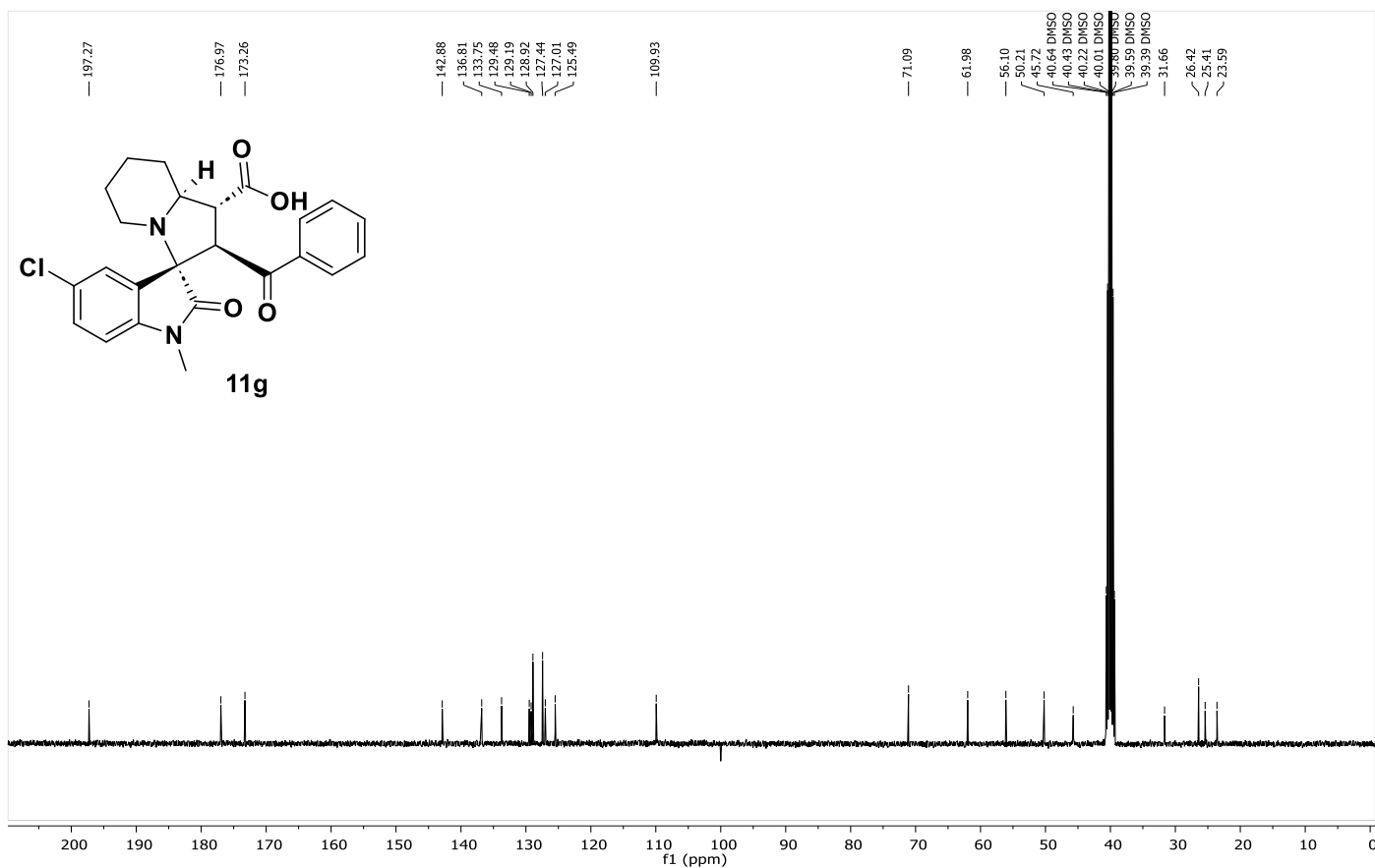
**Figure S63.**  $^{13}\text{C}$  NMR spectra of compound **11f** recorded at 100 MHz in  $\text{DMSO}-d_6$



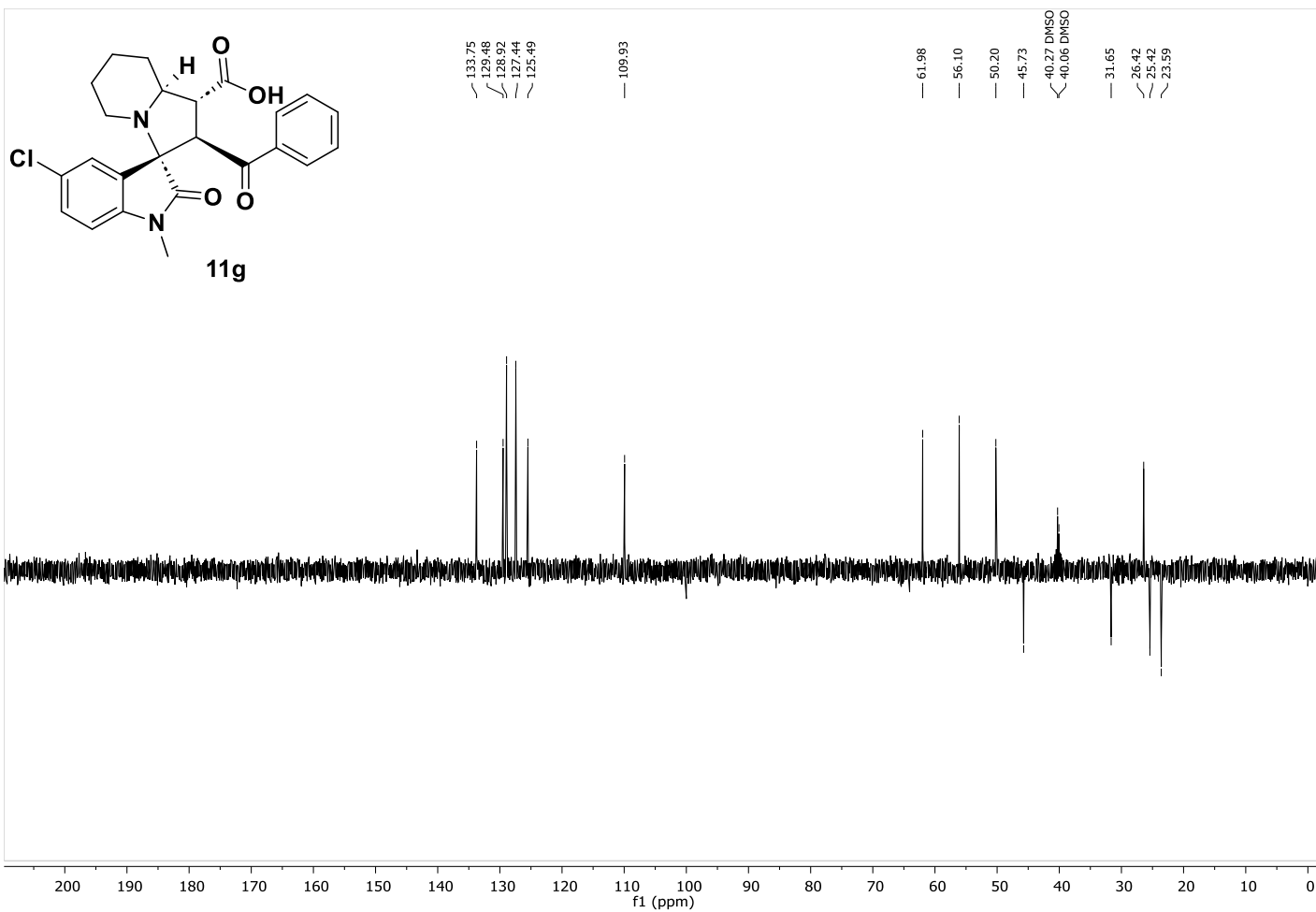
**Figure S64.** DEPT-135 experiment of compound **11f** in DMSO- $d_6$



**Figure S65.** <sup>1</sup>H NMR spectra of compound **11g** recorded at 400 MHz in DMSO-*d*<sub>6</sub>

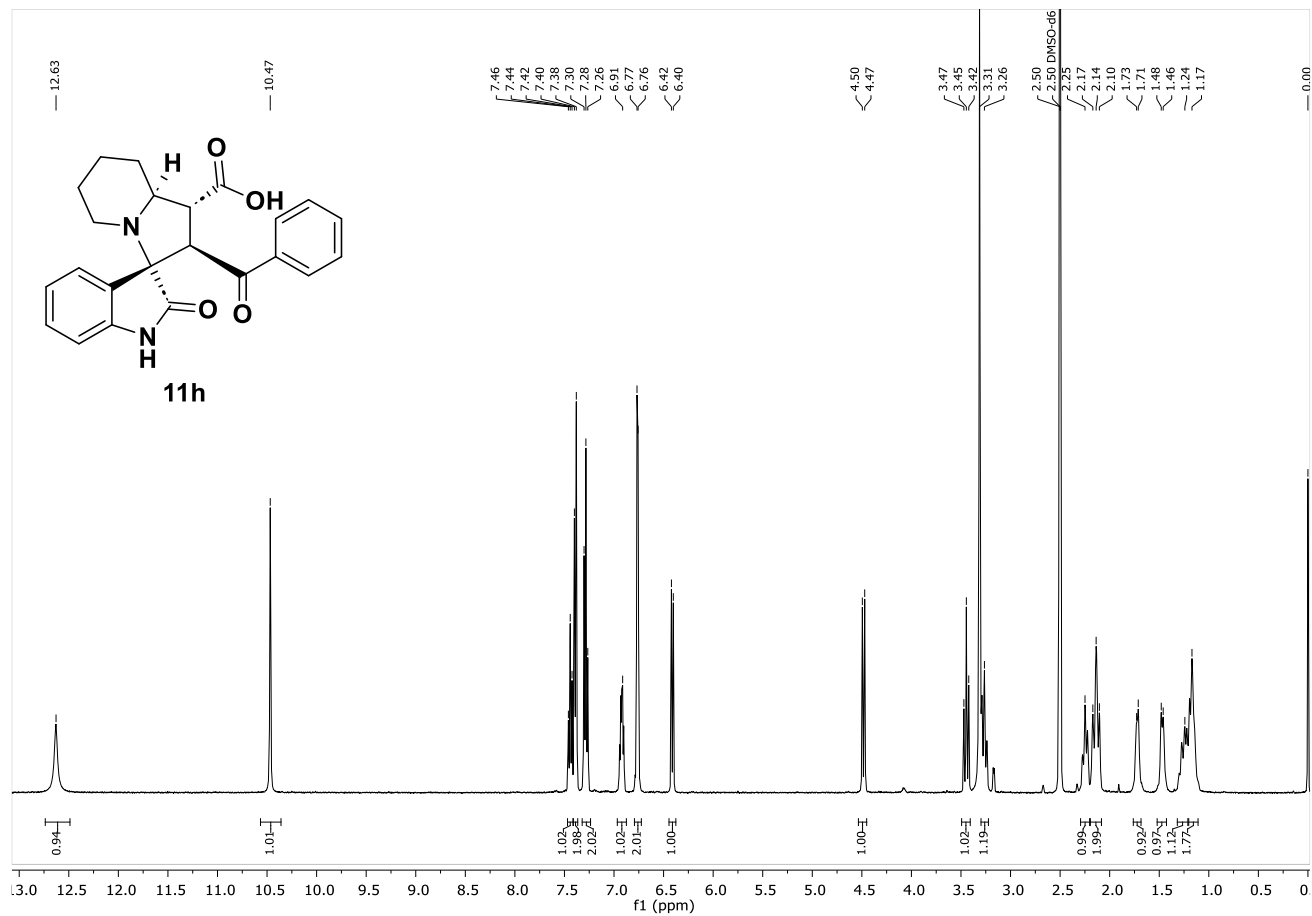


**Figure S66.**  $^{13}\text{C}$  NMR spectra of compound **11g** recorded at 100 MHz in  $\text{DMSO}-d_6$

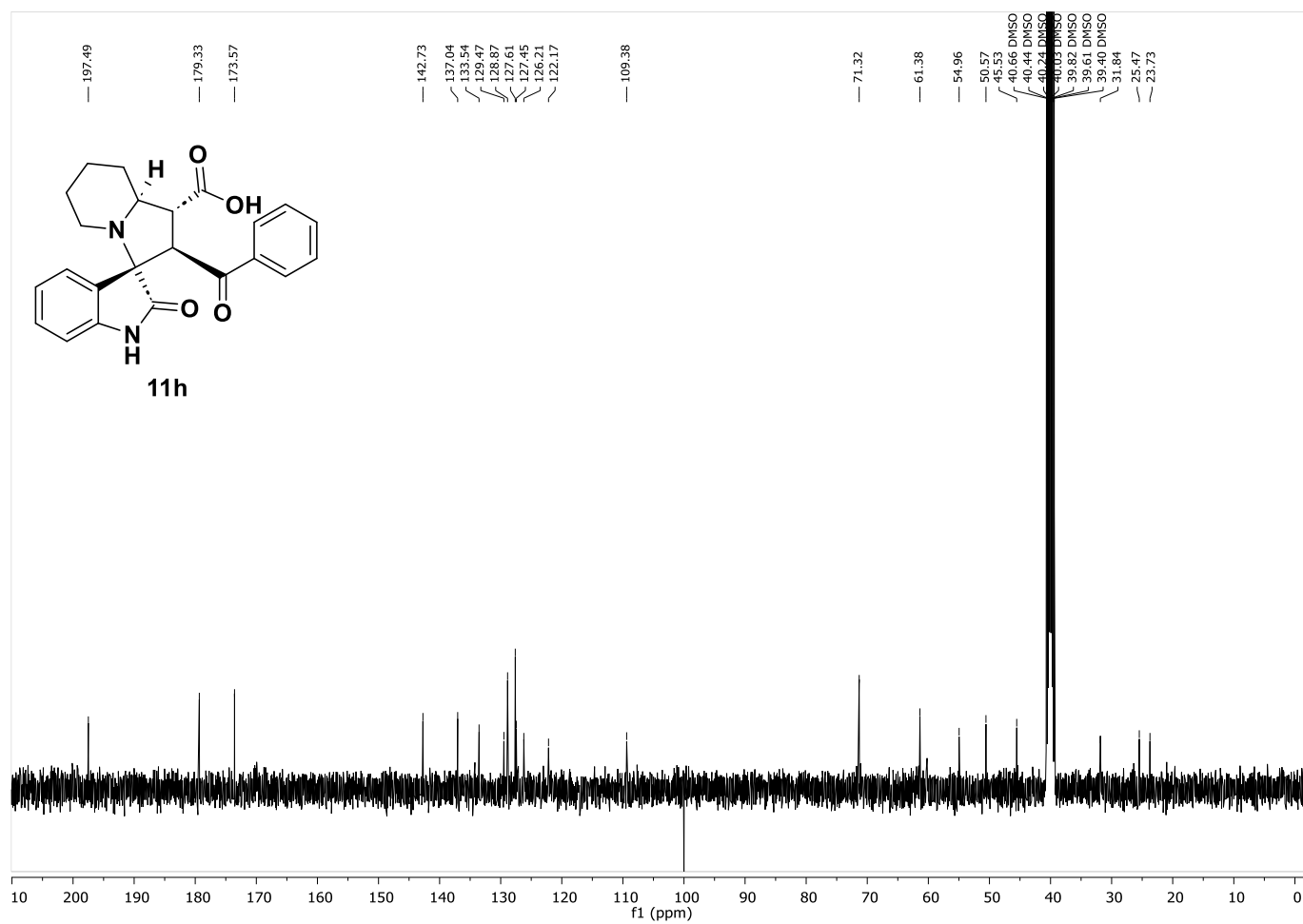


**Figure S67.** DEPT-135 experiment of compound **11g** in DMSO- $d_6$

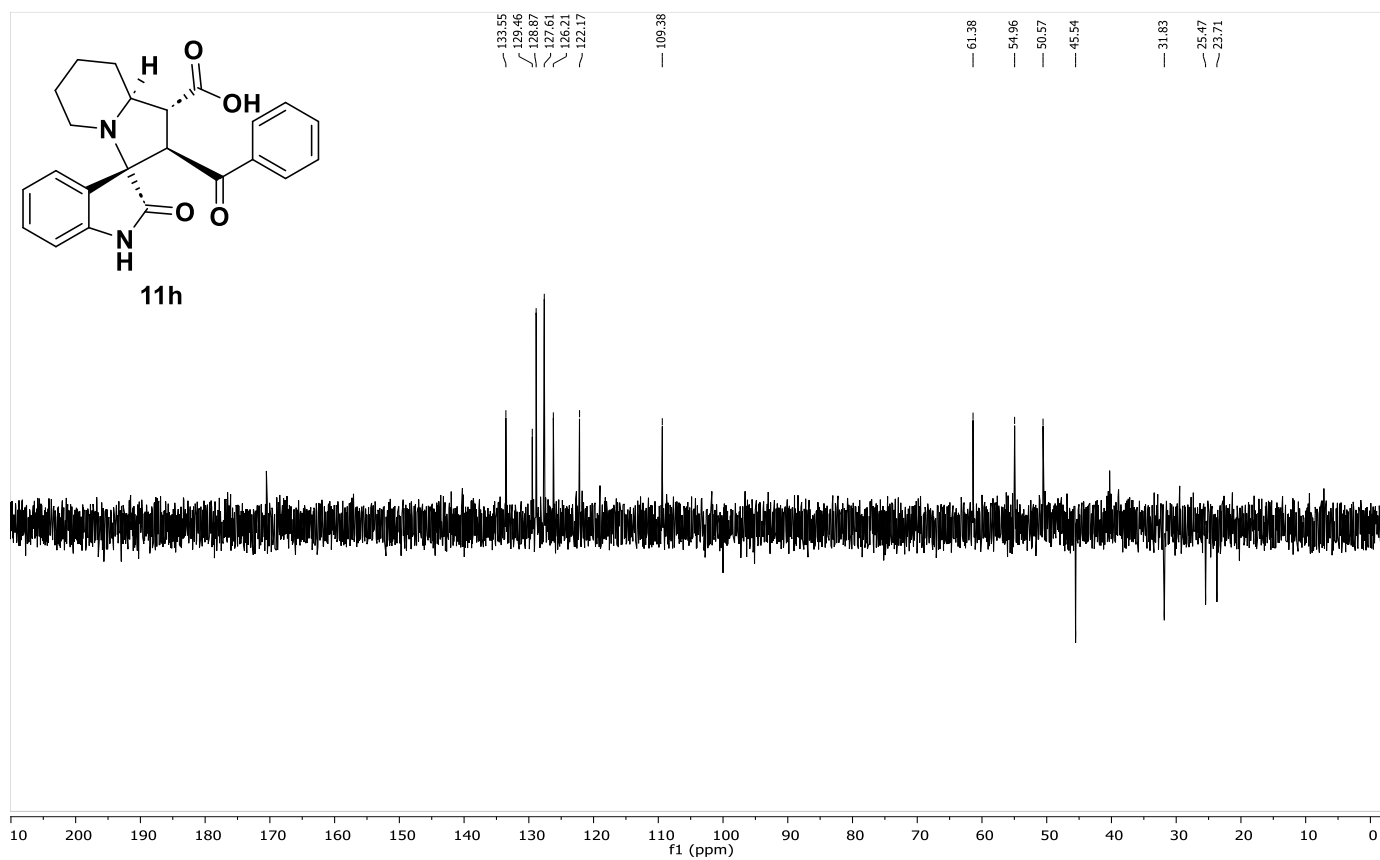




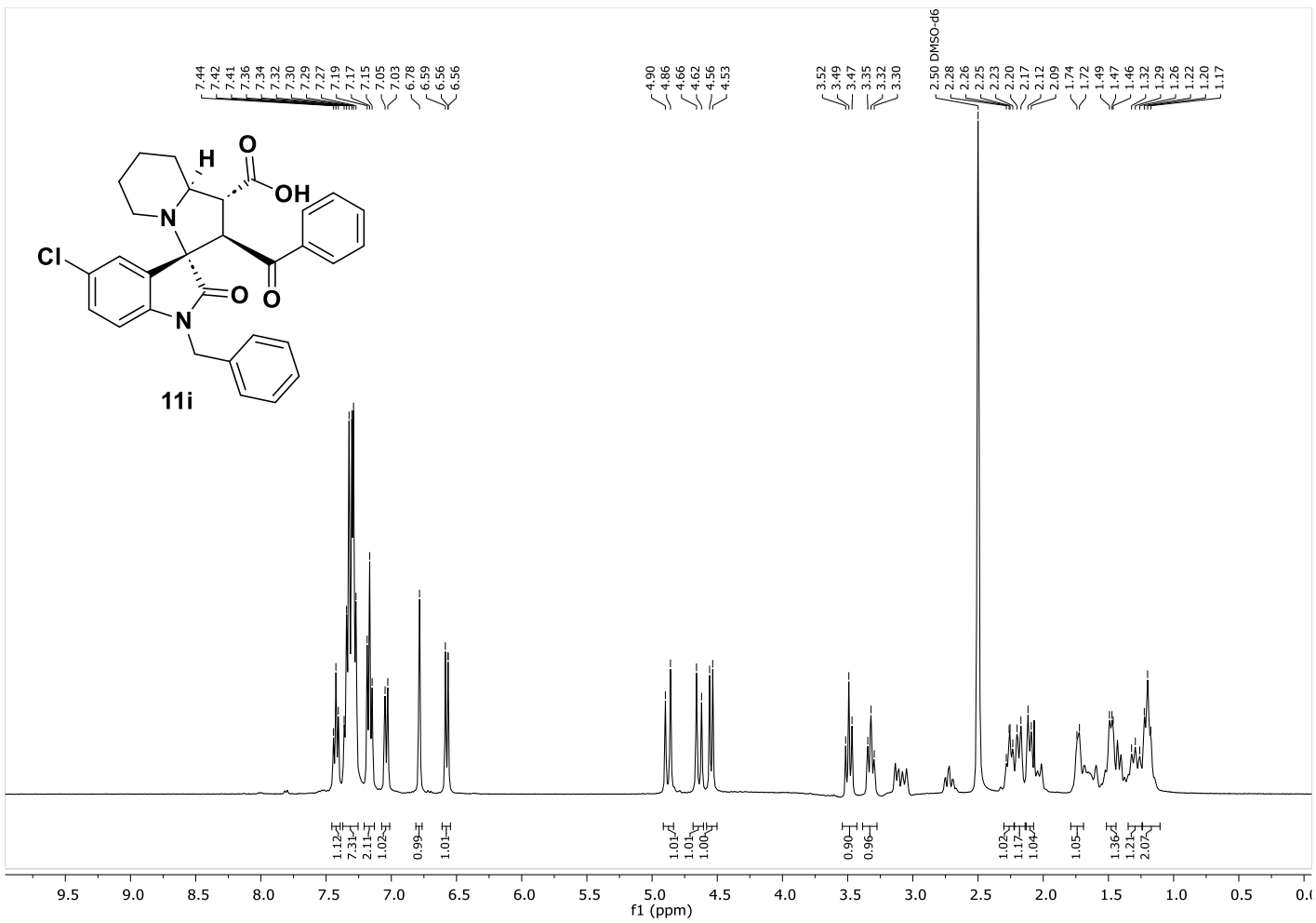
**Figure S68.**  $^1\text{H}$  NMR spectra of compound **11h** recorded at 400 MHz in  $\text{DMSO}-d_6$



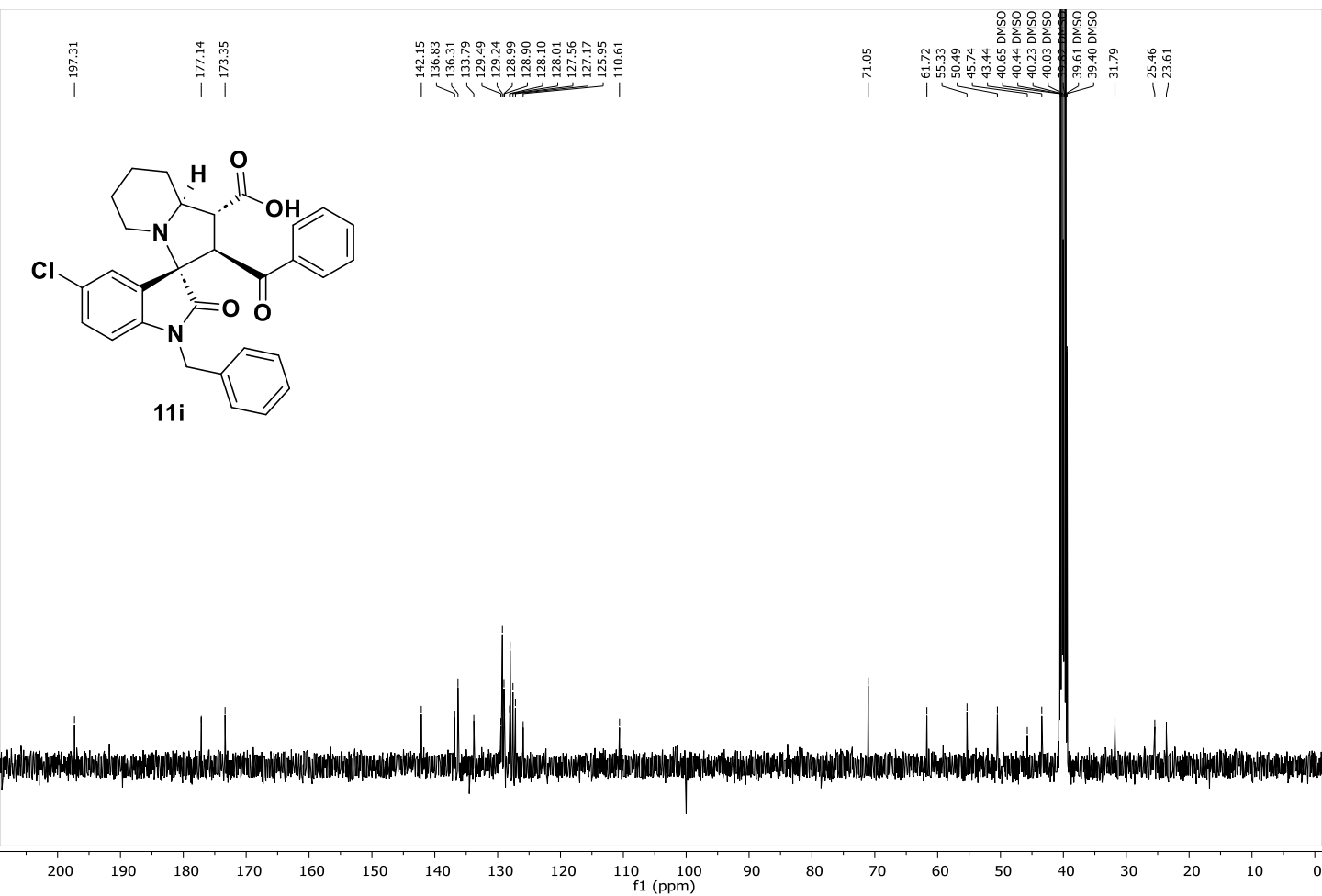
**Figure S69.**  $^{13}\text{C}$  NMR spectra of compound **11h** recorded at 100 MHz in  $\text{DMSO}-d_6$



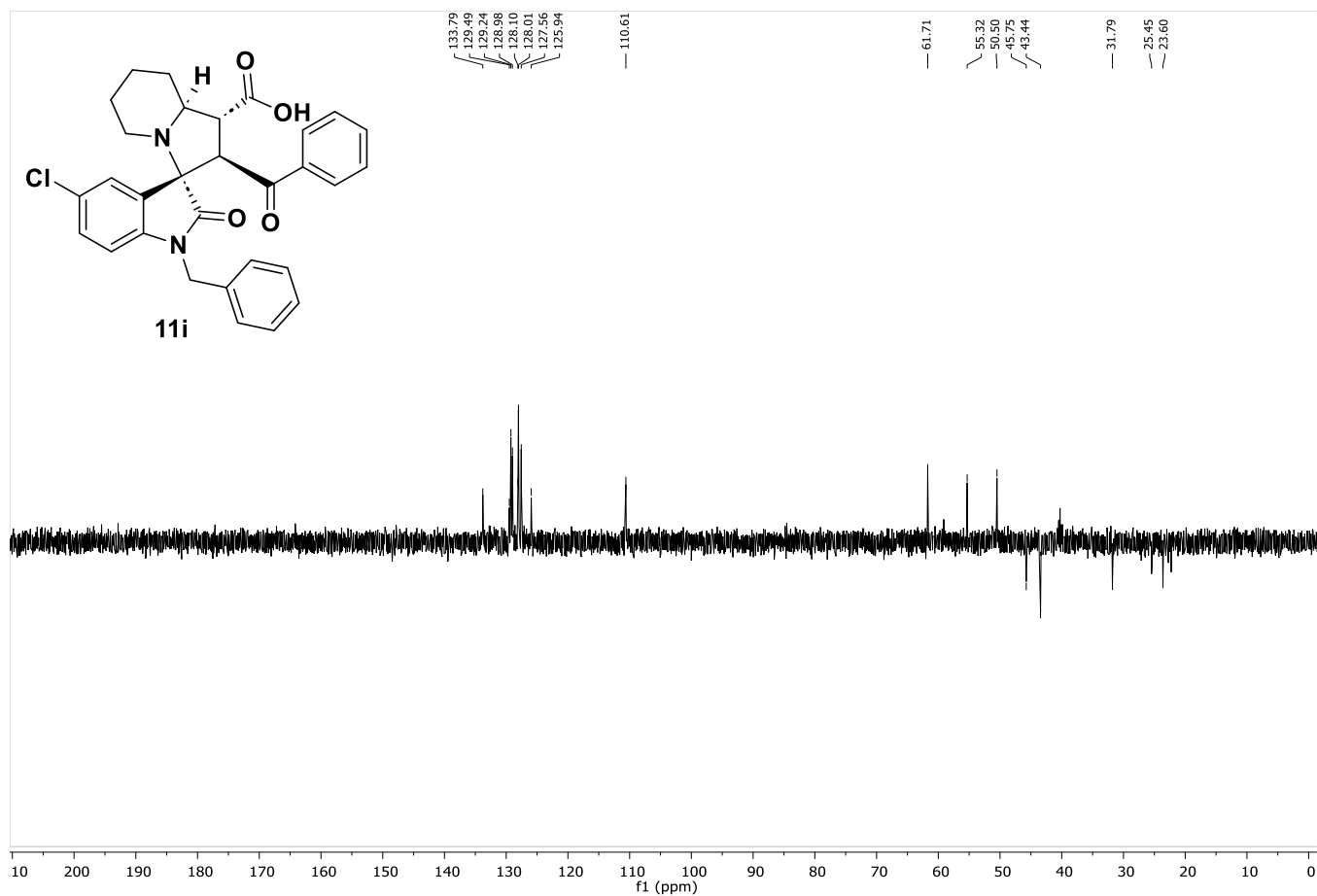
**Figure S70.** DEPT-135 experiment of compound **11h** in DMSO- $d_6$



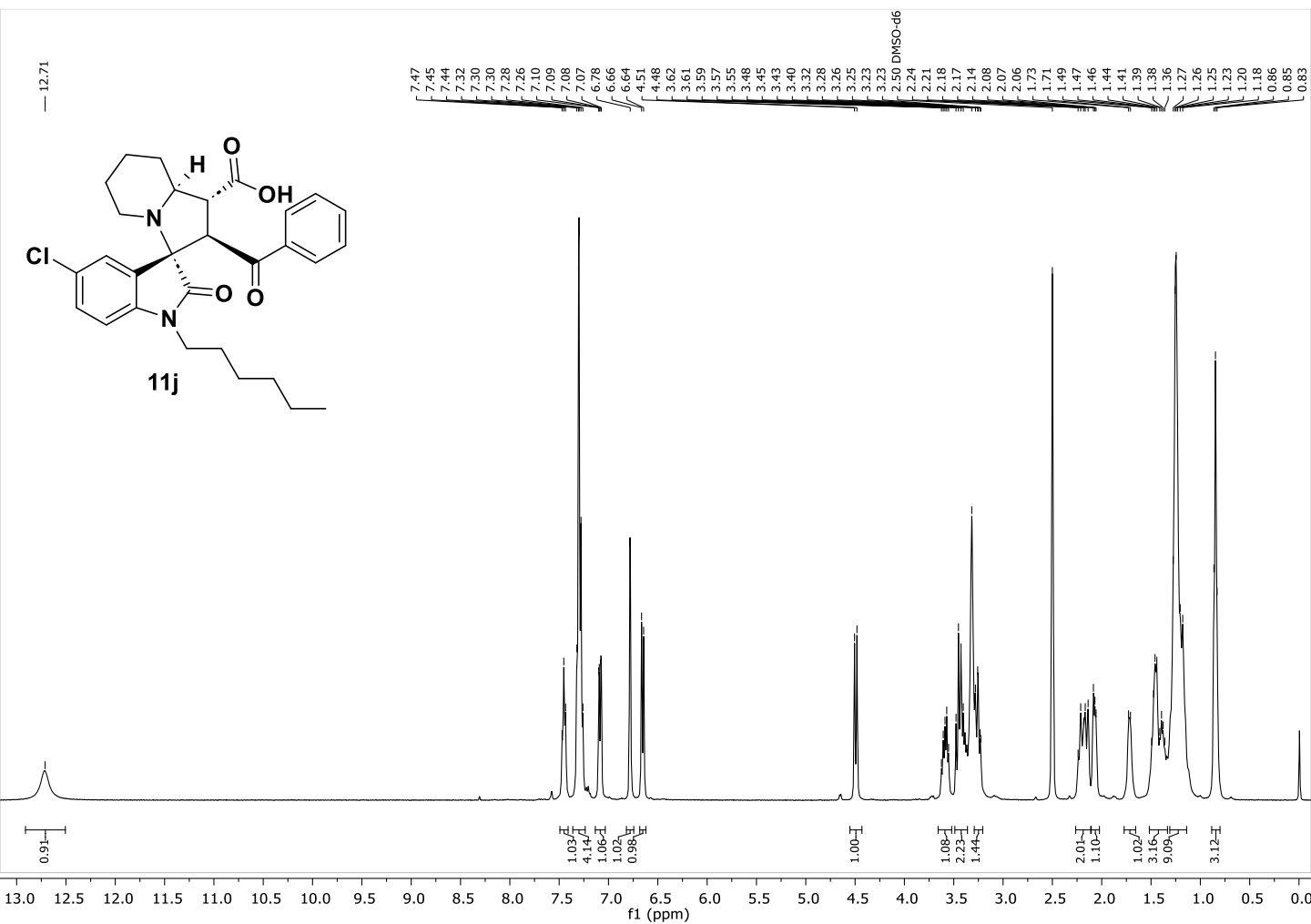
**Figure S71.**  $^1\text{H}$  NMR spectra of compound **11i** recorded at 400 MHz in  $\text{DMSO}-d_6$



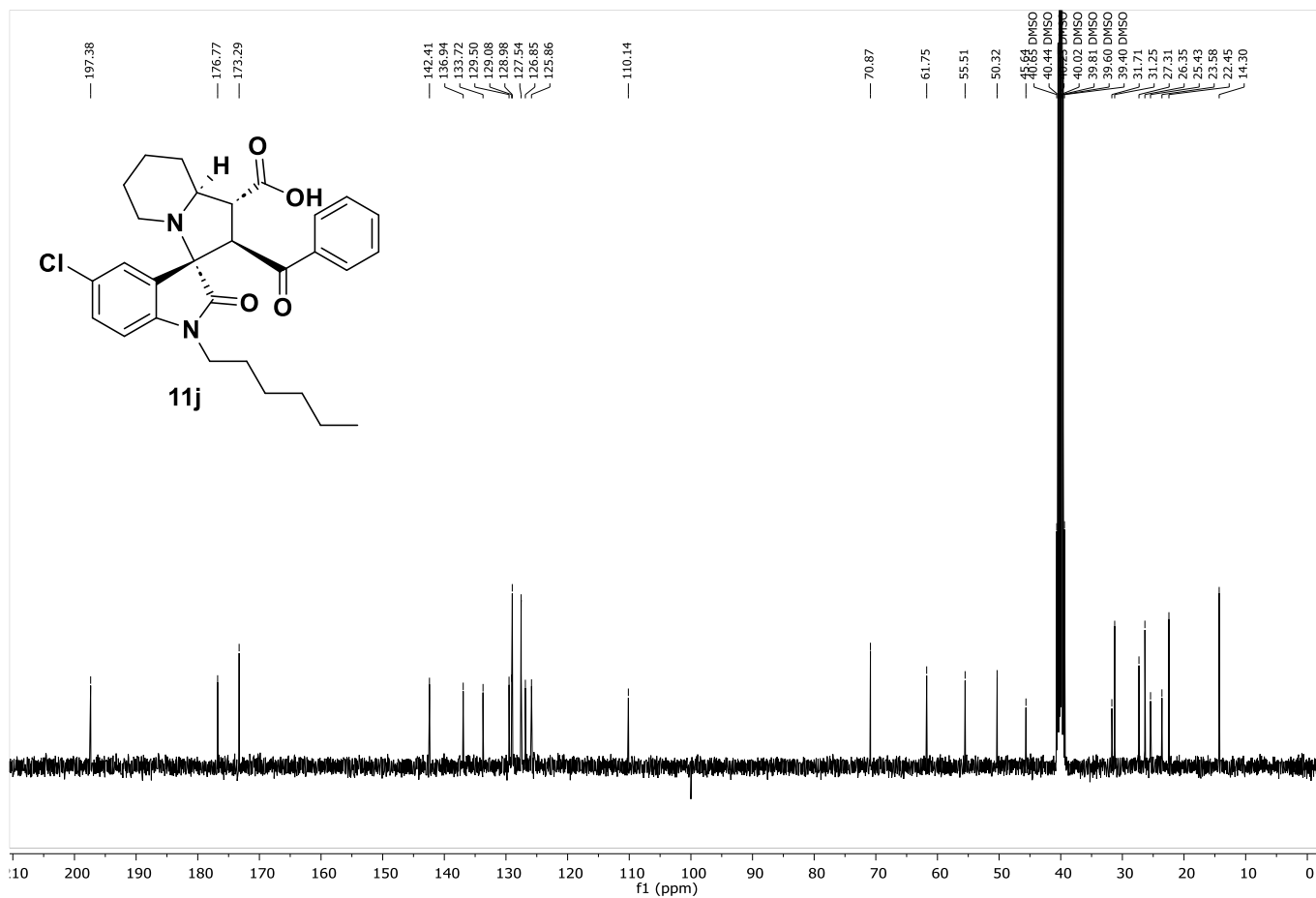
**Figure S72.**  $^{13}\text{C}$  NMR spectra of compound **11i** recorded at 100 MHz in  $\text{DMSO}-d_6$



**Figure S73.** DEPT-135 experiment of compound **11i** in DMSO- $d_6$

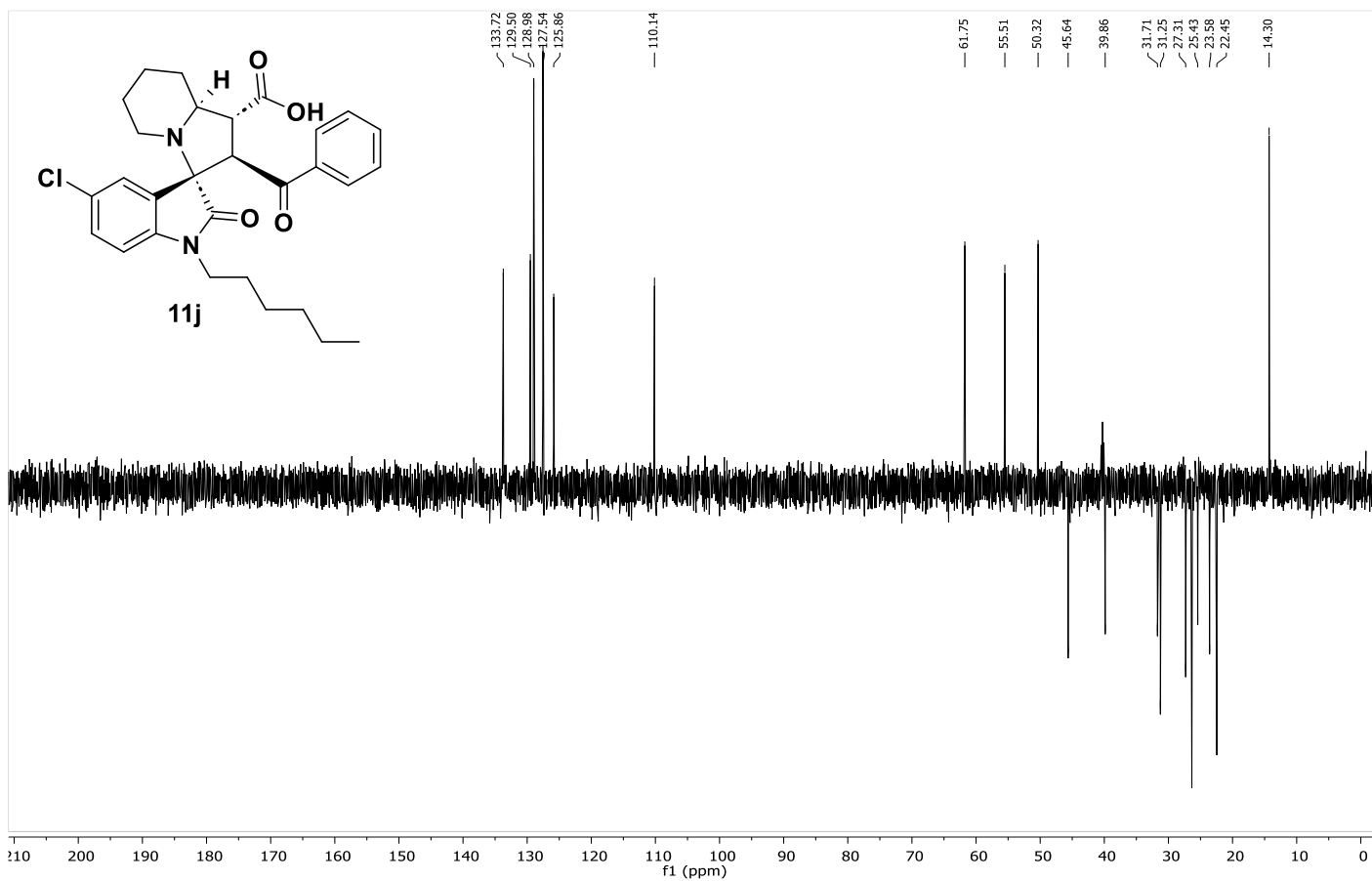


**Figure S74.**  $^1\text{H}$  NMR spectra of compound **11j** recorded at 400 MHz in  $\text{DMSO}-d_6$



**Figure S75.** <sup>13</sup>C NMR spectra of compound **11j** recorded at 100 MHz in DMSO-*d*<sub>6</sub>





**Figure S76.** DEPT-135 experiment of compound **11j** in DMSO-*d*<sub>6</sub>

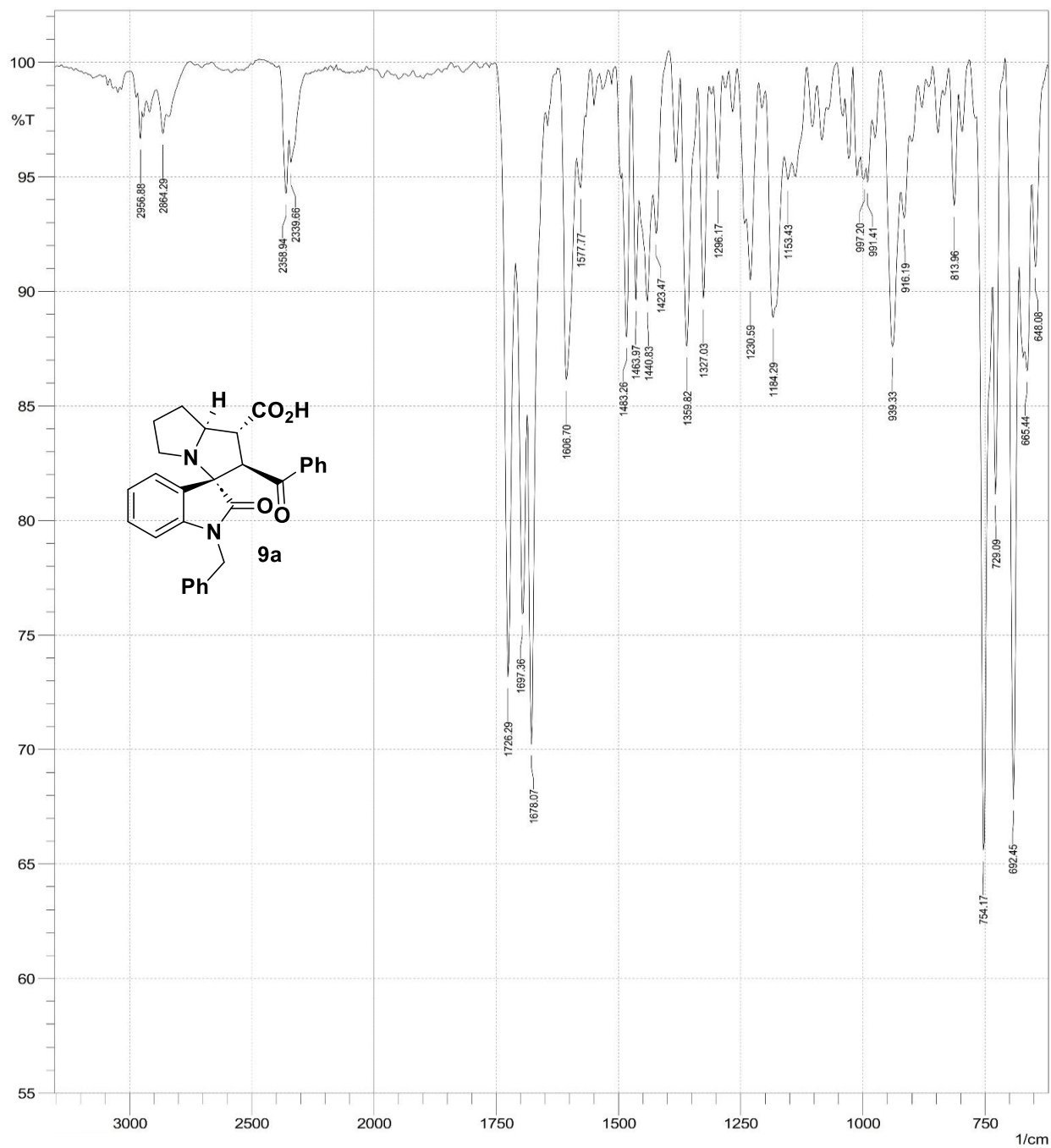
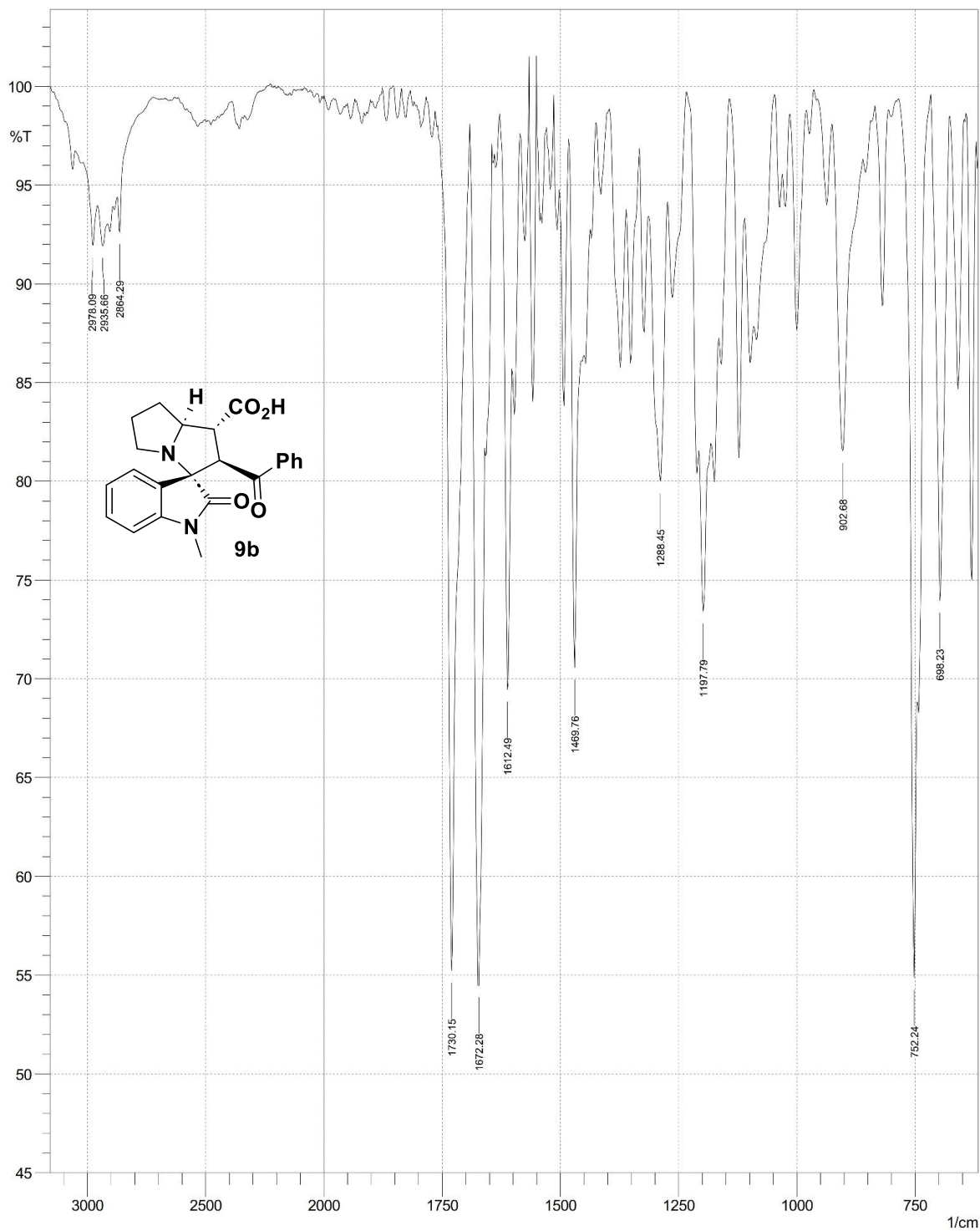
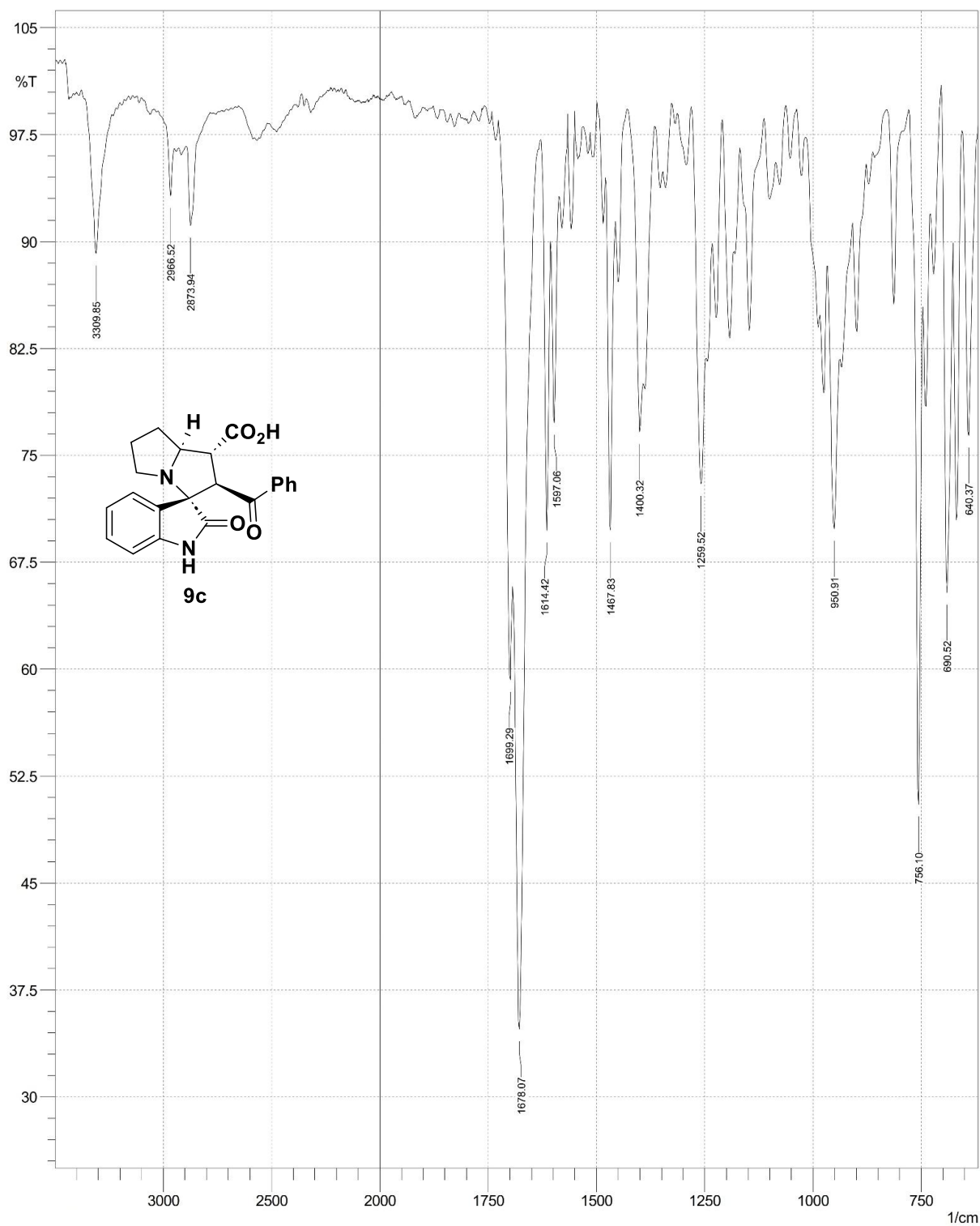


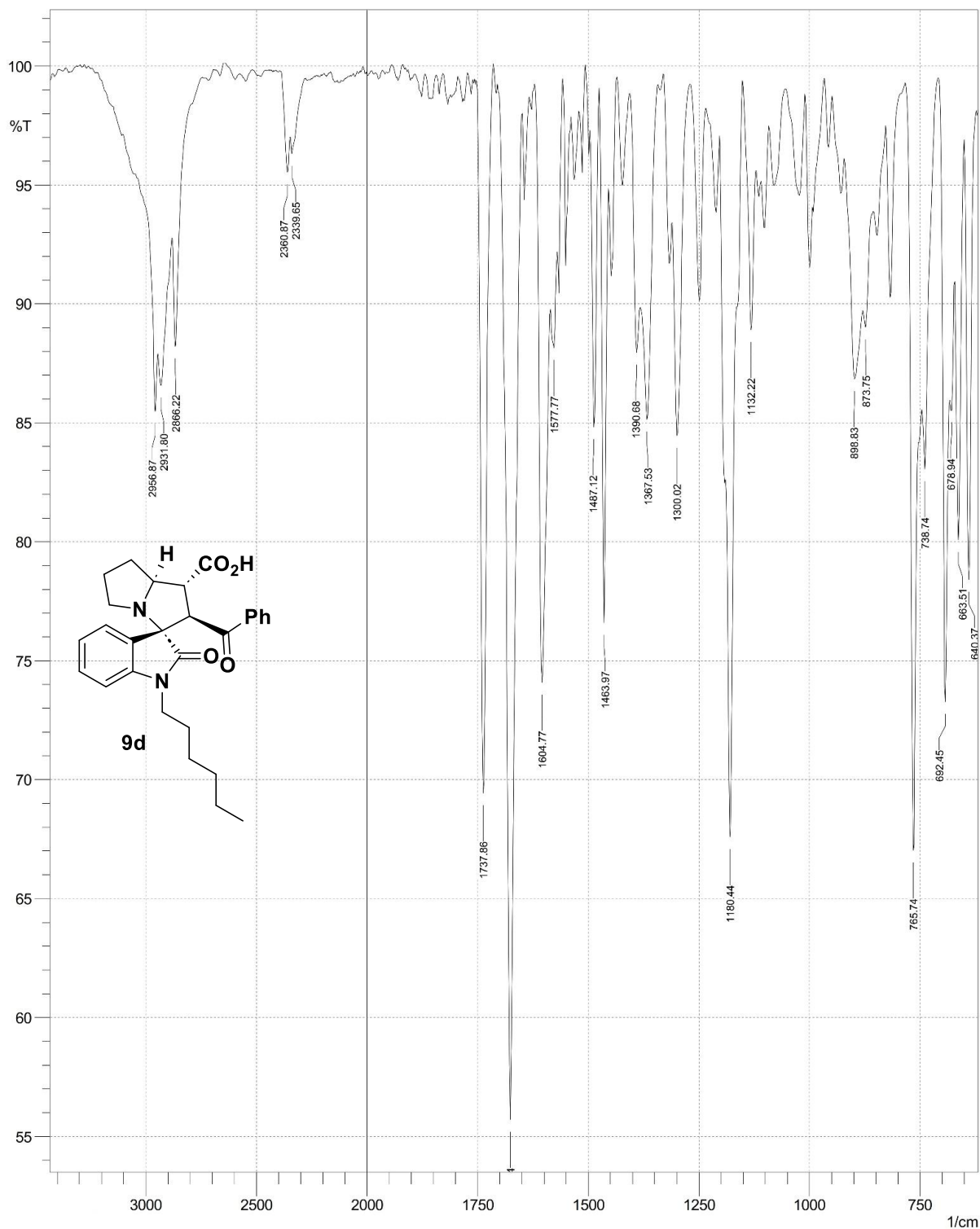
Figure S77. FT-IR spectra of compound **9a**



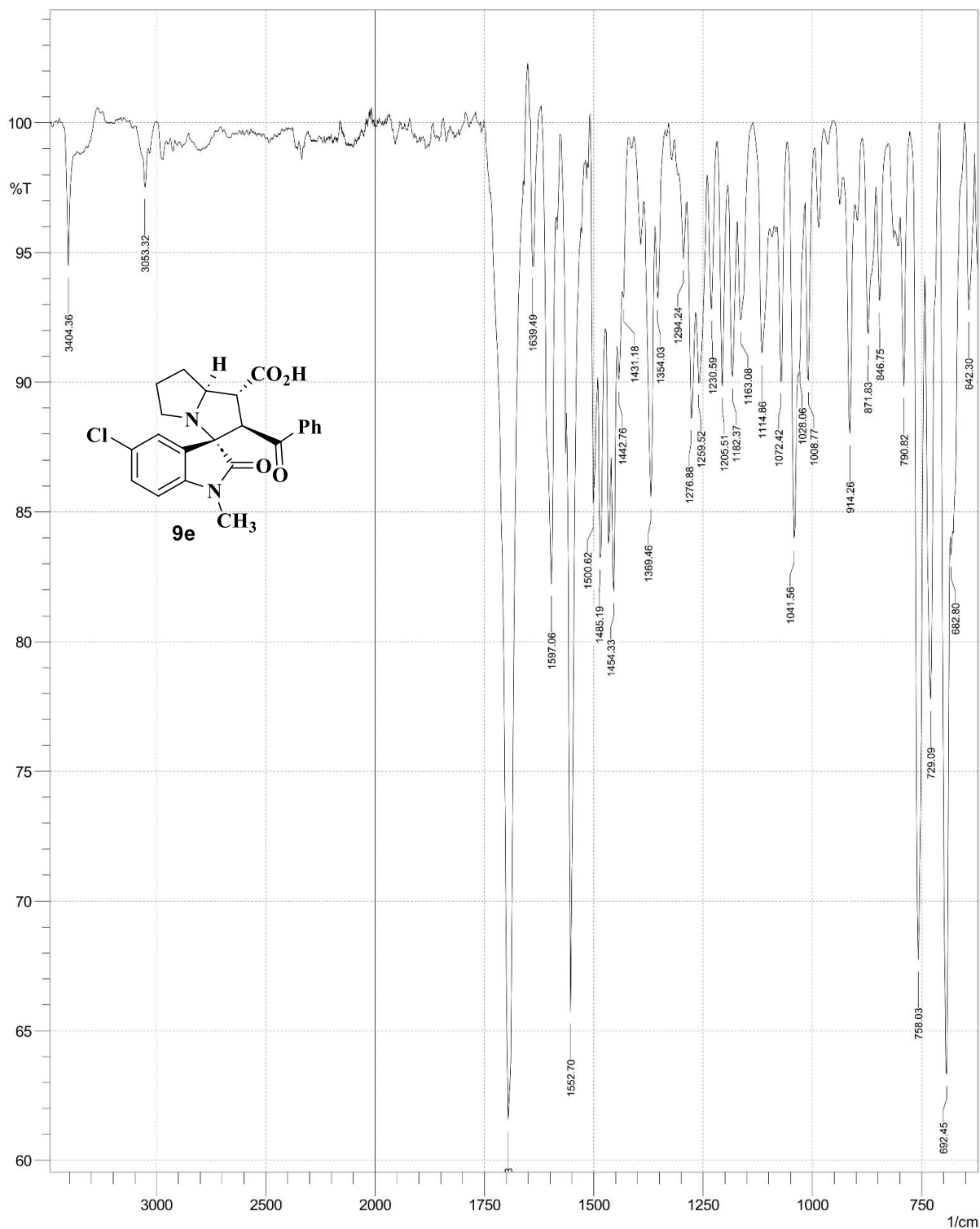
**Figure S78.** FT-IR spectra of compound **9b**



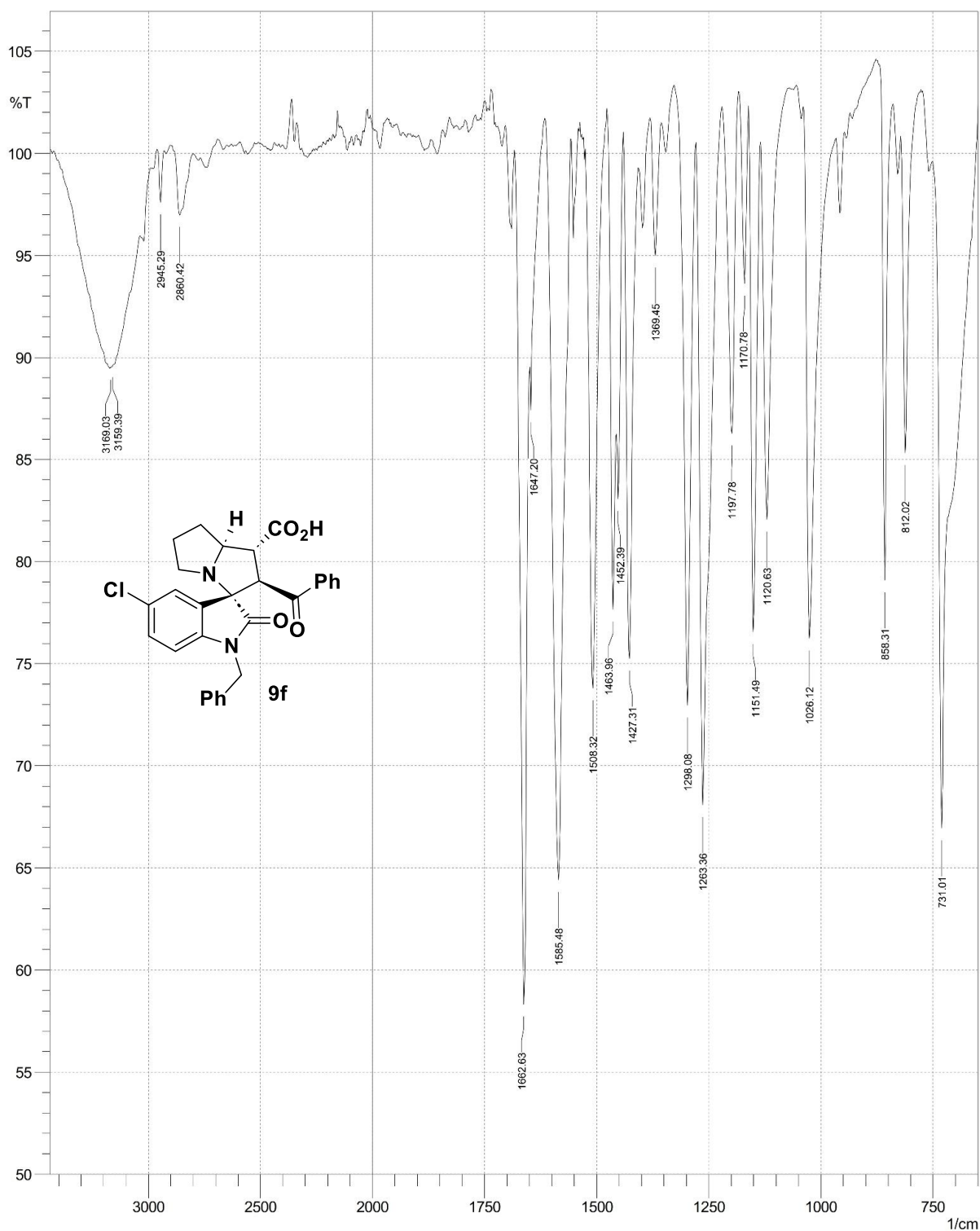
**Figure S79.** FT-IR spectra of compound **9c**



**Figure S80.** FT-IR spectra of compound **9d**



**Figure S81.** FT-IR spectra of compound **9e**



**Figure S82.** FT-IR spectra of compound **9f**

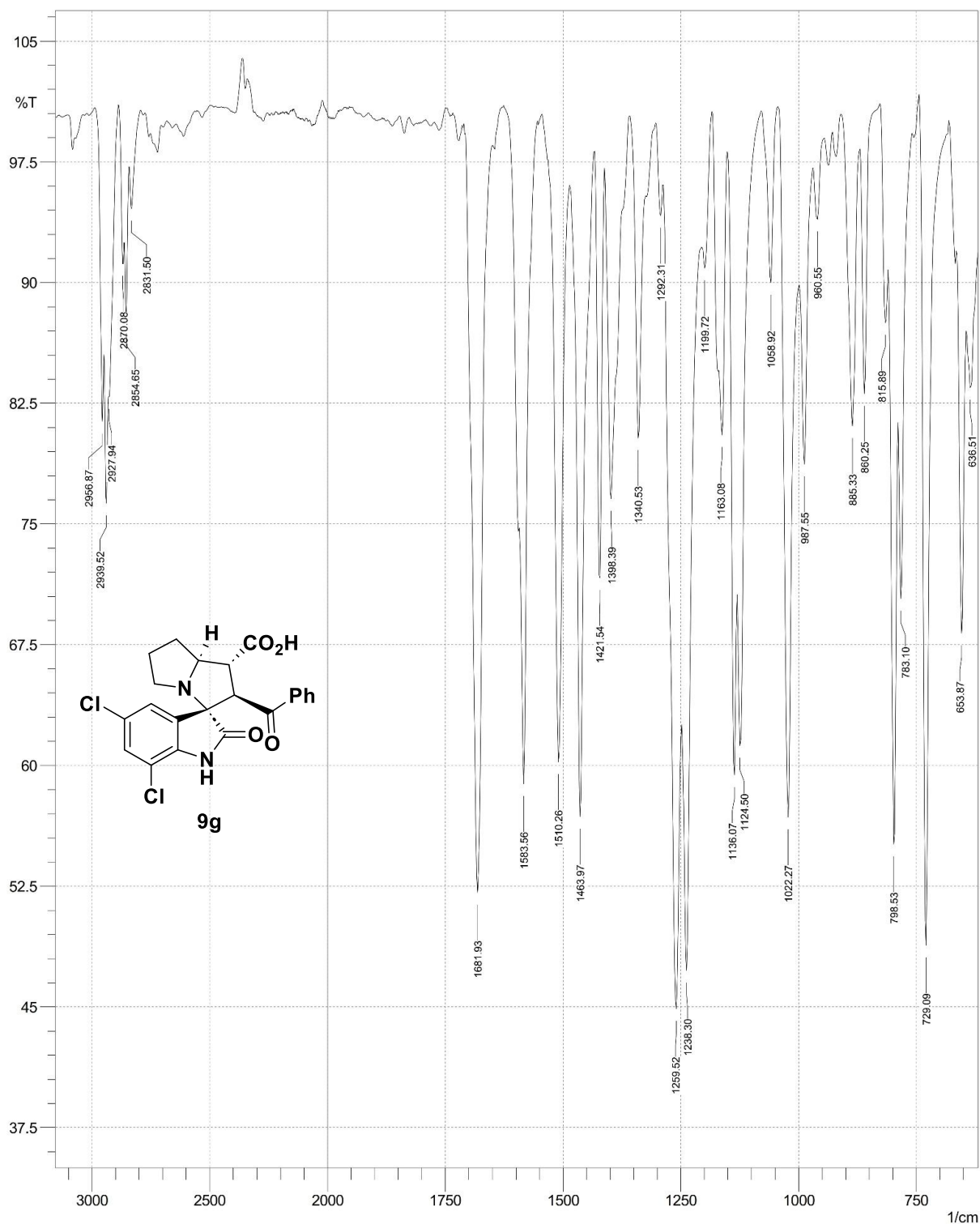


Figure S83. FT-IR spectra of compound **9g**



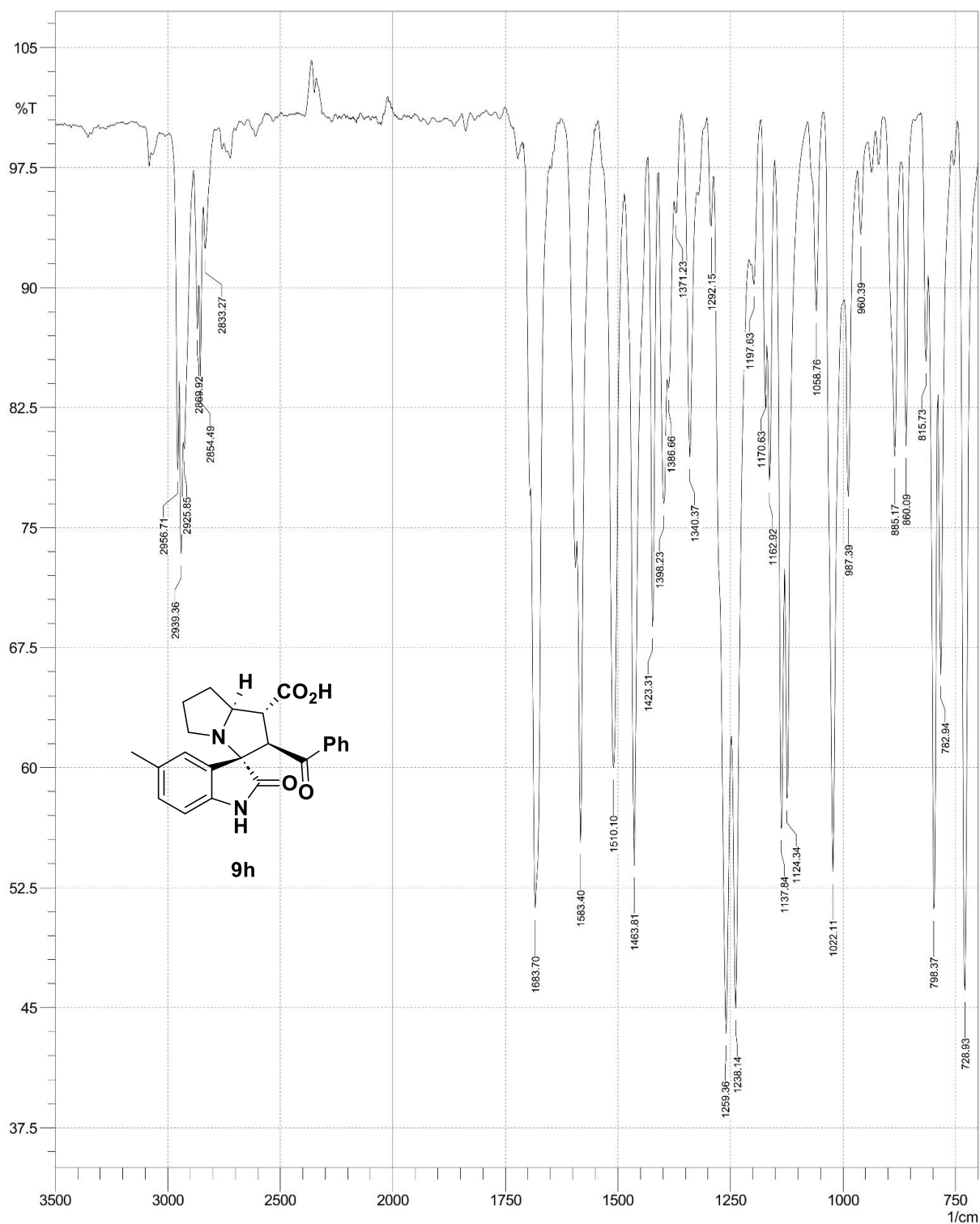


Figure S84. FT-IR spectra of compound **9h**

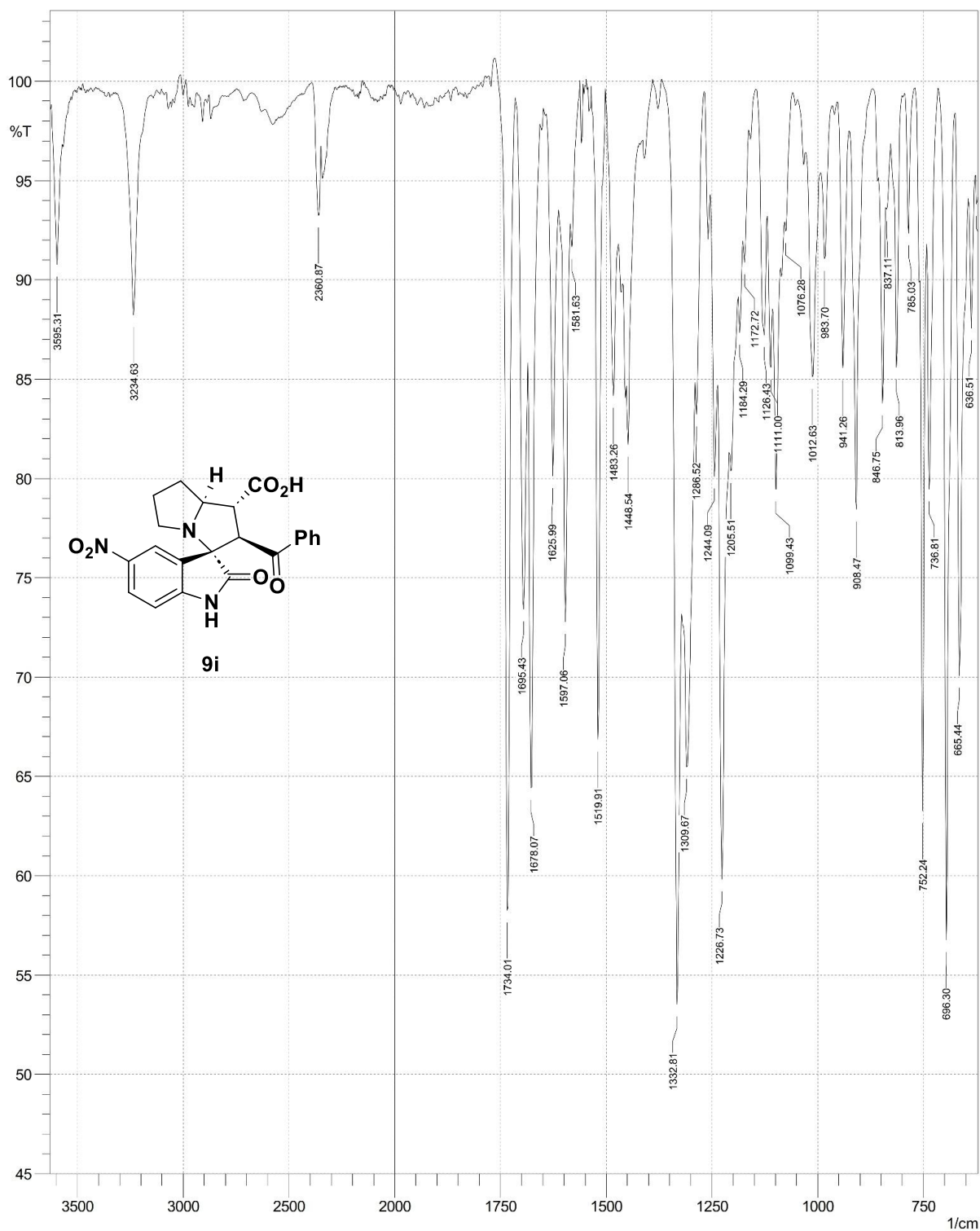


Figure S85. FT-IR spectra of compound **9i**

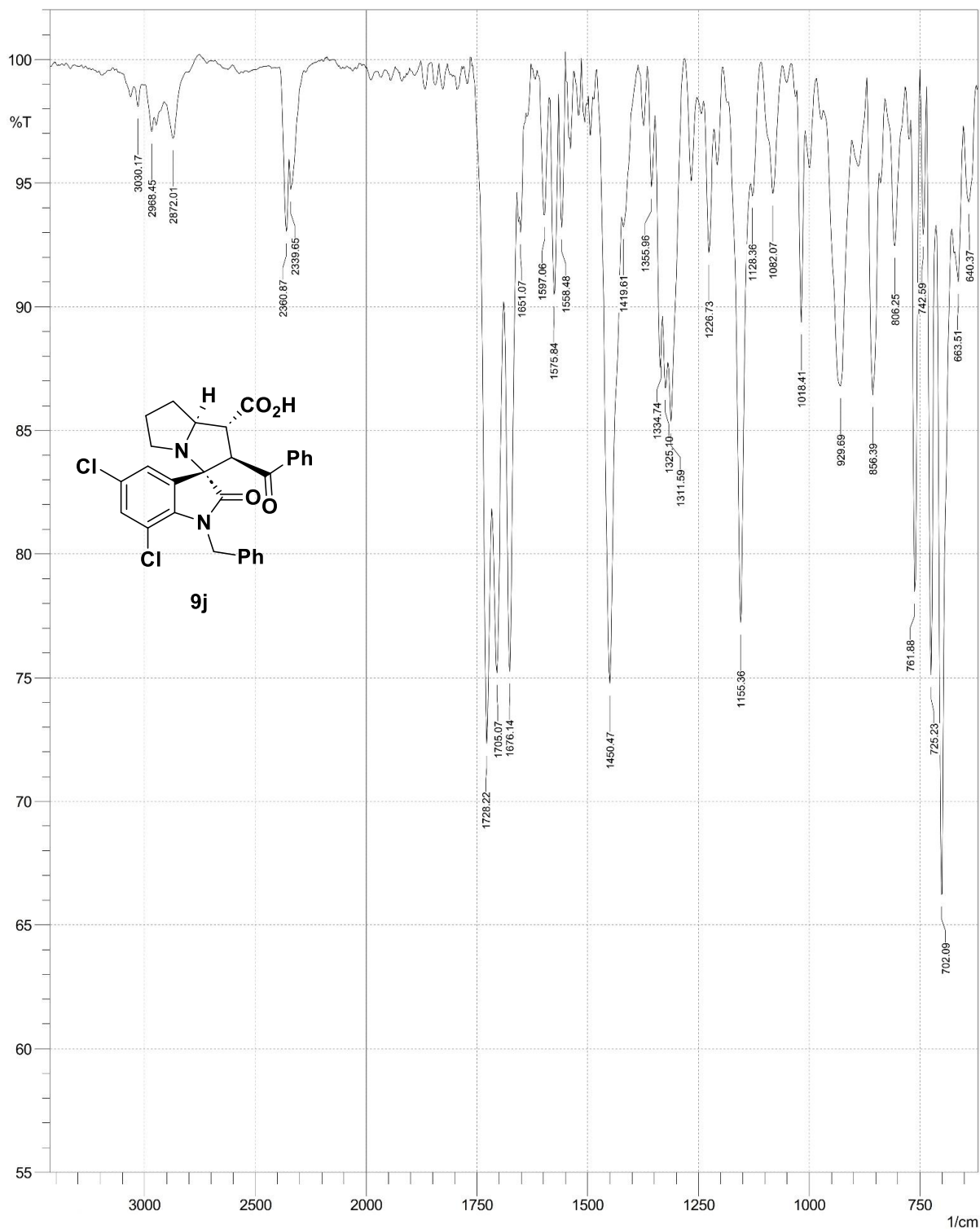


Figure S86. FT-IR spectra of compound **9j**

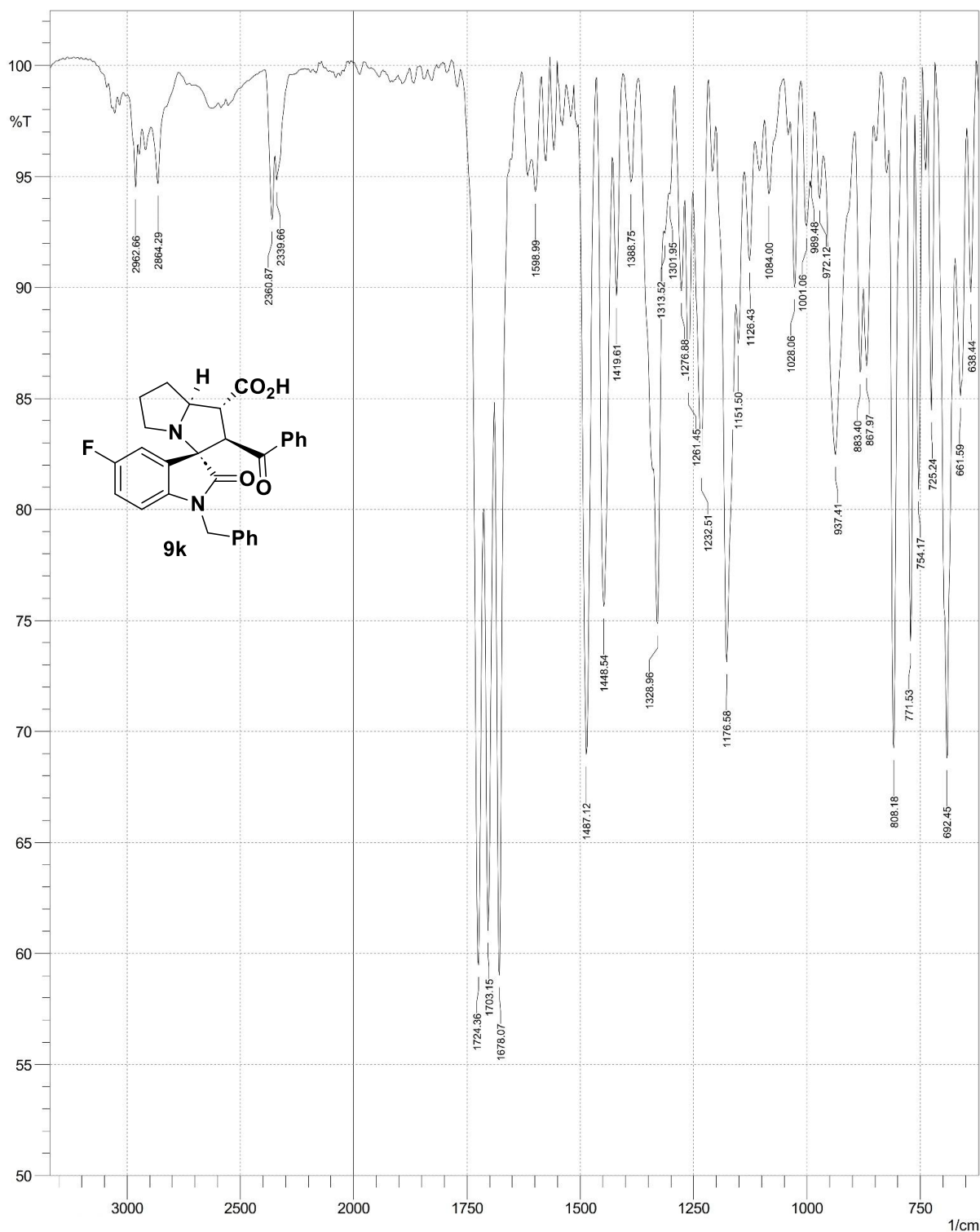
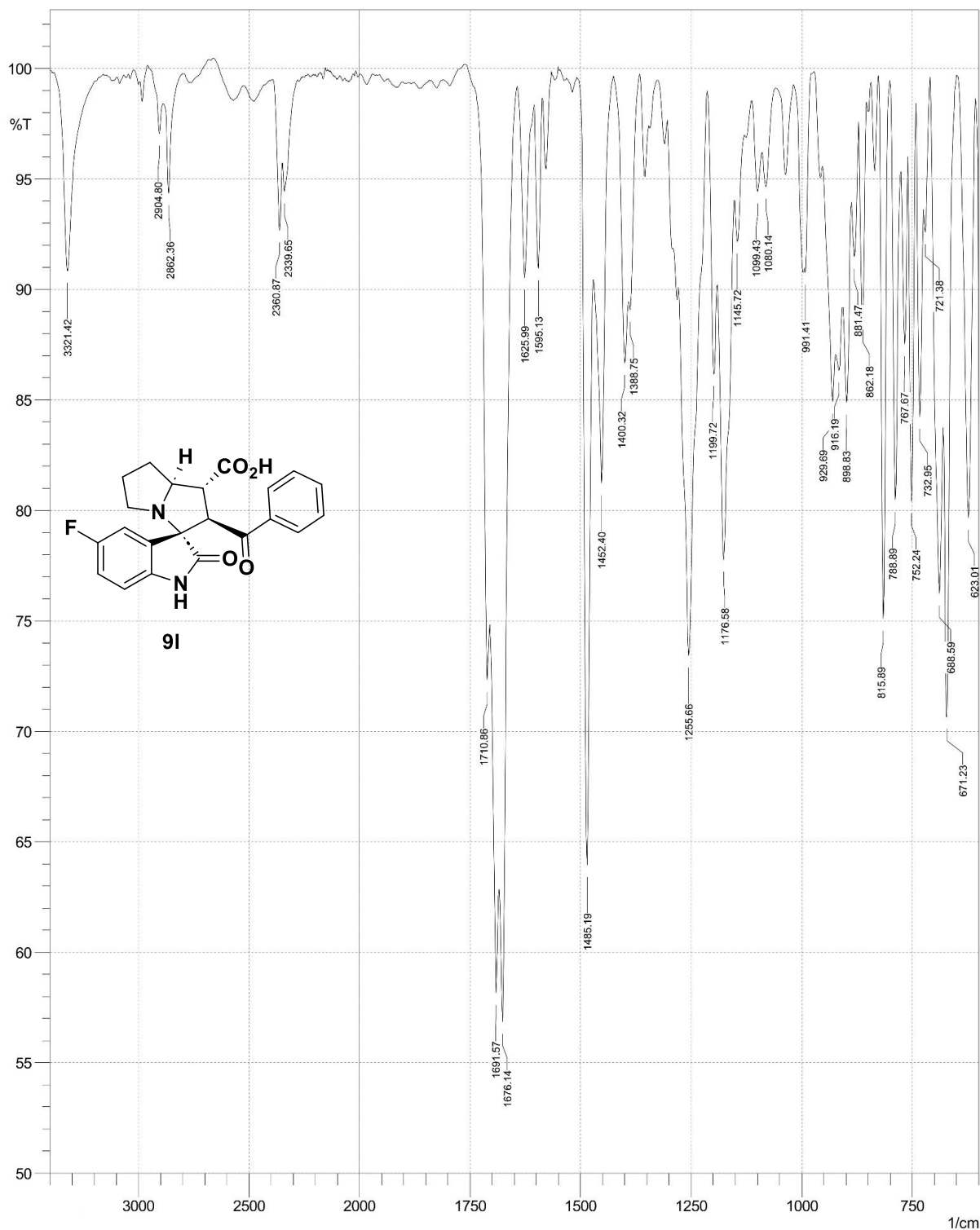
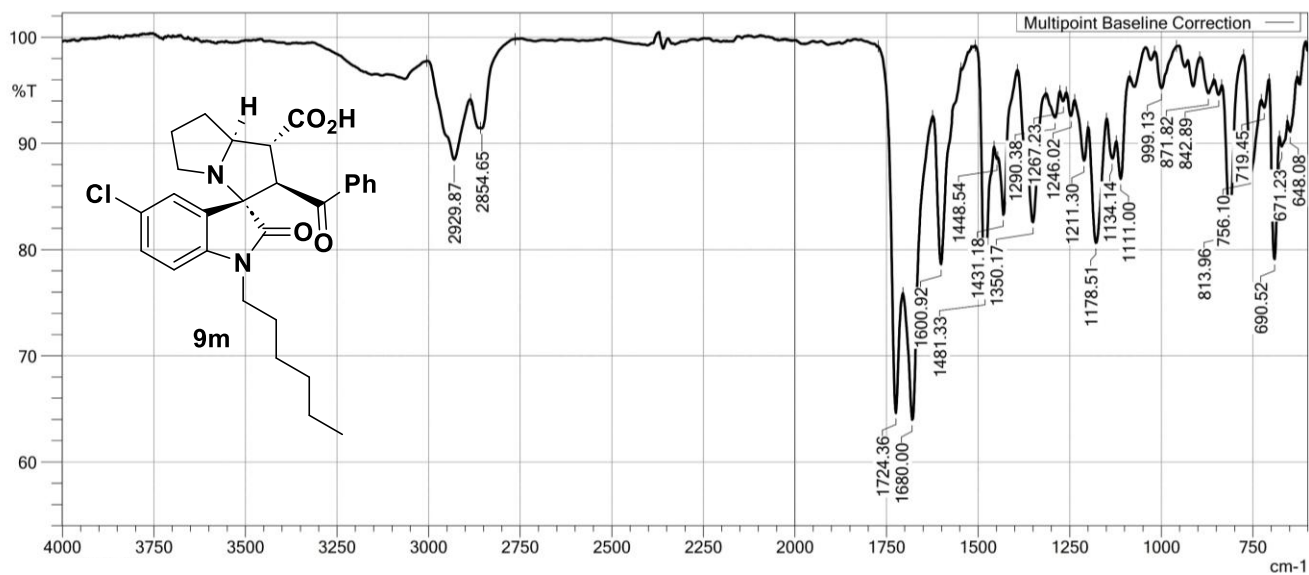


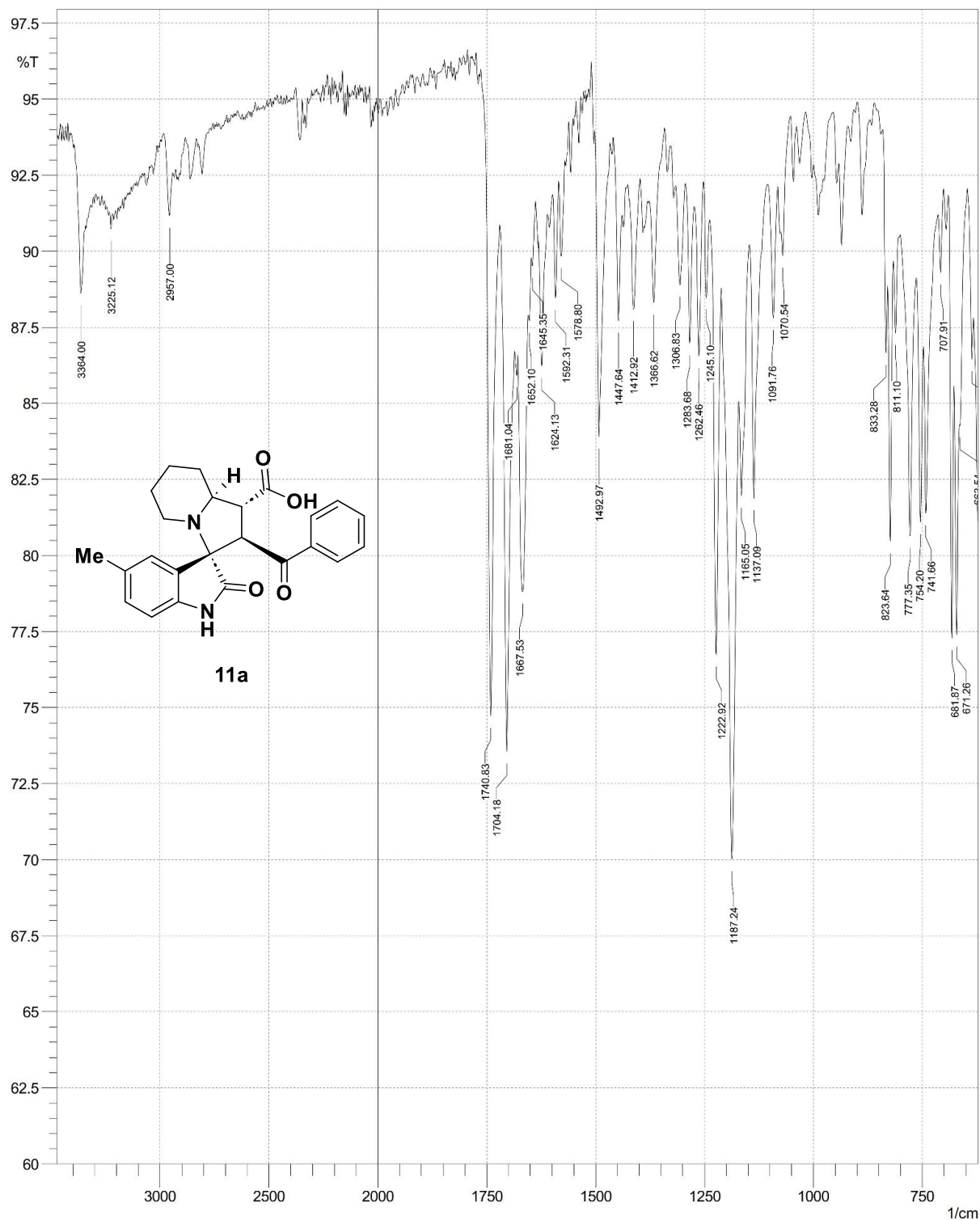
Figure S87. FT-IR spectra of compound **9k**



**Figure S88.** FT-IR spectra of compound **9l**

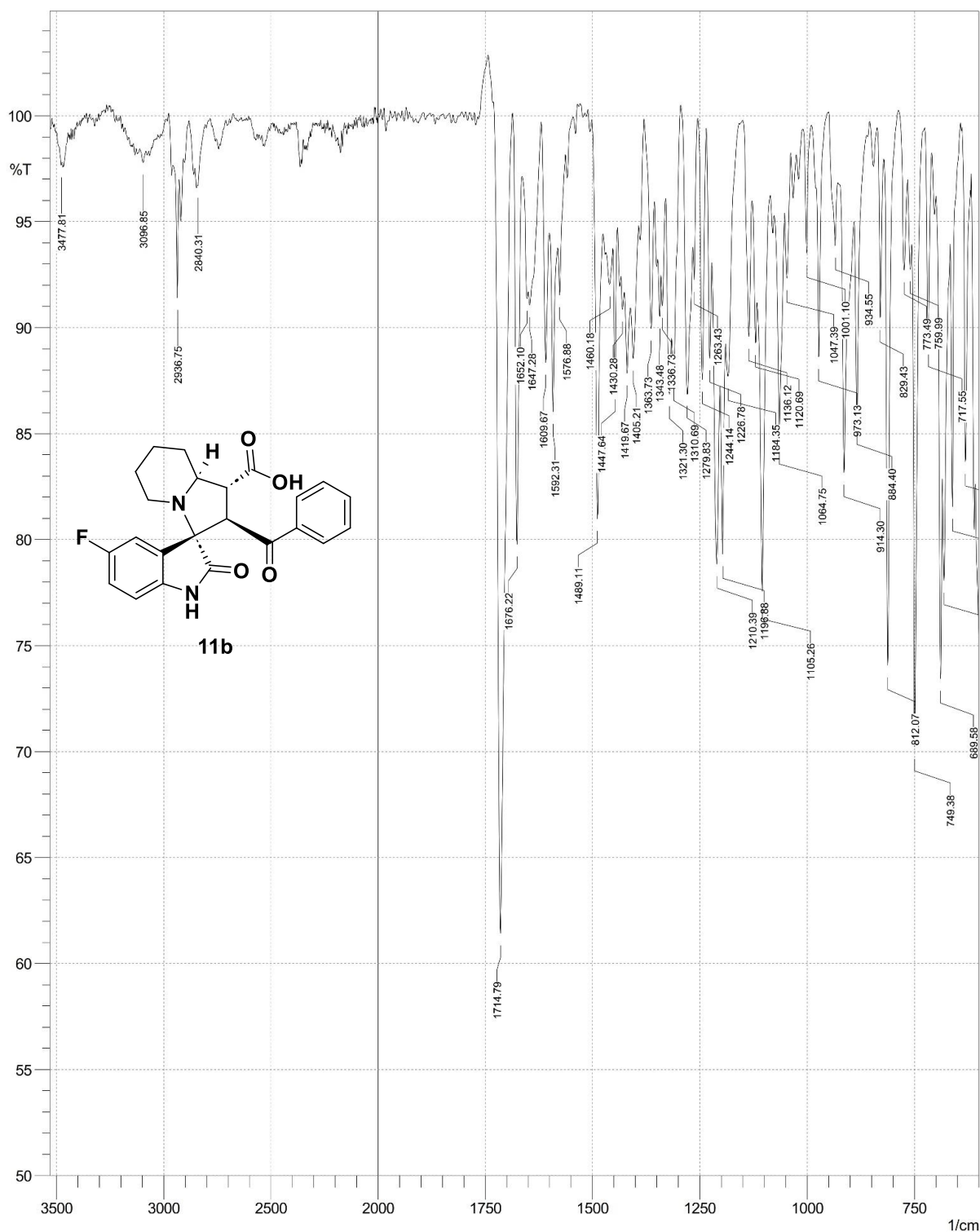


**Figure S89.** FT-IR spectra of compound **9m**



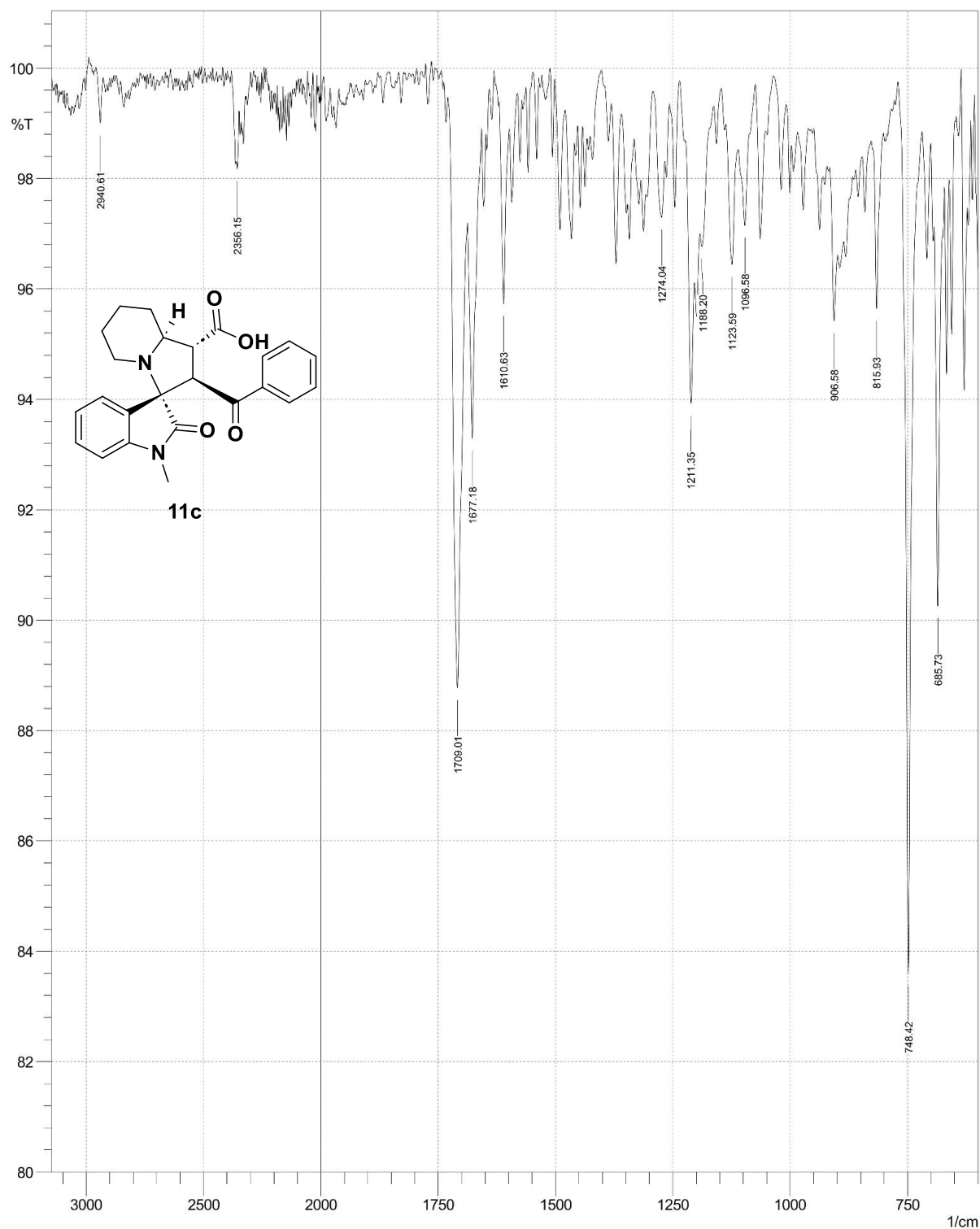
**Figure S90.** FT-IR spectra of compound **11a**



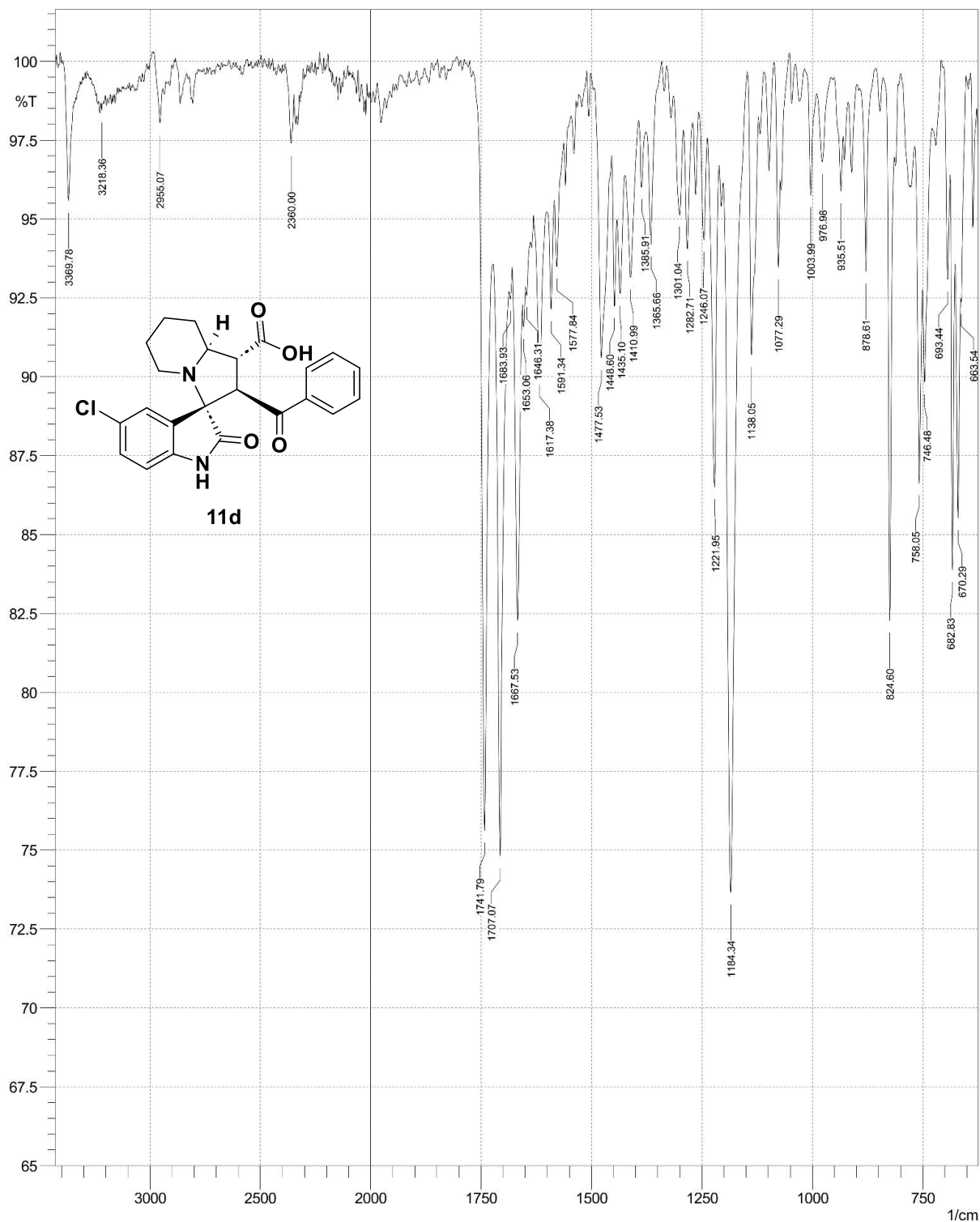


**Figure S91.** FT-IR spectra of compound **11b**

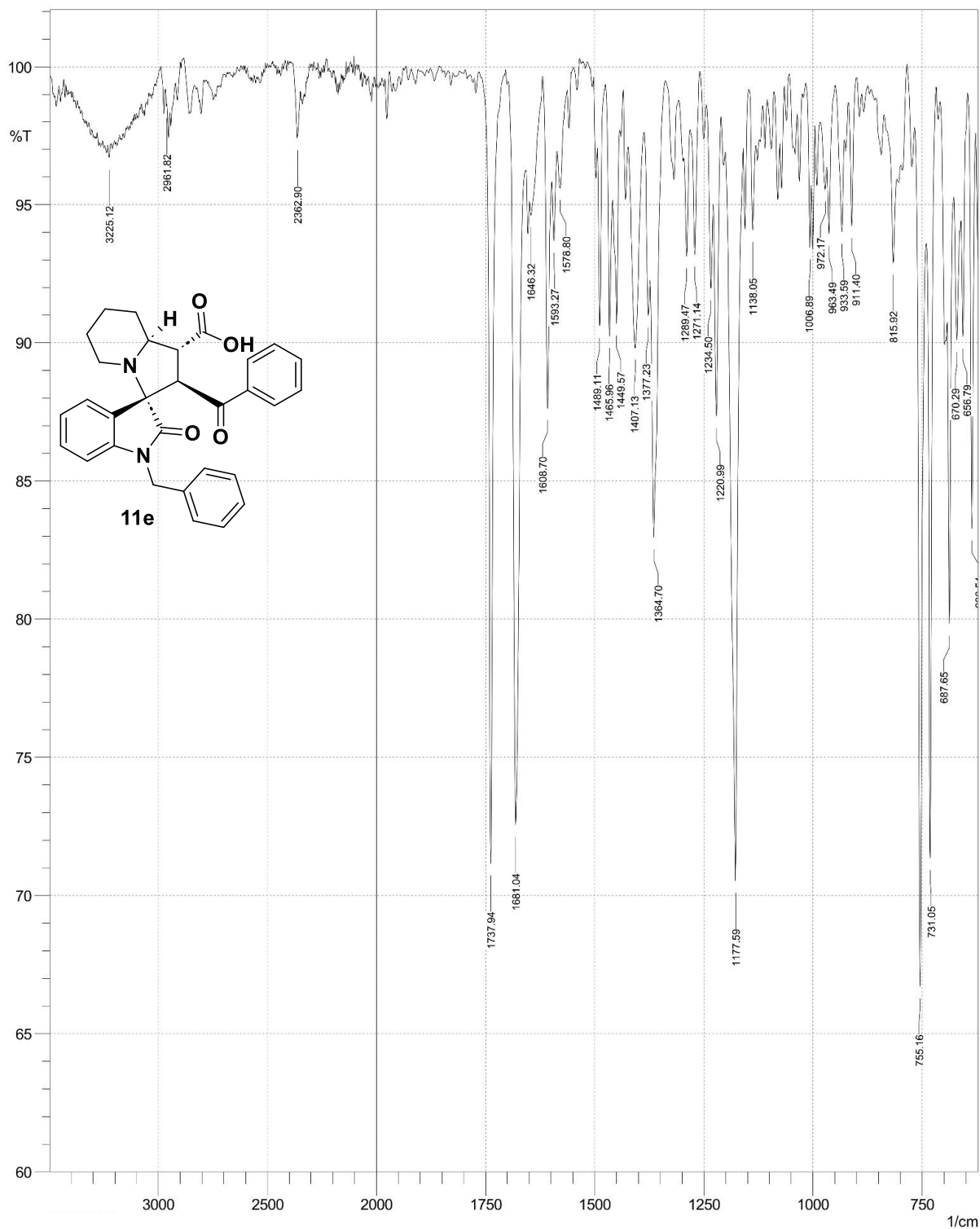




**Figure S92.** FT-IR spectra of compound **11c**



**Figure S93.** FT-IR spectra of compound **11d**



**Figure S94.** FT-IR spectra of compound **11e**

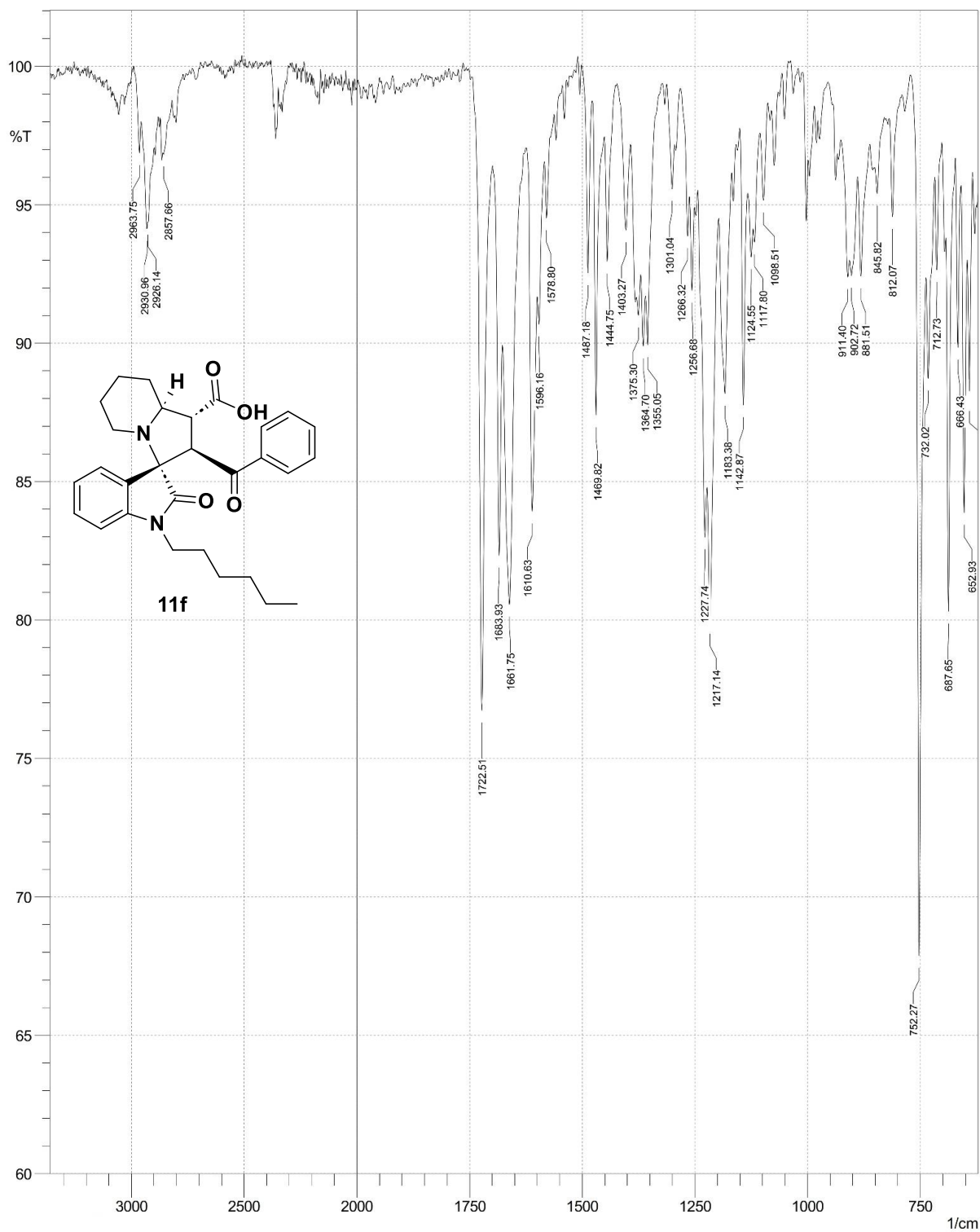


Figure S95. FT-IR spectra of compound **11f**

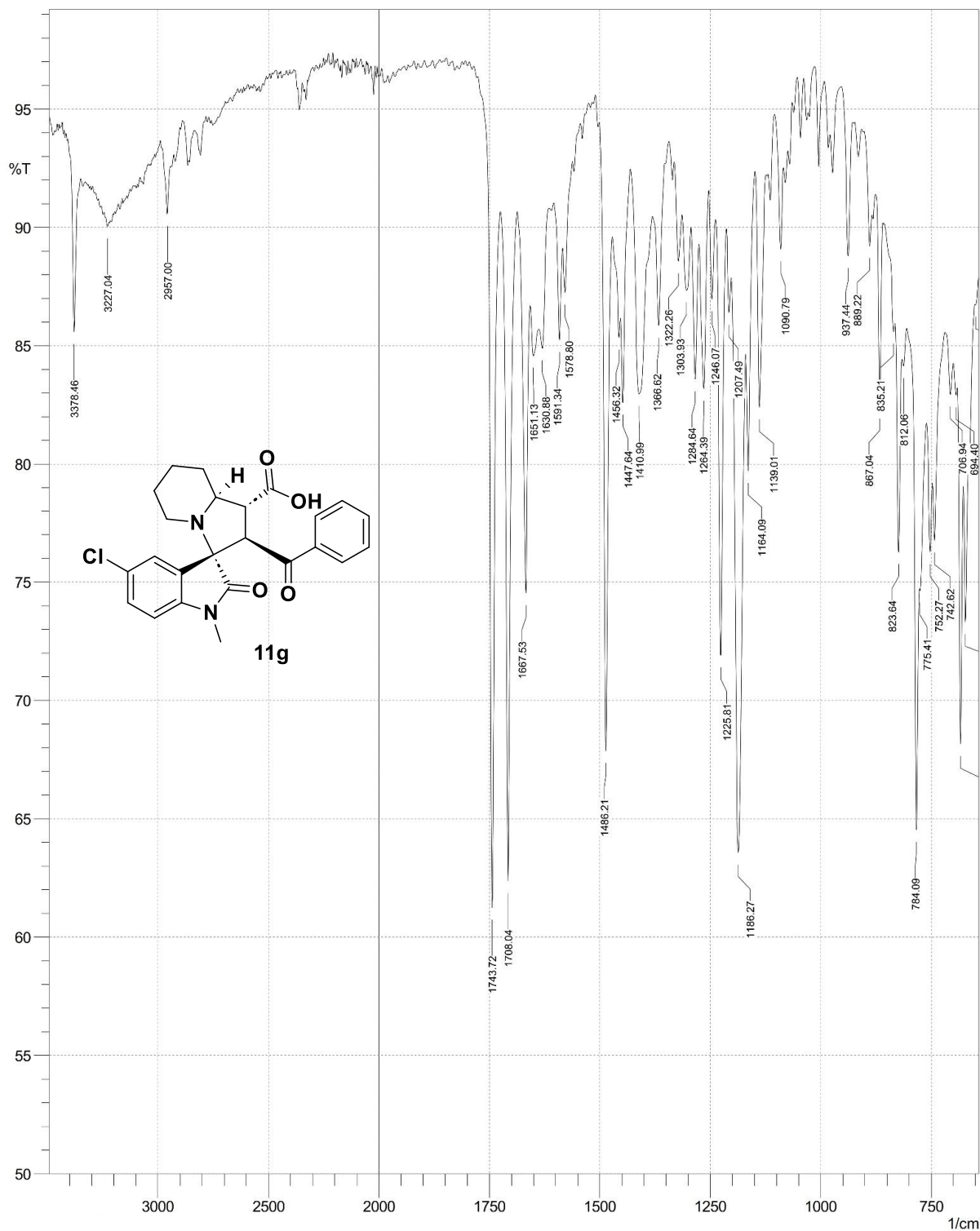
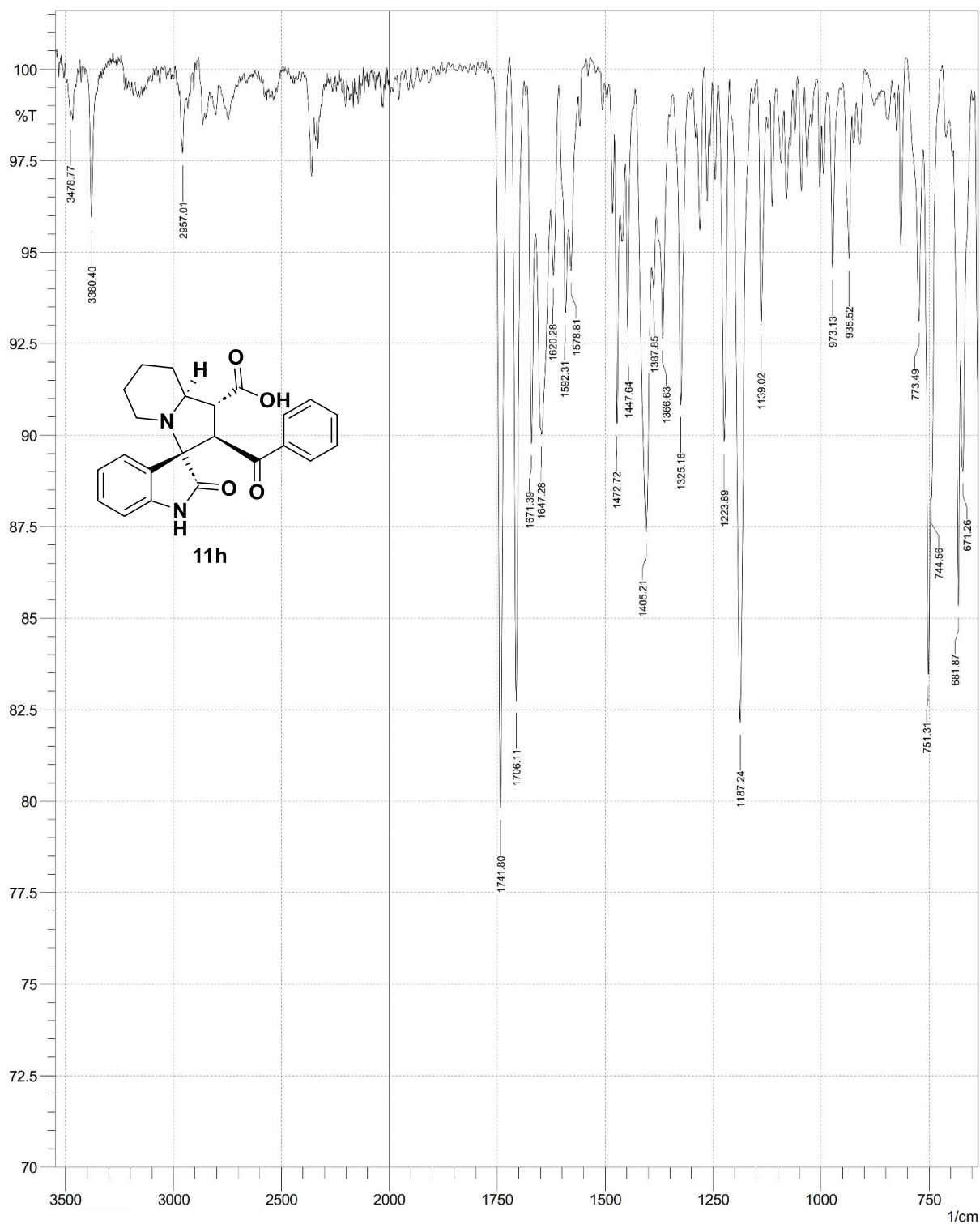
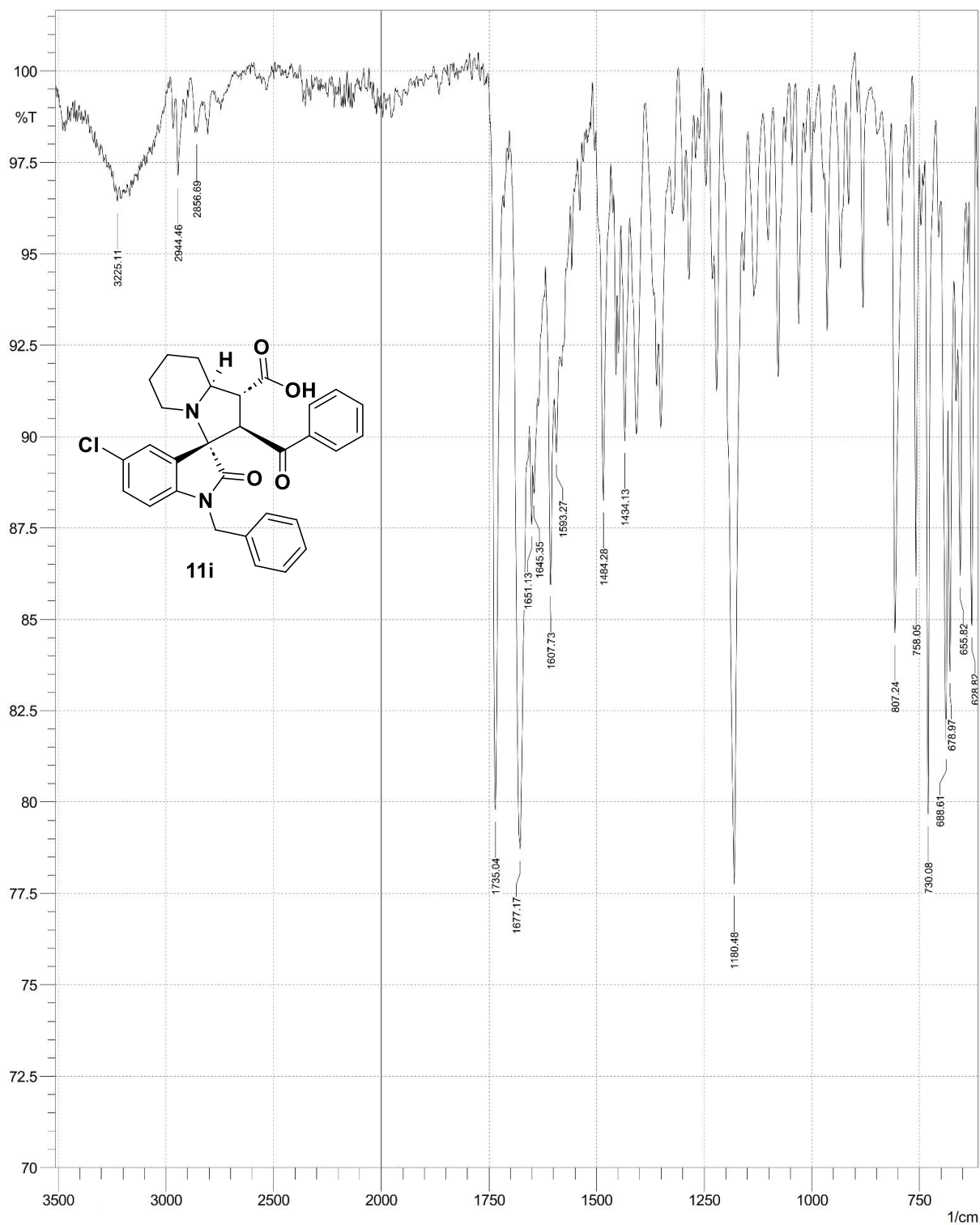


Figure S96. FT-IR spectra of compound **11g**

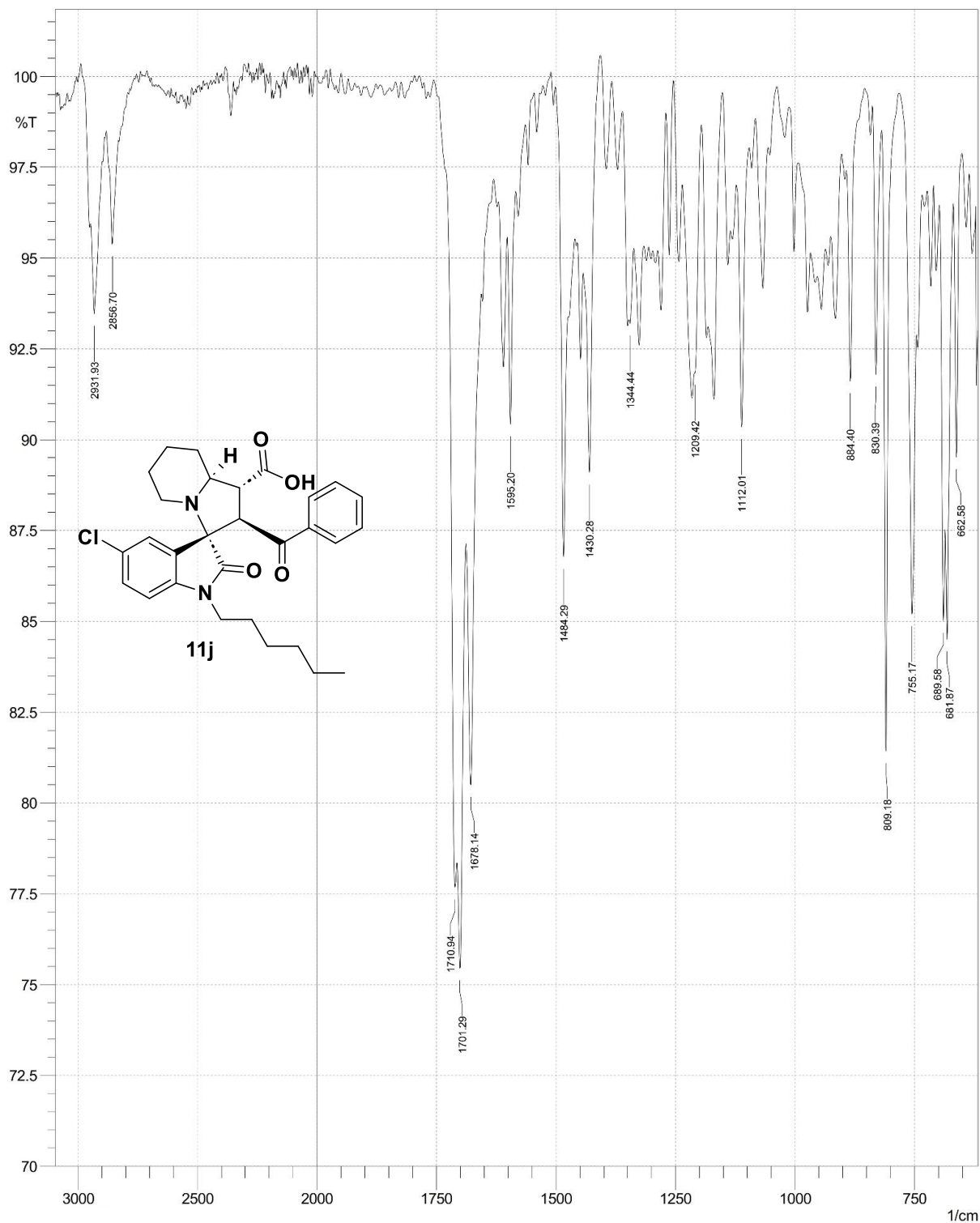


**Figure S97.** FT-IR spectra of compound **11h**



**Figure S98.** FT-IR spectra of compound **11i**





**Figure S99.** FT-IR spectra of compound **11j**



**Table S1.** Antimicrobial screening of the novel heterocycles **9a-m** and **11a-j**

	<i>S. aureus</i>	<i>S. aureus</i>	<i>N. gonorrhoeae</i>	<i>E. coli</i>	<i>P. aeruginosa</i>
Compound	ATCC 25923 (mm)	ATCC 43300 (mm)	ATCC 49226 (mm)	ATCC 25922 (mm)	ATCC 27853 (mm)
<b>9a</b>	-	-	-	-	-
<b>9b</b>	-	-	-	-	-
<b>9c</b>	-	-	-	-	-
<b>9d</b>	-	-	15	-	-
<b>9e</b>	-	-	-	-	-
<b>9f</b>	23	22	18	-	-
<b>9g</b>	-	-	-	-	-
<b>9h</b>	-	-	-	-	-
<b>9i</b>	-	-	-	-	-
<b>9j</b>	13	16	24	-	-
<b>9k</b>	-	-	-	-	-
<b>9l</b>	-	-	-	-	-
<b>9m</b>	-	-	21	-	-
<b>11a</b>	-	-	-	-	-
<b>11b</b>	-	-	-	-	-
<b>11c</b>	-	-	-	-	-
<b>11d</b>	-	-	-	-	-
<b>11e</b>	-	-	-	-	-
<b>11f</b>	-	-	20	-	-
<b>11g</b>	-	-	-	-	-
<b>11h</b>	-	-	-	-	-
<b>11i</b>	20	21	19	-	-
<b>11j</b>	16	15	20	-	-
Gentamicin	25	17	ND	21	18
Penicillin	ND	ND	30	ND	ND
Tetracyclin	26	33	38	ND	ND
Trimethoprim-sulfamethoxazole	32	33	ND	ND	ND

Inhibition was measured in millimeters (mm). ND: not done. *K.pneumoniae* ATCC 700603 and *K.pneumoniae* BAA 1705 were also tested but no inhibition was observed.

**Table S2.** Tested biological pathways and diseases, KEGG database.

Pathway list	
hsa05200	Pathways in cancer - Homo sapiens (human)
hsa04010	MAPK signaling pathway - Homo sapiens (human)
hsa04151	PI3K-Akt signaling pathway - Homo sapiens (human)
hsa05226	Gastric cancer - Homo sapiens (human)
hsa05206	MicroRNAs in cancer - Homo sapiens (human)
hsa01524	Platinum drug resistance - Homo sapiens (human)
hsa05210	Colorectal cancer - Homo sapiens (human)
hsa05225	Hepatocellular carcinoma - Homo sapiens (human)
hsa04933	AGE-RAGE signaling pathway in diabetic complications - Homo sapiens (human)
hsa05169	Epstein-Barr virus infection - Homo sapiens (human)
hsa04014	Ras signaling pathway - Homo sapiens (human)
hsa05161	Hepatitis B - Homo sapiens (human)
hsa05215	Prostate cancer - Homo sapiens (human)
hsa05022	Pathways of neurodegeneration - multiple diseases - Homo sapiens (human)
hsa05170	Human immunodeficiency virus 1 infection - Homo sapiens (human)
hsa04060	Cytokine-cytokine receptor interaction - Homo sapiens (human)
hsa05224	Breast cancer - Homo sapiens (human)
hsa04020	Calcium signaling pathway - Homo sapiens (human)
hsa04810	Regulation of actin cytoskeleton - Homo sapiens (human)
hsa05152	Tuberculosis - Homo sapiens (human)
hsa05212	Pancreatic cancer - Homo sapiens (human)
hsa04350	TGF-beta signaling pathway - Homo sapiens (human)
hsa04115	p53 signaling pathway - Homo sapiens (human)
hsa04520	Adherens junction - Homo sapiens (human)
hsa05203	Viral carcinogenesis - Homo sapiens (human)
hsa04380	Osteoclast differentiation - Homo sapiens (human)
hsa04144	Endocytosis - Homo sapiens (human)
hsa05168	Herpes simplex virus 1 infection - Homo sapiens (human)
hsa04510	Focal adhesion - Homo sapiens (human)
hsa05142	Chagas disease - Homo sapiens (human)
hsa05202	Transcriptional misregulation in cancer - Homo sapiens (human)
hsa04390	Hippo signaling pathway - Homo sapiens (human)
hsa05010	Alzheimer disease - Homo sapiens (human)
hsa04015	Rap1 signaling pathway - Homo sapiens (human)
hsa05165	Human papillomavirus infection - Homo sapiens (human)
hsa04066	HIF-1 signaling pathway - Homo sapiens (human)
hsa05222	Small cell lung cancer - Homo sapiens (human)
hsa01522	Endocrine resistance - Homo sapiens (human)

hsa05417	Lipid and atherosclerosis - Homo sapiens (human)
hsa04071	Sphingolipid signaling pathway - Homo sapiens (human)
hsa04640	Hematopoietic cell lineage - Homo sapiens (human)
hsa05205	Proteoglycans in cancer - Homo sapiens (human)
hsa05418	Fluid shear stress and atherosclerosis - Homo sapiens (human)
hsa05014	Amyotrophic lateral sclerosis - Homo sapiens (human)
hsa04210	Apoptosis - Homo sapiens (human)
hsa01521	EGFR tyrosine kinase inhibitor resistance - Homo sapiens (human)
hsa05163	Human cytomegalovirus infection - Homo sapiens (human)
hsa05220	Chronic myeloid leukemia - Homo sapiens (human)
hsa04061	Viral protein interaction with cytokine and cytokine receptor - Homo sapiens (human)
hsa05145	Toxoplasmosis - Homo sapiens (human)
hsa04310	Wnt signaling pathway - Homo sapiens (human)
hsa05132	Salmonella infection - Homo sapiens (human)
hsa05162	Measles - Homo sapiens (human)
hsa04215	Apoptosis - multiple species - Homo sapiens (human)
hsa05016	Huntington disease - Homo sapiens (human)
hsa05207	Chemical carcinogenesis - receptor activation - Homo sapiens (human)
hsa04360	Axon guidance - Homo sapiens (human)
hsa05143	African trypanosomiasis - Homo sapiens (human)
hsa05120	Epithelial cell signaling in Helicobacter pylori infection - Homo sapiens (human)
hsa04915	Estrogen signaling pathway - Homo sapiens (human)
hsa04330	Notch signaling pathway - Homo sapiens (human)
hsa04932	Non-alcoholic fatty liver disease - Homo sapiens (human)
hsa04630	JAK-STAT signaling pathway - Homo sapiens (human)
hsa03082	ATP-dependent chromatin remodeling - Homo sapiens (human)
hsa04672	Intestinal immune network for IgA production - Homo sapiens (human)
hsa05416	Viral myocarditis - Homo sapiens (human)
hsa04140	Autophagy - animal - Homo sapiens (human)
hsa05020	Prion disease - Homo sapiens (human)
hsa04218	Cellular senescence - Homo sapiens (human)
hsa04062	Chemokine signaling pathway - Homo sapiens (human)
hsa04141	Protein processing in endoplasmic reticulum - Homo sapiens (human)
hsa05219	Bladder cancer - Homo sapiens (human)
hsa04530	Tight junction - Homo sapiens (human)
hsa04217	Necroptosis - Homo sapiens (human)
hsa05223	Non-small cell lung cancer - Homo sapiens (human)
hsa04919	Thyroid hormone signaling pathway - Homo sapiens (human)
hsa04650	Natural killer cell mediated cytotoxicity - Homo sapiens (human)
hsa04657	IL-17 signaling pathway - Homo sapiens (human)

hsa03260	Virion - Human immunodeficiency virus - Homo sapiens (human)
hsa05012	Parkinson disease - Homo sapiens (human)
hsa05230	Central carbon metabolism in cancer - Homo sapiens (human)
hsa04670	Leukocyte transendothelial migration - Homo sapiens (human)
hsa00983	Drug metabolism - other enzymes - Homo sapiens (human)
hsa04068	FoxO signaling pathway - Homo sapiens (human)
hsa05134	Legionellosis - Homo sapiens (human)
hsa04261	Adrenergic signaling in cardiomyocytes - Homo sapiens (human)
hsa05133	Pertussis - Homo sapiens (human)
hsa04928	Parathyroid hormone synthesis, secretion and action - Homo sapiens (human)
hsa04022	cGMP-PKG signaling pathway - Homo sapiens (human)
hsa03250	Viral life cycle - HIV-1 - Homo sapiens (human)
hsa04064	NF-kappa B signaling pathway - Homo sapiens (human)
hsa04613	Neutrophil extracellular trap formation - Homo sapiens (human)
hsa04926	Relaxin signaling pathway - Homo sapiens (human)
hsa05164	Influenza A - Homo sapiens (human)
hsa05131	Shigellosis - Homo sapiens (human)
hsa04722	Neurotrophin signaling pathway - Homo sapiens (human)
hsa05218	Melanoma - Homo sapiens (human)
hsa05160	Hepatitis C - Homo sapiens (human)
hsa04371	Apelin signaling pathway - Homo sapiens (human)
hsa03083	Polycomb repressive complex - Homo sapiens (human)
hsa04012	ErbB signaling pathway - Homo sapiens (human)
hsa04726	Serotonergic synapse - Homo sapiens (human)
hsa04148	Efferocytosis - Homo sapiens (human)
hsa05204	Chemical carcinogenesis - DNA adducts - Homo sapiens (human)
hsa04750	Inflammatory mediator regulation of TRP channels - Homo sapiens (human)
hsa04610	Complement and coagulation cascades - Homo sapiens (human)
hsa04340	Hedgehog signaling pathway - Homo sapiens (human)
hsa04623	Cytosolic DNA-sensing pathway - Homo sapiens (human)
hsa04213	Longevity regulating pathway - multiple species - Homo sapiens (human)
hsa04725	Cholinergic synapse - Homo sapiens (human)
hsa05221	Acute myeloid leukemia - Homo sapiens (human)
hsa05031	Amphetamine addiction - Homo sapiens (human)
hsa00982	Drug metabolism - cytochrome P450 - Homo sapiens (human)
hsa00480	Glutathione metabolism - Homo sapiens (human)
hsa04668	TNF signaling pathway - Homo sapiens (human)
hsa05166	Human T-cell leukemia virus 1 infection - Homo sapiens (human)
hsa04621	NOD-like receptor signaling pathway - Homo sapiens (human)
hsa05130	Pathogenic Escherichia coli infection - Homo sapiens (human)

hsa05034	Alcoholism - Homo sapiens (human)
hsa05213	Endometrial cancer - Homo sapiens (human)
hsa05167	Kaposi sarcoma-associated herpesvirus infection - Homo sapiens (human)
hsa01100	Metabolic pathways - Homo sapiens (human)
hsa04080	Neuroactive ligand-receptor interaction - Homo sapiens (human)
hsa00980	Metabolism of xenobiotics by cytochrome P450 - Homo sapiens (human)
hsa04110	Cell cycle - Homo sapiens (human)
hsa05146	Amoebiasis - Homo sapiens (human)
hsa04936	Alcoholic liver disease - Homo sapiens (human)
hsa05415	Diabetic cardiomyopathy - Homo sapiens (human)
hsa04659	Th17 cell differentiation - Homo sapiens (human)

**Table S3.** Predicted physicochemical descriptors, pharmacokinetic properties, druglike nature and medicinal chemistry friendliness of the new spirooxindoles **9a-m** and spirooxindoles **11a-j**.

ID	BBB permeant	GI absorption	MW	#H-bond acceptors	#H-bond donors	Consensus Log P	#Heavy atoms	#Aromatic heavy atoms	Fraction Csp3	#Rotatable bonds
9a	Yes	High	466.53	5	1	2.74	35	18	0.28	5
9b	No	High	390.43	5	1	1.47	29	12	0.35	3
9c	No	High	376.41	5	2	1.37	28	12	0.32	3
9d	Yes	High	460.56	5	1	3.28	34	12	0.46	8
9e	No	High	424.88	5	1	2.10	30	12	0.35	3
9f	No	High	500.97	5	1	3.24	36	18	0.28	5
9g	No	High	445.3	5	2	2.48	30	12	0.32	3
9h	No	High	390.43	5	2	1.69	29	12	0.35	3
9i	No	High	421.4	7	2	0.63	31	12	0.32	4
9j	No	High	535.42	5	1	3.72	37	18	0.28	5
9k	Yes	High	484.52	6	1	3.01	36	18	0.28	5
9l	No	High	394.4	6	2	1.68	29	12	0.32	3
9m	No	High	495.01	5	1	3.76	35	12	0.46	8
11a	No	High	404.46	5	2	1.98	30	12	0.38	3
11b	No	High	408.42	6	2	1.98	30	12	0.35	3
11c	No	High	404.46	5	1	1.82	30	12	0.38	3
11d	No	High	424.88	5	2	2.16	30	12	0.35	3
11e	Yes	High	480.55	5	1	2.91	36	18	0.3	5
11f	No	High	474.59	5	1	3.55	35	12	0.48	8
11g	Yes	High	438.9	5	1	2.41	31	12	0.38	3
11h	No	High	390.43	5	2	1.62	29	12	0.35	3
11i	No	High	515	5	1	3.51	37	18	0.3	5
11j	No	High	509.04	5	1	4.02	36	12	0.48	8

ID	Molar Refractivity	TPSA	iLOGP	XLOGP 3	WLOGP	MLOGP	Silicos-IT Log P	Consensus Log P	ESOL Log S	ESOL Solubility (mg/ml)	ESOL Solubility (mol/l)	ESOL Class
9a	138.73	77.92	2.89	1.37	3.08	3.00	3.37	2.74	-3.65	1.05E-01	2.26E-04	Soluble
9b	114.24	77.92	1.88	-0.13	1.67	2.00	1.94	1.47	-2.29	2.02E+00	5.16E-03	Soluble
9c	109.34	86.71	1.94	-0.31	1.45	1.79	1.99	1.37	-2.1	3.01E+00	7.99E-03	Soluble
9d	138.27	77.92	3.61	2.21	3.62	3.03	3.93	3.28	-3.82	6.96E-02	1.51E-04	Soluble
9e	119.25	77.92	2.63	0.50	2.32	2.48	2.58	2.10	-2.89	5.51E-01	1.30E-03	soluble
9f	143.74	77.92	2.97	2.00	3.74	3.46	4.01	3.24	-4.25	2.84E-02	5.68E-05	Moderately soluble
9g	119.36	86.71	2.67	0.95	2.76	2.75	3.27	2.48	-3.30	2.25E-01	5.04E-04	Soluble
9h	114.3	86.71	2.12	0.06	1.76	2.00	2.51	1.69	-2.41	1.53E+00	3.92E-03	Soluble
9i	118.16	132.53	1.54	-0.48	1.36	0.90	-0.18	0.63	-2.17	2.83E+00	6.72E-03	Soluble
9j	148.75	77.92	3.03	2.62	4.39	3.92	4.65	3.72	-4.84	7.74E-03	1.44E-05	Moderately soluble
9k	138.68	77.92	2.77	1.47	3.64	3.37	3.79	3.01	-3.81	7.50E-02	1.55E-04	Soluble
9l	109.30	86.71	2.05	-0.21	2.01	2.16	2.41	1.68	-2.26	2.16E+00	5.48E-03	Soluble
9m	143.28	77.92	3.61	2.84	4.27	3.49	4.58	3.76	-4.42	1.86E-02	3.77E-05	Moderately soluble
11a	119.11	86.71	2.39	0.41	2.15	2.21	2.75	1.98	-2.70	8.00E-01	1.98E-03	Soluble
11b	114.10	86.71	2.35	0.15	2.4	2.38	2.64	1.98	-2.56	1.11E+00	2.72E-03	Soluble
11c	119.05	77.92	2.42	0.23	2.06	2.21	2.17	1.82	-2.59	1.04E+00	2.57E-03	Soluble
11d	119.15	86.71	2.26	0.68	2.49	2.48	2.86	2.16	-3.00	4.24E-01	9.99E-04	Soluble
11e	143.53	77.92	2.52	1.73	3.47	3.20	3.60	2.91	-3.95	5.40E-02	1.12E-04	Soluble
11f	143.08	77.92	3.79	2.57	4.01	3.22	4.17	3.55	-4.13	3.54E-02	7.46E-05	Moderately soluble
11g	124.06	77.92	2.97	0.86	2.71	2.69	2.81	2.41	-3.19	2.82E-01	6.43E-04	Soluble
11h	114.14	86.71	2.00	0.05	1.84	2.00	2.23	1.62	-2.40	1.55E+00	3.98E-03	Soluble
11i	148.54	77.92	3.17	2.35	4.13	3.65	4.24	3.51	-4.54	1.47E-02	2.86E-05	Moderately soluble
11j	148.09	77.92	3.74	3.19	4.66	3.68	4.82	4.02	-4.72	9.60E-03	1.89E-05	Moderately soluble

ID	Silicos-IT class	GI absorption	BBB permeant	Pgp substrate	CYP1A2 inhibitor	CYP2C19 inhibitor	CYP2C9 inhibitor	CYP2D6 inhibitor	CYP3A4 inhibitor	log Kp (cm/s)
9a	Poorly soluble	High	Yes	Yes	No	No	Yes	Yes	Yes	-8.17
9b	Moderately soluble	High	No	Yes	No	No	No	No	No	-8.77
9c	Moderately soluble	High	No	Yes	No	No	No	No	No	-8.82
9d	Poorly soluble	High	Yes	Yes	No	No	Yes	Yes	Yes	-7.54
9e	Moderately soluble	High	No	Yes	No	No	No	Yes	Yes	-8.58
9f	Poorly soluble	High	No	Yes	No	No	Yes	Yes	Yes	-7.94
9g	Poorly soluble	High	No	Yes	No	No	No	Yes	Yes	-8.34
9h	Moderately soluble	High	No	Yes	No	No	No	No	No	-8.64
9i	Moderately soluble	High	No	Yes	No	No	No	No	No	-9.21
9j	Poorly soluble	High	No	Yes	No	No	Yes	Yes	Yes	-7.71
9k	Poorly soluble	High	Yes	Yes	No	No	Yes	Yes	Yes	-8.21
9l	Moderately soluble	High	No	Yes	No	No	No	No	No	-8.85
9m	Poorly soluble	High	No	Yes	No	Yes	Yes	Yes	Yes	-7.3
11a	Moderately soluble	High	No	Yes	No	No	No	Yes	No	-8.48
11b	Moderately soluble	High	No	Yes	No	No	No	Yes	No	-8.68
11c	Moderately soluble	High	No	Yes	No	No	No	Yes	Yes	-8.6
11d	Moderately soluble	High	No	Yes	No	No	No	Yes	Yes	-8.41
11e	Poorly soluble	High	Yes	Yes	No	No	Yes	Yes	Yes	-8.00
11f	Poorly soluble	High	No	Yes	No	No	No	Yes	Yes	-7.37
11g	Moderately soluble	High	Yes	Yes	No	No	No	Yes	Yes	-8.37
11h	Moderately soluble	High	No	Yes	No	No	No	No	No	-8.65
11i	Poorly soluble	High	No	Yes	No	No	Yes	Yes	Yes	-7.77
11j	Poorly soluble	High	No	Yes	No	No	Yes	Yes	Yes	-7.14



ID	Lipinski #violations	Ghose #violations	Veber #violations	Egan #violations	Muegge #violations	Bioavailability Score	PAINS #alerts	Brenk #alerts	Leadlikeness #violations	Synthetic Accessibility
9a	0	1	0	0	0	0.55	0	0	1	4.97
9b	0	0	0	0	0	0.55	0	0	1	4.53
9c	0	0	0	0	0	0.55	0	0	1	4.4
9d	0	1	0	0	0	0.55	0	0	2	5.14
9e	0	0	0	0	0	0.55	0	0	1	4.61
9f	1	2	0	0	0	0.55	0	0	1	5.03
9g	0	0	0	0	0	0.55	0	0	1	4.58
9h	0	0	0	0	0	0.55	0	0	1	4.56
9i	0	0	0	1	0	0.55	0	2	1	4.69
9j	1	2	0	0	0	0.55	0	0	1	5.12
9k	0	2	0	0	0	0.55	0	0	1	5.07
9l	0	0	0	0	0	0.55	0	0	1	4.52
9m	0	2	0	0	0	0.55	0	0	2	5.22
11a	0	0	0	0	0	0.55	0	0	1	4.67
11b	0	0	0	0	0	0.55	0	0	1	4.63
11c	0	0	0	0	0	0.55	0	0	1	4.64
11d	0	0	0	0	0	0.55	0	0	1	4.59
11e	0	2	0	0	0	0.55	0	0	1	5.08
11f	0	1	0	0	0	0.55	0	0	2	5.26
11g	0	0	0	0	0	0.55	0	0	1	4.72
11h	0	0	0	0	0	0.55	0	0	1	4.51
11i	1	2	0	0	0	0.55	0	0	1	5.15
11j	1	2	0	0	0	0.55	0	0	2	5.34

**Table S4.** Docking scores of the evaluated spirooxindoles **9a-m** and spirooxindoles **11a-j**.

Compound	Energy (Kcal/mol)	Target protein
9c	-7,1	10GS
9b	-7	10GS
9d	-6,6	10GS
9e	-7,1	10GS
9f	-7,3	10GS
9g	-7	10GS
9h	-7,1	10GS
9j	-7,4	10GS
9k	-7,4	10GS
9l	-7,1	10GS
9m	-6,8	10GS
11e	-7,2	10GS
11f	-6,7	10GS
11g	-6,9	10GS
11a	-6,9	10GS
11i	-7,3	10GS
11j	-7	10GS
9c	-7,5	1A3B
9b	-7,7	1A3B
9d	-6,5	1A3B
9e	-7,4	1A3B
9f	-7,9	1A3B
9g	-7,6	1A3B
9h	-7,5	1A3B
9j	-7,6	1A3B
9k	-7,2	1A3B
9l	-7,6	1A3B

9m	-6,9	1A3B
11e	-7,7	1A3B
11f	-7,8	1A3B
11g	-7,5	1A3B
11a	-7,8	1A3B
11i	-8,3	1A3B
11j	-7,3	1A3B
9c	-5,9	1H66
9b	-5,5	1H66
9d	-5	1H66
9e	-5,5	1H66
9f	-4,9	1H66
9g	-5,5	1H66
9h	-5,5	1H66
9j	-5,1	1H66
9k	-5,4	1H66
9l	-5,4	1H66
9m	-5,2	1H66
11e	-5,3	1H66
11f	-5,1	1H66
11g	-5,5	1H66
11a	-5,4	1H66
11i	-5,2	1H66
11j	-5,1	1H66
9c	-5,7	1H69
9b	-6,1	1H69
9d	-5	1H69
9e	-5,3	1H69
9f	-5,1	1H69
9g	-5,4	1H69

9h	-5,4	1H69
9j	-5,1	1H69
9k	-5,2	1H69
9l	-5,3	1H69
9m	-5	1H69
11e	-5,3	1H69
11f	-5,3	1H69
11g	-5,4	1H69
11a	-6,3	1H69
11i	-5,4	1H69
11j	-4,8	1H69
9c	-9,1	1NMS
9b	-8,7	1NMS
9d	-6,8	1NMS
9e	-9,3	1NMS
9f	-8,3	1NMS
9g	-9,4	1NMS
9h	-9,4	1NMS
9j	-7,3	1NMS
9k	-8,5	1NMS
9l	-9,2	1NMS
9m	-8	1NMS
11e	-7,8	1NMS
11f	-7,7	1NMS
11g	-8	1NMS
11a	-8,8	1NMS
11i	-7,4	1NMS
11j	-6,7	1NMS
9c	-8,6	1PY5
9b	-8,7	1PY5

9d	-7,5	1PY5
9e	-7,9	1PY5
9f	-6,1	1PY5
9g	-8,8	1PY5
9h	-7,7	1PY5
9j	-5,8	1PY5
9k	-5,5	1PY5
9l	-8,6	1PY5
9m	-6,9	1PY5
11e	-5,7	1PY5
11f	-5,1	1PY5
11g	-6,1	1PY5
11a	-7,8	1PY5
11i	-6,1	1PY5
11j	-5,2	1PY5
9c	-8,6	2FGI
9b	-8,9	2FGI
9d	-6,6	2FGI
9e	-8,7	2FGI
9f	-8	2FGI
9g	-7,7	2FGI
9h	-8,8	2FGI
9j	-7,1	2FGI
9k	-8,8	2FGI
9l	-8,9	2FGI
9m	-6,7	2FGI
11e	-8,6	2FGI
11f	-6,9	2FGI
11g	-7,9	2FGI
11a	-8,9	2FGI

11i	-7,1	2FGI
11j	-7,5	2FGI
9c	-8,5	2I0V
9b	-8,6	2I0V
9d	-8,6	2I0V
9e	-8,5	2I0V
9f	-7,1	2I0V
9g	-8,7	2I0V
9h	-8,6	2I0V
9j	-7,4	2I0V
9k	-7,1	2I0V
9l	-8,4	2I0V
9m	-8,7	2I0V
11e	-8,3	2I0V
11f	-8,9	2I0V
11g	-8,7	2I0V
11a	-8,7	2I0V
11i	-8,5	2I0V
11j	-9	2I0V
9c	-9,6	2IVU
9b	-9,8	2IVU
9d	-7,2	2IVU
9e	-9,4	2IVU
9f	-7,3	2IVU
9g	-9,2	2IVU
9h	-9,4	2IVU
9j	-7,5	2IVU
9k	-7,6	2IVU
9l	-9,4	2IVU
9m	-7	2IVU

11e	-6,9	2IVU
11f	-7	2IVU
11g	-7,1	2IVU
11a	-9,7	2IVU
11i	-6,9	2IVU
11j	-6,9	2IVU
9c	-8,2	2OJ9
9b	-8,5	2OJ9
9d	-8,3	2OJ9
9e	-6,3	2OJ9
9f	-7	2OJ9
9g	-6,4	2OJ9
9h	-6,3	2OJ9
9j	-7,1	2OJ9
9k	-5,9	2OJ9
9l	-7,5	2OJ9
9m	-5,8	2OJ9
11e	-6,1	2OJ9
11f	-6,1	2OJ9
11g	-6,7	2OJ9
11a	-8,3	2OJ9
11i	-5,9	2OJ9
11j	-6,1	2OJ9
9c	-7,4	2RFN
9b	-7,4	2RFN
9d	-7	2RFN
9e	-7,5	2RFN
9f	-6,9	2RFN
9g	-7,4	2RFN
9h	-7,5	2RFN

9j	-7,1	2RFN
9k	-6,9	2RFN
9l	-7,5	2RFN
9m	-6,4	2RFN
11e	-7,1	2RFN
11f	-7	2RFN
11g	-7,5	2RFN
11a	-7,4	2RFN
11i	-7,2	2RFN
11j	-7	2RFN
9c	-8,6	2W3L
9b	-8,8	2W3L
9d	-7,9	2W3L
9e	-9,1	2W3L
9f	-8,9	2W3L
9g	-8,5	2W3L
9h	-9,2	2W3L
9j	-8,6	2W3L
9k	-9,1	2W3L
9l	-8,9	2W3L
9m	-7,9	2W3L
11e	-8,7	2W3L
11f	-7,9	2W3L
11g	-8,4	2W3L
11a	-8,8	2W3L
11i	-9,2	2W3L
11j	-8,2	2W3L
9c	-5,6	2YHD
9b	-5,8	2YHD
9d	-5,3	2YHD



9e	-5,5	2YHD
9f	-5,5	2YHD
9g	-5,5	2YHD
9h	-5,5	2YHD
9j	-5,4	2YHD
9k	-5,3	2YHD
9l	-5,8	2YHD
9m	-5,2	2YHD
11e	-5,7	2YHD
11f	-5,6	2YHD
11g	-5,7	2YHD
11a	-5,8	2YHD
11i	-5,6	2YHD
11j	-5,6	2YHD
9c	-9,1	2ZM3
9b	-9,2	2ZM3
9d	-6,9	2ZM3
9e	-8,9	2ZM3
9f	-7,1	2ZM3
9g	-8,7	2ZM3
9h	-9	2ZM3
9j	-6,9	2ZM3
9k	-7,4	2ZM3
9l	-8,9	2ZM3
9m	-6,6	2ZM3
11e	-7,2	2ZM3
11f	-6,9	2ZM3
11g	-7,6	2ZM3
11a	-9,3	2ZM3
11i	-7,3	2ZM3

11j	-6,6	2ZM3
9c	-5,1	3B68
9b	-5,3	3B68
9d	-3,3	3B68
9e	-4,5	3B68
9f	-0,7	3B68
9g	-4,5	3B68
9h	-4,6	3B68
9j	-1,9	3B68
9k	-0,5	3B68
9l	-3,4	3B68
9m	-0,8	3B68
11e	-2,2	3B68
11f	-2,7	3B68
11g	-4,1	3B68
11a	-3,6	3B68
11i	-1,8	3B68
11j	-3,1	3B68
9c	-9,1	3DPK
9b	-8,9	3DPK
9d	-7,9	3DPK
9e	-9,2	3DPK
9f	-8,2	3DPK
9g	-9	3DPK
9h	-9,2	3DPK
9j	-6,8	3DPK
9k	-8,2	3DPK
9l	-9,1	3DPK
9m	-8	3DPK
11e	-8,9	3DPK

11f	-8,2	3DPK
11g	-8,1	3DPK
11a	-8,9	3DPK
11i	-8,9	3DPK
11j	-8,2	3DPK
9c	-9,6	3HOK
9b	-9,7	3HOK
9d	-8,9	3HOK
9e	-9,3	3HOK
9f	-10	3HOK
9g	-9,2	3HOK
9h	-9,3	3HOK
9j	-10,2	3HOK
9k	-9,6	3HOK
9l	-9,7	3HOK
9m	-8,7	3HOK
11e	-10,1	3HOK
11f	-8,4	3HOK
11g	-9	3HOK
11a	-9	3HOK
11i	-10,2	3HOK
11j	-8,5	3HOK
9c	-8,6	3IW4
9b	-8,8	3IW4
9d	-8,6	3IW4
9e	-8,8	3IW4
9f	-9,3	3IW4
9g	-8,6	3IW4
9h	-8,8	3IW4
9j	-9	3IW4

9k	-9,4	3IW4
9l	-8,7	3IW4
9m	-8,7	3IW4
11e	-7	3IW4
11f	-8,2	3IW4
11g	-7,4	3IW4
11a	-8,1	3IW4
11i	-7	3IW4
11j	-8,4	3IW4
9c	-9,3	3OE6
9b	-9,5	3OE6
9d	-7,2	3OE6
9e	-9,5	3OE6
9f	-8,3	3OE6
9g	-8,7	3OE6
9h	-9,5	3OE6
9j	-8,6	3OE6
9k	-8,3	3OE6
9l	-9,4	3OE6
9m	-7,3	3OE6
11e	-8,6	3OE6
11f	-7,7	3OE6
11g	-8,3	3OE6
11a	-9,5	3OE6
11i	-8,3	3OE6
11j	-7,5	3OE6
9c	-7,2	3P XK
9b	-7,5	3P XK
9d	-7,2	3P XK
9e	-7,2	3P XK

9f	-7,6	3PXX
9g	-7,4	3PXX
9h	-7,2	3PXX
9j	-8	3PXX
9k	-8,1	3PXX
9l	-7,4	3PXX
9m	-7,1	3PXX
11e	-8	3PXX
11f	-7,1	3PXX
11g	-7,6	3PXX
11a	-7,5	3PXX
11i	-7,7	3PXX
11j	-7,3	3PXX
9c	-6,9	3ZLR
9b	-7,2	3ZLR
9d	-5,6	3ZLR
9e	-7,1	3ZLR
9f	-7,3	3ZLR
9g	-7	3ZLR
9h	-6,8	3ZLR
9j	-6,8	3ZLR
9k	-6,1	3ZLR
9l	-7	3ZLR
9m	-6	3ZLR
11e	-6,3	3ZLR
11f	-6,9	3ZLR
11g	-6,7	3ZLR
11a	-7,1	3ZLR
11i	-6,3	3ZLR
11j	-6,9	3ZLR

9c	-8,5	4AFJ
9b	-8,6	4AFJ
9d	-7,8	4AFJ
9e	-8,4	4AFJ
9f	-8,3	4AFJ
9g	-8,6	4AFJ
9h	-8,5	4AFJ
9j	-8,3	4AFJ
9k	-8,2	4AFJ
9l	-8,4	4AFJ
9m	-8	4AFJ
11e	-8	4AFJ
11f	-8	4AFJ
11g	-7,7	4AFJ
11a	-8,6	4AFJ
11i	-8,4	4AFJ
11j	-7,5	4AFJ
9c	-7,8	4ARK
9b	-8,1	4ARK
9d	-7,4	4ARK
9e	-7,8	4ARK
9f	-7,9	4ARK
9g	-8	4ARK
9h	-7,8	4ARK
9j	-7,9	4ARK
9k	-8	4ARK
9l	-7,8	4ARK
9m	-7,3	4ARK
11e	-8,1	4ARK
11f	-7,3	4ARK

11g	-7,5	4ARK
11a	-8,1	4ARK
11i	-8,3	4ARK
11j	-7,6	4ARK
9c	-8,8	4AWI
9b	-9,2	4AWI
9d	-8,5	4AWI
9e	-8,1	4AWI
9f	-7,6	4AWI
9g	-8,5	4AWI
9h	-8,1	4AWI
9j	-7,8	4AWI
9k	-8,3	4AWI
9l	-8,2	4AWI
9m	-7,6	4AWI
11e	-8,7	4AWI
11f	-8,6	4AWI
11g	-8,7	4AWI
11a	-8,3	4AWI
11i	-7,6	4AWI
11j	-8,6	4AWI
9c	-8,3	4CMO
9b	-8,6	4CMO
9d	-7,4	4CMO
9e	-8,2	4CMO
9f	-7,9	4CMO
9g	-7,9	4CMO
9h	-8,3	4CMO
9j	-7,6	4CMO
9k	-8,7	4CMO

9l	-8	4CMO
9m	-7,1	4CMO
11e	-9,1	4CMO
11f	-7,7	4CMO
11g	-7,9	4CMO
11a	-8,7	4CMO
11i	-8,2	4CMO
11j	-7,4	4CMO
9c	-8,1	4CMT
9b	-8,6	4CMT
9d	-7,5	4CMT
9e	-8,4	4CMT
9f	-7,3	4CMT
9g	-7,6	4CMT
9h	-8,1	4CMT
9j	-7,3	4CMT
9k	-8,2	4CMT
9l	-8,1	4CMT
9m	-7,1	4CMT
11e	-8,5	4CMT
11f	-7,5	4CMT
11g	-7,7	4CMT
11a	-8,7	4CMT
11i	-7,2	4CMT
11j	-7,1	4CMT
9c	-8,1	4CMU
9b	-8,7	4CMU
9d	-7,8	4CMU
9e	-8,5	4CMU
9f	-8,1	4CMU



9g	-7,7	4CMU
9h	-8,6	4CMU
9j	-7,7	4CMU
9k	-8	4CMU
9l	-8,4	4CMU
9m	-7,1	4CMU
11e	-8,3	4CMU
11f	-7,7	4CMU
11g	-8,4	4CMU
11a	-8,8	4CMU
11i	-8,5	4CMU
11j	-7,3	4CMU
9c	-7,2	4DST
9b	-7,5	4DST
9d	-6,5	4DST
9e	-7	4DST
9f	-6,5	4DST
9g	-7	4DST
9h	-7	4DST
9j	-6,6	4DST
9k	-6,7	4DST
9l	-7	4DST
9m	-6,6	4DST
11e	-6,8	4DST
11f	-6,4	4DST
11g	-7,1	4DST
11a	-7,2	4DST
11i	-6,7	4DST
11j	-6,9	4DST
9c	-8,4	4FX3

9b	-8,6	4FX3
9d	-6,8	4FX3
9e	-8,3	4FX3
9f	-7,7	4FX3
9g	-7,8	4FX3
9h	-8,5	4FX3
9j	-7,7	4FX3
9k	-7,7	4FX3
9l	-8,3	4FX3
9m	-7	4FX3
11e	-7,8	4FX3
11f	-7	4FX3
11g	-7,4	4FX3
11a	-8,7	4FX3
11i	-7,8	4FX3
11j	-7,1	4FX3
9c	-6,5	4HVS
9b	-6,8	4HVS
9d	-6,7	4HVS
9e	-7	4HVS
9f	-7,6	4HVS
9g	-7	4HVS
9h	-7	4HVS
9j	-7,4	4HVS
9k	-7,6	4HVS
9l	-6,9	4HVS
9m	-7,2	4HVS
11e	-7,2	4HVS
11f	-6	4HVS
11g	-6,7	4HVS

11a	-5,8	4HVS
11i	-7,1	4HVS
11j	-4,3	4HVS
9c	-6,5	4JKV
9b	-6,7	4JKV
9d	-6	4JKV
9e	-6,9	4JKV
9f	-6,6	4JKV
9g	-7,2	4JKV
9h	-6,5	4JKV
9j	-6,4	4JKV
9k	-6,6	4JKV
9l	-6,6	4JKV
9m	-5,9	4JKV
11e	-6,4	4JKV
11f	-6,1	4JKV
11g	-6,8	4JKV
11a	-6,8	4JKV
11i	-6,5	4JKV
11j	-6,2	4JKV
9c	-8,5	4JYG
9b	-10,5	4JYG
9d	-8,4	4JYG
9e	-7,9	4JYG
9f	-8	4JYG
9g	-8	4JYG
9h	-8	4JYG
9j	-8,4	4JYG
9k	-8	4JYG
9l	-8,4	4JYG

9m	-7,9	4JYG
11e	-7,7	4JYG
11f	-7,4	4JYG
11g	-7,9	4JYG
11a	-7,9	4JYG
11i	-7,6	4JYG
11j	-7,9	4JYG
9c	-8,5	4JYH
9b	-8,6	4JYH
9d	-7,5	4JYH
9e	-8,1	4JYH
9f	-7,9	4JYH
9g	-8,2	4JYH
9h	-8,2	4JYH
9j	-7,8	4JYH
9k	-8,2	4JYH
9l	-8,5	4JYH
9m	-7,3	4JYH
11e	-7,3	4JYH
11f	-7,1	4JYH
11g	-8,5	4JYH
11a	-8,6	4JYH
11i	-7,4	4JYH
11j	-7,2	4JYH
9c	-8	4JYI
9b	-8	4JYI
9d	-7,1	4JYI
9e	-7,6	4JYI
9f	-7,5	4JYI
9g	-7,7	4JYI

9h	-7,7	4JYI
9j	-8,8	4JYI
9k	-9	4JYI
9l	-8,1	4JYI
9m	-6,9	4JYI
11e	-7,2	4JYI
11f	-7,1	4JYI
11g	-7,4	4JYI
11a	-7,4	4JYI
11i	-7,3	4JYI
11j	-7,2	4JYI
9c	-8,3	4LWH
9b	-8,4	4LWH
9d	-7,7	4LWH
9e	-8	4LWH
9f	-6,9	4LWH
9g	-7,4	4LWH
9h	-8	4LWH
9j	-9	4LWH
9k	-7,1	4LWH
9l	-8,4	4LWH
9m	-7,9	4LWH
11e	-7,3	4LWH
11f	-8	4LWH
11g	-7,8	4LWH
11a	-8	4LWH
11i	-6,8	4LWH
11j	-8,2	4LWH
9c	-8,4	4TXC
9b	-8,5	4TXC

9d	-7,2	4TXC
9e	-8	4TXC
9f	-7,5	4TXC
9g	-8,1	4TXC
9h	-8,1	4TXC
9j	-7,7	4TXC
9k	-7,4	4TXC
9l	-8,5	4TXC
9m	-7,1	4TXC
11e	-7,6	4TXC
11f	-7,3	4TXC
11g	-8,4	4TXC
11a	-8,5	4TXC
11i	-7,7	4TXC
11j	-7,2	4TXC
9c	-8	4U81
9b	-8,2	4U81
9d	-6,5	4U81
9e	-7,7	4U81
9f	-7,4	4U81
9g	-7,9	4U81
9h	-7,7	4U81
9j	-7,7	4U81
9k	-7,6	4U81
9l	-7,8	4U81
9m	-6,6	4U81
11e	-6,7	4U81
11f	-6,6	4U81
11g	-7	4U81
11a	-8,1	4U81

11i	-6,8	4U81
11j	-7,6	4U81
9c	-6	4UAI
9b	-6,2	4UAI
9d	-5	4UAI
9e	-6,1	4UAI
9f	-5,5	4UAI
9g	-6,3	4UAI
9h	-6,2	4UAI
9j	-5,5	4UAI
9k	-5,4	4UAI
9l	-6,3	4UAI
9m	-5,1	4UAI
11e	-5,4	4UAI
11f	-5,3	4UAI
11g	-5,8	4UAI
11a	-5,9	4UAI
11i	-5,5	4UAI
11j	-5,4	4UAI
9c	-8,3	4XUF
9b	-8,4	4XUF
9d	-7,9	4XUF
9e	-6,9	4XUF
9f	-8,8	4XUF
9g	-6,9	4XUF
9h	-7,6	4XUF
9j	-6,8	4XUF
9k	-8,9	4XUF
9l	-7,3	4XUF
9m	-7,9	4XUF

11e	-7,2	4XUF
11f	-7,1	4XUF
11g	-7,5	4XUF
11a	-7,6	4XUF
11i	-8,8	4XUF
11j	-8,1	4XUF
9c	-7,8	4ZNU
9b	-7,9	4ZNU
9d	-6,7	4ZNU
9e	-7	4ZNU
9f	-6,1	4ZNU
9g	-7	4ZNU
9h	-6,7	4ZNU
9j	-6,6	4ZNU
9k	-6,3	4ZNU
9l	-7,1	4ZNU
9m	-6,7	4ZNU
11e	-6,5	4ZNU
11f	-5,5	4ZNU
11g	-8	4ZNU
11a	-7,7	4ZNU
11i	-6,5	4ZNU
11j	-7,5	4ZNU
9c	-8,3	5DTV
9b	-8,5	5DTV
9d	-7,8	5DTV
9e	-7,8	5DTV
9f	-9,6	5DTV
9g	-7,9	5DTV
9h	-7,8	5DTV



9j	-9,1	5DTV
9k	-9,6	5DTV
9l	-8	5DTV
9m	-8,3	5DTV
11e	-9,3	5DTV
11f	-8	5DTV
11g	-8,1	5DTV
11a	-8,7	5DTV
11i	-9,4	5DTV
11j	-8,1	5DTV
9c	-9,1	5EQG
9b	-9	5EQG
9d	-8,3	5EQG
9e	-9,1	5EQG
9f	-8,1	5EQG
9g	-9,4	5EQG
9h	-9,3	5EQG
9j	-7,9	5EQG
9k	-8,1	5EQG
9l	-9,4	5EQG
9m	-7,7	5EQG
11e	-9,4	5EQG
11f	-7,8	5EQG
11g	-8,2	5EQG
11a	-8,9	5EQG
11i	-8,9	5EQG
11j	-7,9	5EQG
9c	-8,8	5EQH
9b	-8,9	5EQH
9d	-8,2	5EQH

9e	-8,1	5EQH
9f	-7,8	5EQH
9g	-8,3	5EQH
9h	-8,2	5EQH
9j	-8	5EQH
9k	-8	5EQH
9l	-8,9	5EQH
9m	-7,2	5EQH
11e	-8,1	5EQH
11f	-8,2	5EQH
11g	-7,4	5EQH
11a	-8,6	5EQH
11i	-8,1	5EQH
11j	-7,2	5EQH
9c	-7,6	5GGZ
9b	-7,8	5GGZ
9d	-5,9	5GGZ
9e	-7,8	5GGZ
9f	-7,6	5GGZ
9g	-7,6	5GGZ
9h	-7,9	5GGZ
9j	-7,6	5GGZ
9k	-7,6	5GGZ
9l	-7,7	5GGZ
9m	-6	5GGZ
11e	-7,9	5GGZ
11f	-6,1	5GGZ
11g	-6,8	5GGZ
11a	-7,9	5GGZ
11i	-8	5GGZ

11j	-6,1	5GGZ
9c	-7,6	5ICN
9b	-8,1	5ICN
9d	-7	5ICN
9e	-7,9	5ICN
9f	-6,7	5ICN
9g	-8,1	5ICN
9h	-8,2	5ICN
9j	-8,1	5ICN
9k	-6,7	5ICN
9l	-7,8	5ICN
9m	-7,6	5ICN
11e	-6,8	5ICN
11f	-7,7	5ICN
11g	-7,8	5ICN
11a	-8,3	5ICN
11i	-6,9	5ICN
11j	-7,7	5ICN
9c	-6,4	5JHH
9b	-6,6	5JHH
9d	-5,8	5JHH
9e	-6,6	5JHH
9f	-6,3	5JHH
9g	-6,9	5JHH
9h	-6,6	5JHH
9j	-6,4	5JHH
9k	-6,2	5JHH
9l	-6,6	5JHH
9m	-6,1	5JHH
11e	-5,9	5JHH

11f	-5,7	5JHH
11g	-6,7	5JHH
11a	-6,6	5JHH
11i	-6,2	5JHH
11j	-6,1	5JHH
9c	-7,9	5K13
9b	-8,1	5K13
9d	-9,1	5K13
9e	-7,3	5K13
9f	-7,2	5K13
9g	-7,3	5K13
9h	-7,3	5K13
9j	-6,2	5K13
9k	-8,5	5K13
9l	-7,3	5K13
9m	-5,6	5K13
11e	-7,1	5K13
11f	-7,6	5K13
11g	-6,7	5K13
11a	-7,7	5K13
11i	-5,1	5K13
11j	-4,5	5K13
9c	-10,6	5KIR
9b	-9,8	5KIR
9d	-7,7	5KIR
9e	-9,5	5KIR
9f	-9,2	5KIR
9g	-9,6	5KIR
9h	-9,6	5KIR
9j	-9,3	5KIR

9k	-8	5KIR
9l	-10,2	5KIR
9m	-7,3	5KIR
11e	-9,5	5KIR
11f	-8,1	5KIR
11g	-9,6	5KIR
11a	-9,6	5KIR
11i	-9,9	5KIR
11j	-8,4	5KIR
9c	-7,7	5OVE
9b	-8,3	5OVE
9d	-7,4	5OVE
9e	-7,5	5OVE
9f	-7,7	5OVE
9g	-7,7	5OVE
9h	-8,3	5OVE
9j	-7,5	5OVE
9k	-7,6	5OVE
9l	-7,6	5OVE
9m	-7,5	5OVE
11e	-8,1	5OVE
11f	-7,3	5OVE
11g	-7,4	5OVE
11a	-7,7	5OVE
11i	-7,9	5OVE
11j	-7,4	5OVE
9c	-7,9	5OVG
9b	-7,9	5OVG
9d	-7,2	5OVG
9e	-7,9	5OVG

9f	-7,4	50VG
9g	-7,9	50VG
9h	-7,8	50VG
9j	-6,8	50VG
9k	-8,1	50VG
9l	-7,9	50VG
9m	-7,3	50VG
11e	-6,8	50VG
11f	-7,4	50VG
11g	-7,2	50VG
11a	-8	50VG
11i	-7,3	50VG
11j	-7,4	50VG
9c	-8,6	5U3X
9b	-8,7	5U3X
9d	-7,6	5U3X
9e	-8,3	5U3X
9f	-7,2	5U3X
9g	-8,3	5U3X
9h	-8,3	5U3X
9j	-7,1	5U3X
9k	-8,2	5U3X
9l	-8	5U3X
9m	-7,7	5U3X
11e	-9,3	5U3X
11f	-8,2	5U3X
11g	-8,5	5U3X
11a	-8,1	5U3X
11i	-7,6	5U3X
11j	-7,1	5U3X

9c	-8,6	5U46
9b	-8,6	5U46
9d	-8,5	5U46
9e	-8,7	5U46
9f	-7,8	5U46
9g	-8,9	5U46
9h	-8,6	5U46
9j	-7,9	5U46
9k	-7,8	5U46
9l	-8,8	5U46
9m	-7,5	5U46
11e	-9,8	5U46
11f	-8,5	5U46
11g	-8,7	5U46
11a	-8,5	5U46
11i	-8,1	5U46
11j	-7,8	5U46
9c	-9,3	5UZK
9b	-9,5	5UZK
9d	-9,8	5UZK
9e	-9,4	5UZK
9f	-9	5UZK
9g	-10	5UZK
9h	-9,4	5UZK
9j	-9,3	5UZK
9k	-8,8	5UZK
9l	-9,2	5UZK
9m	-9,2	5UZK
11e	-8,6	5UZK
11f	-9,7	5UZK

11g	-8,4	5UZK
11a	-9,3	5UZK
11i	-9	5UZK
11j	-8,3	5UZK
9c	-7,8	5V1B
9b	-7,9	5V1B
9d	-7,4	5V1B
9e	-8,2	5V1B
9f	-6,7	5V1B
9g	-8,4	5V1B
9h	-8,1	5V1B
9j	-7,7	5V1B
9k	-7	5V1B
9l	-7,3	5V1B
9m	-6,9	5V1B
11e	-6,9	5V1B
11f	-6,5	5V1B
11g	-6,8	5V1B
11a	-8	5V1B
11i	-6,9	5V1B
11j	-6,8	5V1B
9c	-8,1	5WFP
9b	-8,2	5WFP
9d	-6,6	5WFP
9e	-7,8	5WFP
9f	-8,4	5WFP
9g	-7,9	5WFP
9h	-8	5WFP
9j	-8,2	5WFP
9k	-8,4	5WFP



9l	-7,8	5WFP
9m	-7,3	5WFP
11e	-7,7	5WFP
11f	-6,9	5WFP
11g	-7,3	5WFP
11a	-8	5WFP
11i	-8,6	5WFP
11j	-7,3	5WFP
9c	-7,6	5WNE
9b	-7,9	5WNE
9d	-6,7	5WNE
9e	-7,3	5WNE
9f	-6,6	5WNE
9g	-7,5	5WNE
9h	-7,2	5WNE
9j	-8	5WNE
9k	-6,7	5WNE
9l	-7,5	5WNE
9m	-6,6	5WNE
11e	-8	5WNE
11f	-7,7	5WNE
11g	-7,1	5WNE
11a	-7,5	5WNE
11i	-6,6	5WNE
11j	-7,7	5WNE
9c	-7,7	5X02
9b	-6,9	5X02
9d	-6,4	5X02
9e	-7,1	5X02
9f	-8,1	5X02

9g	-7,2	5X02
9h	-7,1	5X02
9j	-8,3	5X02
9k	-8,1	5X02
9l	-7,1	5X02
9m	-7,9	5X02
11e	-6,6	5X02
11f	-7,8	5X02
11g	-6,5	5X02
11a	-6,9	5X02
11i	-8,2	5X02
11j	-8	5X02
9c	-8,8	6BVL
9b	-9,1	6BVL
9d	-8	6BVL
9e	-8	6BVL
9f	-8,1	6BVL
9g	-8,5	6BVL
9h	-8,1	6BVL
9j	-8,2	6BVL
9k	-8,4	6BVL
9l	-8,1	6BVL
9m	-8	6BVL
11e	-8,5	6BVL
11f	-7,7	6BVL
11g	-8,9	6BVL
11a	-9	6BVL
11i	-8,6	6BVL
11j	-7,9	6BVL
9c	-7,3	6EHA

9b	-7,5	6EHA
9d	-7,3	6EHA
9e	-7,1	6EHA
9f	-6,4	6EHA
9g	-7,2	6EHA
9h	-7,3	6EHA
9j	-6,4	6EHA
9k	-6,4	6EHA
9l	-7,2	6EHA
9m	-7,2	6EHA
11e	-6,5	6EHA
11f	-5,8	6EHA
11g	-7,4	6EHA
11a	-6,8	6EHA
11i	-6,5	6EHA
11j	-6,3	6EHA
9c	-8,1	6GVA
9b	-8,2	6GVA
9d	-6,3	6GVA
9e	-7,1	6GVA
9f	-5,5	6GVA
9g	-6,8	6GVA
9h	-7,1	6GVA
9j	-6,4	6GVA
9k	-5,5	6GVA
9l	-7,5	6GVA
9m	-5,4	6GVA
11e	-5,8	6GVA
11f	-5,5	6GVA
11g	-6,4	6GVA

11a	-7,8	6GVA
11i	-5,5	6GVA
11j	-6,6	6GVA
9c	-8	6KX3
9b	-8,2	6KX3
9d	-7,5	6KX3
9e	-8,5	6KX3
9f	-9,1	6KX3
9g	-7,8	6KX3
9h	-8,7	6KX3
9j	-9	6KX3
9k	-9,1	6KX3
9l	-8,5	6KX3
9m	-7,8	6KX3
11e	-8,9	6KX3
11f	-7,6	6KX3
11g	-8,3	6KX3
11a	-8,3	6KX3
11i	-8,9	6KX3
11j	-7,8	6KX3
9c	-6,6	6M9T
9b	-6	6M9T
9d	-5,6	6M9T
9e	-5	6M9T
9f	-5,5	6M9T
9g	-5	6M9T
9h	-5,3	6M9T
9j	-4,9	6M9T
9k	-5,8	6M9T
9l	-5,5	6M9T

9m	-4	6M9T
11e	-5,9	6M9T
11f	-5,2	6M9T
11g	-5,2	6M9T
11a	-5,2	6M9T
11i	-5,6	6M9T
11j	-4,9	6M9T
9c	-6,9	6QJ5
9b	-6,7	6QJ5
9d	-6,4	6QJ5
9e	-6,4	6QJ5
9f	-6,9	6QJ5
9g	-6,4	6QJ5
9h	-6,4	6QJ5
9j	-6,7	6QJ5
9k	-7,1	6QJ5
9l	-6,3	6QJ5
9m	-6,4	6QJ5
11e	-7,1	6QJ5
11f	-6,2	6QJ5
11g	-6,3	6QJ5
11a	-6,5	6QJ5
11i	-7,1	6QJ5
11j	-6,1	6QJ5
9c	-8,3	6SCM
9b	-8,4	6SCM
9d	-7,3	6SCM
9e	-8,1	6SCM
9f	-6,9	6SCM
9g	-8,3	6SCM

9h	-8,1	6SCM
9j	-7,3	6SCM
9k	-7,1	6SCM
9l	-8,2	6SCM
9m	-7,4	6SCM
11e	-6,9	6SCM
11f	-7,6	6SCM
11g	-7,4	6SCM
11a	-8,3	6SCM
11i	-7,1	6SCM
11j	-7,6	6SCM
9c	-9,4	6TDC
9b	-8,8	6TDC
9d	-7	6TDC
9e	-7,2	6TDC
9f	-6,8	6TDC
9g	-7,8	6TDC
9h	-7,4	6TDC
9j	-6,5	6TDC
9k	-6,7	6TDC
9l	-8,7	6TDC
9m	-6,2	6TDC
11e	-7,6	6TDC
11f	-6,6	6TDC
11g	-6,7	6TDC
11a	-7,8	6TDC
11i	-6,6	6TDC
11j	-6,4	6TDC
9c	-8,7	6TYM
9b	-8,9	6TYM

9d	-8,6	6TYM
9e	-8,8	6TYM
9f	-9	6TYM
9g	-9,1	6TYM
9h	-8,8	6TYM
9j	-9,3	6TYM
9k	-9	6TYM
9l	-8,8	6TYM
9m	-8,7	6TYM
11e	-10,4	6TYM
11f	-9,2	6TYM
11g	-9,1	6TYM
11a	-8,9	6TYM
11i	-10,6	6TYM
11j	-9,2	6TYM
9c	-6,9	7AFW
9b	-7	7AFW
9d	-5,4	7AFW
9e	-6,6	7AFW
9f	-5,9	7AFW
9g	-6,5	7AFW
9h	-6,7	7AFW
9j	-5,9	7AFW
9k	-6	7AFW
9l	-6,7	7AFW
9m	-5,3	7AFW
11e	-6	7AFW
11f	-5,5	7AFW
11g	-6,6	7AFW
11a	-7	7AFW

11i	-5,9	7AFW
11j	-5,5	7AFW
9c	-6,4	7B88
9b	-5,8	7B88
9d	-4	7B88
9e	-5,9	7B88
9f	-5,1	7B88
9g	-5,3	7B88
9h	-6,1	7B88
9j	0,7	7B88
9k	-3,6	7B88
9l	-5,6	7B88
9m	-5	7B88
11e	-5,4	7B88
11f	-4,6	7B88
11g	-2,2	7B88
11a	-5,7	7B88
11i	-1,3	7B88
11j	-4,8	7B88
9c	-7	7B9O
9b	-5,8	7B9O
9d	-3,5	7B9O
9e	-4,6	7B9O
9f	-4,8	7B9O
9g	-5	7B9O
9h	-5,2	7B9O
9j	-4,4	7B9O
9k	-4,5	7B9O
9l	-4,5	7B9O
9m	-3,7	7B9O



11e	-2,6	7B9O
11f	-4,5	7B9O
11g	-2,9	7B9O
11a	-5,1	7B9O
11i	-2,3	7B9O
11j	-4,2	7B9O
9c	-8,8	7C2E
9b	-8,9	7C2E
9d	-8,5	7C2E
9e	-8,7	7C2E
9f	-8,6	7C2E
9g	-8,9	7C2E
9h	-8,9	7C2E
9j	-8,4	7C2E
9k	-8,6	7C2E
9l	-8,7	7C2E
9m	-8,6	7C2E
11e	-8,7	7C2E
11f	-8,4	7C2E
11g	-8,6	7C2E
11a	-9	7C2E
11i	-9	7C2E
11j	-7,9	7C2E
9c	-8,4	7LH7
9b	-8,8	7LH7
9d	-9	7LH7
9e	-8,6	7LH7
9f	-9	7LH7
9g	-8,7	7LH7
9h	-8,7	7LH7

9j	-8,7	7LH7
9k	-8,9	7LH7
9l	-8,6	7LH7
9m	-9,1	7LH7
11e	-8,6	7LH7
11f	-8,2	7LH7
11g	-9	7LH7
11a	-8,9	7LH7
11i	-8,9	7LH7
11j	-9,2	7LH7
9c	-8,2	7MPH
9b	-8,5	7MPH
9d	-7,6	7MPH
9e	-8,3	7MPH
9f	-7,9	7MPH
9g	-8,6	7MPH
9h	-8,3	7MPH
9j	-8,2	7MPH
9k	-8	7MPH
9l	-8,2	7MPH
9m	-7,4	7MPH
11e	-8,2	7MPH
11f	-7,5	7MPH
11g	-8,1	7MPH
11a	-8,5	7MPH
11i	-8,4	7MPH
11j	-7,8	7MPH
9c	-8	7NZN
9b	-7,9	7NZN
9d	-6,4	7NZN

9e	-7,7	7NZN
9f	-6,8	7NZN
9g	-7,8	7NZN
9h	-7,7	7NZN
9j	-6,3	7NZN
9k	-6,8	7NZN
9l	-7,7	7NZN
9m	-7,1	7NZN
11e	-6,3	7NZN
11f	-7,4	7NZN
11g	-7,3	7NZN
11a	-7,4	7NZN
11i	-6,4	7NZN
11j	-6,8	7NZN
9c	-7,2	7PCD
9b	-7,1	7PCD
9d	-6,1	7PCD
9e	-7,1	7PCD
9f	-7,2	7PCD
9g	-7,2	7PCD
9h	-7,1	7PCD
9j	-7,2	7PCD
9k	-7,2	7PCD
9l	-7	7PCD
9m	-6,1	7PCD
11e	-7,1	7PCD
11f	-6,2	7PCD
11g	-6,5	7PCD
11a	-7,1	7PCD
11i	-7,3	7PCD

11j	-6,2	7PCD
9c	-9,7	7Q6S
9b	-10	7Q6S
9d	-8,5	7Q6S
9e	-9,8	7Q6S
9f	-9,9	7Q6S
9g	-9,6	7Q6S
9h	-10	7Q6S
9j	-9,8	7Q6S
9k	-9,9	7Q6S
9l	-9,8	7Q6S
9m	-8,6	7Q6S
11e	-10,1	7Q6S
11f	-8,2	7Q6S
11g	-9	7Q6S
11a	-10,1	7Q6S
11i	-9,7	7Q6S
11j	-7,7	7Q6S
9c	-6,5	7UBT
9b	-6,5	7UBT
9d	-5,6	7UBT
9e	-6,5	7UBT
9f	-6,1	7UBT
9g	-6,6	7UBT
9h	-6,5	7UBT
9j	-6,1	7UBT
9k	-6,2	7UBT
9l	-6,7	7UBT
9m	-5,6	7UBT
11e	-6	7UBT

11f	-5,6	7UBT
11g	-6	7UBT
11a	-6,1	7UBT
11i	-6,1	7UBT
11j	-5,5	7UBT
9c	-7,8	7UR3
9b	-8,2	7UR3
9d	-5,3	7UR3
9e	-7,7	7UR3
9f	-7,5	7UR3
9g	-8	7UR3
9h	-7,8	7UR3
9j	-6,4	7UR3
9k	-7,9	7UR3
9l	-8	7UR3
9m	-4,8	7UR3
11e	-5,3	7UR3
11f	-5,6	7UR3
11g	-8,1	7UR3
11a	-7,9	7UR3
11i	-5,3	7UR3
11j	-5	7UR3
9c	-6,3	7ZRB
9b	-6,4	7ZRB
9d	-5,9	7ZRB
9e	-6,1	7ZRB
9f	-6,1	7ZRB
9g	-6,2	7ZRB
9h	-6,1	7ZRB
9j	-6,3	7ZRB

9k	-6,1	7ZRB
9l	-6,1	7ZRB
9m	-6	7ZRB
11e	-6,4	7ZRB
11f	-6,3	7ZRB
11g	-6,4	7ZRB
11a	-6,3	7ZRB
11i	-6,5	7ZRB
11j	-6,4	7ZRB
9c	-7,1	8ADF
9b	-7,3	8ADF
9d	-7,1	8ADF
9e	-6,9	8ADF
9f	-7,7	8ADF
9g	-7,2	8ADF
9h	-7	8ADF
9j	-7,9	8ADF
9k	-8	8ADF
9l	-7,1	8ADF
9m	-6,9	8ADF
11e	-7,9	8ADF
11f	-7,3	8ADF
11g	-7,4	8ADF
11a	-7,3	8ADF
11i	-7,8	8ADF
11j	-7,1	8ADF
9c	-8,1	8AOJ
9b	-8,3	8AOJ
9d	-7,7	8AOJ
9e	-8,1	8AOJ

9f	-7,7	8AOJ
9g	-7,7	8AOJ
9h	-8,2	8AOJ
9j	-7,7	8AOJ
9k	-8,8	8AOJ
9l	-7,8	8AOJ
9m	-7,6	8AOJ
11e	-8,8	8AOJ
11f	-7,7	8AOJ
11g	-7,4	8AOJ
11a	-8,2	8AOJ
11i	-7,9	8AOJ
11j	-7,4	8AOJ
9c	-7,7	8B54
9b	-7,7	8B54
9d	-6,7	8B54
9e	-8	8B54
9f	-7,9	8B54
9g	-7,5	8B54
9h	-8	8B54
9j	-8	8B54
9k	-7,9	8B54
9l	-7,9	8B54
9m	-6,8	8B54
11e	-7,4	8B54
11f	-6,7	8B54
11g	-7,3	8B54
11a	-7,8	8B54
11i	-7,7	8B54
11j	-6,9	8B54

9c	-7,6	8C0C
9b	-7,8	8C0C
9d	-6,7	8C0C
9e	-6,6	8C0C
9f	-6,8	8C0C
9g	-7,3	8C0C
9h	-7,3	8C0C
9j	-6,7	8C0C
9k	-6,9	8C0C
9l	-6,9	8C0C
9m	-7,2	8C0C
11e	-7	8C0C
11f	-6,3	8C0C
11g	-7,2	8C0C
11a	-7,7	8C0C
11i	-6,9	8C0C
11j	-6,6	8C0C
9c	-5,8	8CK3
9b	-5,8	8CK3
9d	-4,4	8CK3
9e	-5,8	8CK3
9f	-4,6	8CK3
9g	-5,9	8CK3
9h	-5,9	8CK3
9j	-4,4	8CK3
9k	-4,8	8CK3
9l	-5,7	8CK3
9m	-4,4	8CK3
11e	-4,8	8CK3
11f	-4,4	8CK3



11g	-5,8	8CK3
11a	-5,9	8CK3
11i	-4,5	8CK3
11j	-4,3	8CK3
9c	-6	8CK4
9b	-6,1	8CK4
9d	-4,4	8CK4
9e	-5,7	8CK4
9f	-4,4	8CK4
9g	-5,6	8CK4
9h	-5,6	8CK4
9j	-4,4	8CK4
9k	-4,7	8CK4
9l	-5,4	8CK4
9m	-4,2	8CK4
11e	-4,6	8CK4
11f	-4,1	8CK4
11g	-6	8CK4
11a	-5,6	8CK4
11i	-4,5	8CK4
11j	-4	8CK4
9c	-7,6	8DU6
9b	-7,3	8DU6
9d	-6,5	8DU6
9e	-7,3	8DU6
9f	-7	8DU6
9g	-7,3	8DU6
9h	-7,4	8DU6
9j	-6,9	8DU6
9k	-6,9	8DU6

9l	-7,4	8DU6
9m	-6,6	8DU6
11e	-6,7	8DU6
11f	-6,4	8DU6
11g	-7,3	8DU6
11a	-7,3	8DU6
11i	-6,9	8DU6
11j	-6,7	8DU6
9c	-7	8DUG
9b	-6,9	8DUG
9d	-6,1	8DUG
9e	-6,7	8DUG
9f	-7	8DUG
9g	-6,7	8DUG
9h	-6,8	8DUG
9j	-7	8DUG
9k	-6,9	8DUG
9l	-6,6	8DUG
9m	-6,5	8DUG
11e	-6,5	8DUG
11f	-6,1	8DUG
11g	-6,8	8DUG
11a	-6,7	8DUG
11i	-6,9	8DUG
11j	-6,5	8DUG
9c	-7	8DV8
9b	-7,2	8DV8
9d	-6,1	8DV8
9e	-7	8DV8
9f	-6,8	8DV8

9g	-6,9	8DV8
9h	-6,7	8DV8
9j	-7	8DV8
9k	-6,5	8DV8
9l	-7,2	8DV8
9m	-6,2	8DV8
11e	-7	8DV8
11f	-6,1	8DV8
11g	-6,6	8DV8
11a	-7,1	8DV8
11i	-7,3	8DV8
11j	-6,3	8DV8
9c	-7,8	8DVB
9b	-8,3	8DVB
9d	-6,1	8DVB
9e	-7,7	8DVB
9f	-6,6	8DVB
9g	-7,7	8DVB
9h	-7,7	8DVB
9j	-6,9	8DVB
9k	-6,7	8DVB
9l	-7,9	8DVB
9m	-5,9	8DVB
11e	-7	8DVB
11f	-6,4	8DVB
11g	-8,1	8DVB
11a	-8,2	8DVB
11i	-6,7	8DVB
11j	-6,7	8DVB
9c	-6,7	8FJH

9b	-6,8	8FJH
9d	-6,5	8FJH
9e	-6,7	8FJH
9f	-5,8	8FJH
9g	-6,5	8FJH
9h	-6,8	8FJH
9j	-7,3	8FJH
9k	-6,1	8FJH
9l	-6,7	8FJH
9m	-6,9	8FJH
11e	-5,9	8FJH
11f	-6,4	8FJH
11g	-6,2	8FJH
11a	-6,8	8FJH
11i	-5,9	8FJH
11j	-7,1	8FJH
9c	-8	8HF8
9b	-8,8	8HF8
9d	-7,3	8HF8
9e	-8,3	8HF8
9f	-8,3	8HF8
9g	-7,6	8HF8
9h	-8,3	8HF8
9j	-8,4	8HF8
9k	-8,4	8HF8
9l	-8,4	8HF8
9m	-7,3	8HF8
11e	-8,5	8HF8
11f	-7,6	8HF8
11g	-8,7	8HF8

11a	-7,8	8HF8
11i	-8,6	8HF8
11j	-7,5	8HF8
9c	-6,5	8P0F
9b	-6,7	8P0F
9d	-6,5	8P0F
9e	-6,5	8P0F
9f	-6,1	8P0F
9g	-6,5	8P0F
9h	-6,6	8P0F
9j	-6,2	8P0F
9k	-6,1	8P0F
9l	-6,3	8P0F
9m	-6	8P0F
11e	-6,1	8P0F
11f	-6	8P0F
11g	-6,5	8P0F
11a	-6,4	8P0F
11i	-6,3	8P0F
11j	-6,1	8P0F
9c	-7,3	8PYJ
9b	-7,5	8PYJ
9d	-6,1	8PYJ
9e	-7,2	8PYJ
9f	-6,4	8PYJ
9g	-7,2	8PYJ
9h	-7,2	8PYJ
9j	-6,6	8PYJ
9k	-6,4	8PYJ
9l	-7,6	8PYJ

9m	-6,2	8PYJ
11e	-6,4	8PYJ
11f	-6,4	8PYJ
11g	-7,3	8PYJ
11a	-7,3	8PYJ
11i	-6,6	8PYJ
11j	-6,2	8PYJ
9c	-7,7	8QJS
9b	-7,8	8QJS
9d	-5,7	8QJS
9e	-7	8QJS
9f	-7,5	8QJS
9g	-6,8	8QJS
9h	-7,1	8QJS
9j	-6,5	8QJS
9k	-7,6	8QJS
9l	-7,1	8QJS
9m	-6,1	8QJS
11e	-6,1	8QJS
11f	-5,8	8QJS
11g	-6,7	8QJS
11a	-7,6	8QJS
11i	-6,2	8QJS
11j	-5,7	8QJS