Supporting Information

for

Dinuclear Zinc-AzePhenol Catalyzed Asymmetric Aza-Henry Reaction of *N*-Boc Imines and Nitroalkanes under Ambient Conditions

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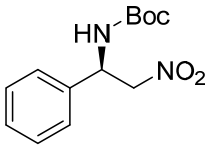
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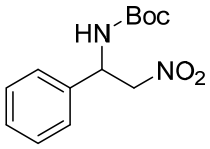
1 Chiral HPLC Spectra of the Asymmetric Aza-Henry Products S2

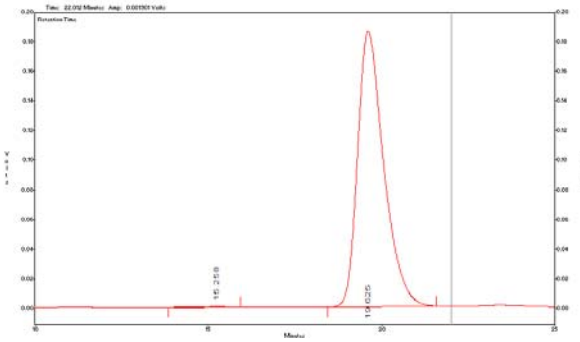
2 NMR Spectra for All the Products S13

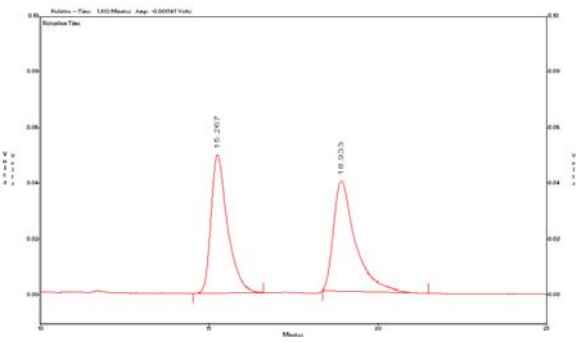
1. Chiral HPLC Spectra of the Asymmetric Aza-Henry Products

(*R*)-*tert*-Butyl (2-nitro-1-phenylethyl)carbamate (**3aa**):



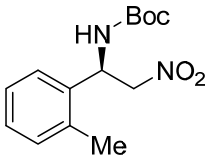


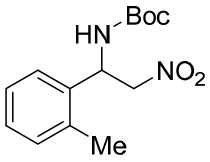


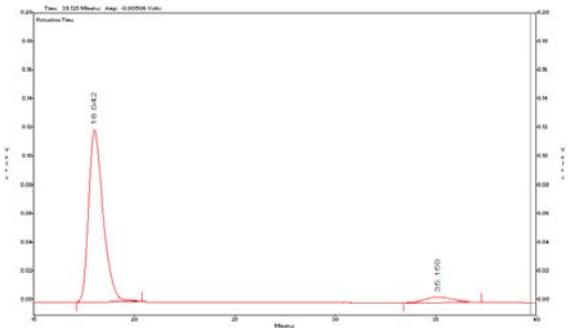


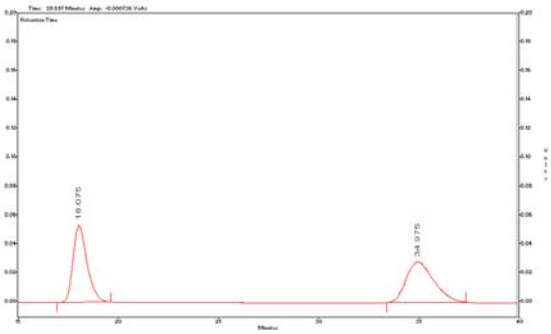
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
15.258	24883	0.255	15.267	1665645	48.284
19.625	9749899	99.745	18.933	1789785	51.796

(*R*)-*tert*-Butyl [2-nitro-1-(*o*-tolyl)ethyl]carbamate (**3ba**):



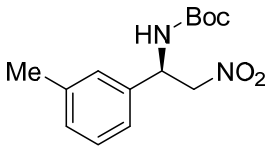


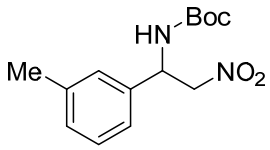


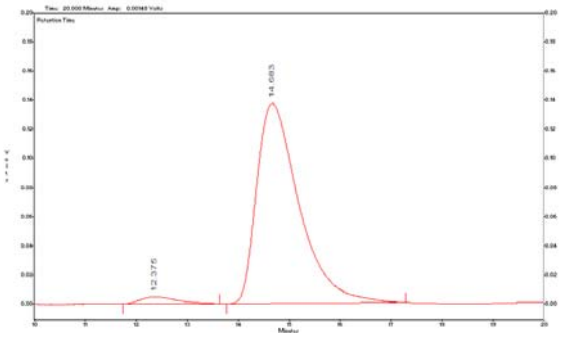


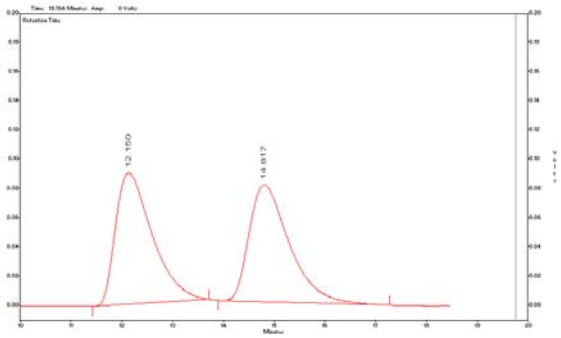
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
18.042	5984985	94.475	18.075	2589397	49.028
35.150	349981	5.525	34.975	2692083	50.972

(*R*)-*tert*-Butyl [2-nitro-1-(*m*-tolyl)ethyl]carbamate (**3ca**):



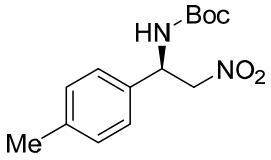


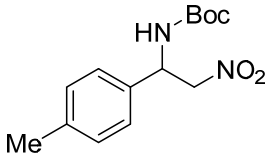


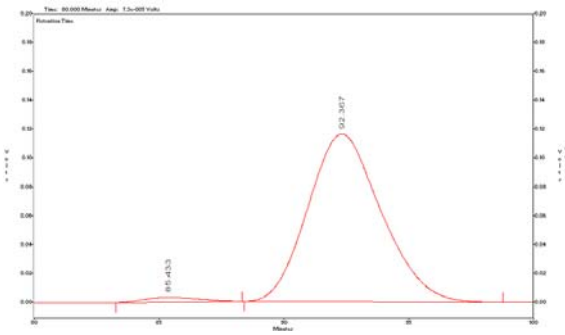


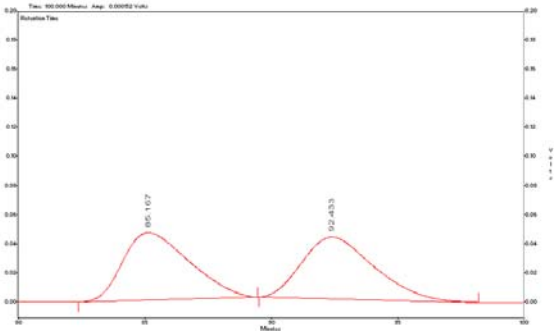
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
12.375	238673	2.921	12.150	4524154	50.730
14.683	7932417	97.079	14.817	4393878	49.270

(*R*)-*tert*-Butyl [2-nitro-1-(*p*-tolyl)ethyl]carbamate (**3da**):



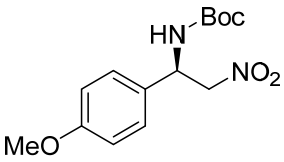


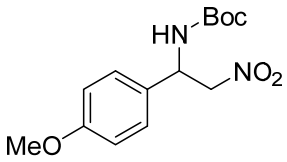


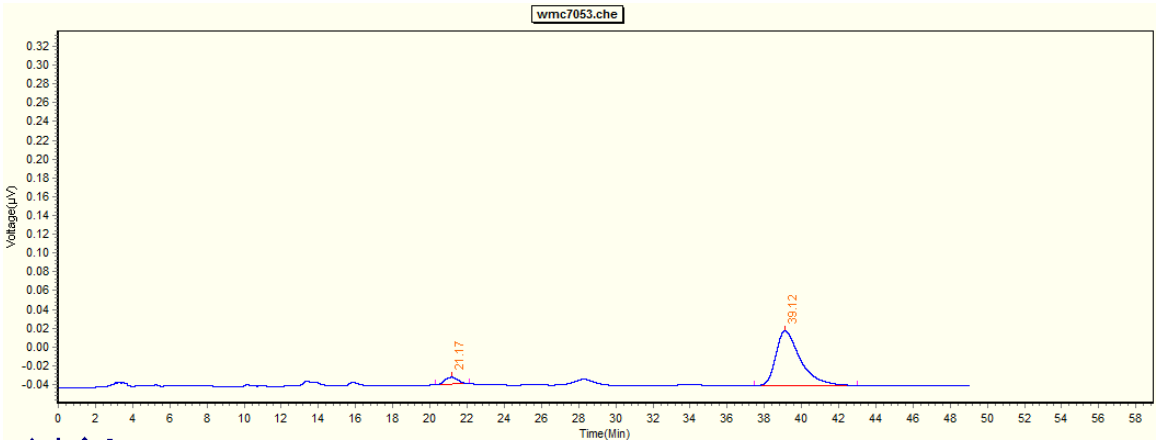


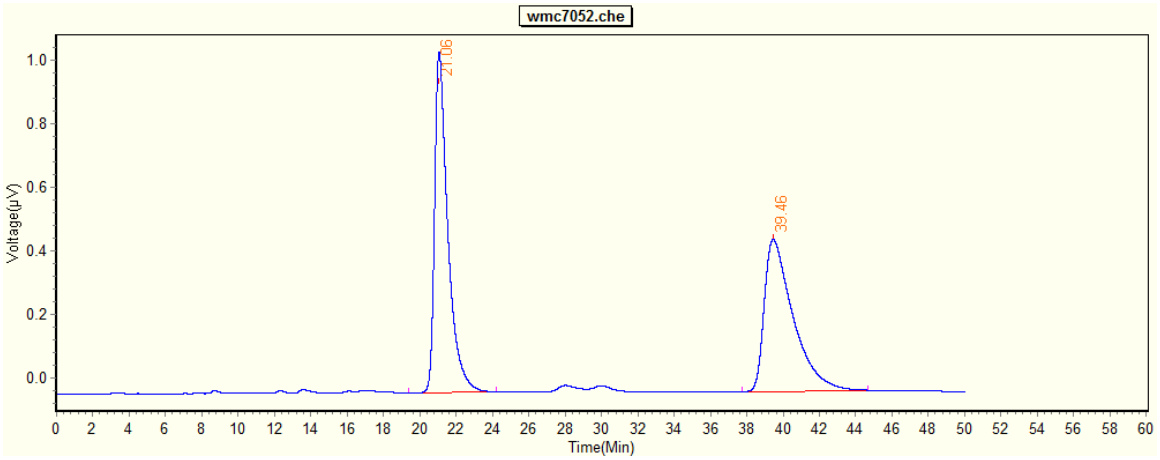
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
85.433	516712	2.140	85.167	8408810	50.197
92.367	23625698	97.860	92.433	8342883	49.803

(*R*)-*tert*-Butyl [1-(4-methoxyphenyl)-2-nitroethyl]carbamate (**3ea**):



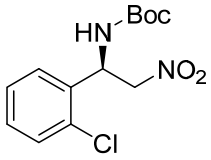


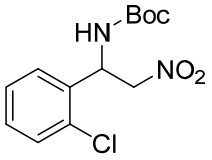


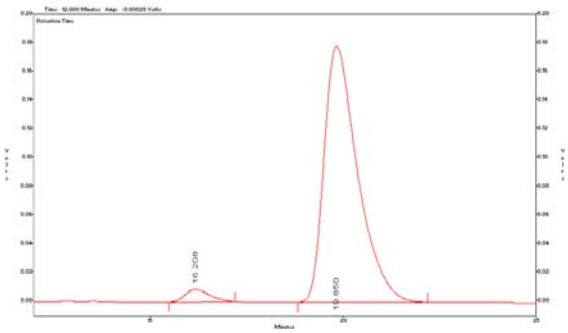


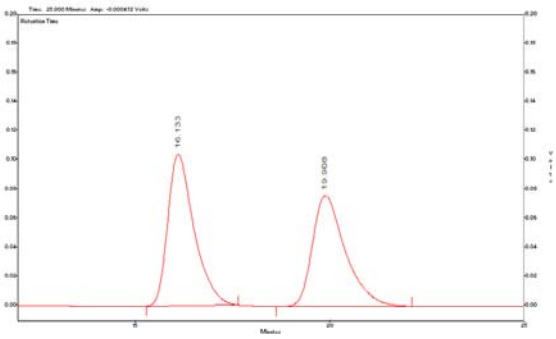
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
21.17	185040	6.46	21.06	26968479	50.57
39.12	2678042	93.54	39.46	26360897	49.43

(*R*)-*tert*-Butyl [1-(2-chlorophenyl)-2-nitroethyl]carbamate (**3fa**):



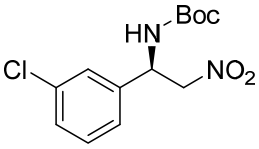


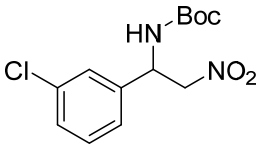


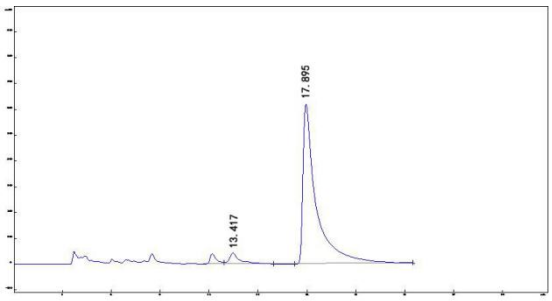


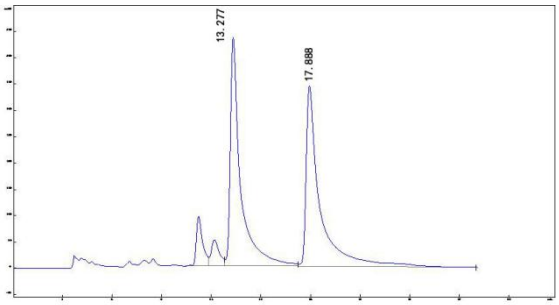
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
16.208	389069	3.492	16.133	4873713	52.388
19.850	10751147	96.508	19.908	4429482	47.612

(*R*)-*tert*-Butyl [1-(3-chlorophenyl)-2-nitroethyl]carbamate (**3ga**):



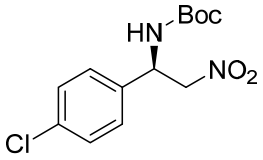


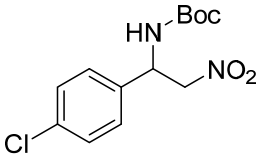


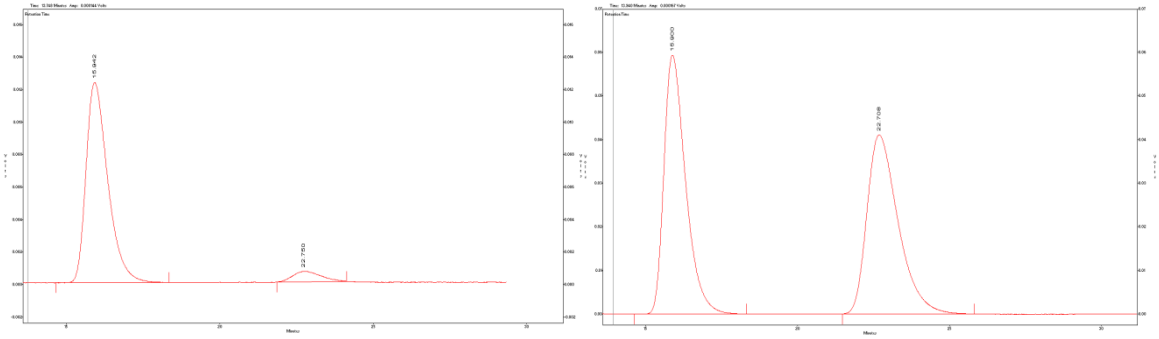


Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
13.417	1955018	5.233	13.277	19137878	48.430
17.895	35400781	94.767	17.888	20377866	51.570

(*R*)-*tert*-Butyl [1-(4-chlorophenyl)-2-nitroethyl]carbamate (**3ha**):

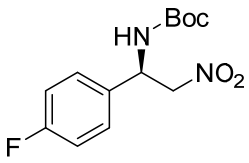


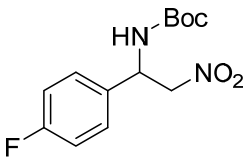


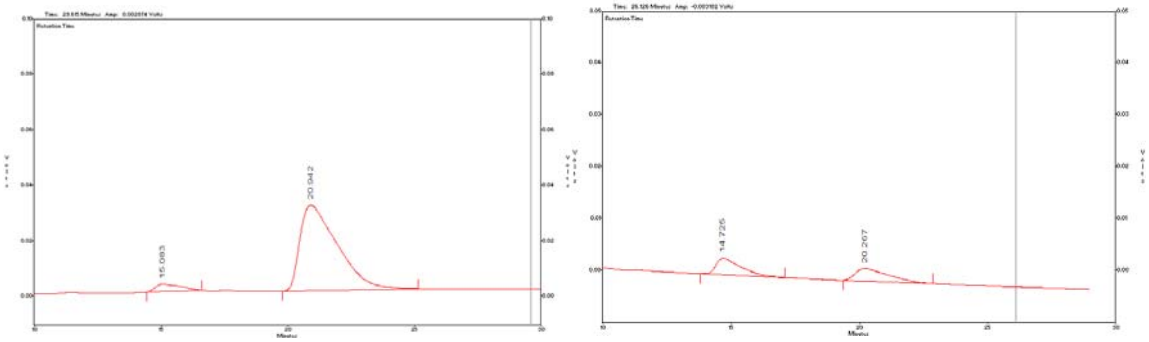


Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
15.942	436680	2.660	15.900	3821170	50.234
22.750	15982680	97.340	22.708	3785585	49.766

(*R*)-*tert*-Butyl [1-(4-fluorophenyl)-2-nitroethyl]carbamate (**3ia**):

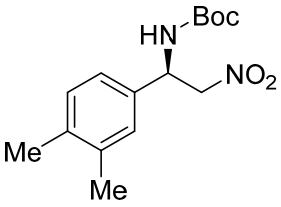


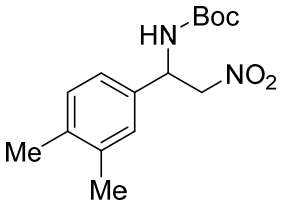


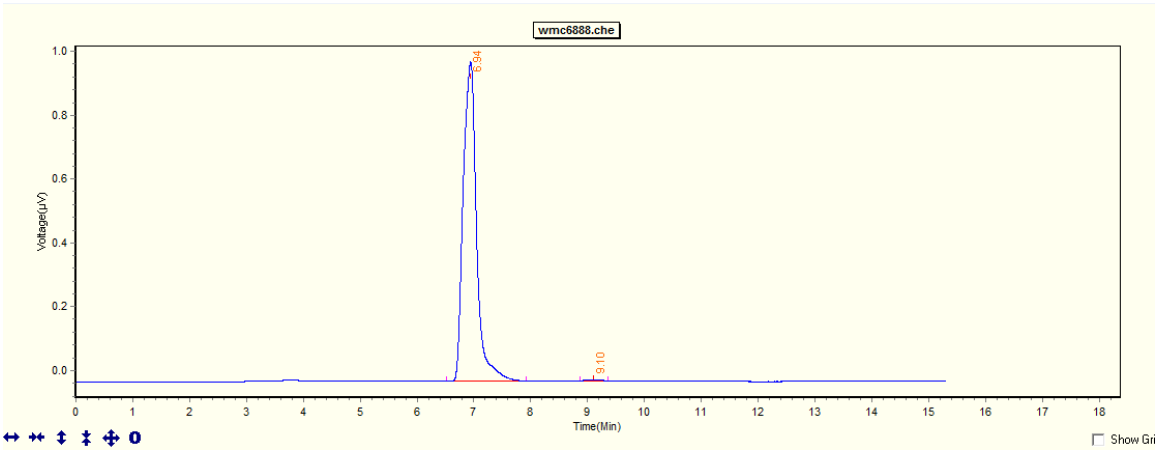


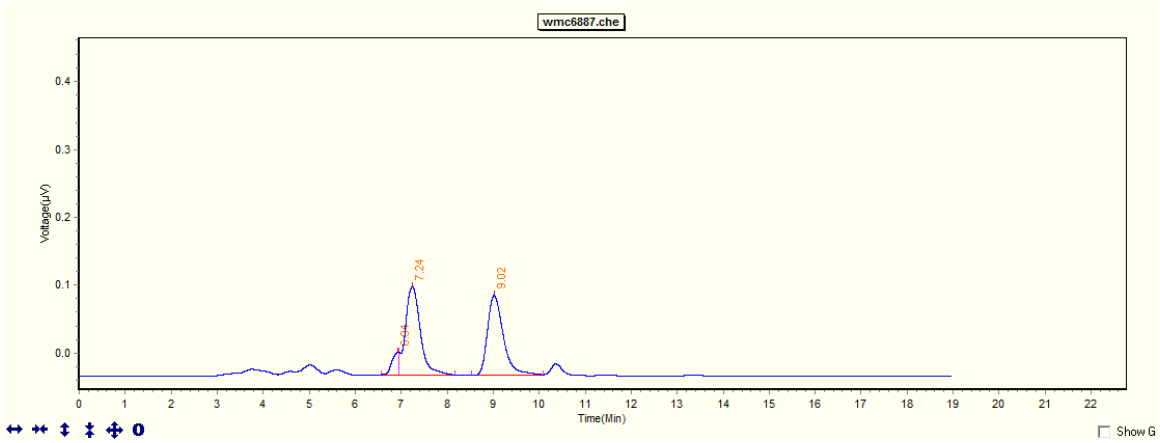
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
15.083	185476	5.565	14.725	212840	50.159
20.942	3147602	94.435	20.267	211488	49.841

(*R*)-*tert*-Butyl [1-(3,4-dimethylphenyl]-2-nitroethyl)carbamate (3ja)



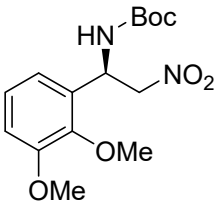


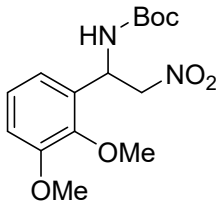


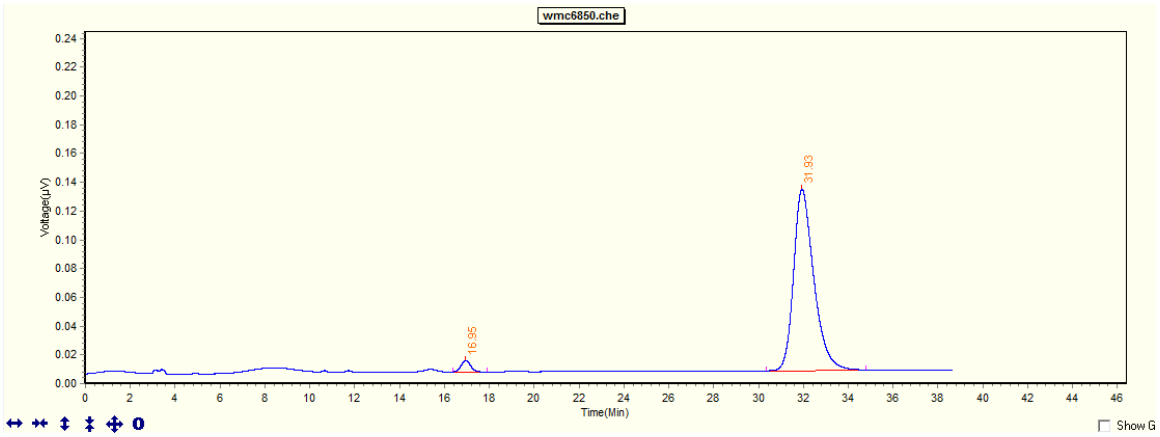


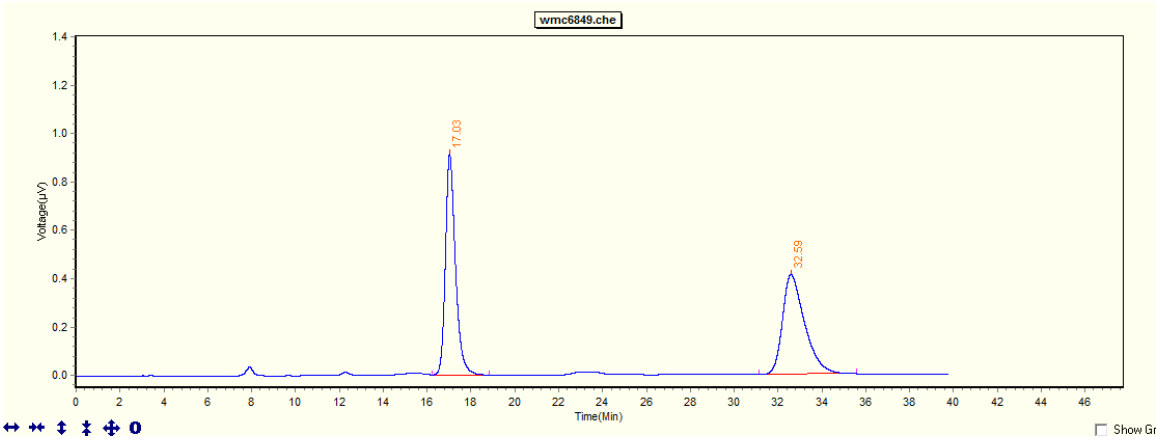
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
6.94	8184046	99.57	7.24	1474355	50.45
9.10	35197	0.43	9.02	1448216	49.55

(*R*)-*tert*-Butyl [1-(2,3-dimethoxyphenyl)-2-nitroethyl]carbamate (**3ka**):



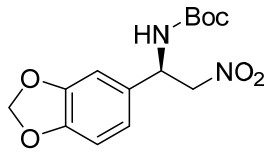


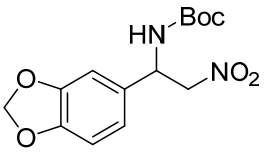


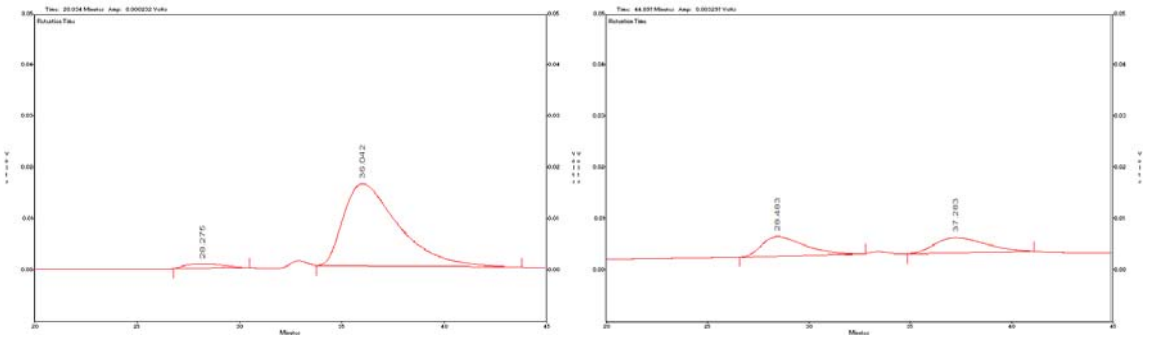


Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
16.95	116486	2.86	17.03	14441274	49.92
31.93	3951341	97.14	32.59	14485465	50.08

(*R*)-*tert*-Butyl [1-(benzo[d][1,3]dioxol-5-yl)-2-nitroethyl]carbamate (**3la**):

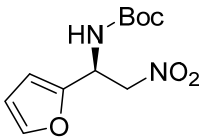


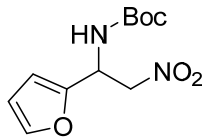


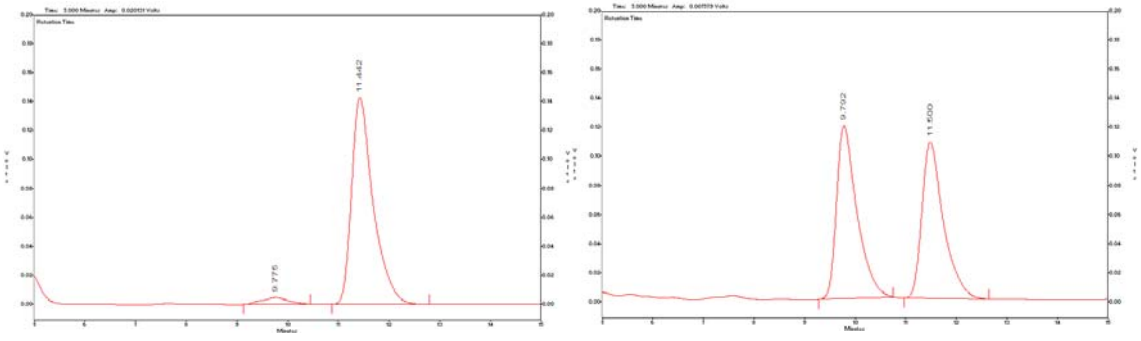


Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
28.275	106582	3.41	28.483	542899	50.935
36.042	2999665	96.569	37.283	522949	49.065

(*S*)-*tert*-Butyl [1-(furan-2-yl)-2-nitroethyl]carbamate (**3ma**):

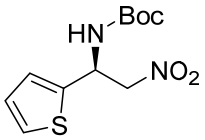


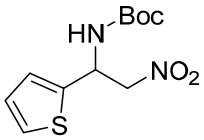


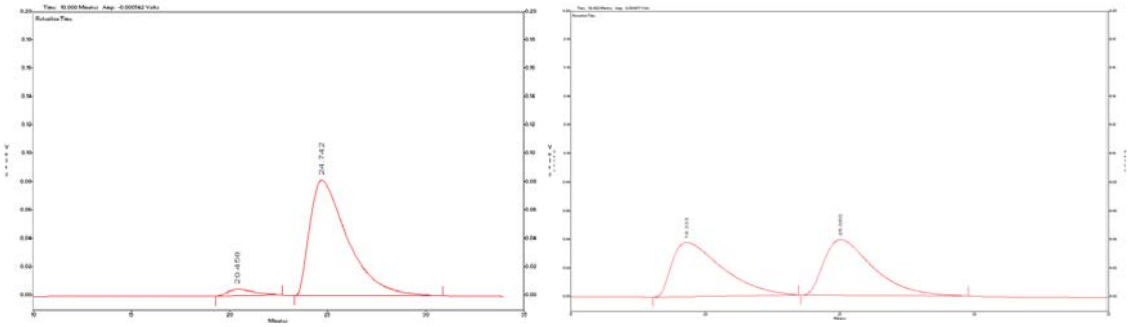


Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
9.775	163499	3.728	9.792	3314801	51.036
11.442	4222208	96.272	11.500	3180280	48.964

(*S*)-*tert*-Butyl [2-nitro-1-(thiophen-2-yl)ethyl]carbamate (**3na**):

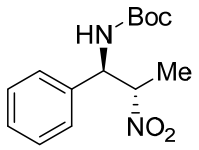


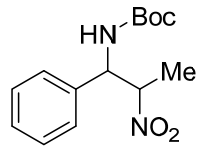


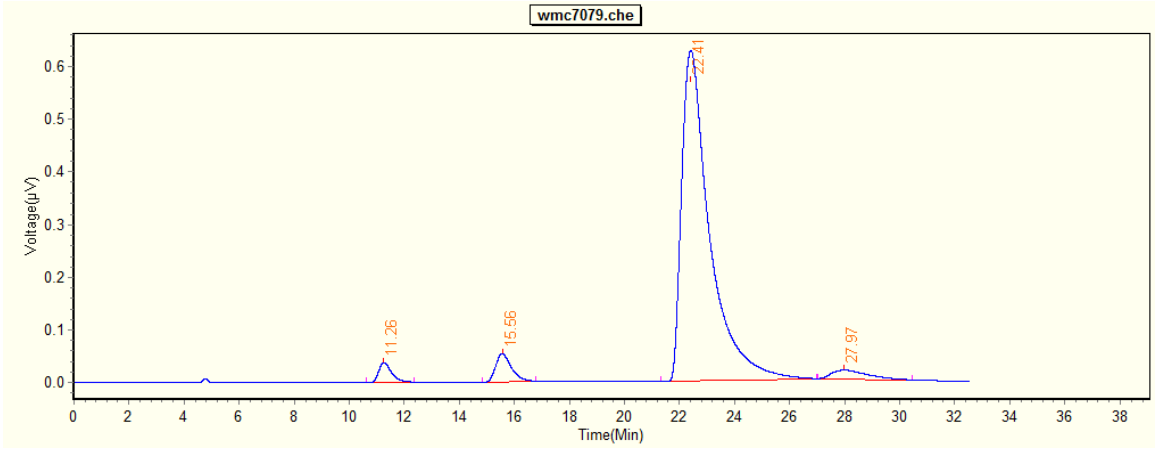


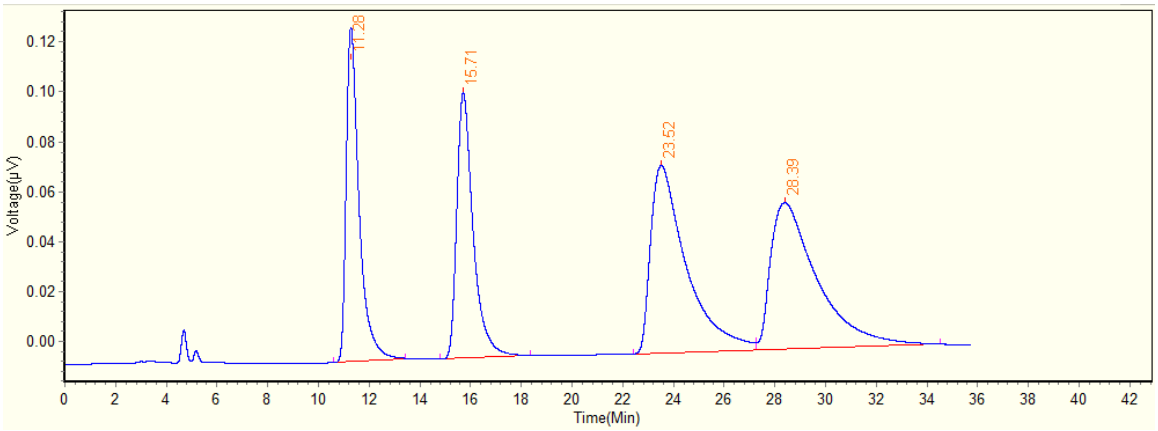
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
20.458	432847	3.832	19.333	4933576	49.922
24.742	10863123	96.168	25.050	4949011	50.078

(*1R*,*2S*)-*tert*-Butyl (2-nitro-1-phenylpropyl)carbamate (3ab):



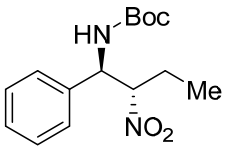


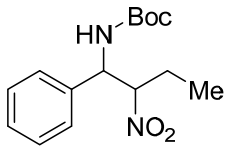


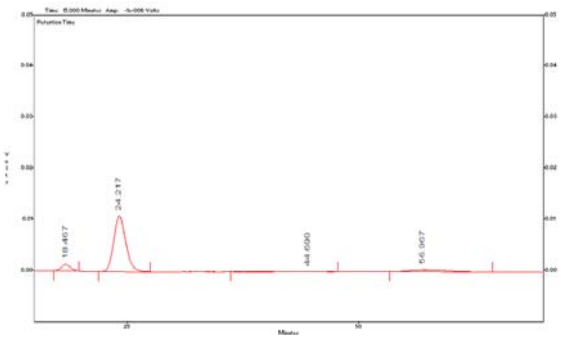


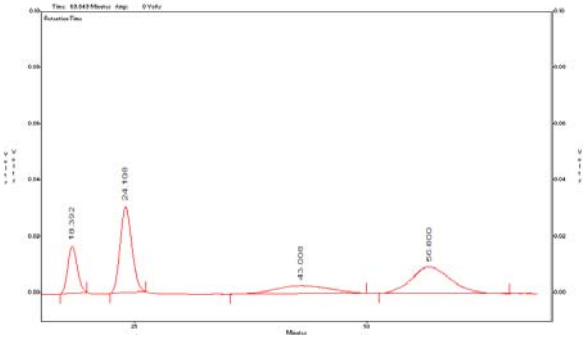
Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
11.26	617290	2.51	11.28	2364654	19.40
15.56	1062997	4.32	15.71	2381575	19.54
22.41	22168189	90.10	23.52	3688851	30.26
27.97	756513	3.07	28.39	3755971	30.81

(*1R*,*2S*)-*tert*-Butyl (2-nitro-1-phenylbutyl)carbamate (**3ac**):





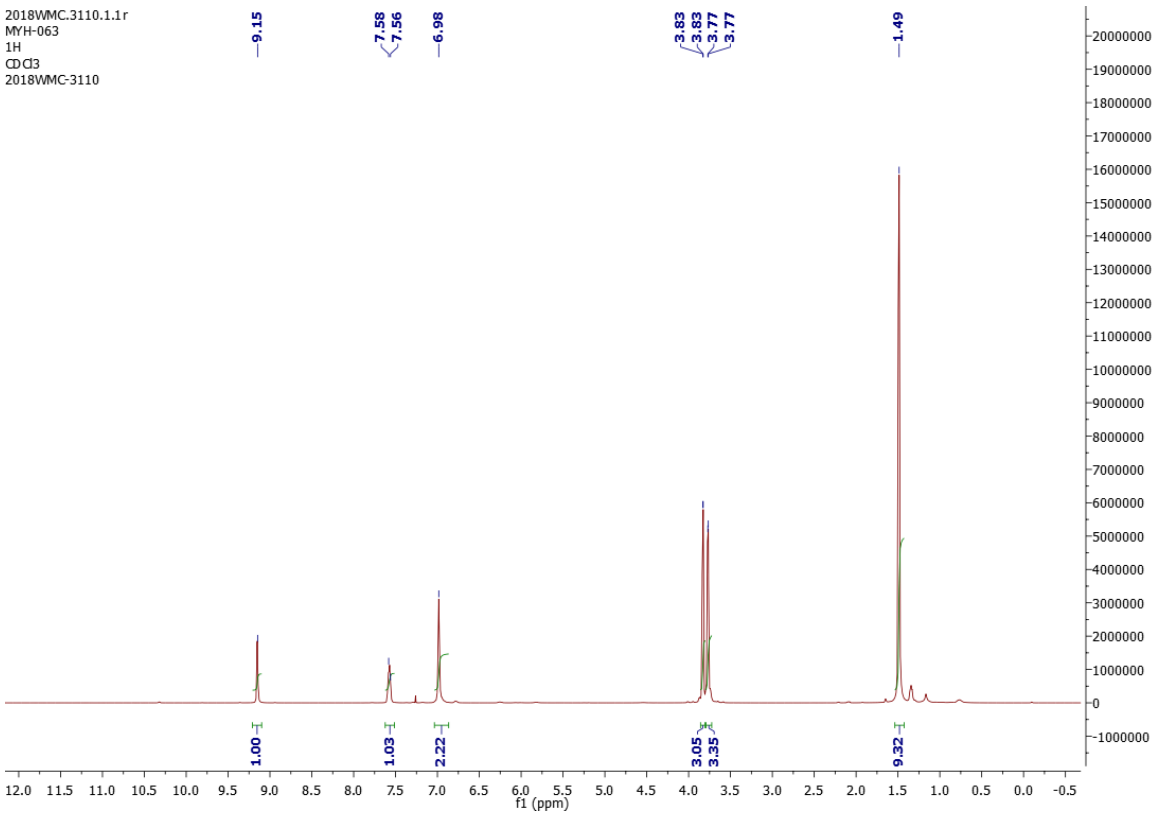


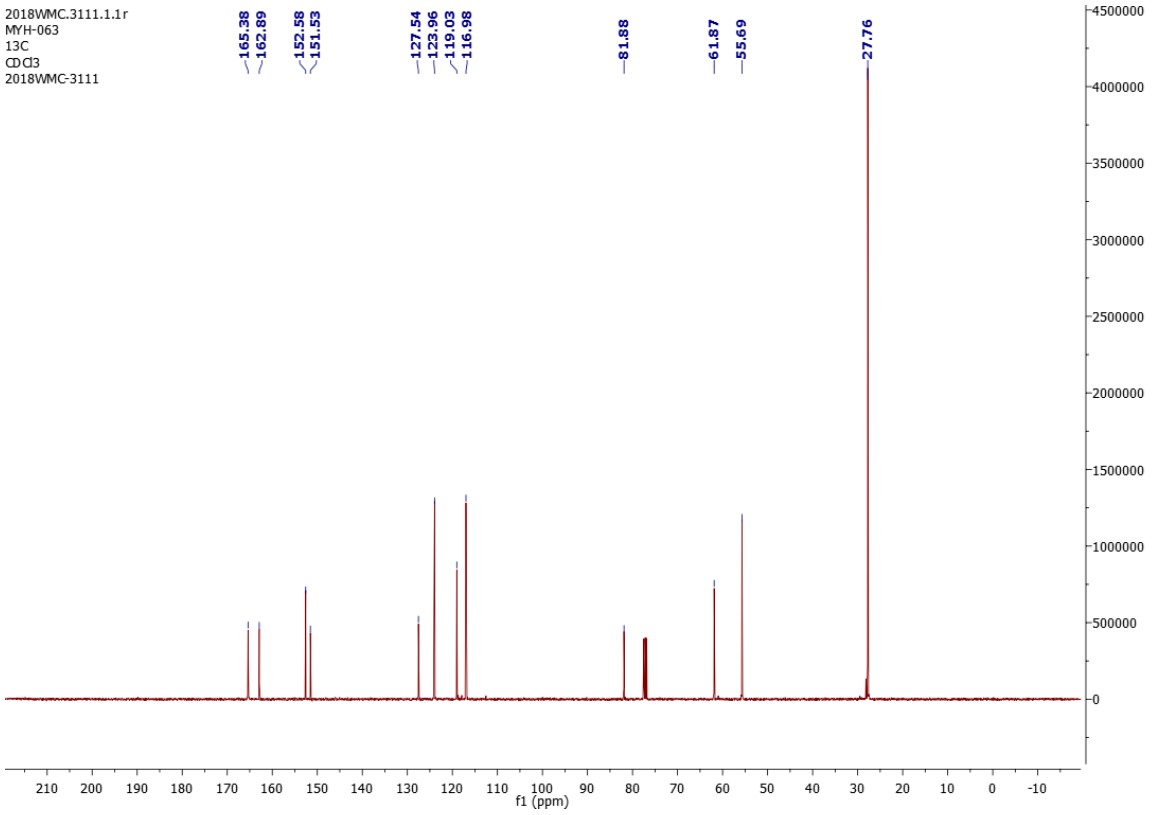


Ret. Time (min)	Area	Area (%)	Ret. Time (min)	Area	Area (%)
18.467	85098	7.171	18.392	1162364	15.129
24.217	1002228	84.495	24.108	2720377	35.408
44.600	815	0.069	43.008	1104933	14.382
56.967	98053	8.301	56.800	2695307	35.082

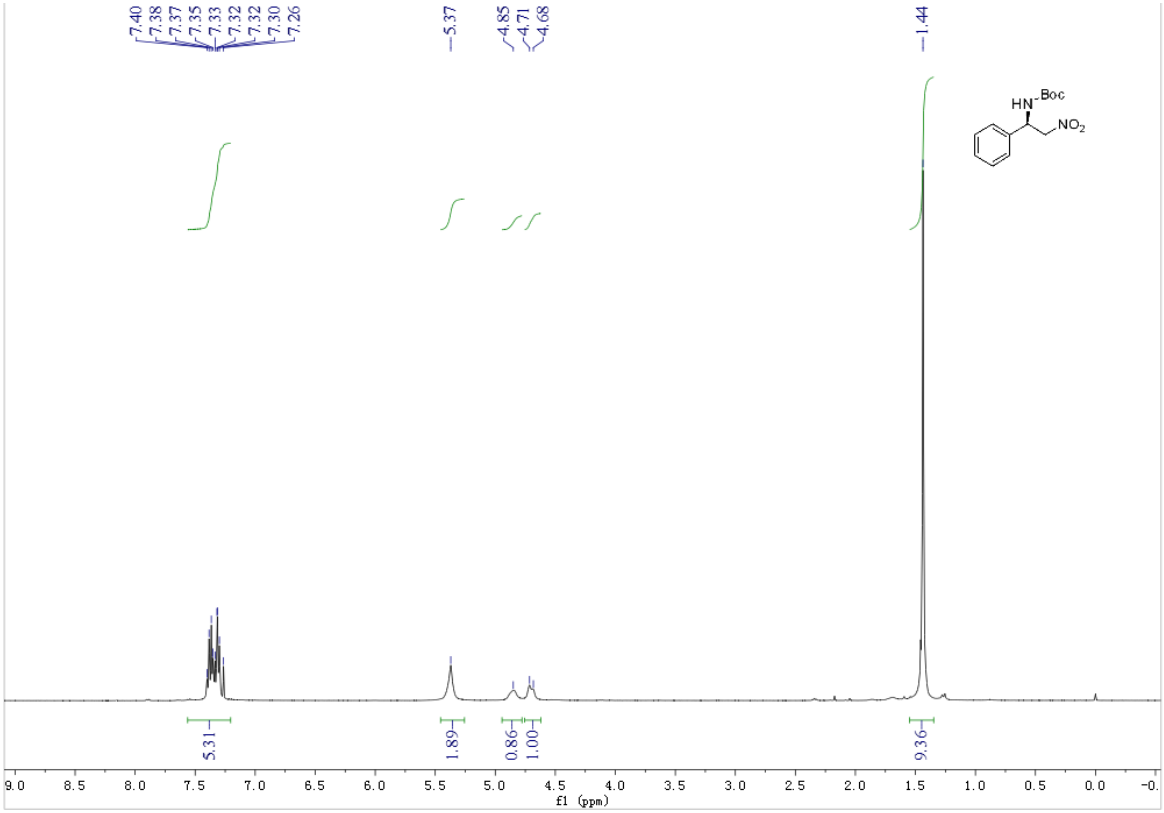
2. NMR Spectra for All Products

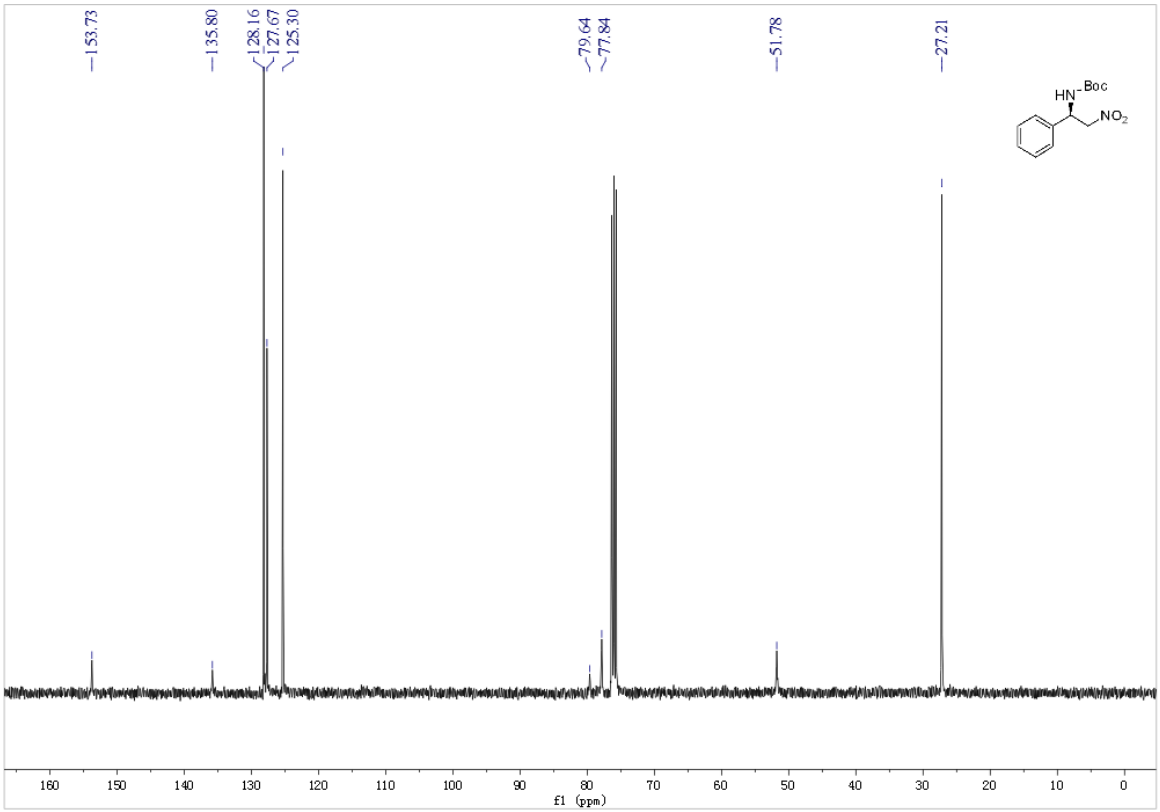
tert-butyl (E)-(2,3-dimethoxybenzylidene)carbamate 1k



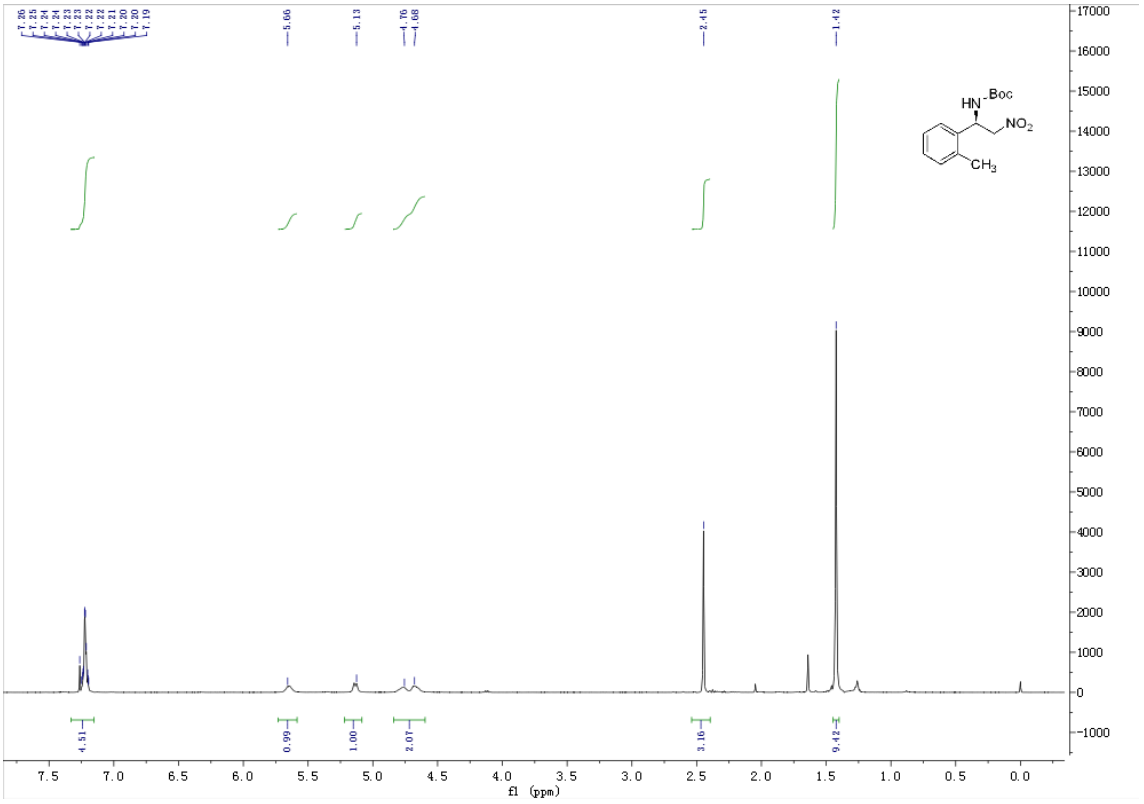


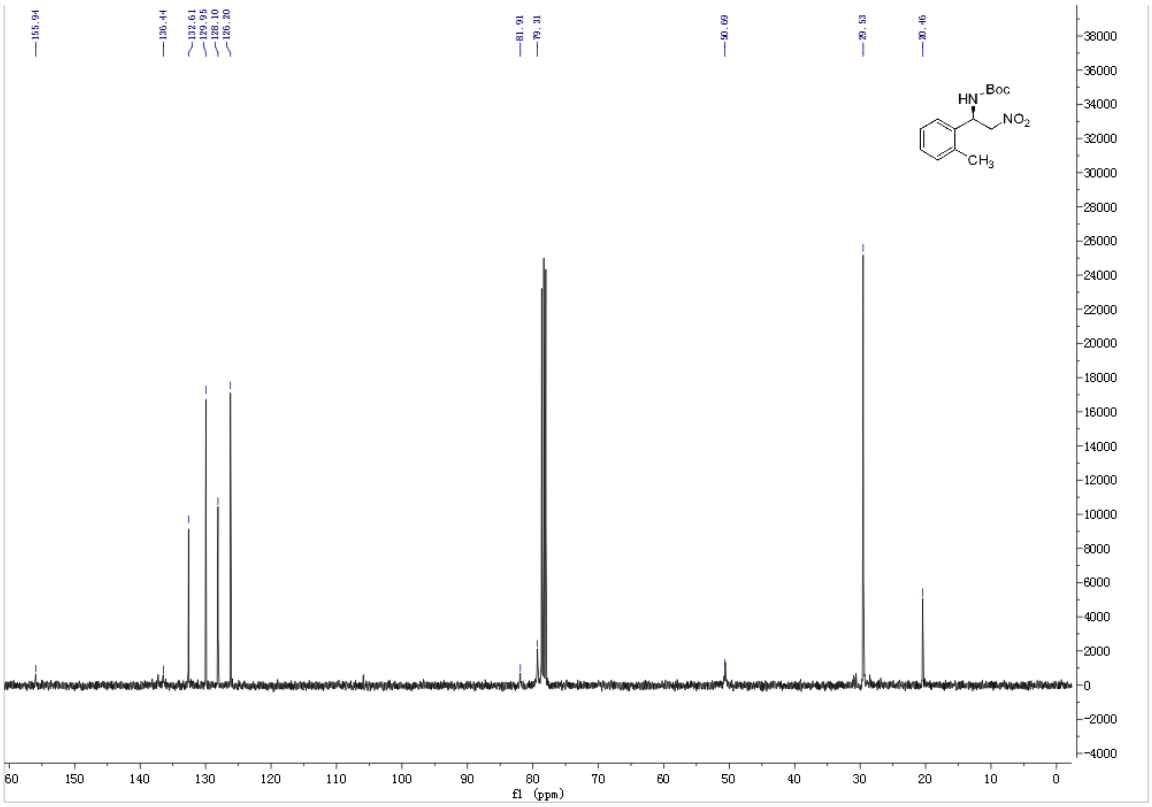
(*R*)-*tert*-Butyl (2-nitro-1-phenylethyl)carbamate (**3aa**):



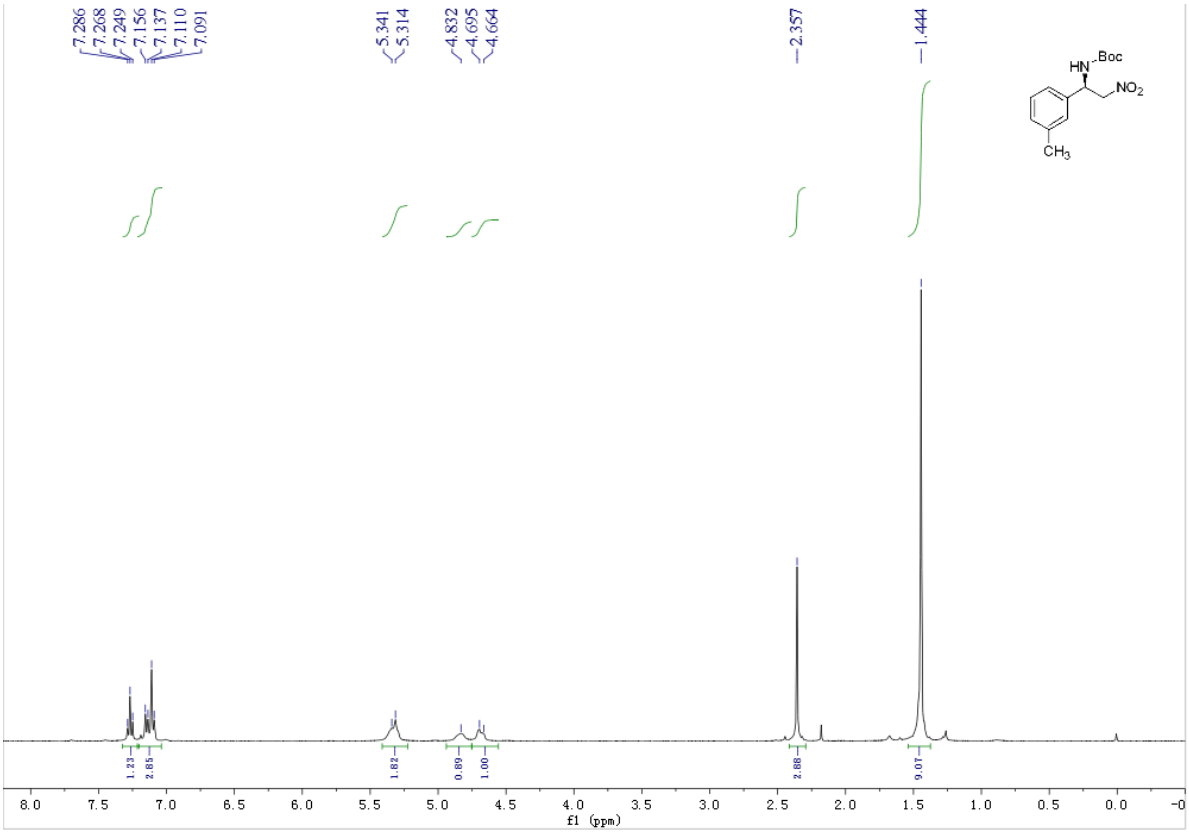


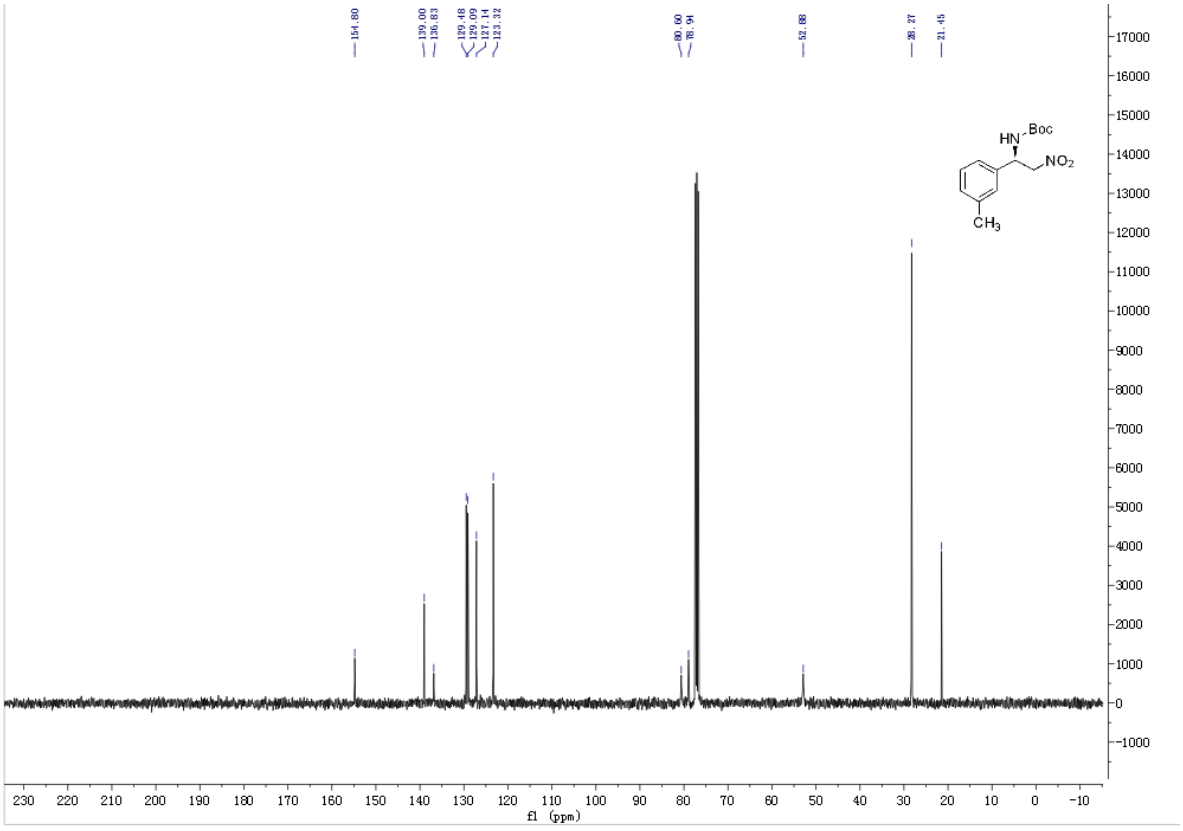
(*R*)-*tert*-Butyl [2-nitro-1-(*o*-tolyl)ethyl]carbamate (**3ba**):



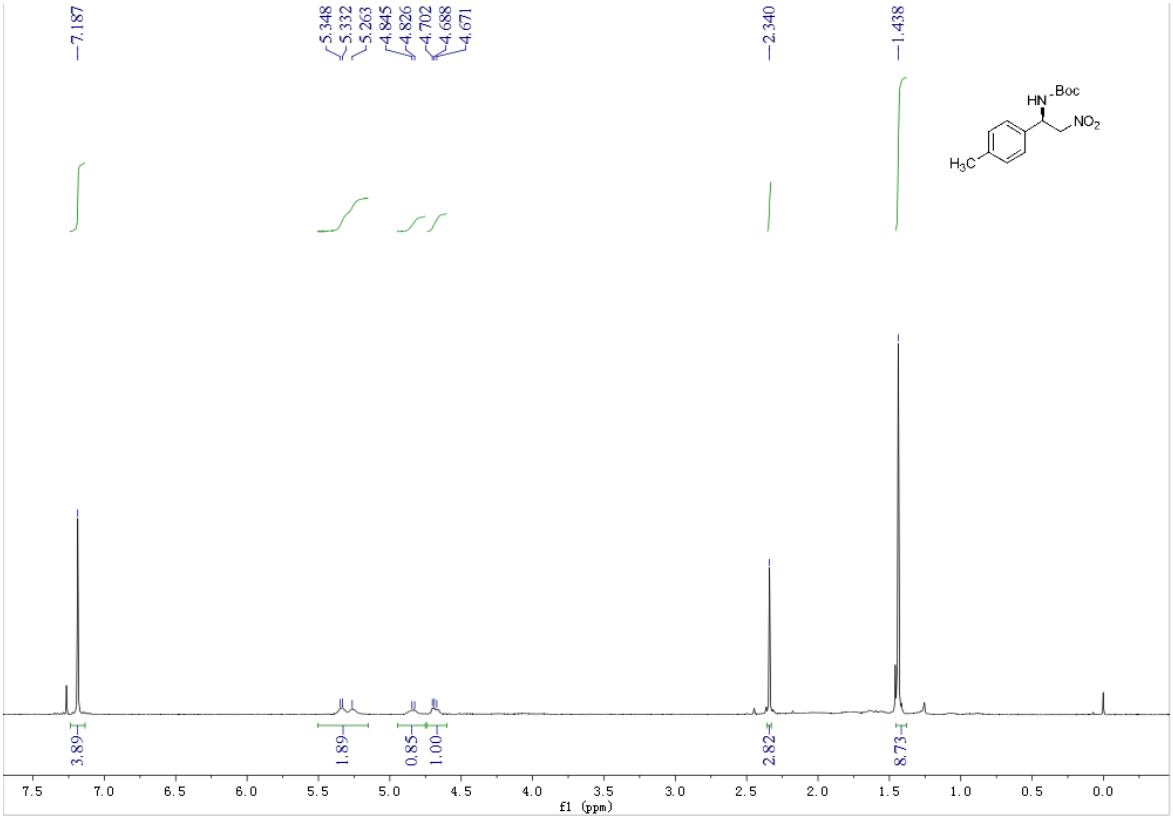


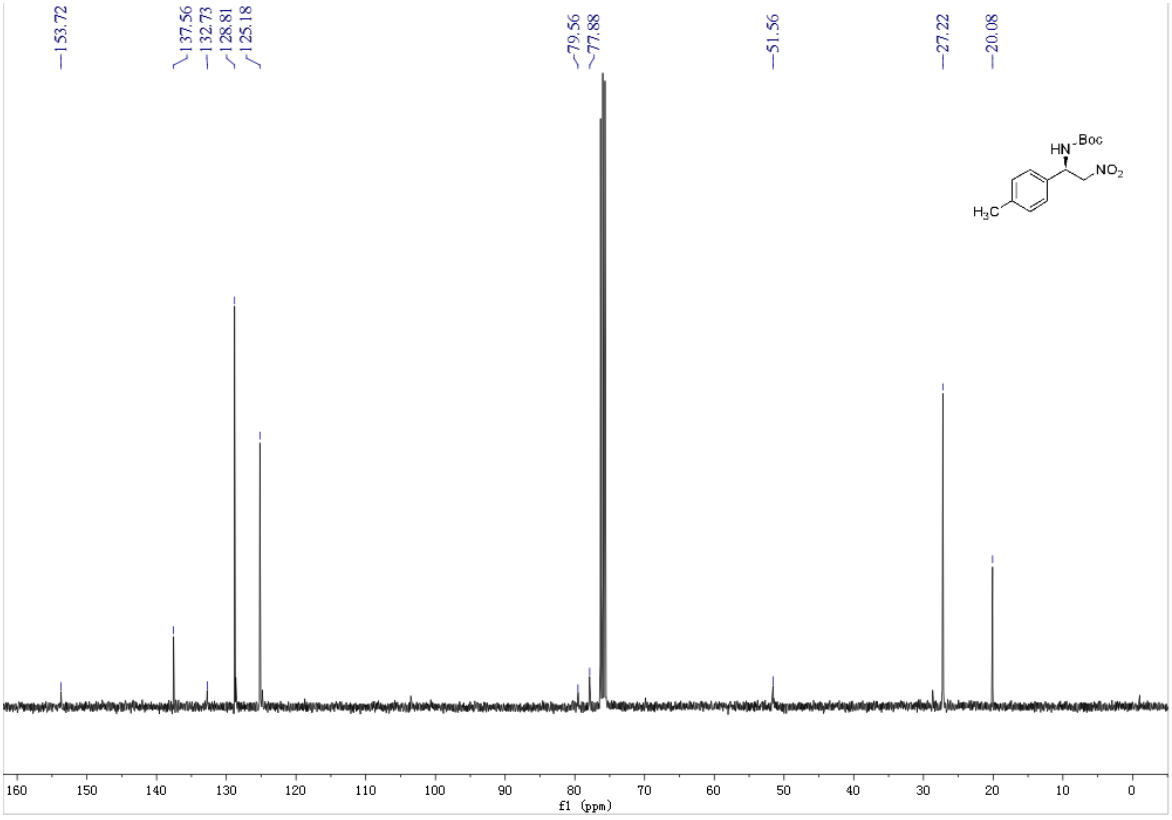
(*R*)-*tert*-Butyl [2-nitro-1-(*m*-tolyl)ethyl]carbamate (**3ca**):



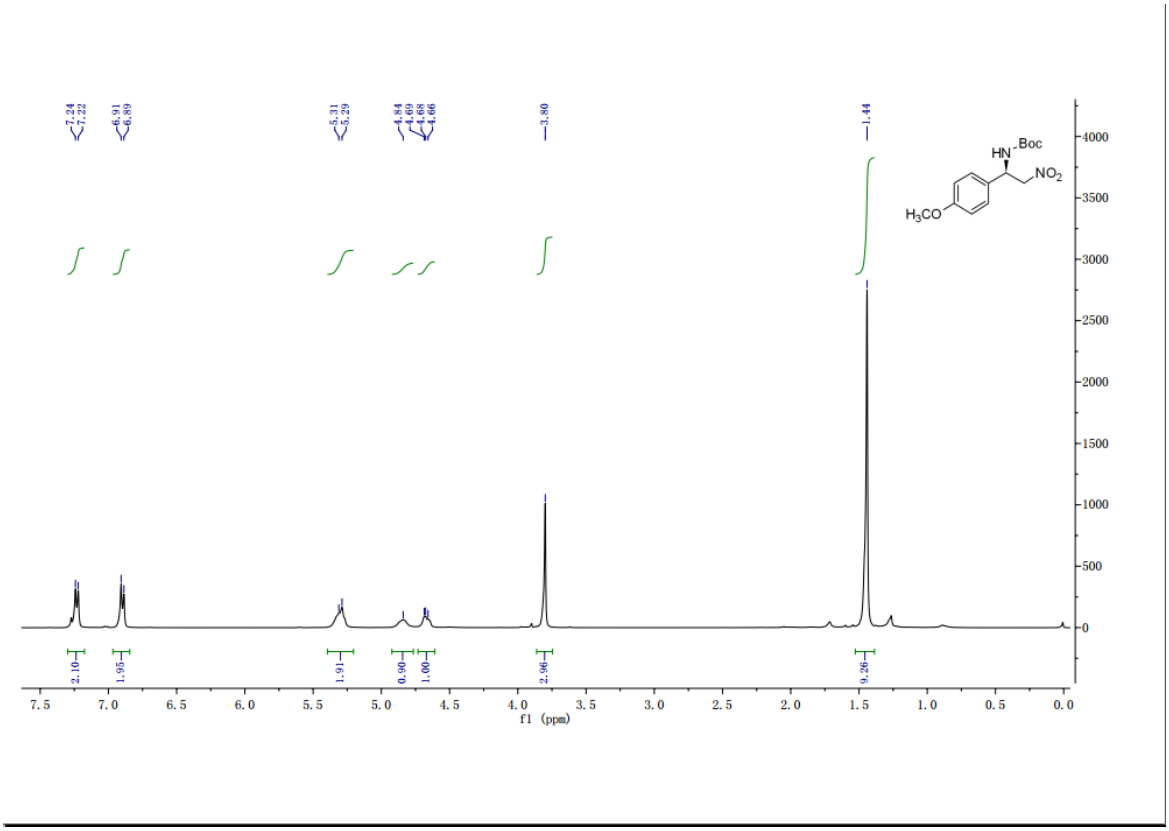


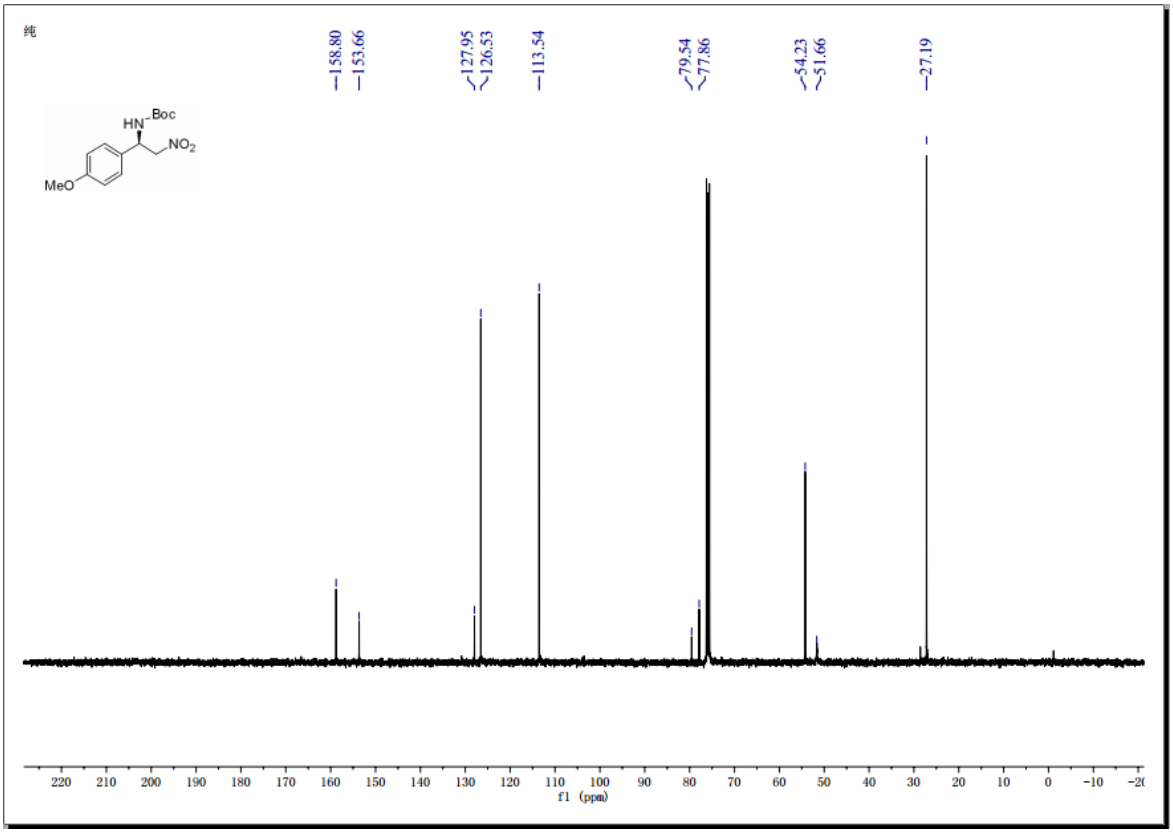
(*R*)-*tert*-Butyl [2-nitro-1-(*p*-tolyl)ethyl]carbamate (3da):



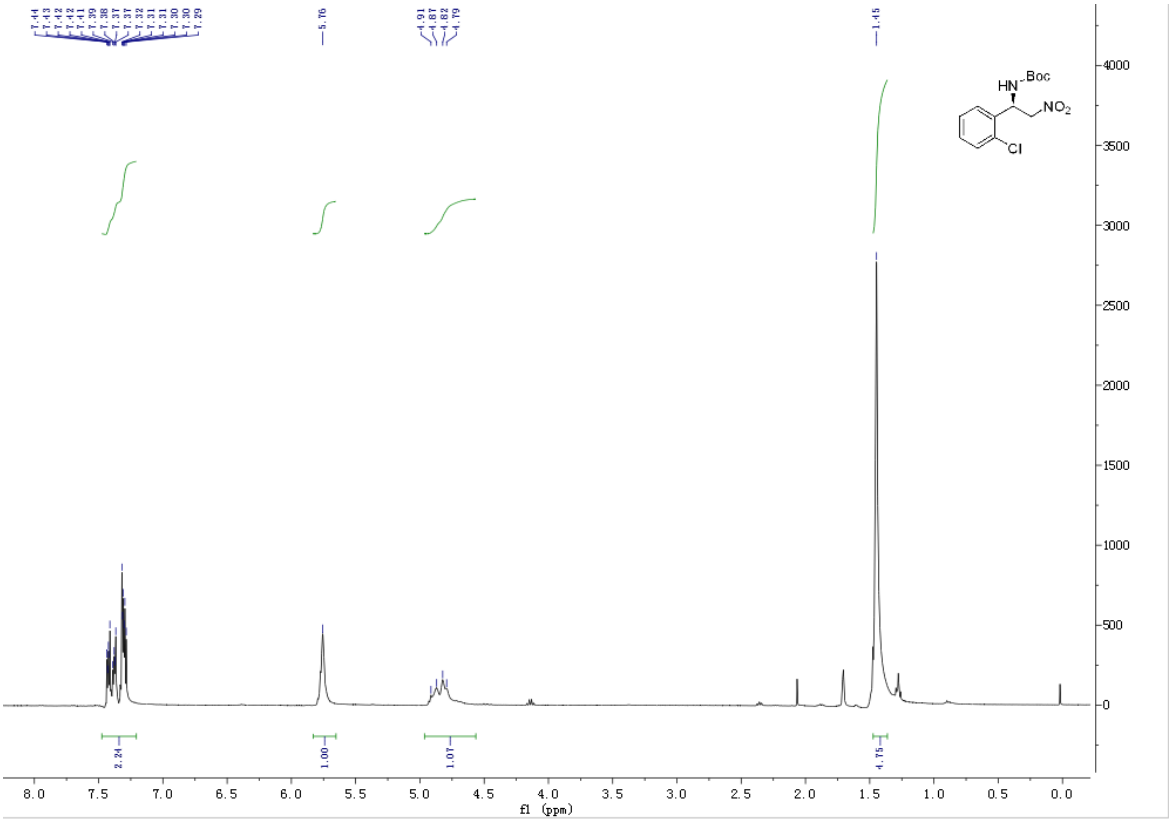


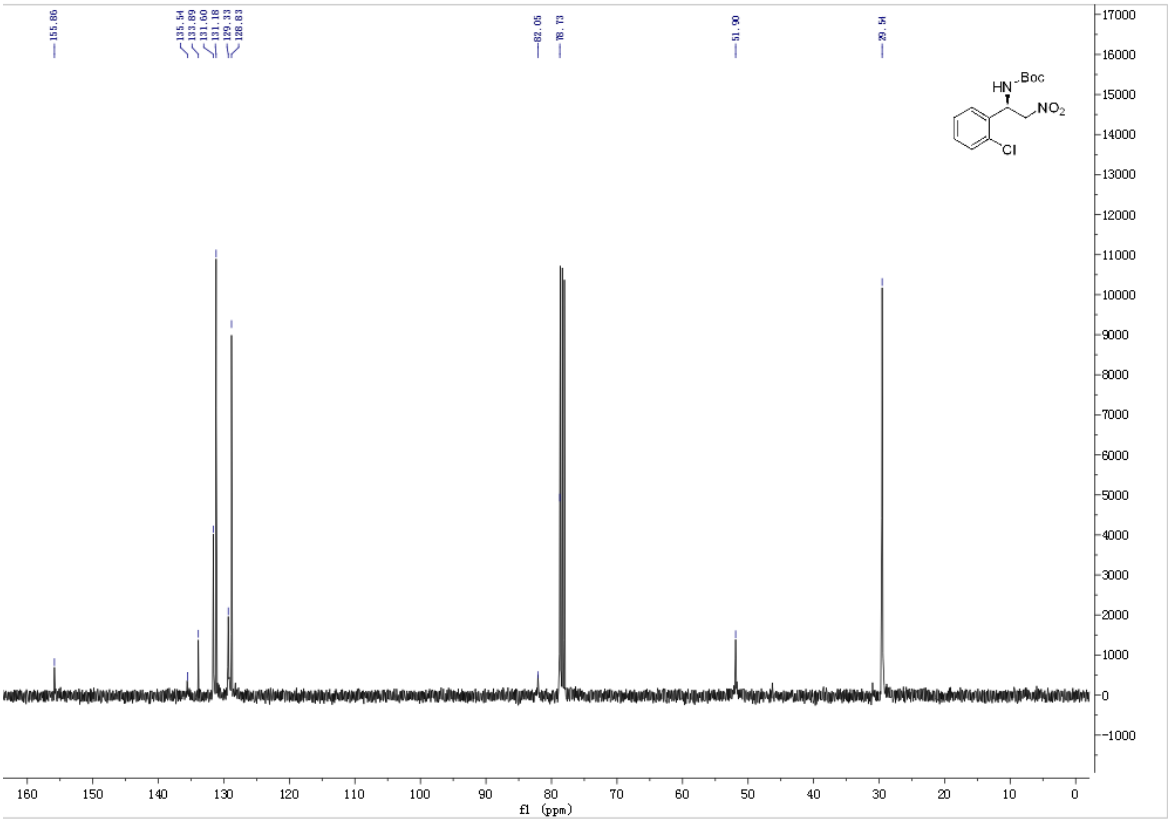
(*R*)-*tert*-Butyl [1-(4-methoxyphenyl)-2-nitroethyl]carbamate (**3ea**):



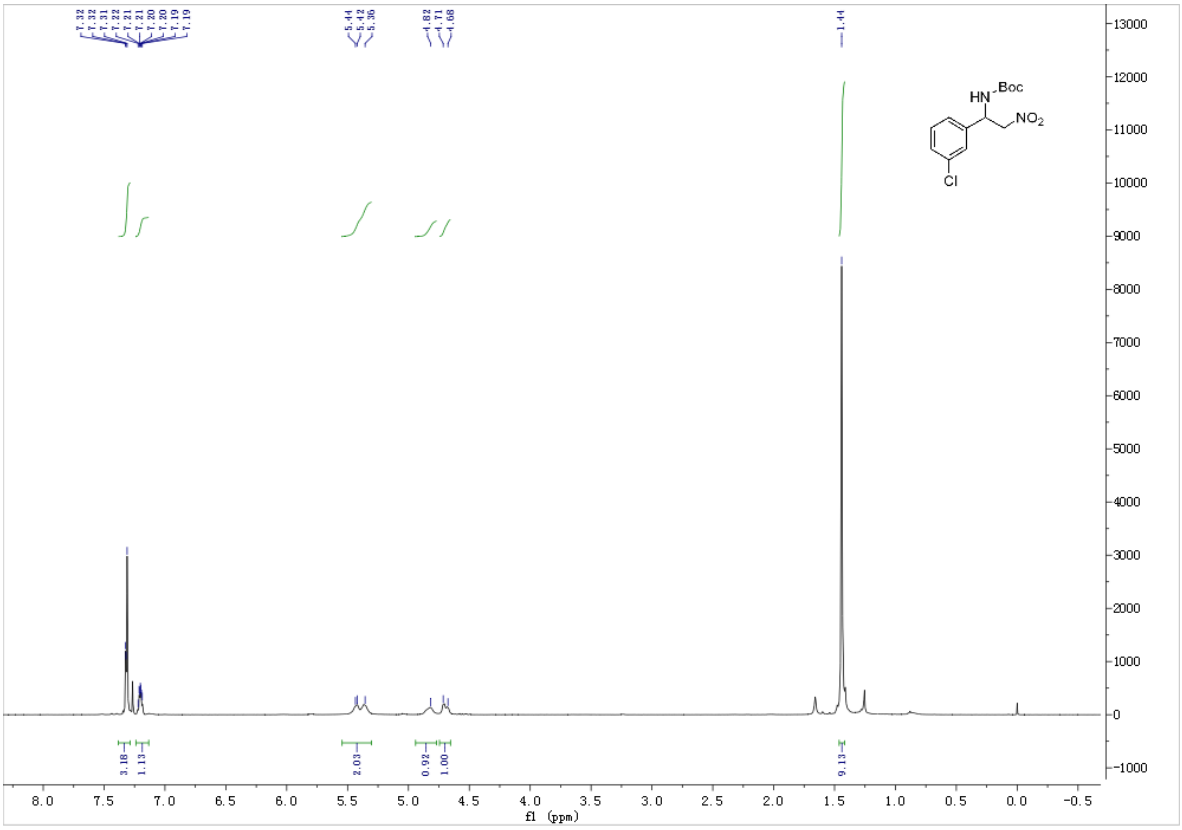


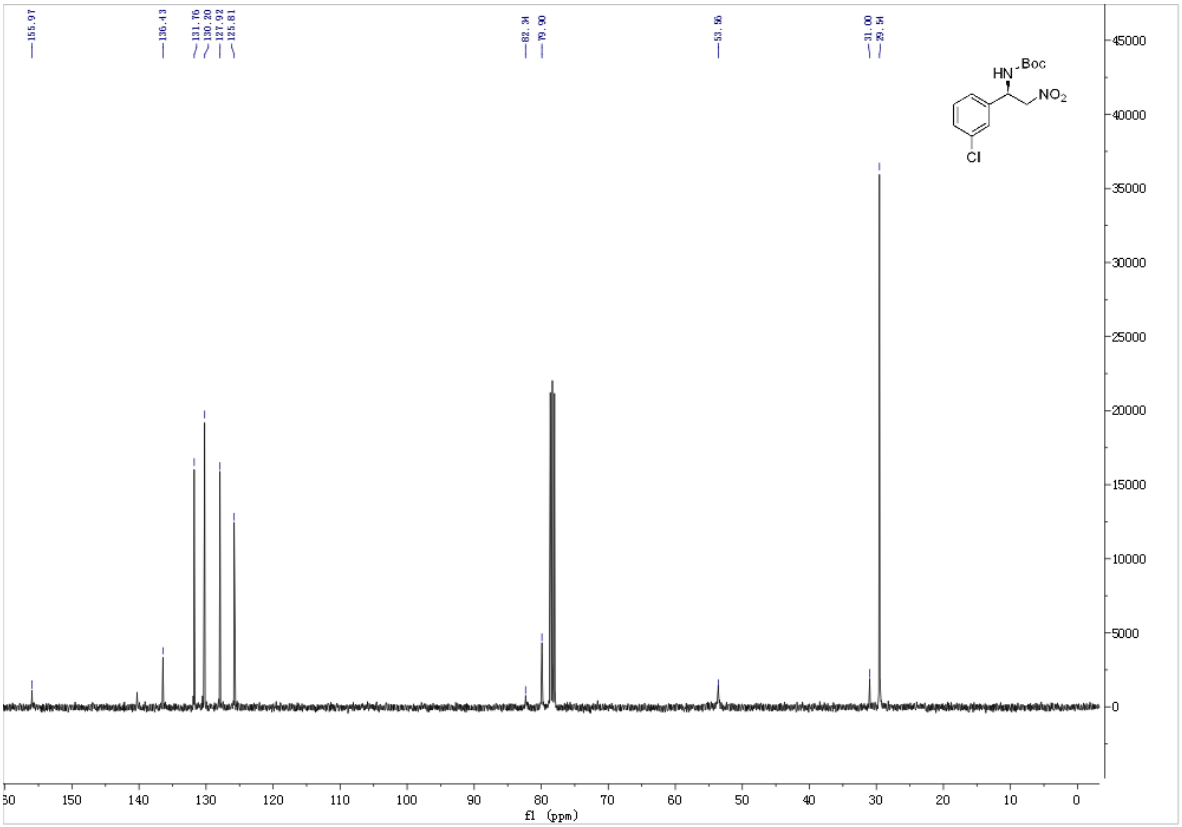
(*R*)-*tert*-Butyl [1-(2-chlorophenyl)-2-nitroethyl]carbamate (**3fa**):



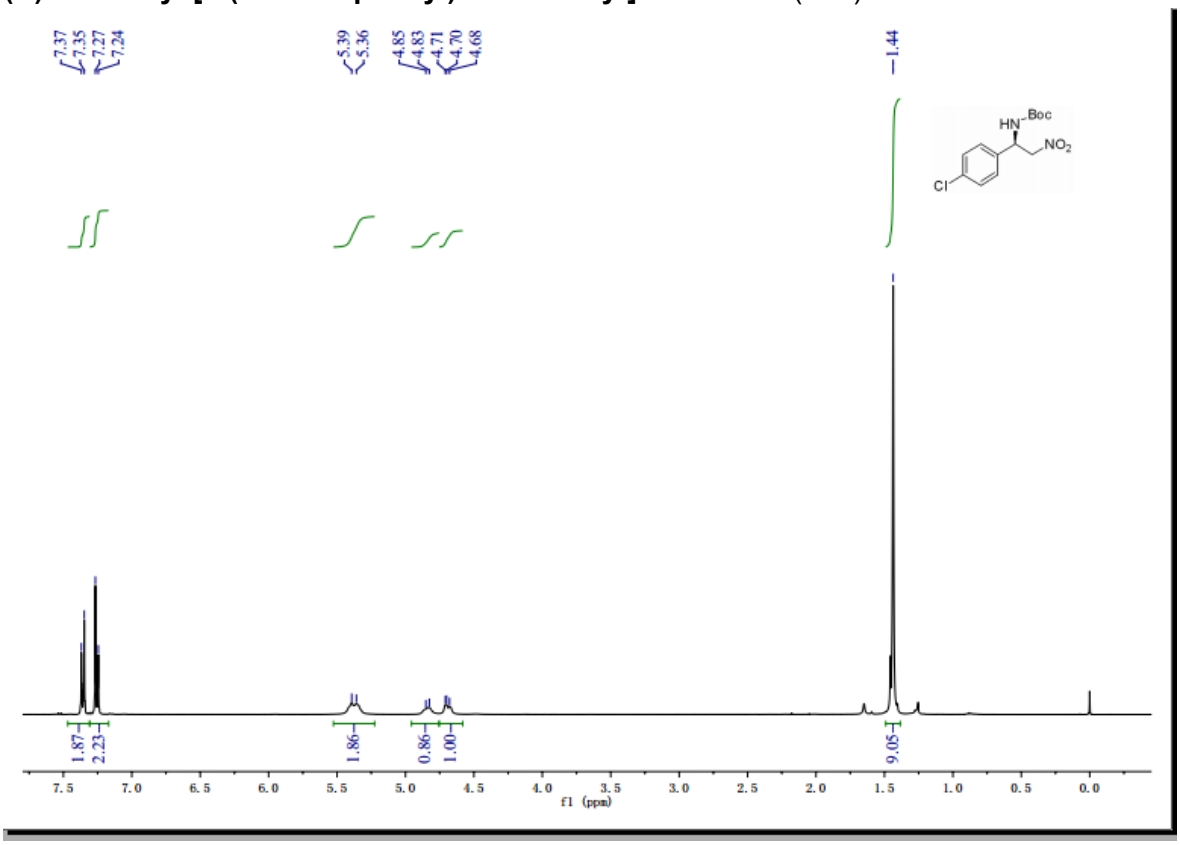


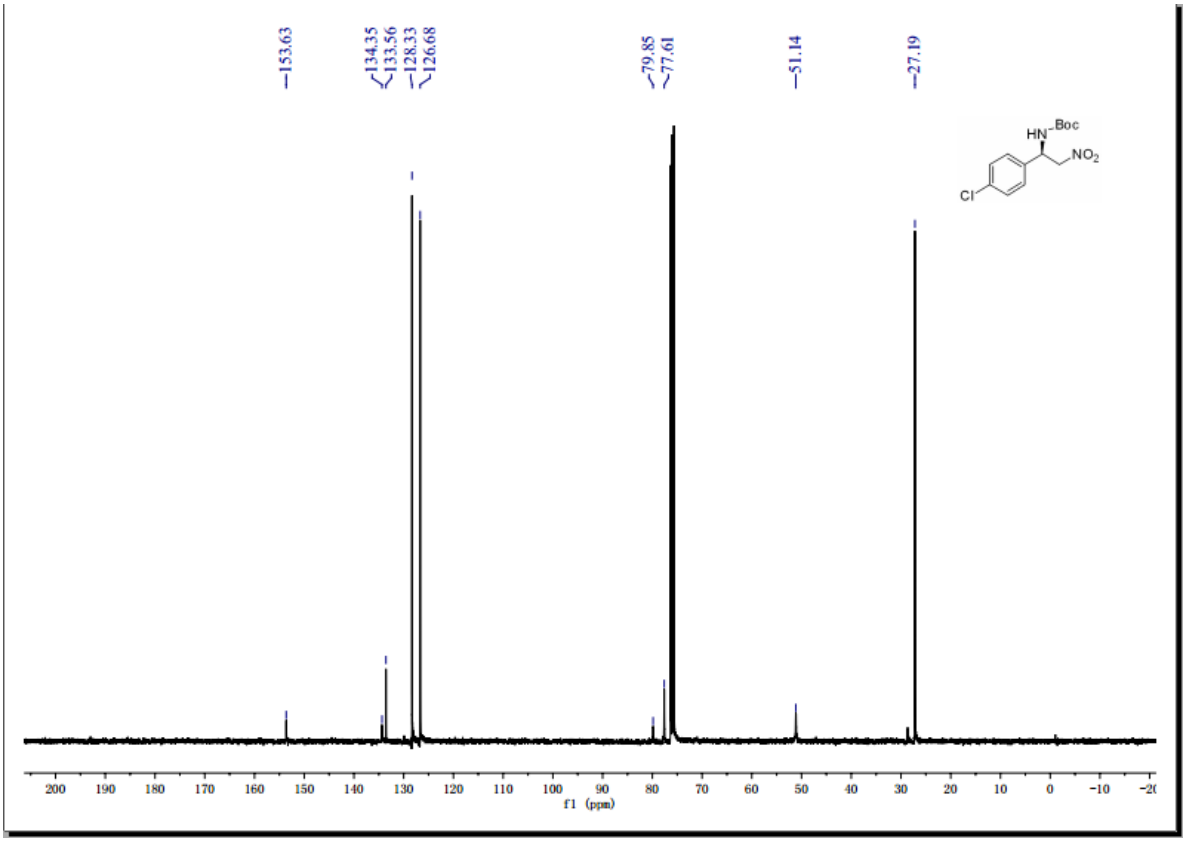
(*R*)-*tert*-Butyl [1-(3-chlorophenyl)-2-nitroethyl]carbamate (**3ga**):



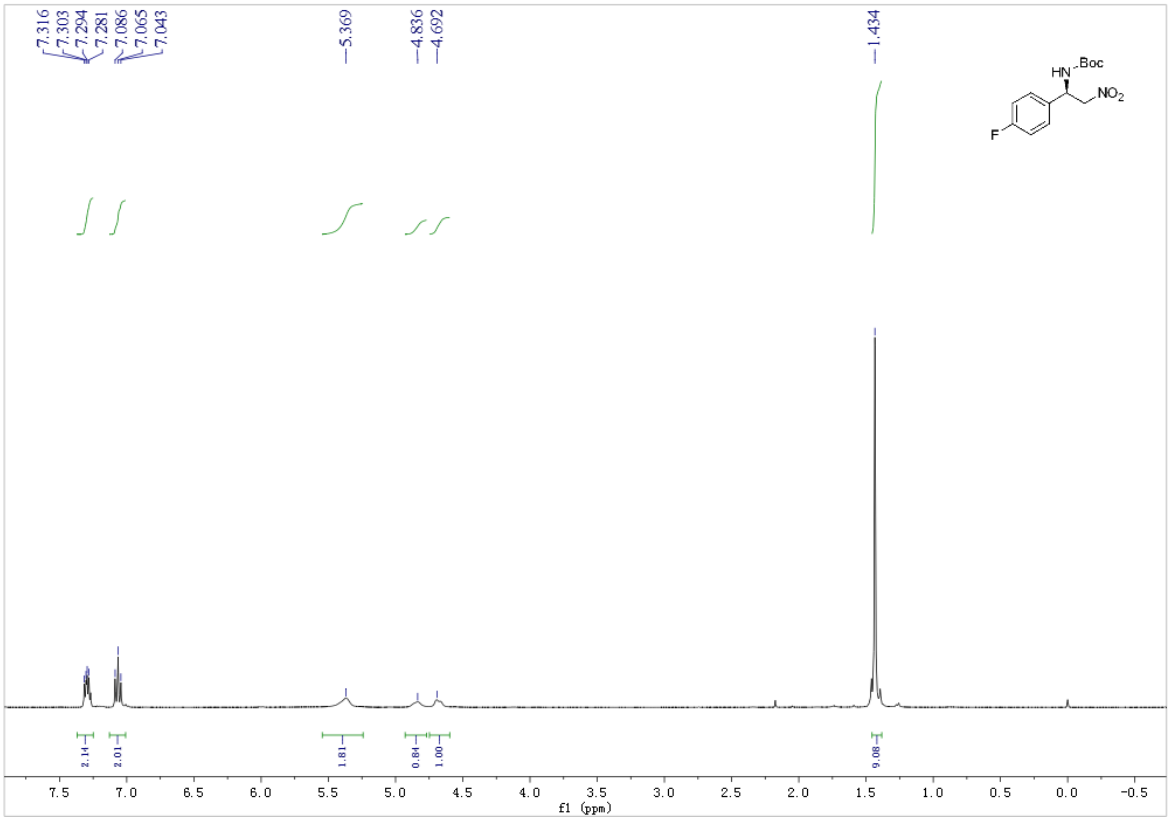


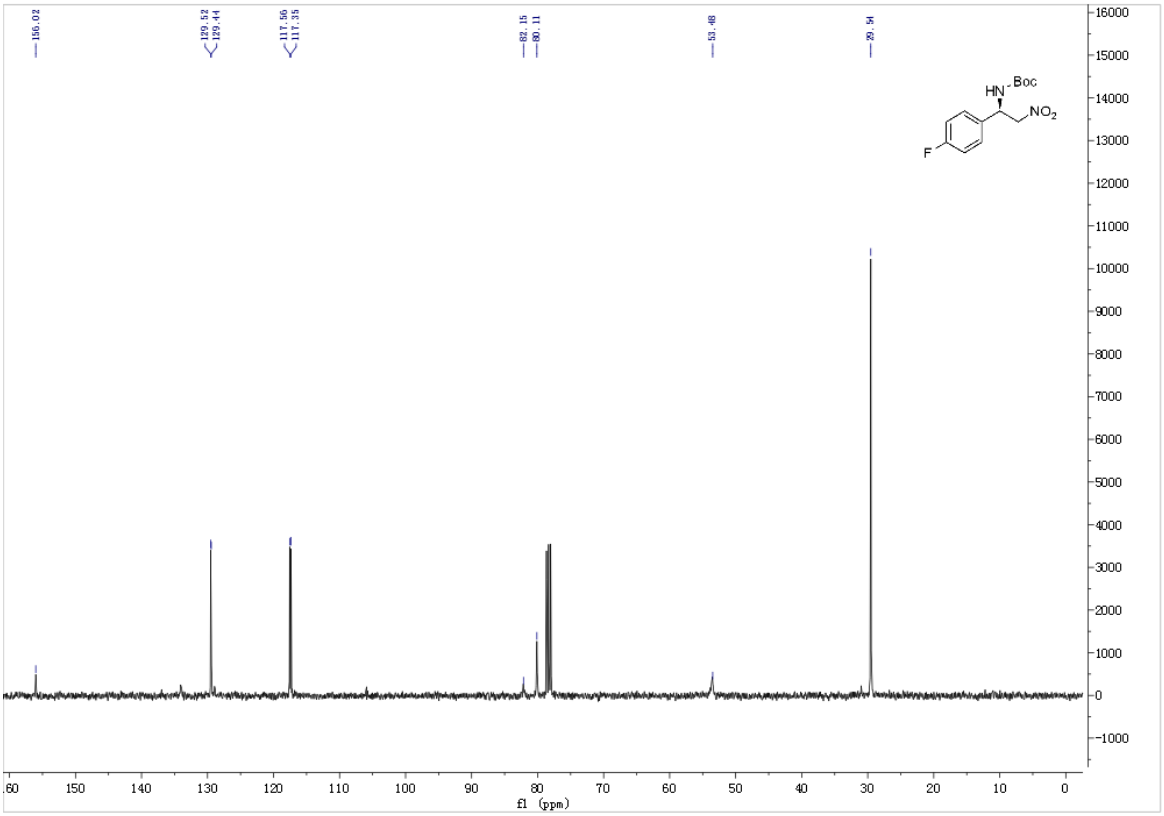
(*R*)-*tert*-Butyl [1-(4-chlorophenyl)-2-nitroethyl]carbamate (**3ha**):



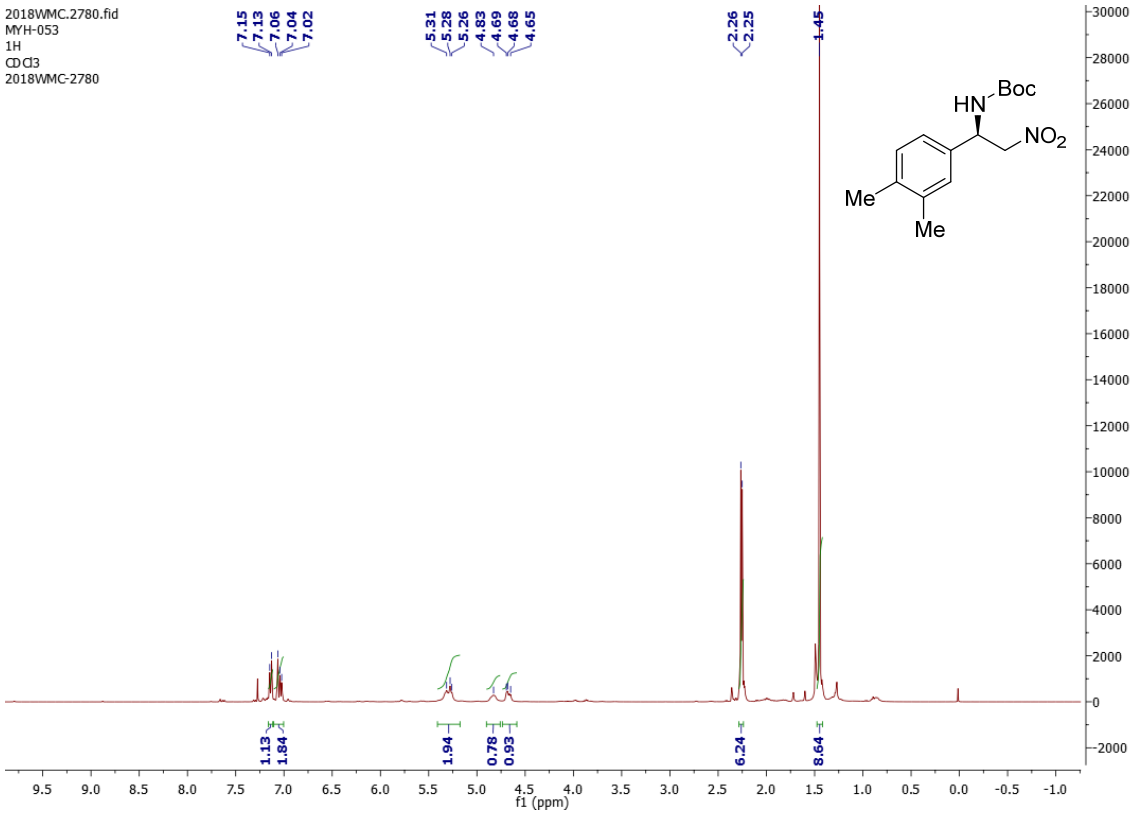


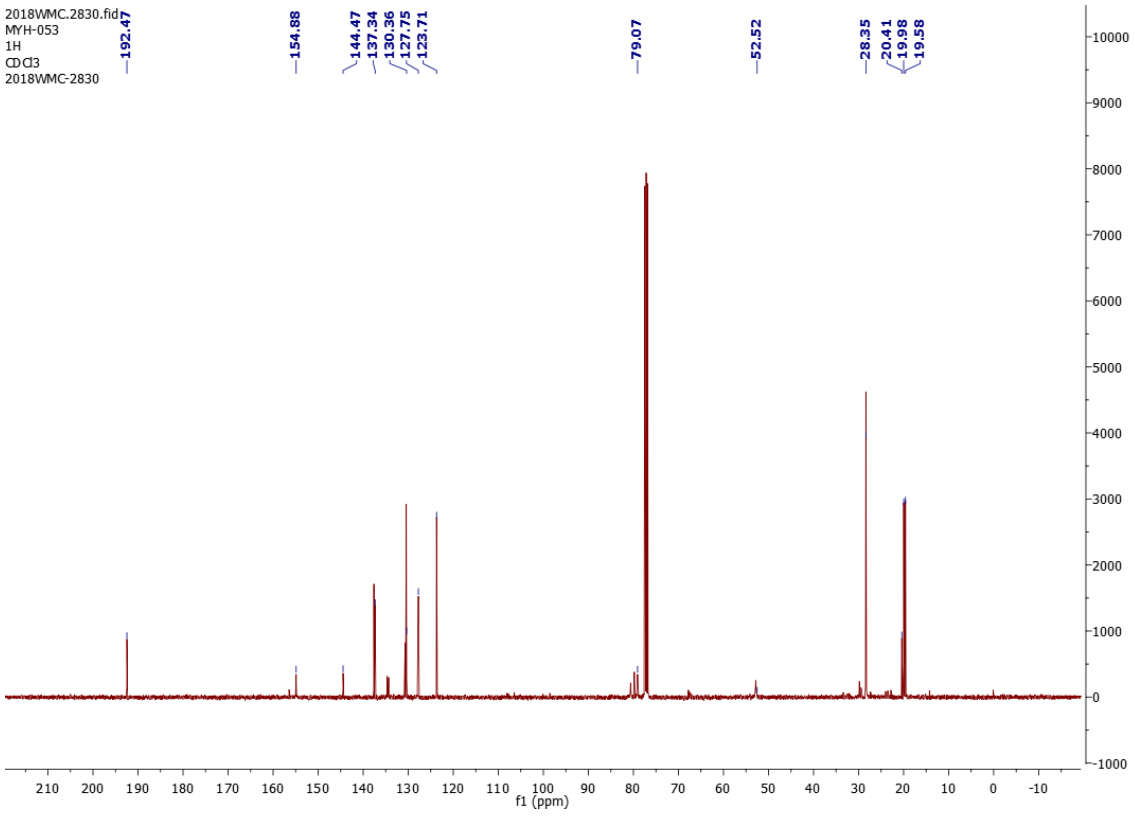
(*R*)-*tert*-Butyl [1-(4-fluorophenyl)-2-nitroethyl]carbamate (**3ia**):



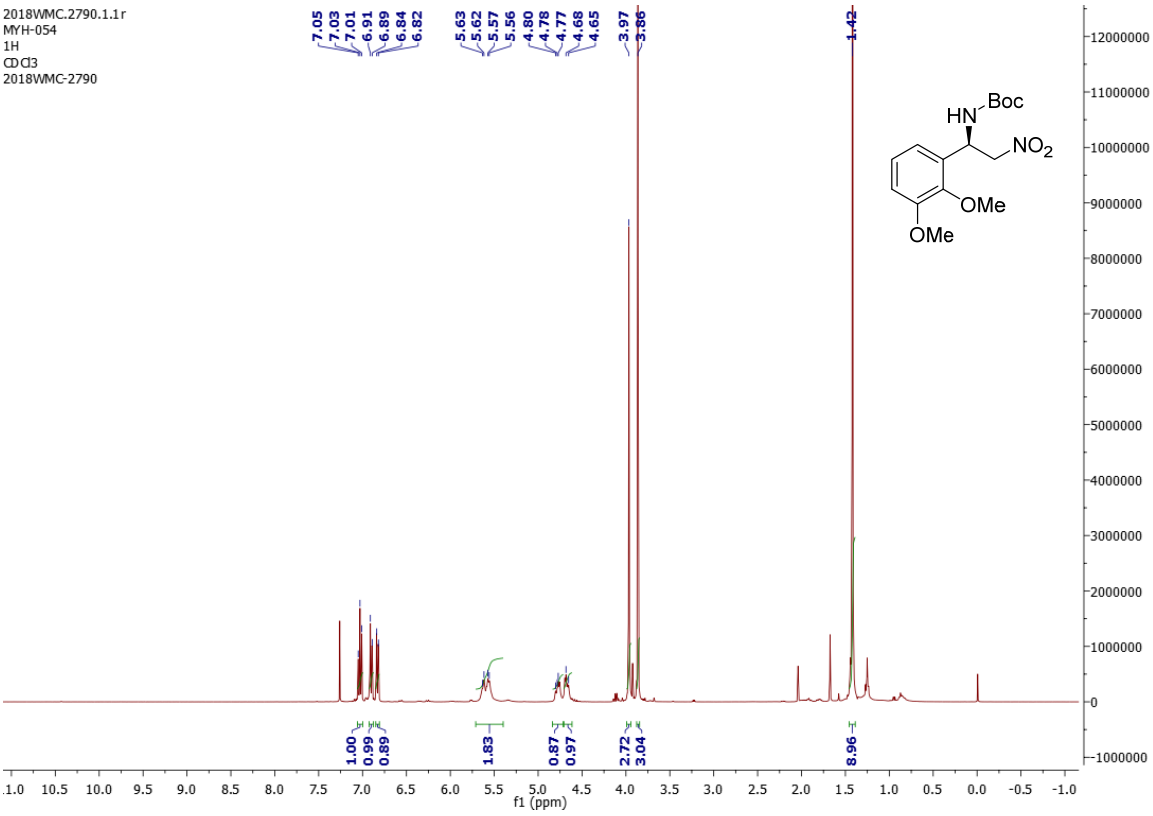


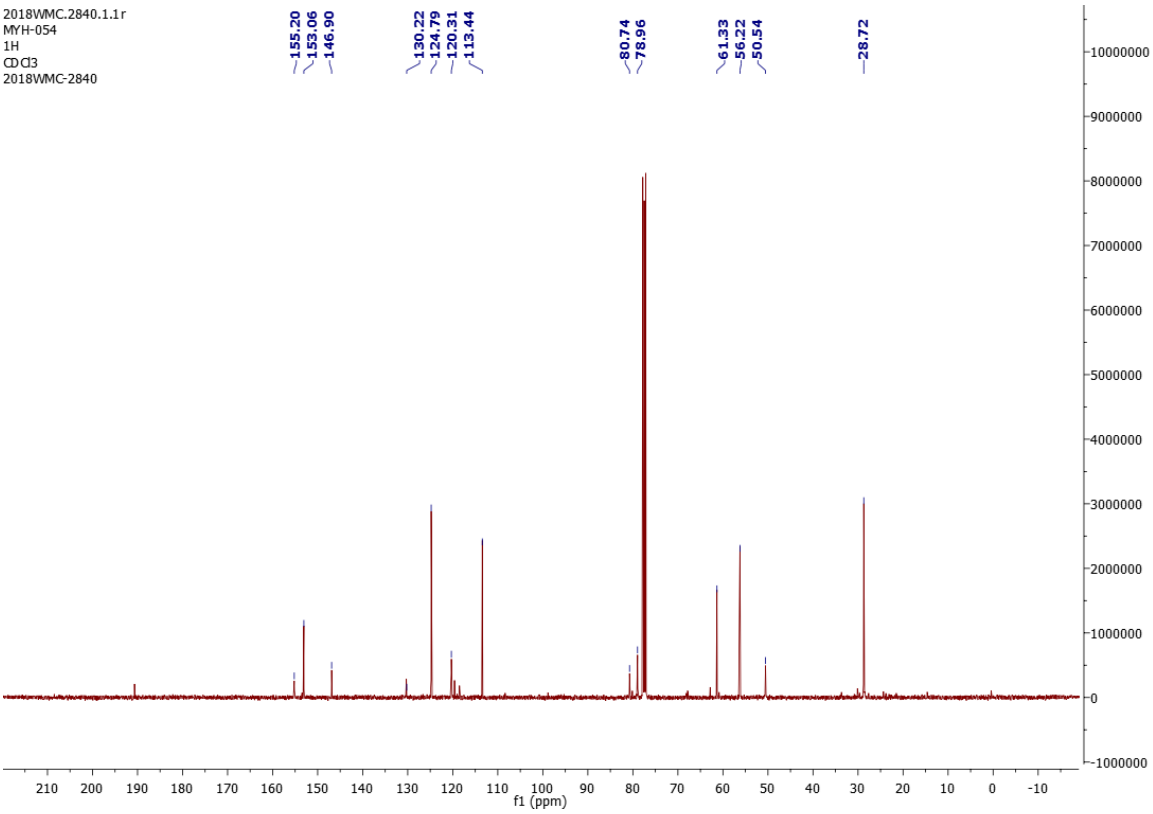
(*R*)-*tert*-Butyl [1-(3,4-dimethylphenyl]-2-nitroethyl)carbamate (**3ja**):



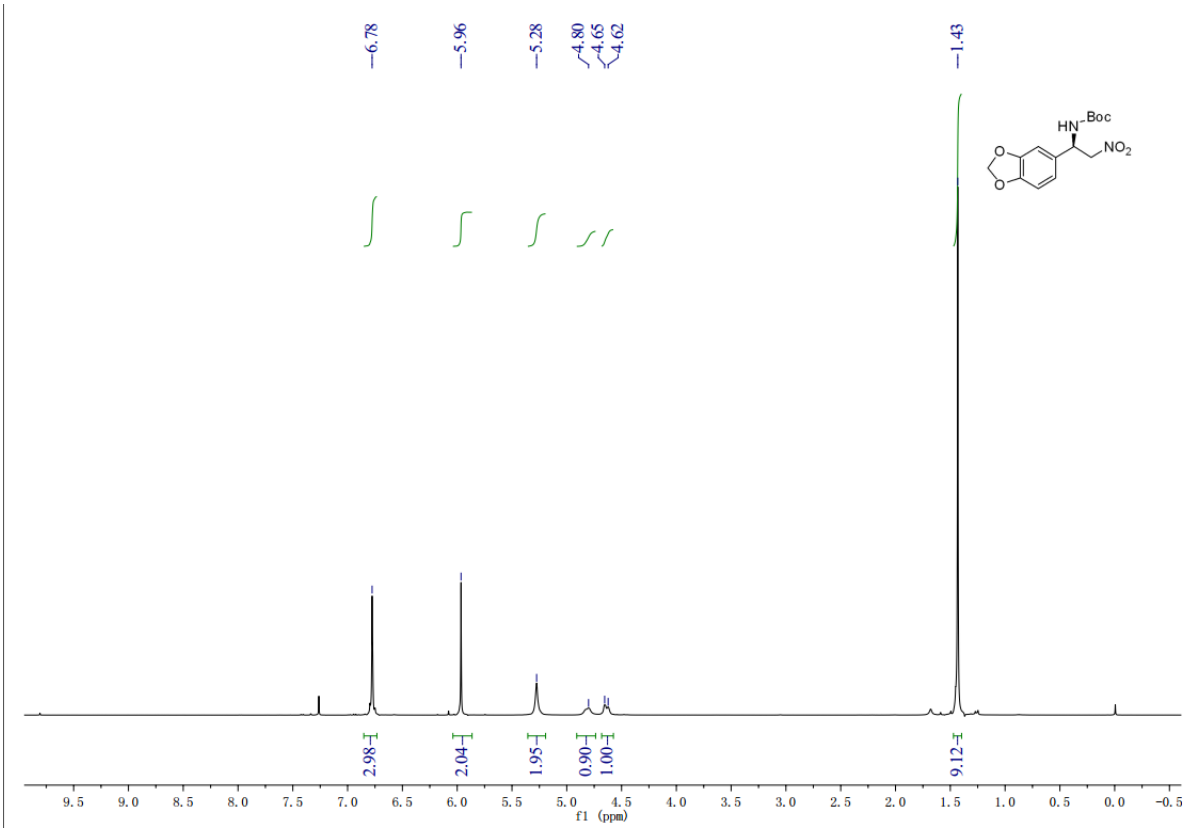


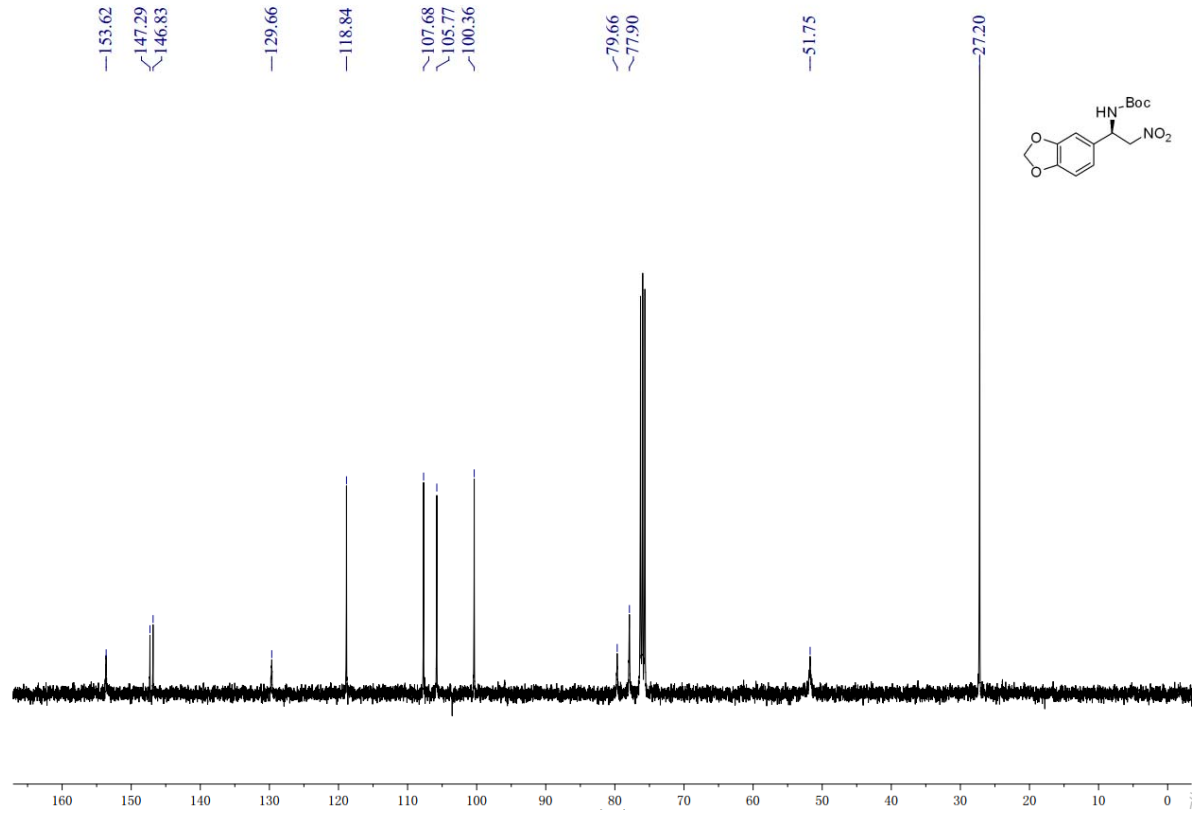
(*R*)-*tert*-Butyl[1-(2,3-dimethoxyphenyl)-2-nitroethyl]carbamate(3ka):



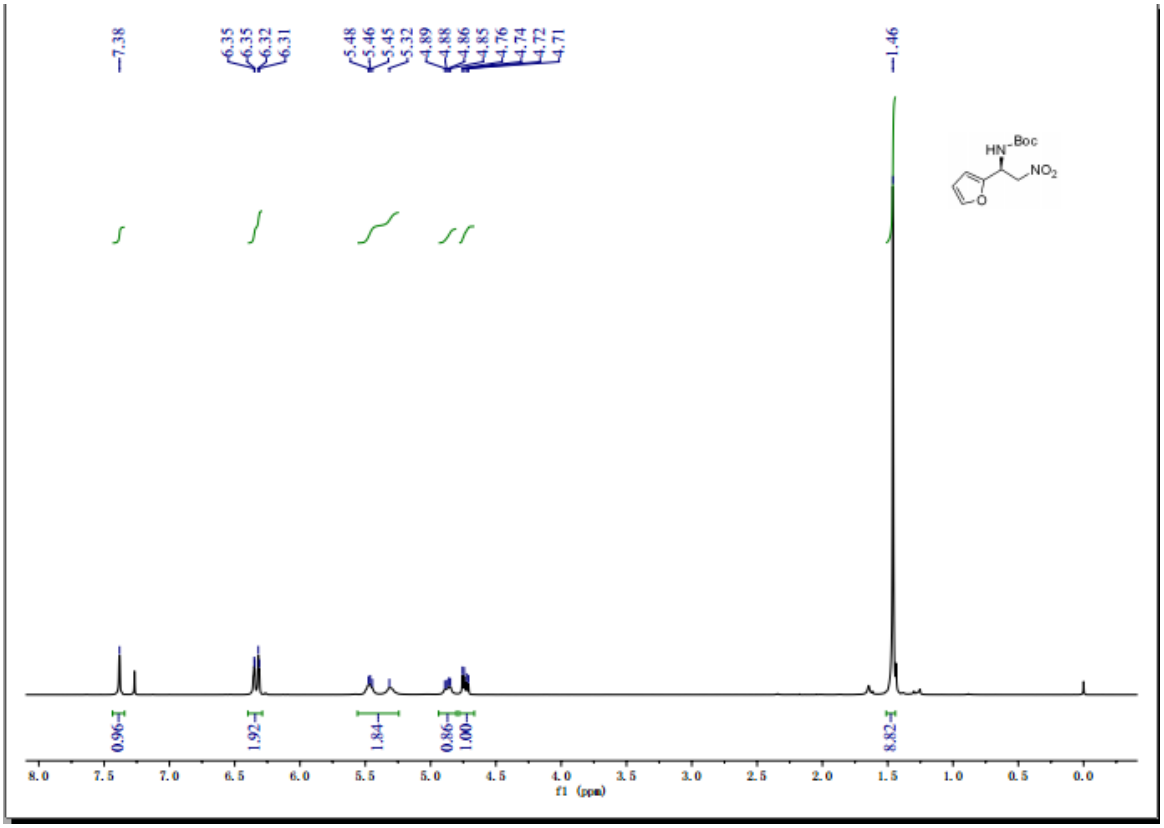


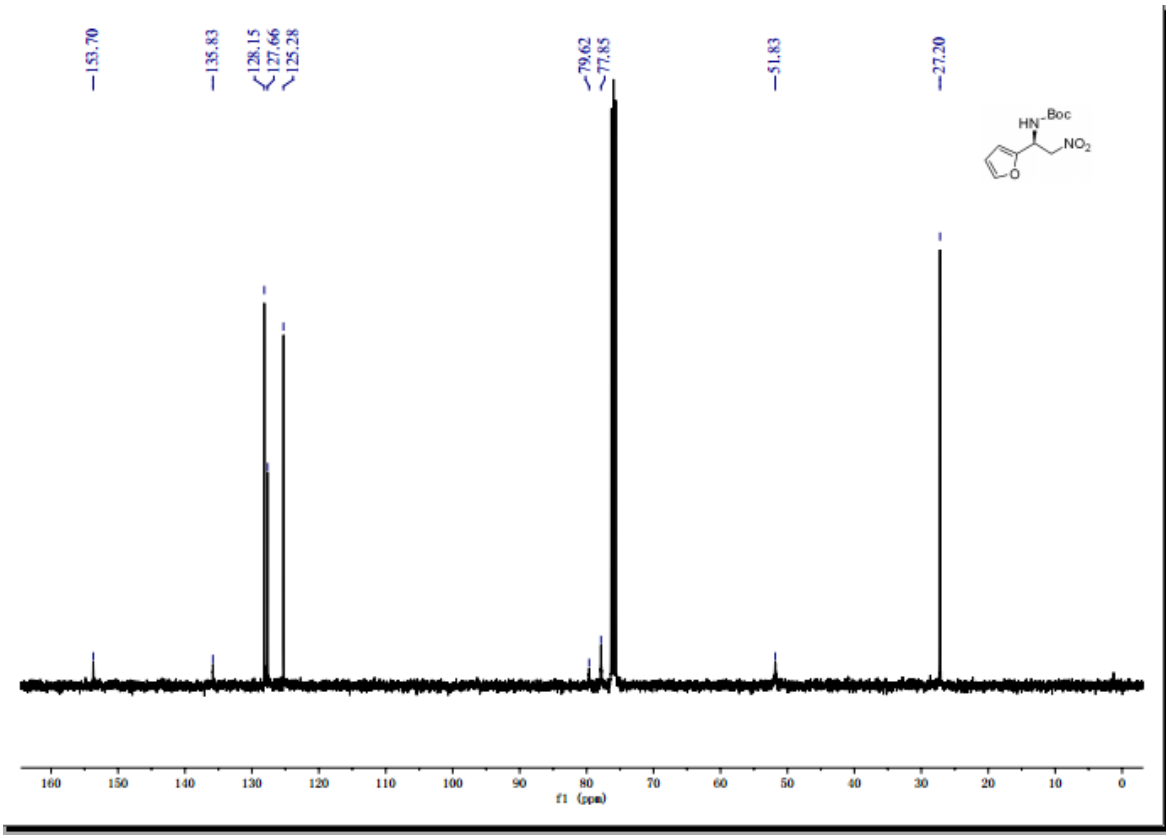
(*R*)-*tert*-Butyl [1-(benzo[d][1,3]dioxol-5-yl)-2-nitroethyl]carbamate (**3la**):



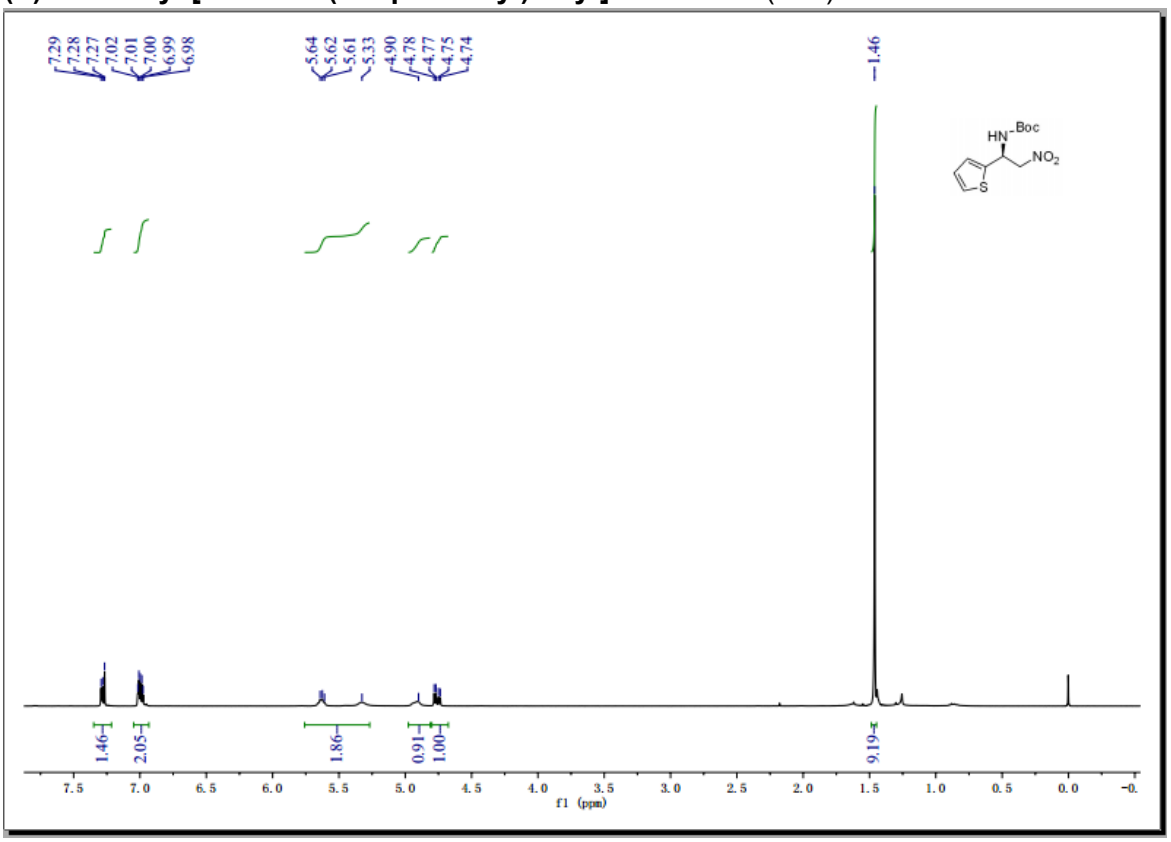


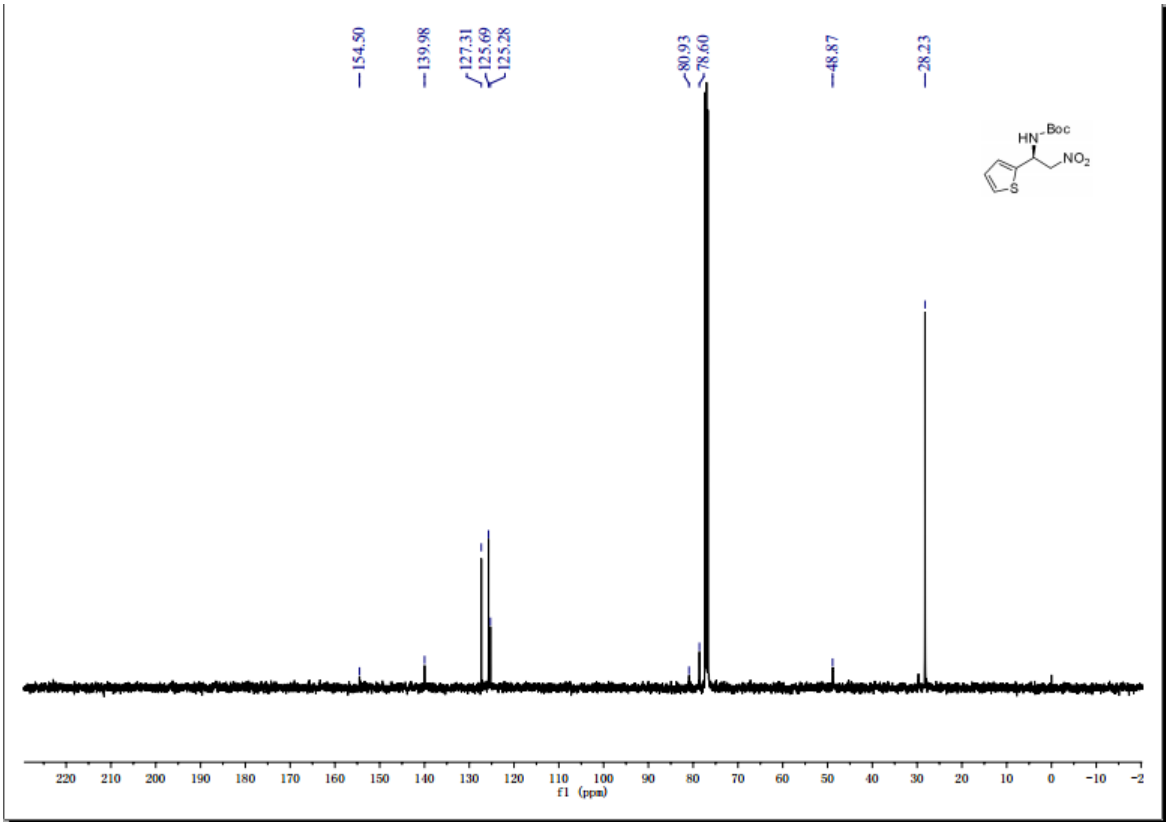
(*S*)-*tert*-Butyl [1-(furan-2-yl)-2-nitroethyl]carbamate (**3ma**):



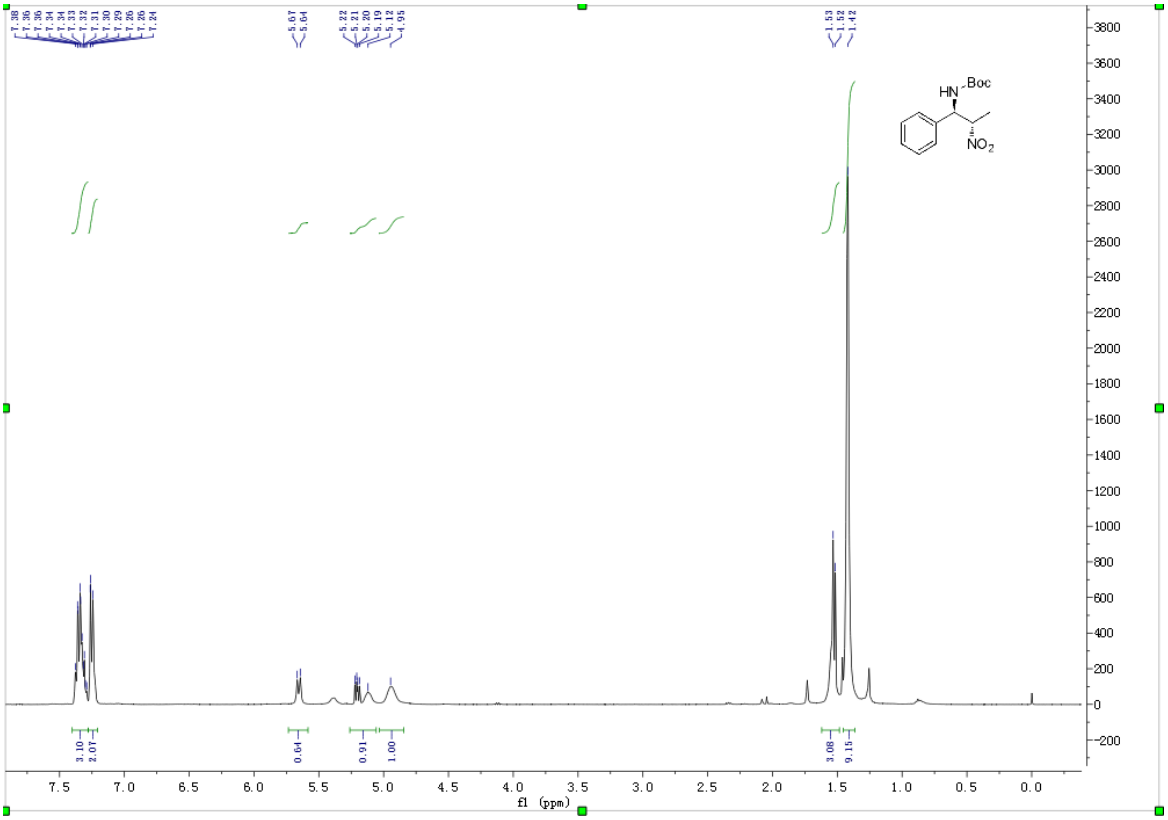


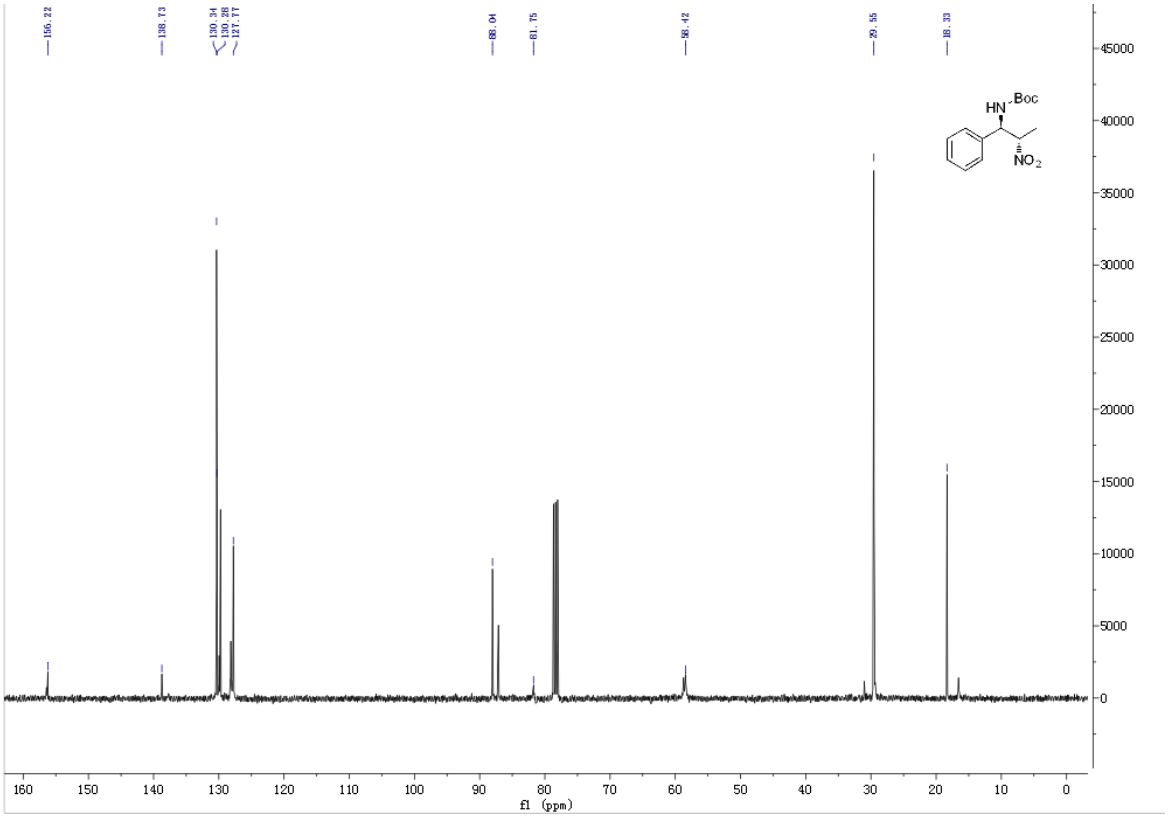
(*S*)-*tert*-Butyl [2-nitro-1-(thiophen-2-yl)ethyl]carbamate (**3na**):





(*1R*,*2S*)-*tert*-Butyl (2-nitro-1-phenylpropyl)carbamate (**3ab**):





(*1R*,*2S*)-*tert*-Butyl (2-nitro-1-phenylbutyl)carbamate (**3ac**):

