SUPPORTING INFORMATION FOR:

Rational and Predictable Chemoselective Synthesis of Oligoamines via Buchwald-Hartwig Amination of (Hetero)Aryl Chlorides Employing Mor-DalPhos

Bennett J. Tardiff,[a] Robert McDonald,[b] Michael J. Ferguson,[b] and Mark Stradiotto*[a]

[a]Department of Chemistry, Dalhousie University, 6274 Coburg Road, P.O. Box 15000, Halifax, Nova Scotia, Canada B3H 4R2.

[b]X-Ray Crystallography Laboratory, Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada T6G 2G2.

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Table S1. Crystallographic Data for L2 and 7•CH_2Cl_2.

	L2	**7**•CH_2Cl_2
Empirical formula	$C_{30}H_{42}NOP$	$C_{47}H_{63}Cl_2F_3N_3O_4PPdS$
Formula weight	463.62	1031.33
Crystal dimensions	0.36 × 0.35 × 0.19	0.41 × 0.31 × 0.26
Crystal system	triclinic	triclinic
Space group	$P\bar{1}$	$P\bar{1}$
a (Å)	10.2665 (6)	10.6924 (7)
b (Å)	11.0209 (6)	12.4945 (8)
c (Å)	12.1446 (7)	18.4352 (12)
α (deg)	67.6814 (7)	102.5936 (7)
β (deg)	81.4590 (7)	96.5551 (8)
γ (deg)	79.9256 (7)	96.1075 (7)
V (Å^3)	1246.48 (12)	2365.9 (3)
Z	2	2
ρcalcd (g cm^{-3})	1.235	1.448
μ (mm^{-1})	0.134	0.641
Range of transmission	0.9745–0.9538	0.8531–0.7782
2θ limit (deg)	55.24	54.98
	$-13 \le h \le 13$	$-13 \le h \le 13$
	$-14 \le k \le 14$	$-16 \le k \le 16$
	$-15 \le l \le 15$	$-23 \le l \le 23$
Total data collected	11062	21291
Independent reflections (R_{int})	5699 (0.0179)	10798 (0.0103)
Observed reflections	4727	10218
Data/restraints/parameters	5699 / 0 / 325	10798 / 7 / 645
Goodness-of-fit	1.042	1.066
$R1$ [$F_o^2 \ge 2\sigma(F_o^2)$]	0.0437	0.0308
$wR2$ [$F_o^2 \ge -3\sigma(F_o^2)$]	0.1232	0.0888
Largest peak, hole (eÅ^{-3})	0.610, -0.355	0.876 and –1.307

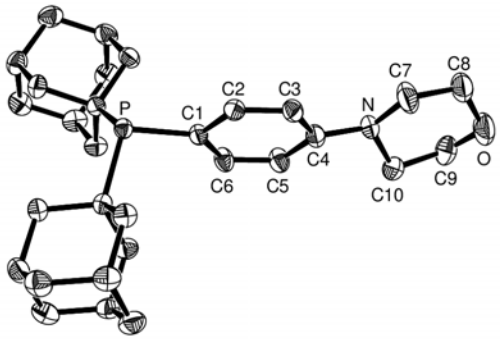
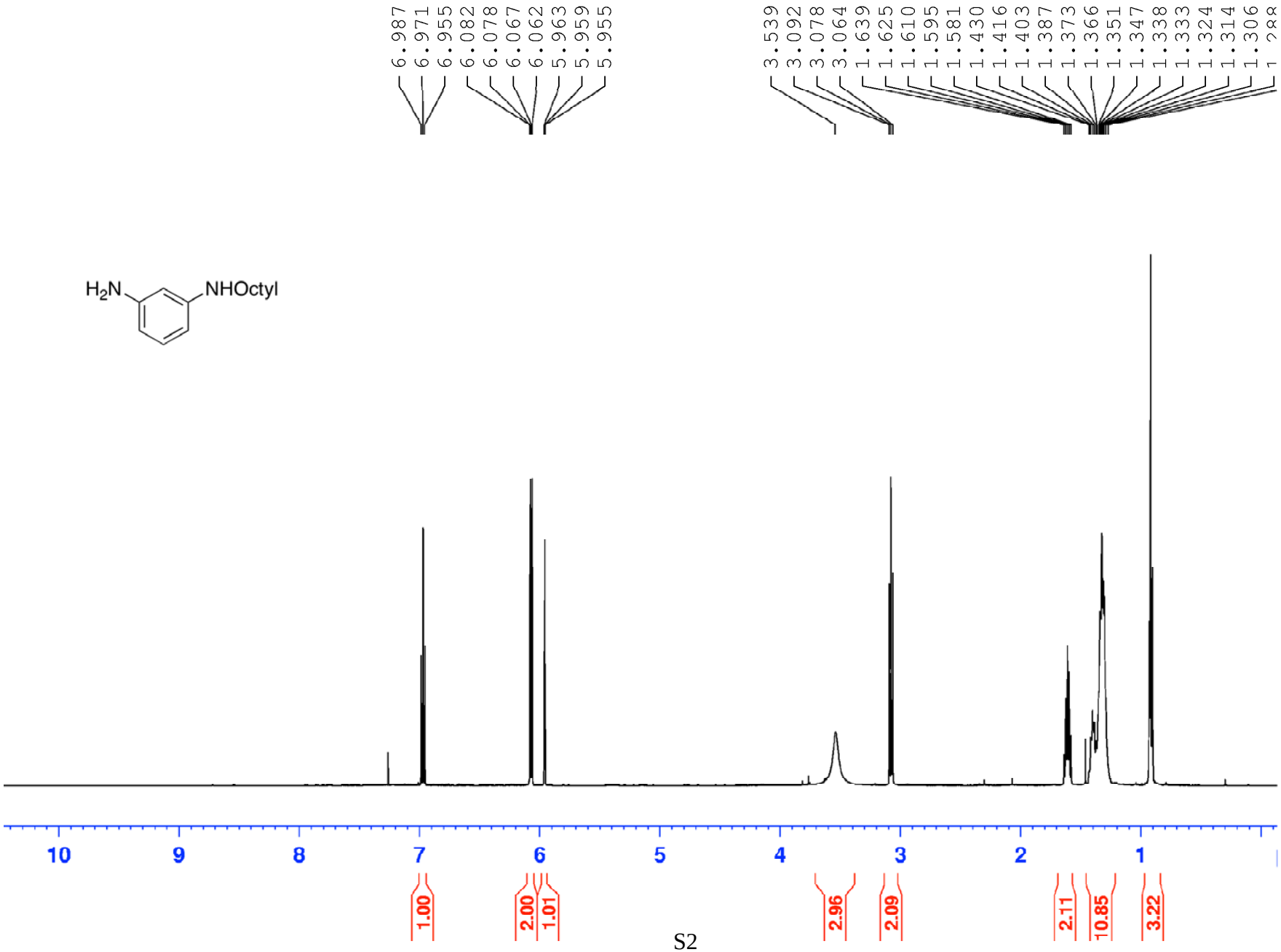
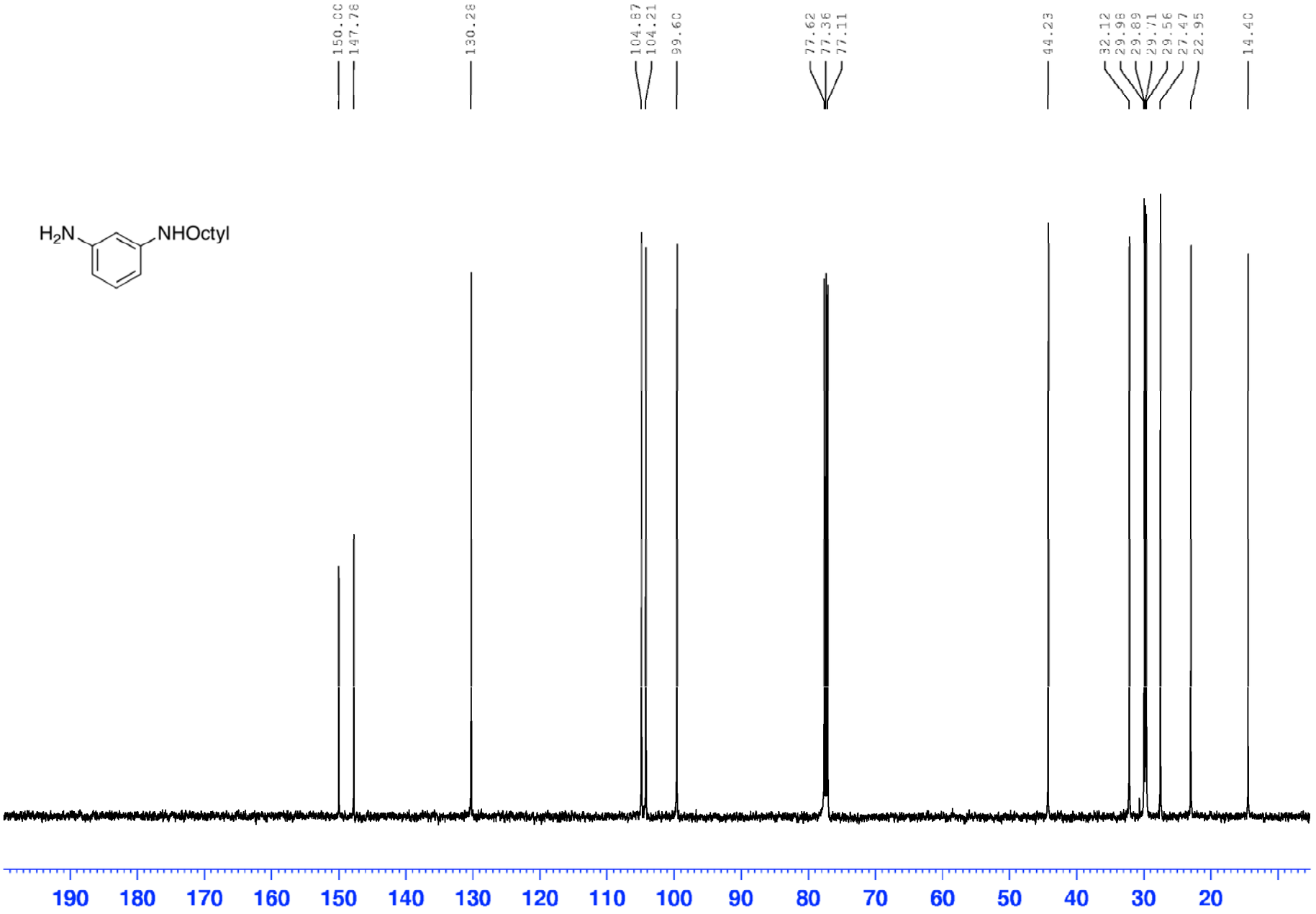


Figure S1. The crystallographically determined structure of **L2**, shown with 50% ellipsoids; hydrogen atoms have been omitted for clarity (P-C1 1.8368(15) Å, N-C4 1.416(6) Å).

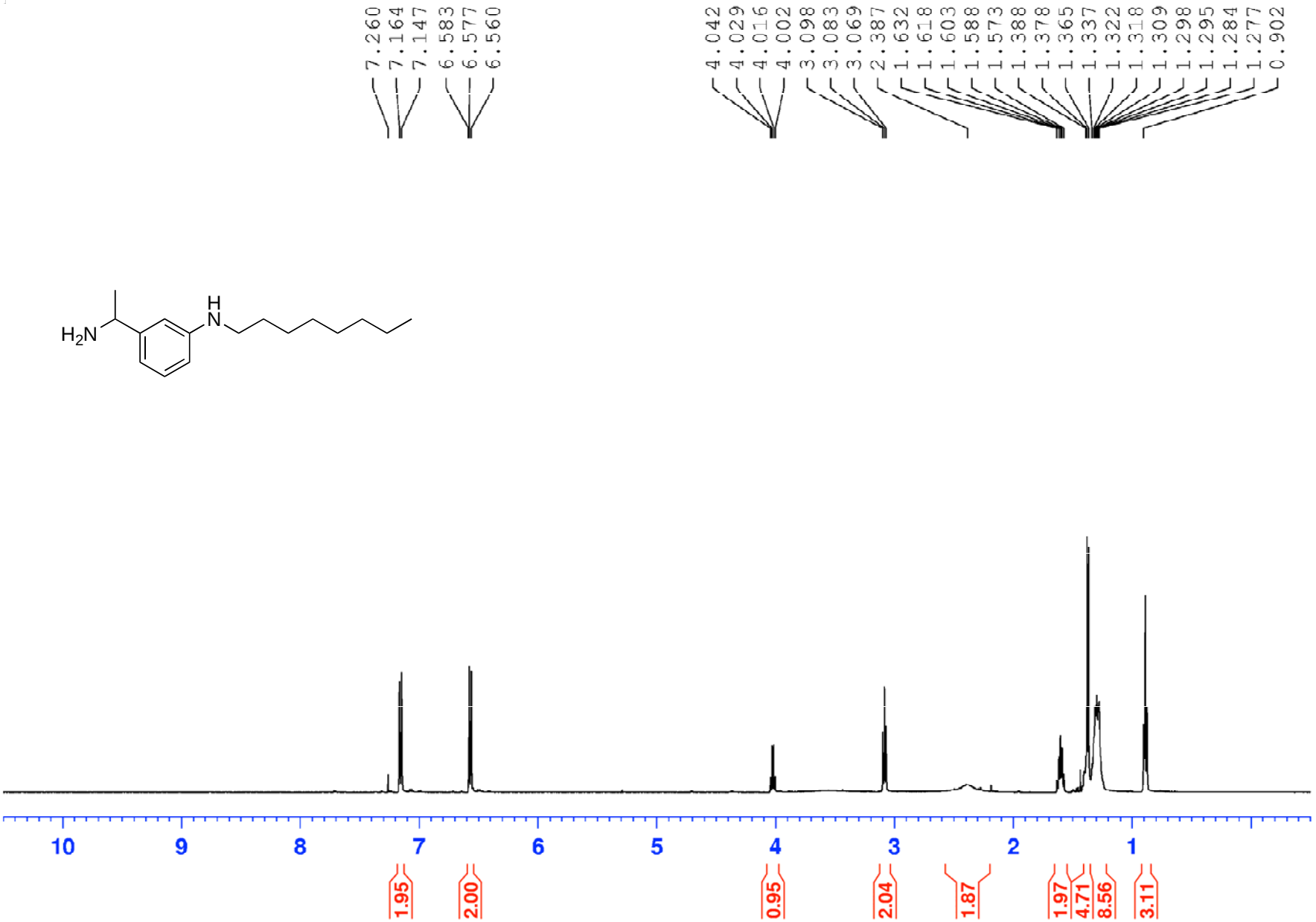
^{1}H NMR of N^{1}-octylbenzene-1,3-diamine (2a) ($CDCl_3$, 500 MHz, 300K)



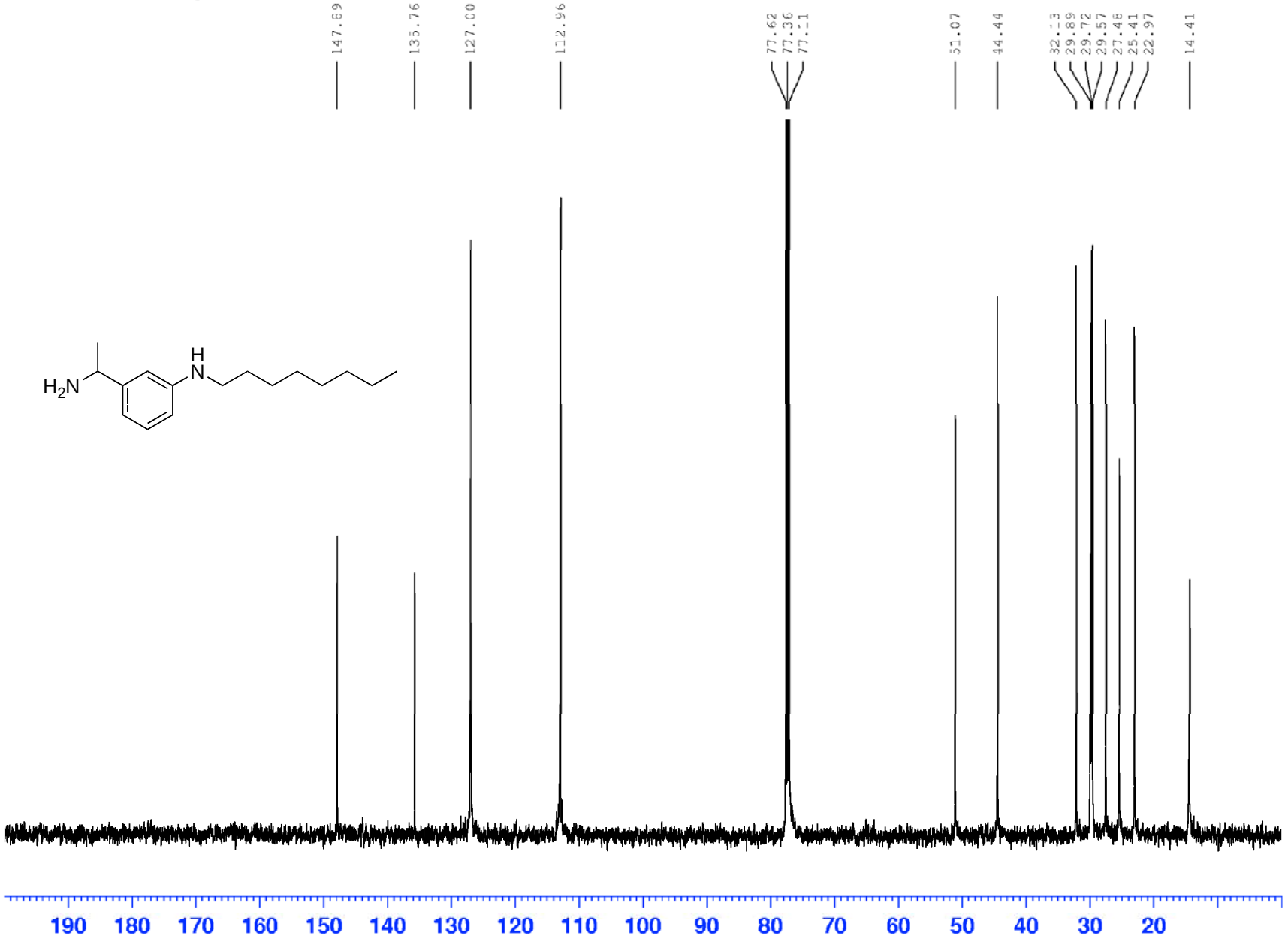
$^{13}C\{^{1}H\}$ NMR of N^1-octylbenzene-1,3-diamine (2a) ($CDCl_3$, 126 MHz, 300K)



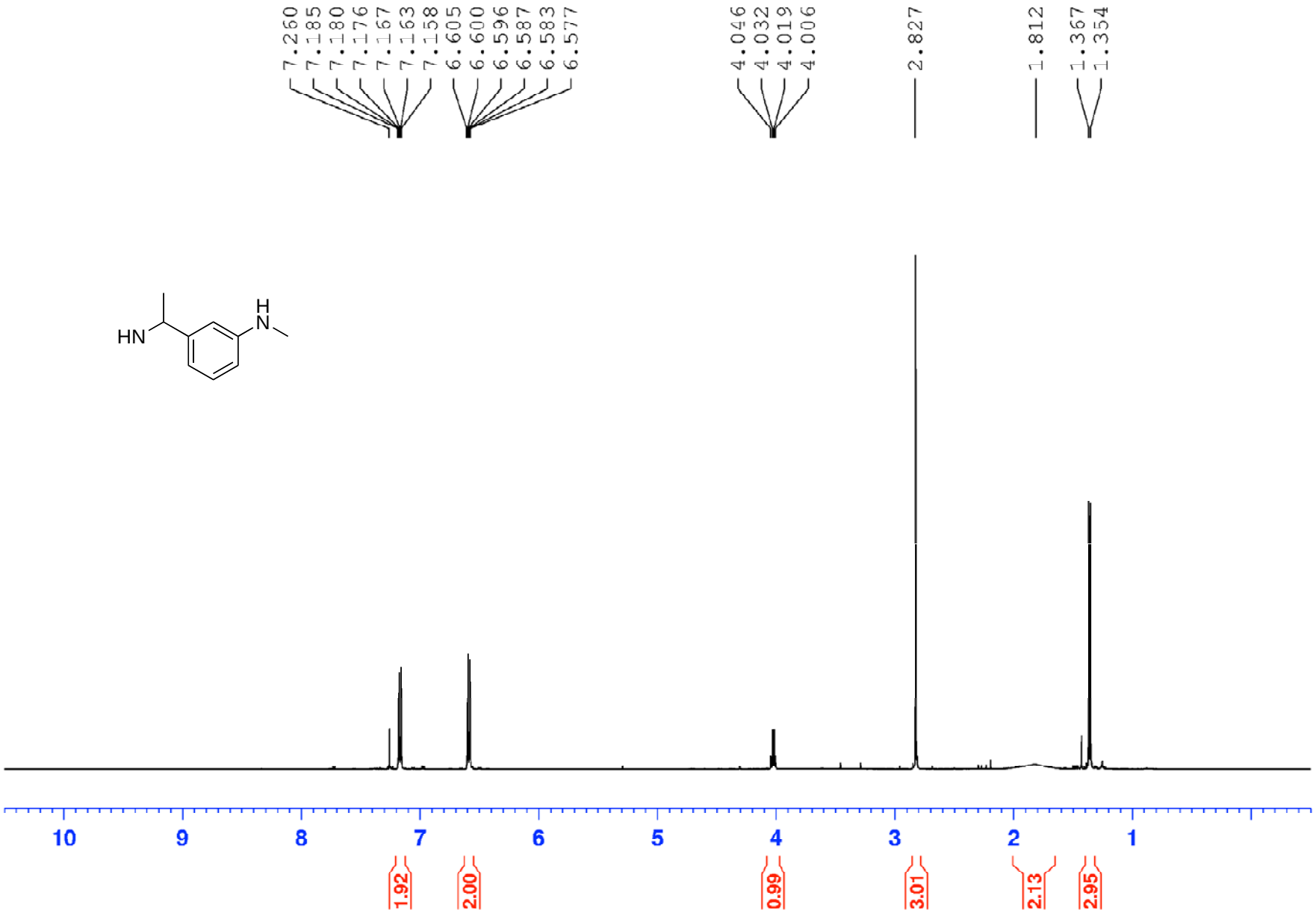
^{1}H NMR of 3-(1-aminoethyl)-N-octylaniline (2b) ($CDCl_3$, 500 MHz, 300K)



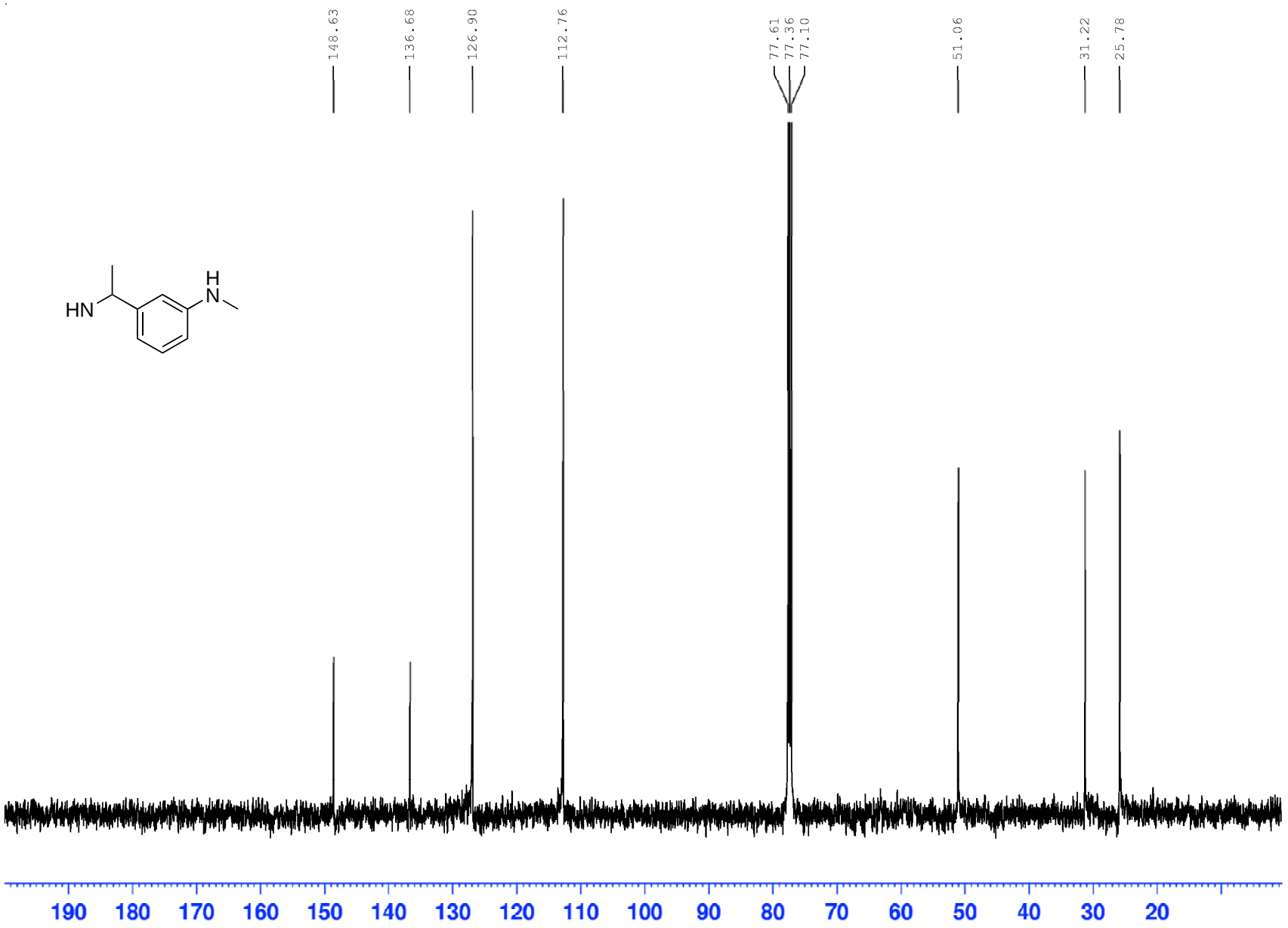
$^{13}C\{^{1}H\}$ NMR of 3-(1-aminoethyl)-N-octylaniline (2b) ($CDCl_3$, 126 MHz, 300K)



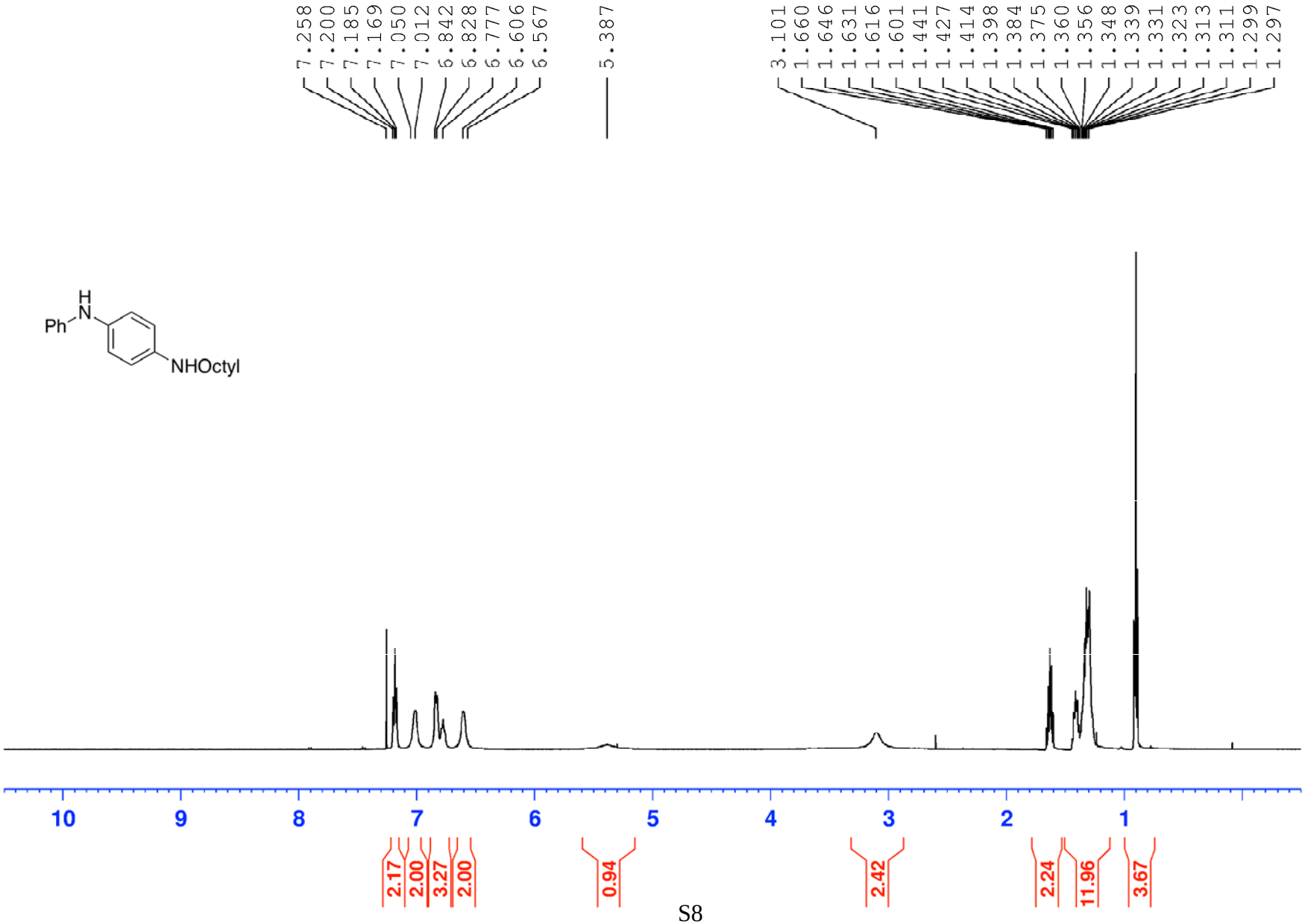
^{1}H NMR of 3-(1-aminoethyl)-N-methylaniline (2c) ($CDCl_3$, 500 MHz, 300K)



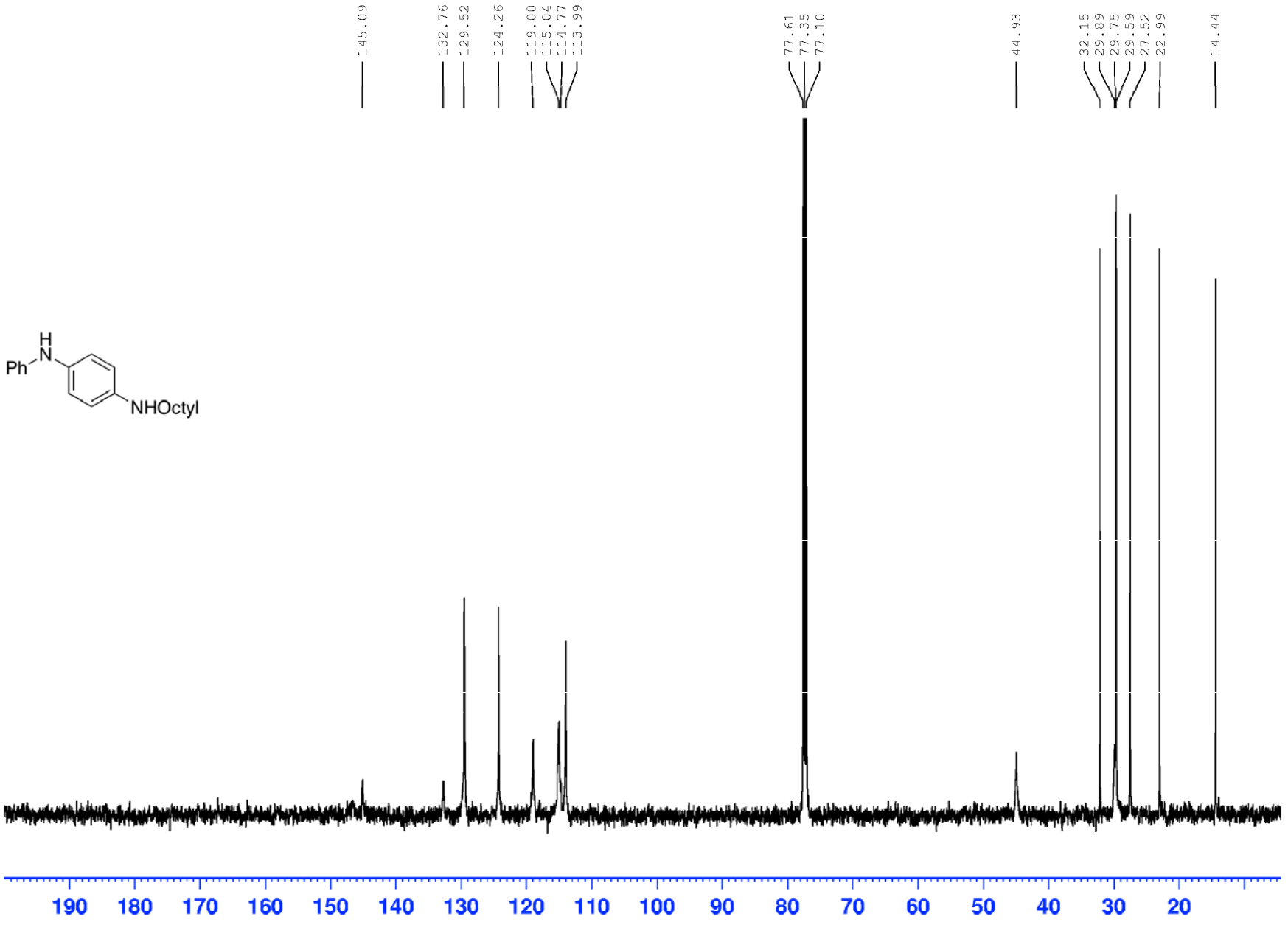
$^{13}C\{^{1}H\}$ NMR of 3-(1-aminoethyl)-N-methylaniline (2c) ($CDCl_3$, 126 MHz, 300K)



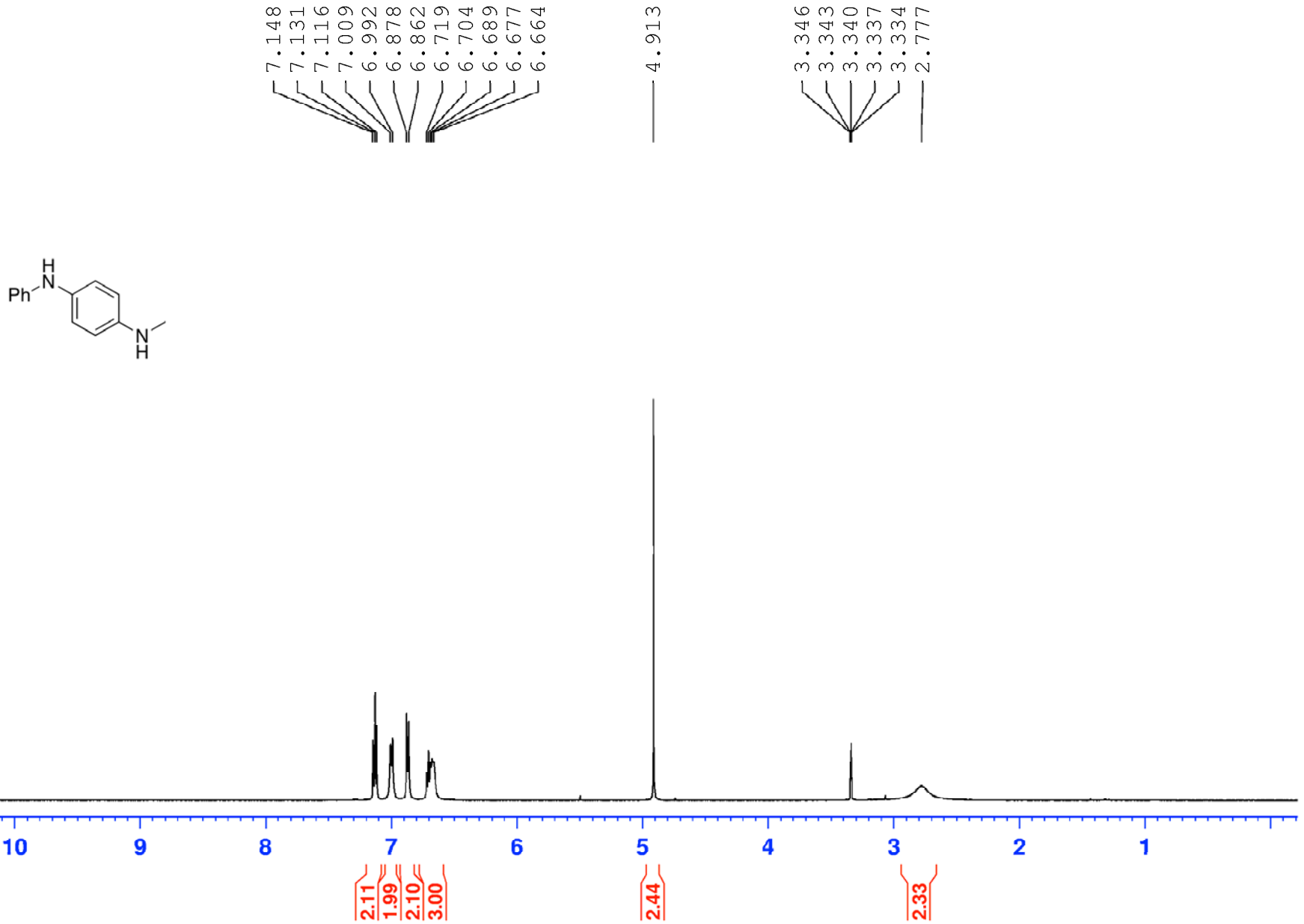
^{1}H NMR of N^1-octyl-N^4-phenylbenzene-1,4-diamine (2d) ($CDCl_3$, 500 MHz, 300K)



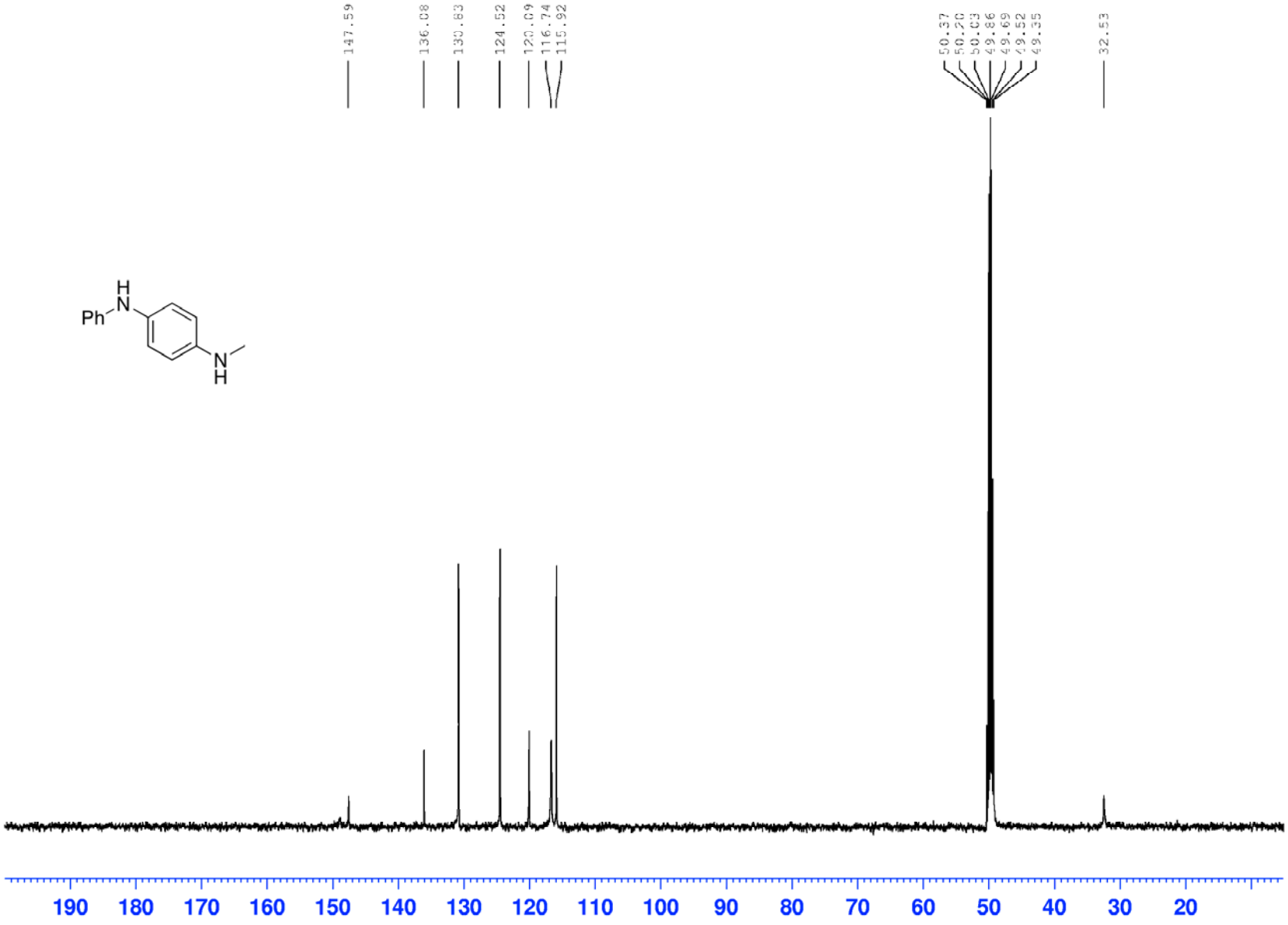
$^{13}C\{^{1}H\}$ NMR of N^1-octyl-N^4-phenylbenzene-1,4-diamine (2d) ($CDCl_3$, 126 MHz, 300K)



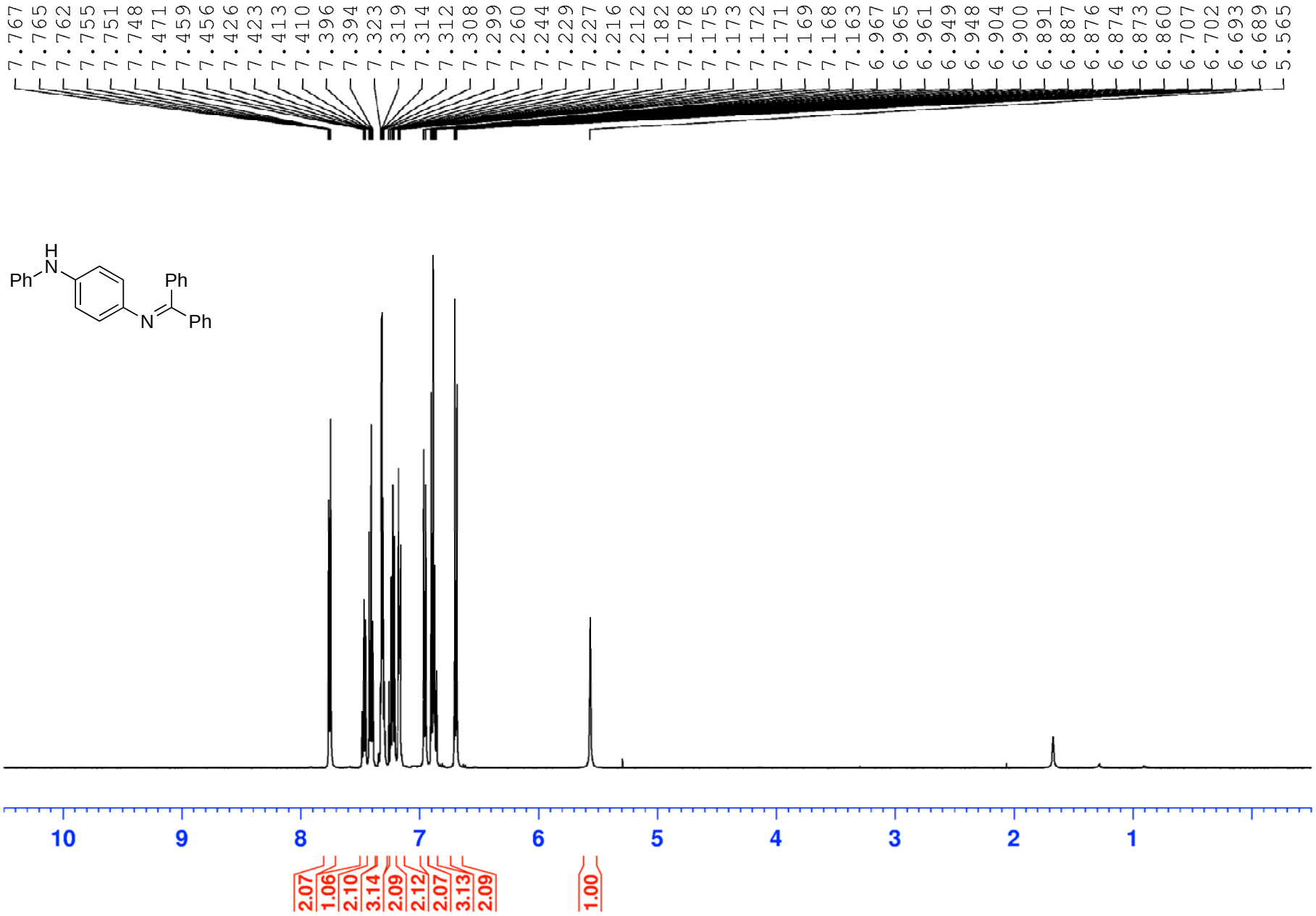
^{1}H NMR of N^{1}-methyl-N^{4}-phenylbenzene-1,4-diamine (2e) (MeOD, 500 MHz, 300K)



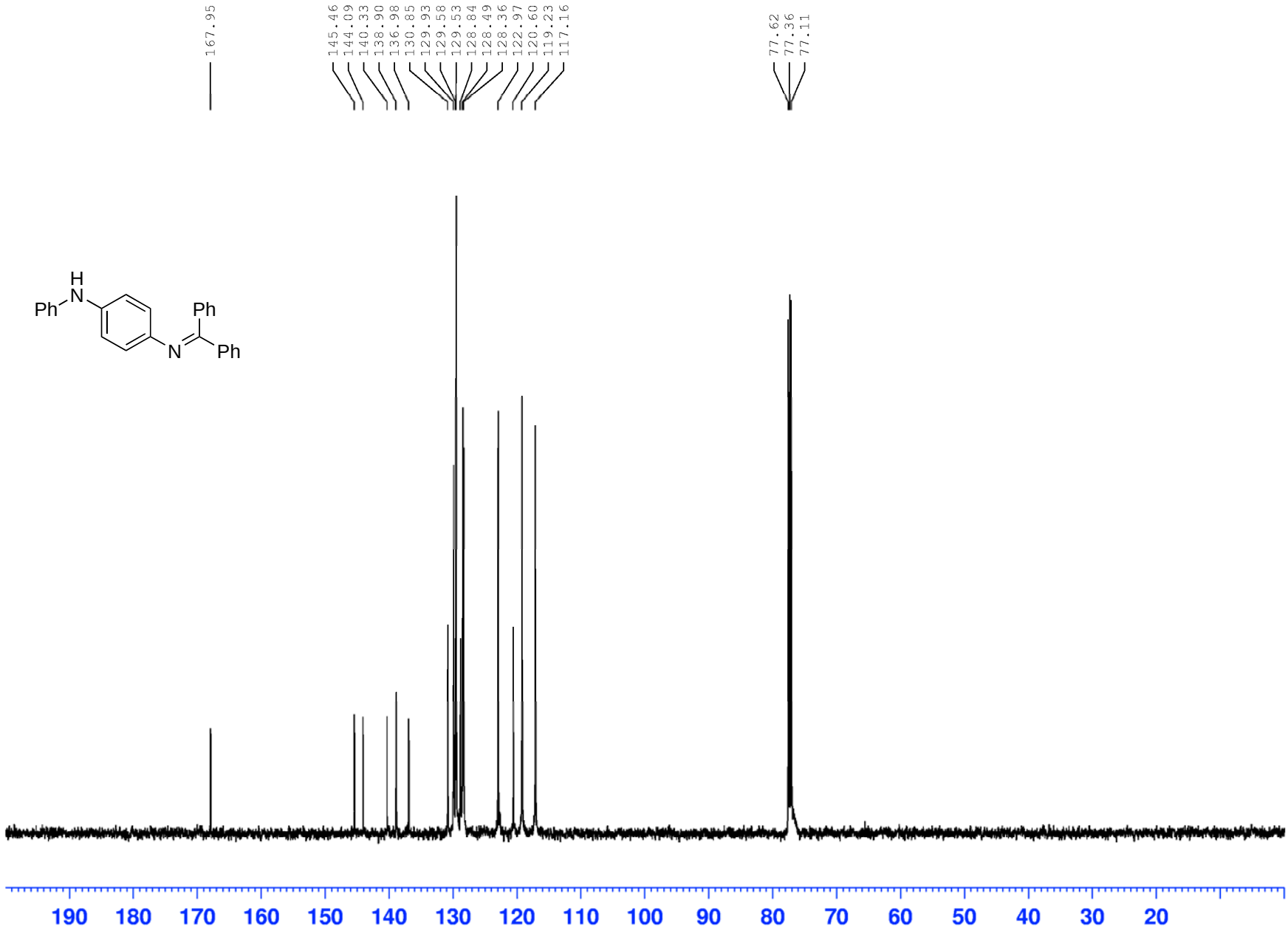
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-methyl-*N*^{4}-phenylbenzene-1,4-diamine (2e) (MeOD, 126 MHz, 300K)



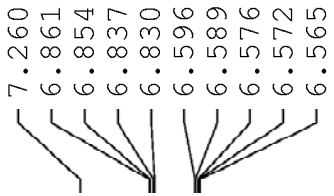
^{1}H NMR of N^{1}-(diphenylmethylene)-N^{4}-phenylbenzene-1,4-diamine (2f) (CDCl$_3$, 500 MHz, 300K)

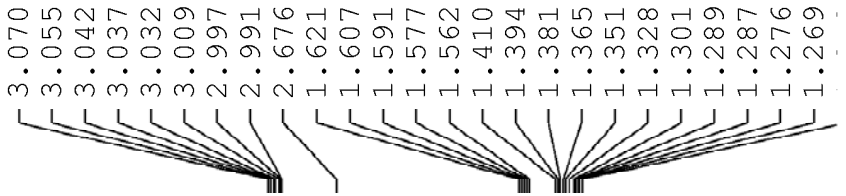


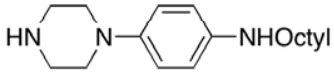
$^{13}C\{^{1}H\}$ NMR of N^1-(diphenylmethylene)-N^4-phenylbenzene-1,4-diamine (2f) ($CDCl_3$, 126 MHz, 300K)

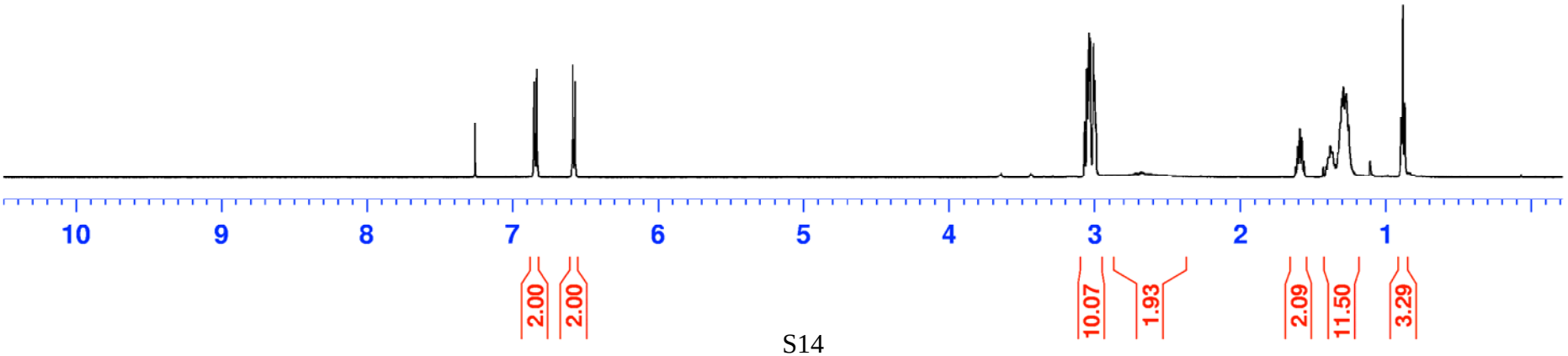


^{1}H NMR of *N*-octyl-4-(piperazin-1-yl)aniline (2g) ($CDCl_3$, 500 MHz, 300K)

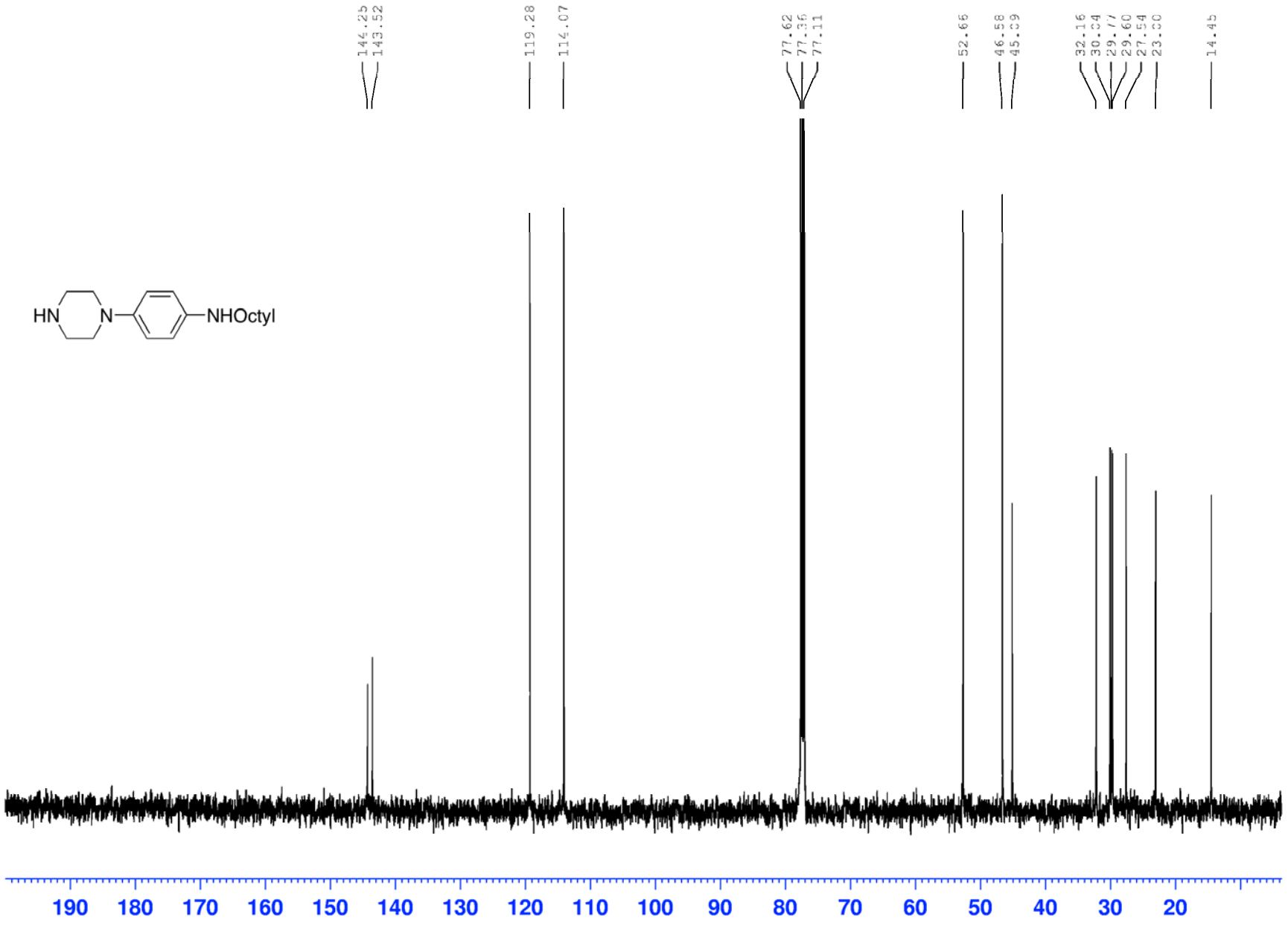




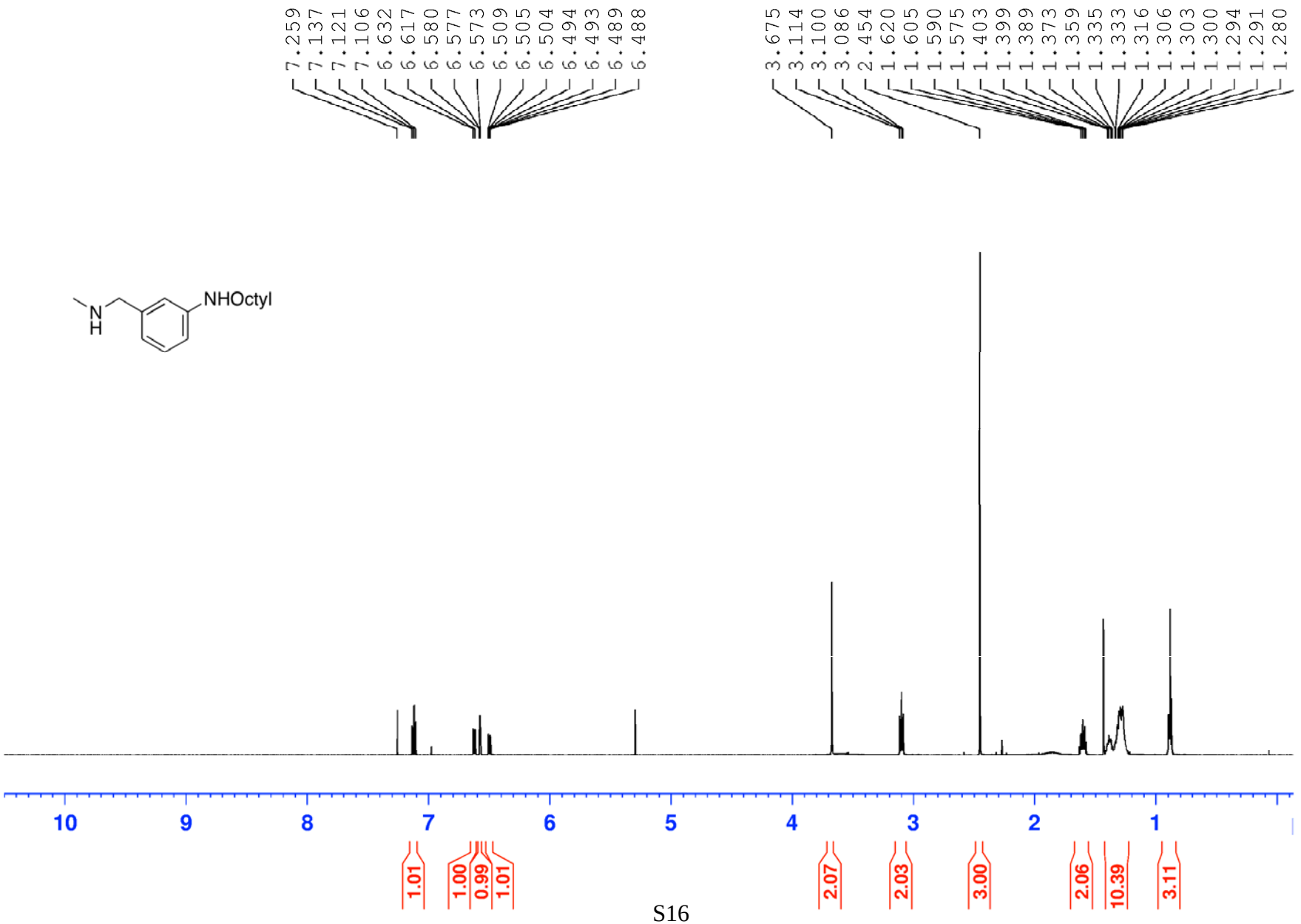




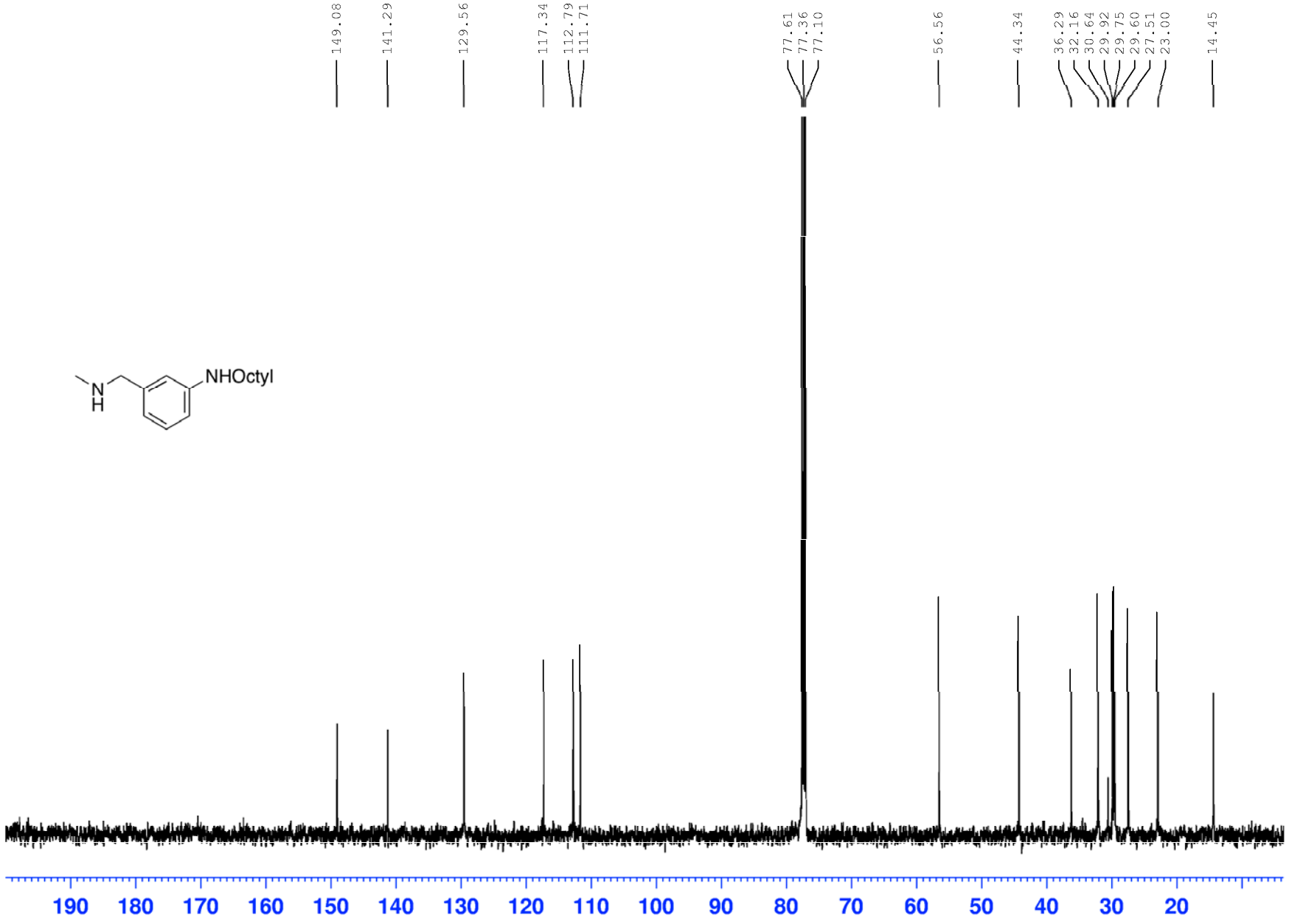
$^{13}C\{^{1}H\}$ NMR of *N*-octyl-4-(piperazin-1-yl)aniline (2g) ($CDCl_3$, 126 MHz, 300K)



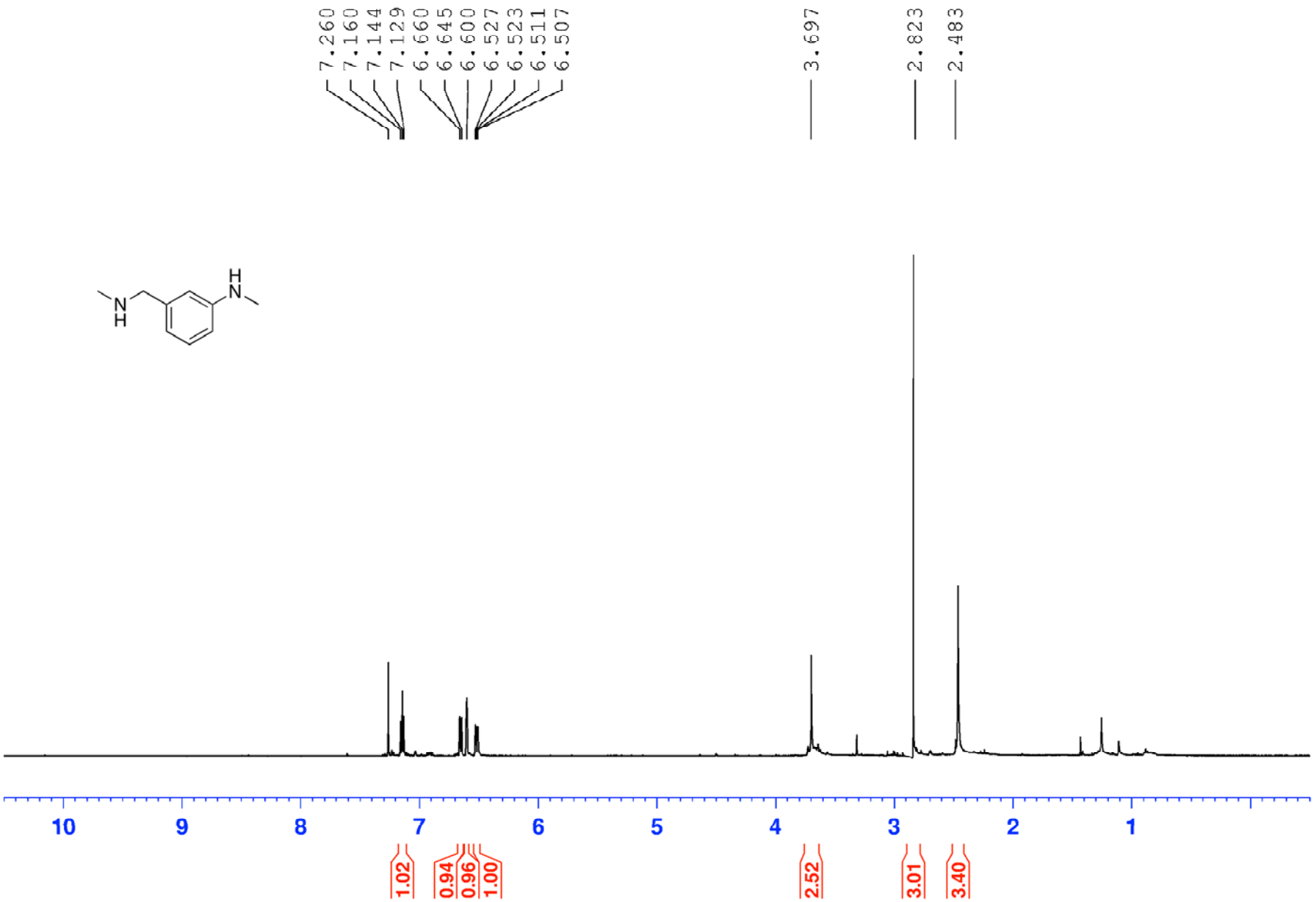
^{1}H NMR of 3-((methylamino)methyl)-*N*-octylaniline (2h) ($CDCl_3$, 500 MHz, 300K)



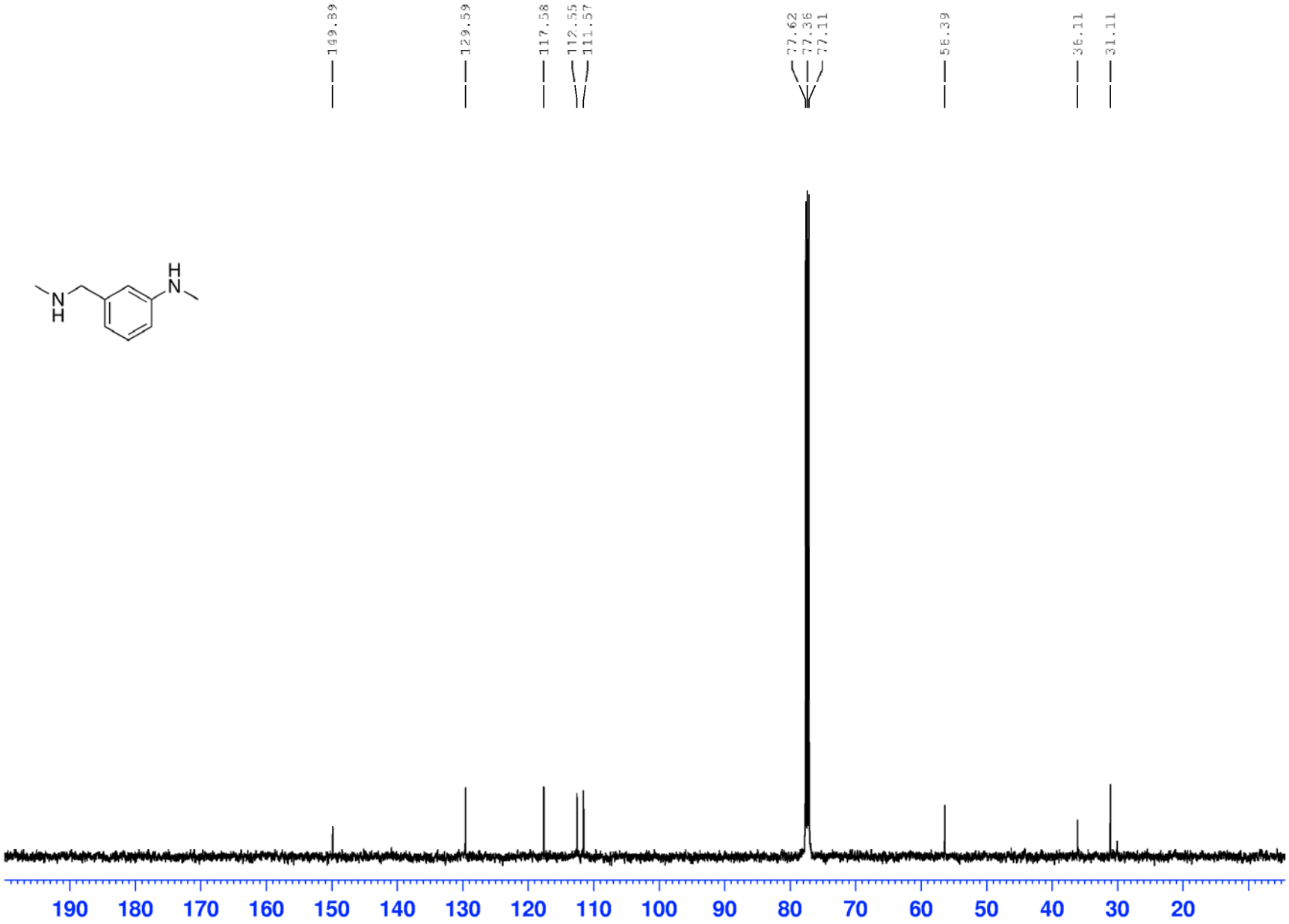
$^{13}C\{^{1}H\}$ NMR of 3-((methylamino)methyl)-*N*-octylaniline (2h) ($CDCl_3$, 126 MHz, 300K)



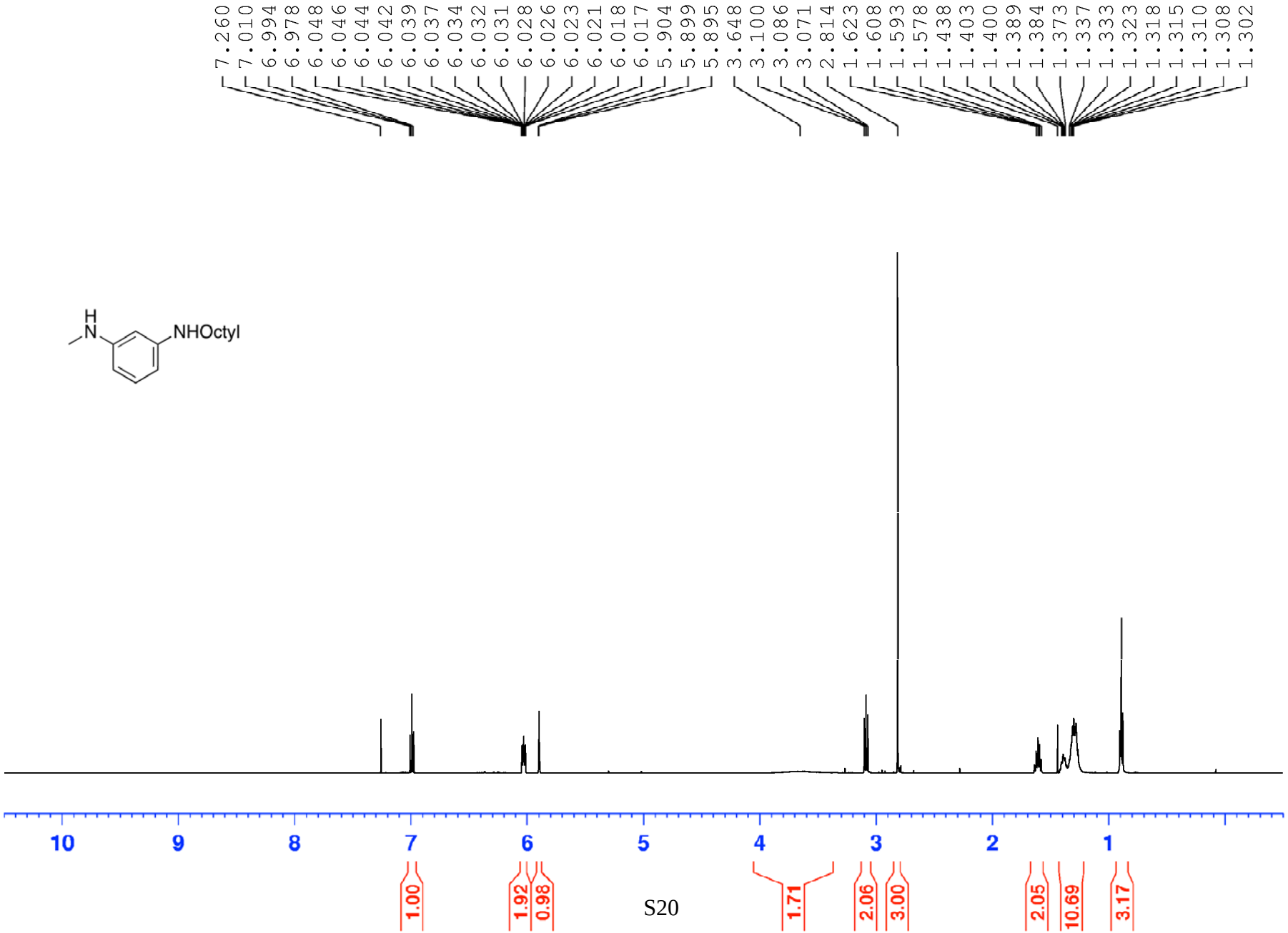
^{1}H NMR of N-methyl-3-((methylamino)methyl)aniline (2i) ($CDCl_3$, 500 MHz, 300K)



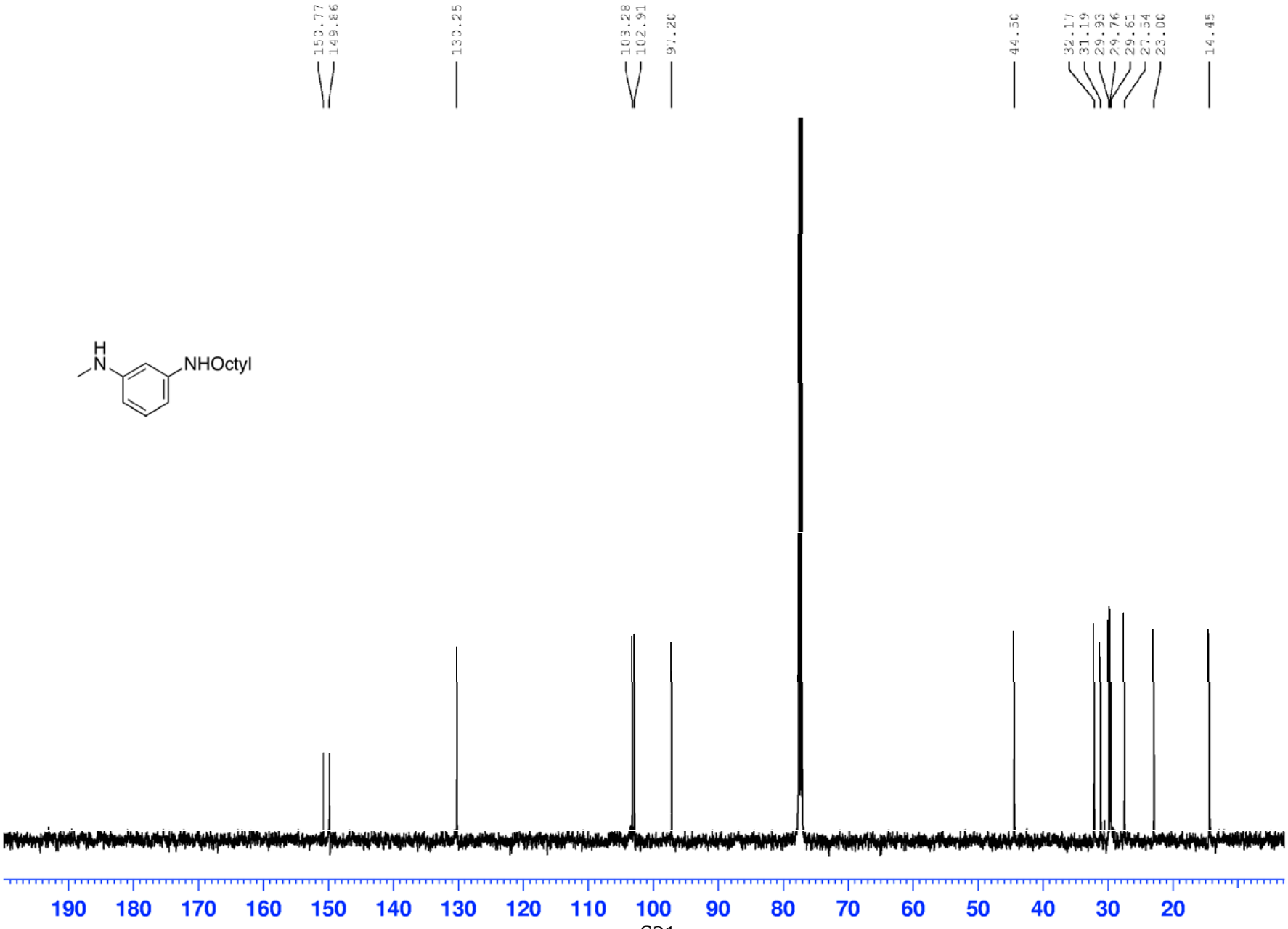
$^{13}C\{^{1}H\}$ NMR of N-methyl-3-((methylamino)methyl)aniline (2i) ($CDCl_3$, 126 MHz, 300K)



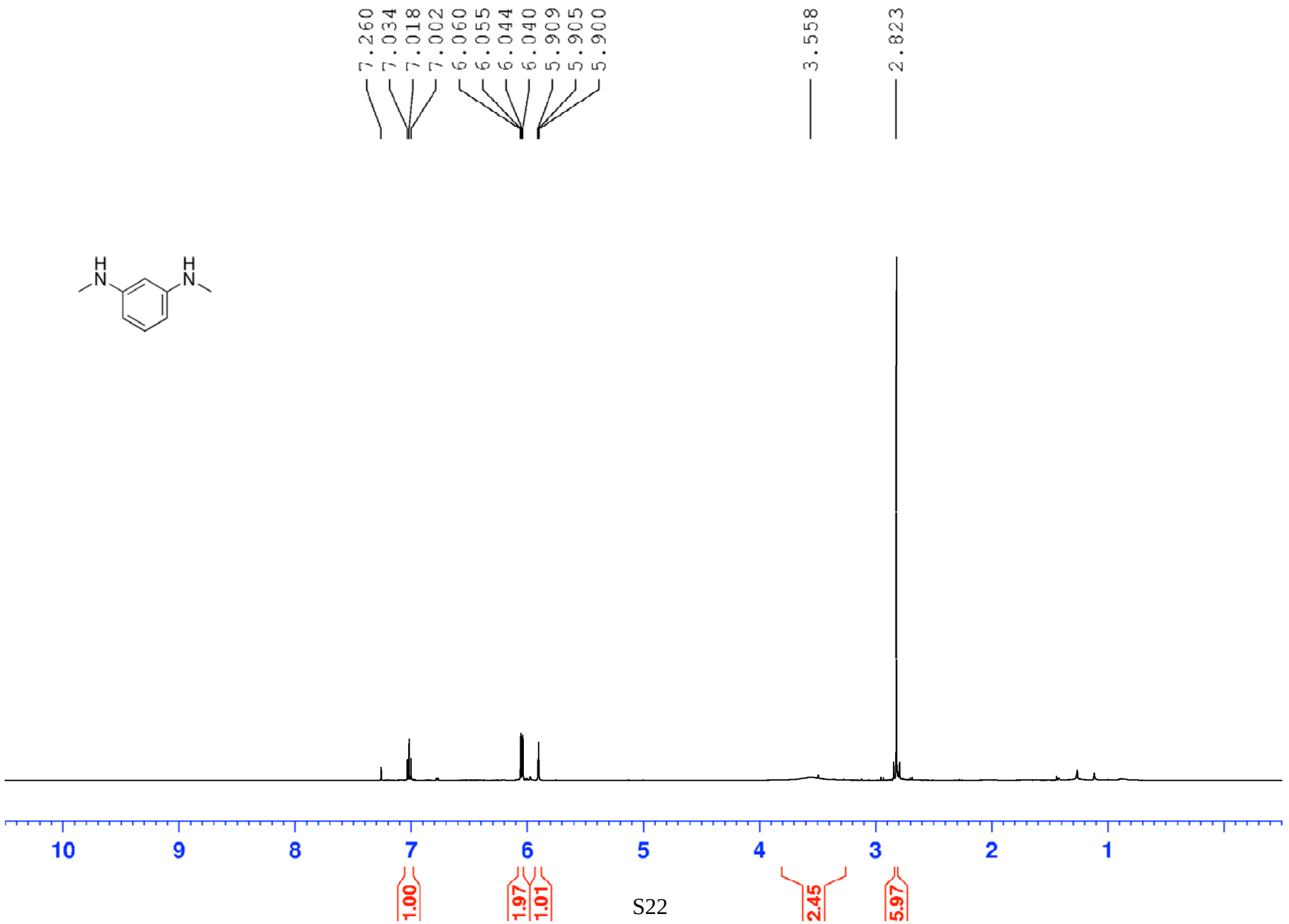
^{1}H NMR of N^{1}-methyl-N^{3}-octylbenzene-1,3-diamine (2j) ($CDCl_3$, 500 MHz, 300K)



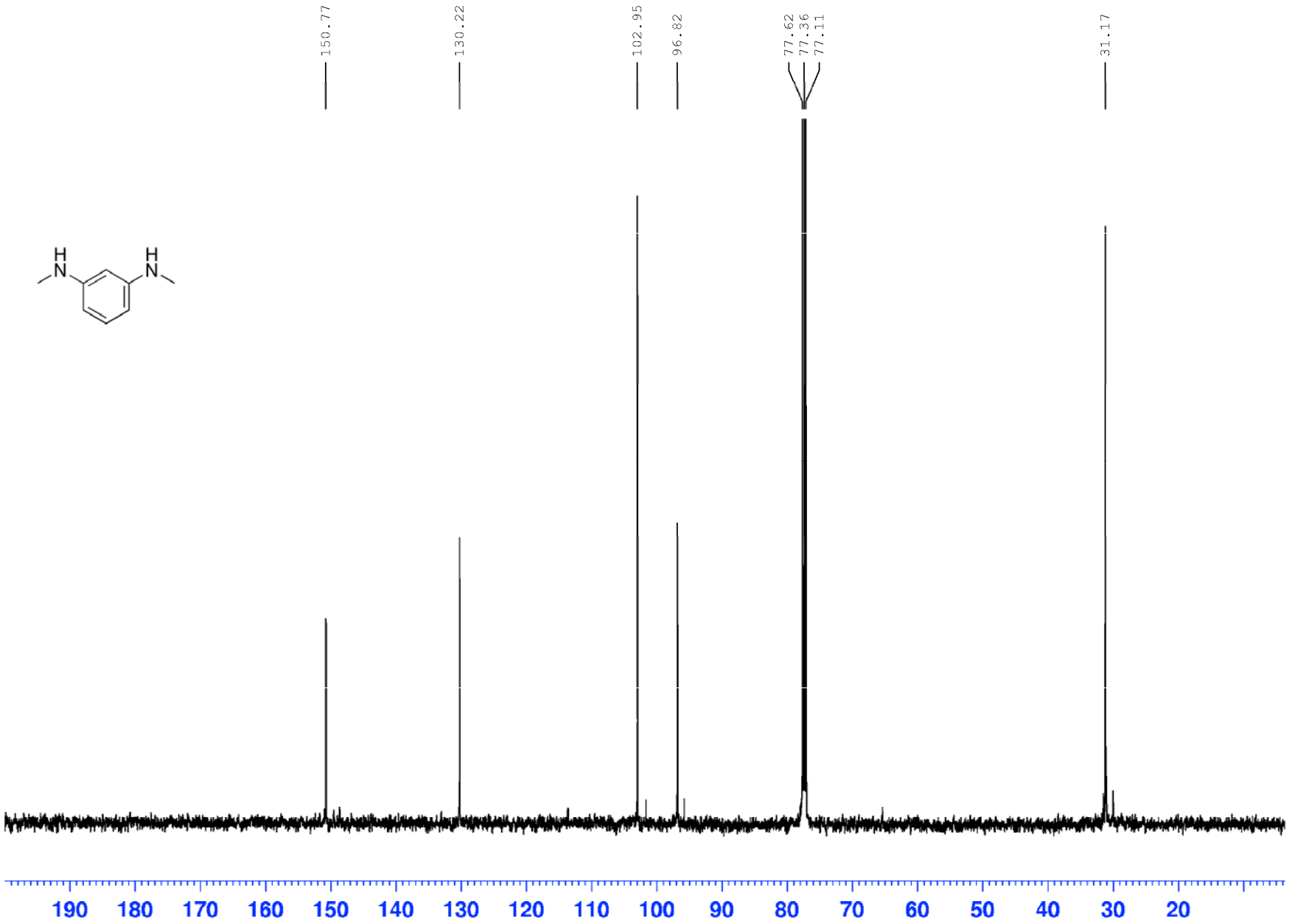
$^{13}C\{^{1}H\}$ NMR of N^1-methyl-N^3-octylbenzene-1,3-diamine (2j) ($CDCl_3$, 126 MHz, 300K)



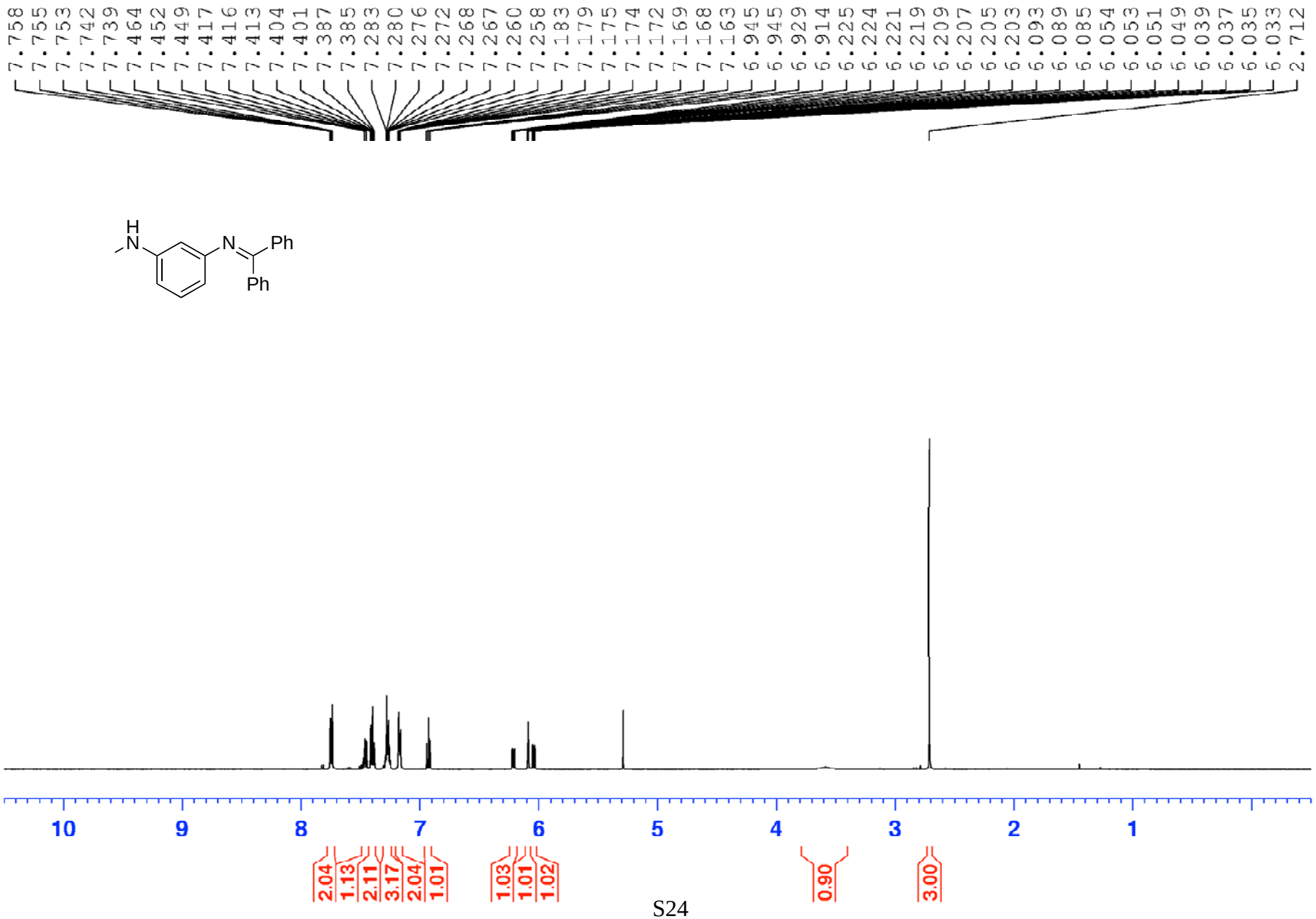
^{1}H NMR of N^{1},N^{3}-dimethylbenzene-1,3-diamine (2k) ($CDCl_3$, 500 MHz, 300K)



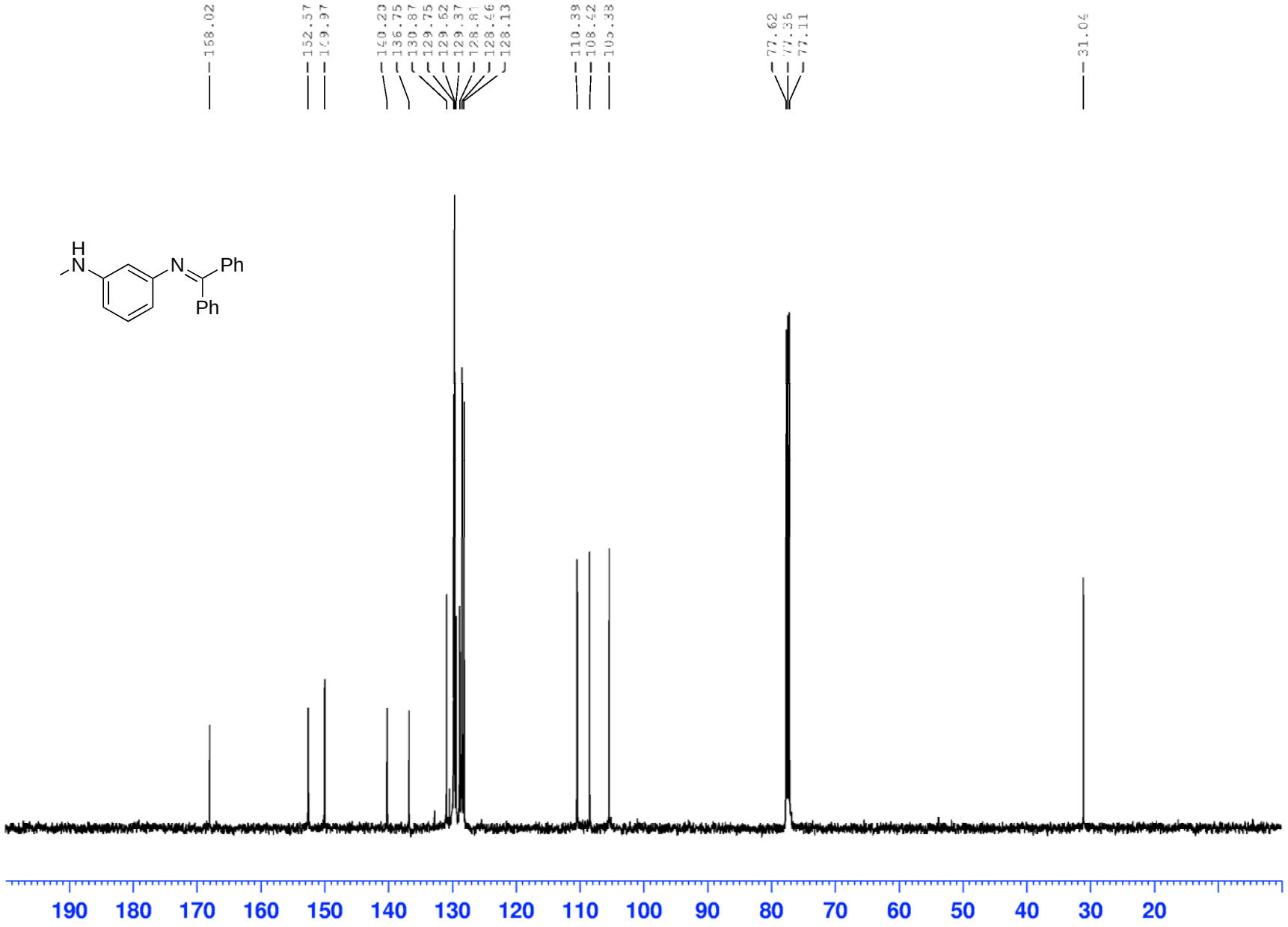
$^{13}C\{^{1}H\}$ NMR of N^1,N^3-dimethylbenzene-1,3-diamine (2k) ($CDCl_3$, 126 MHz, 300K)



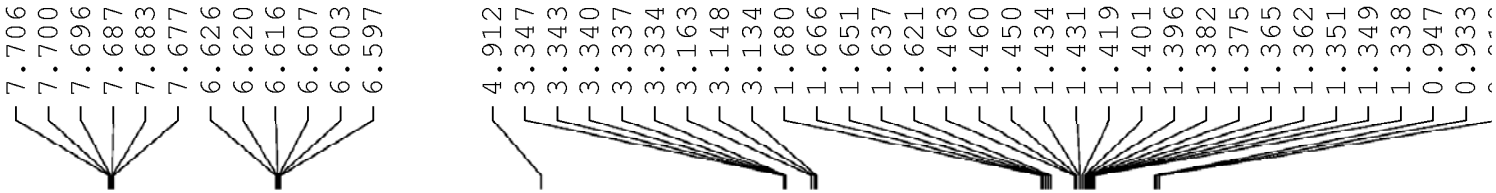
^{1}H NMR of N^{1}-(diphenylmethylene)-N^{3}-methylbenzene-1,3-diamine (2l) ($CDCl_3$, 500 MHz, 300K)

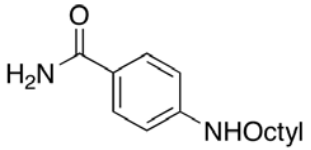


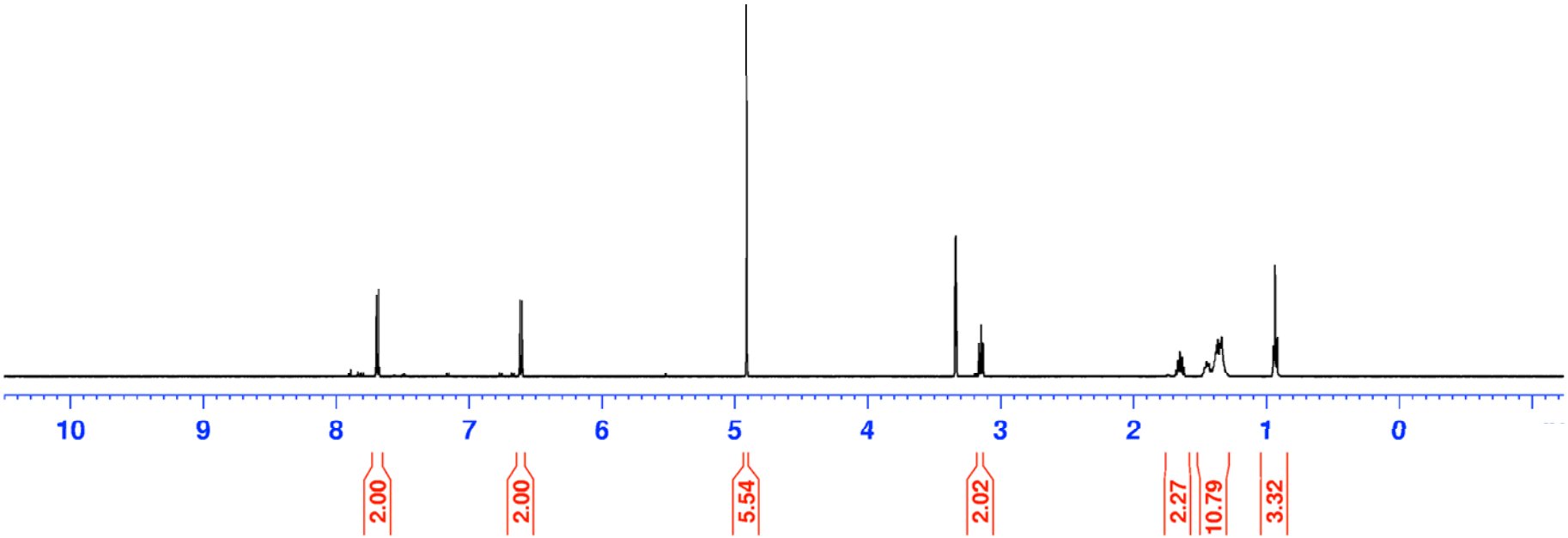
$^{13}C\{^{1}H\}$ NMR of N^1-(diphenylmethylene)-N^3-methylbenzene-1,3-diamine (2l) ($CDCl_3$, 126 MHz, 300K)



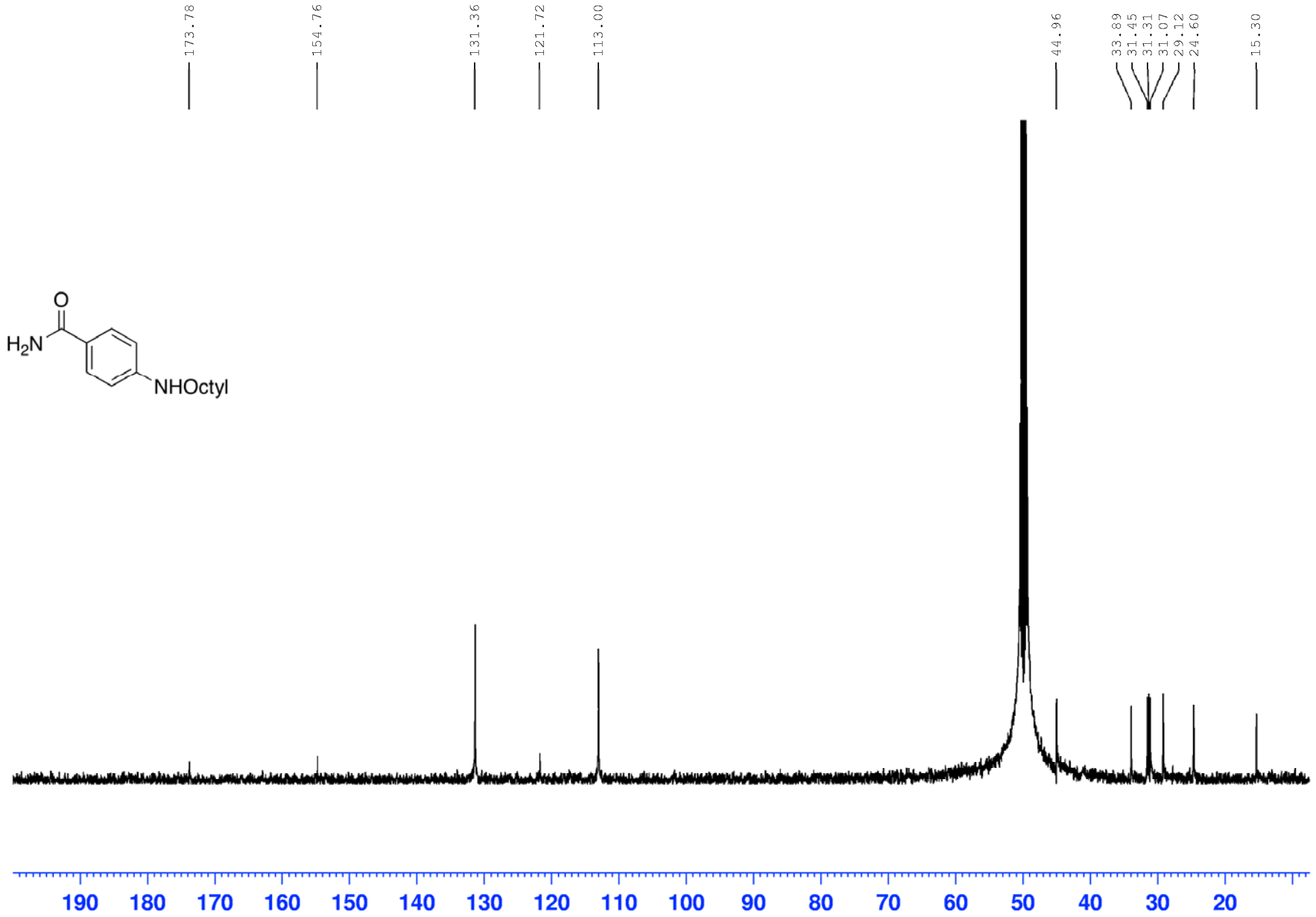
^{1}H NMR of 4-(octylamino)benzamide (2m) (MeOD, 500 MHz, 300K)



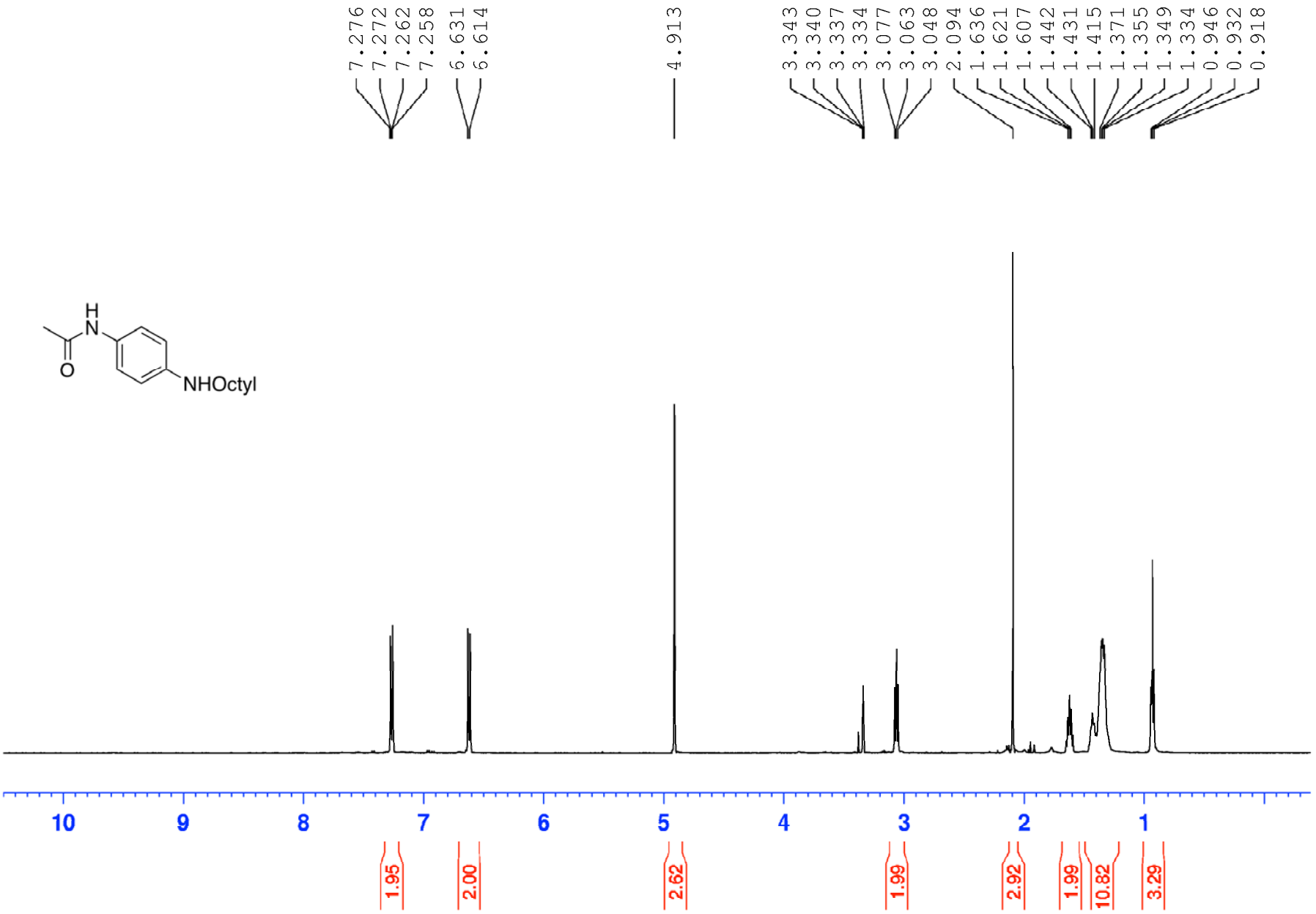




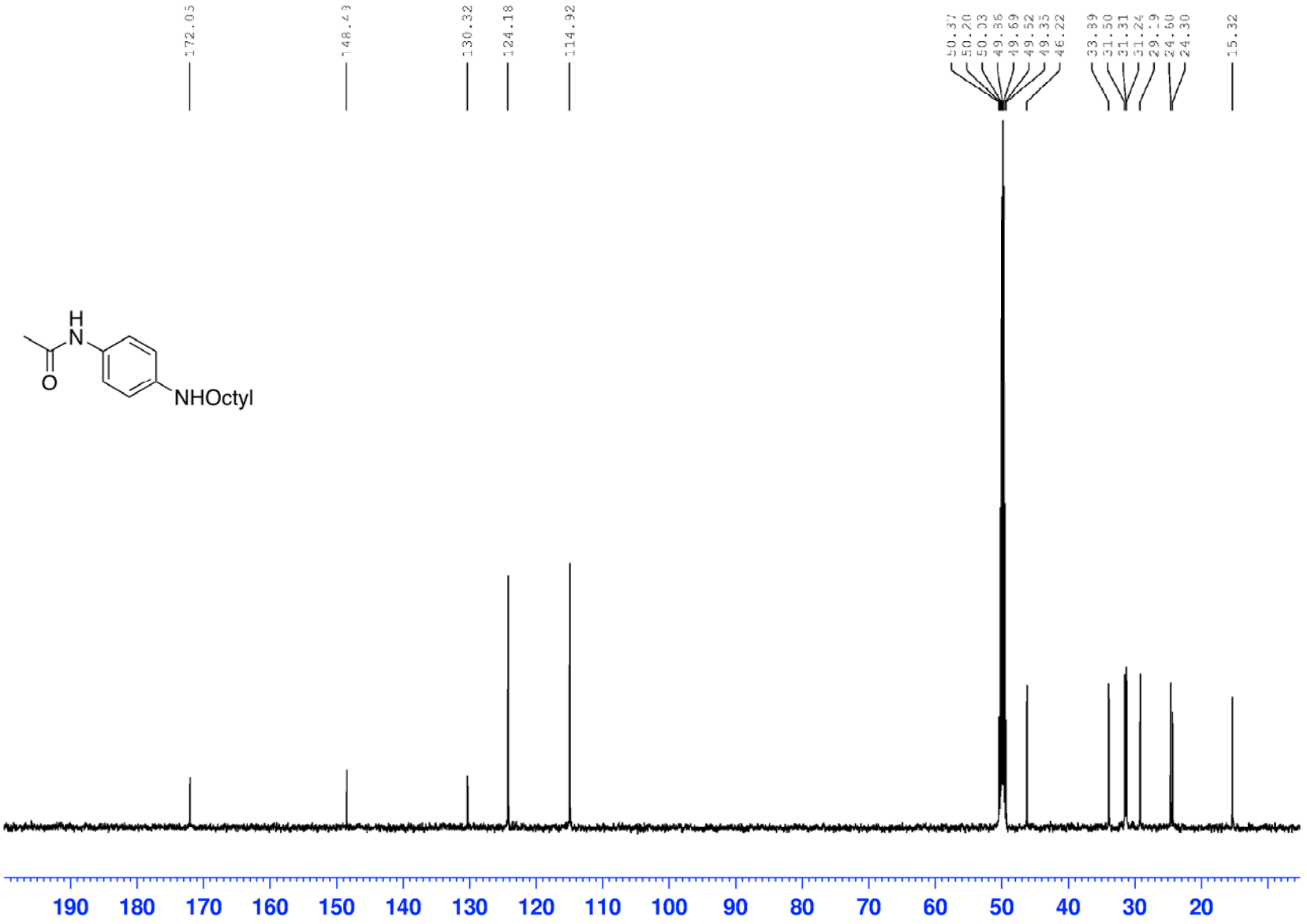
$^{13}C\{^{1}H\}$ NMR of 4-(octylamino)benzamide (2m) (MeOD, 126 MHz, 300K)



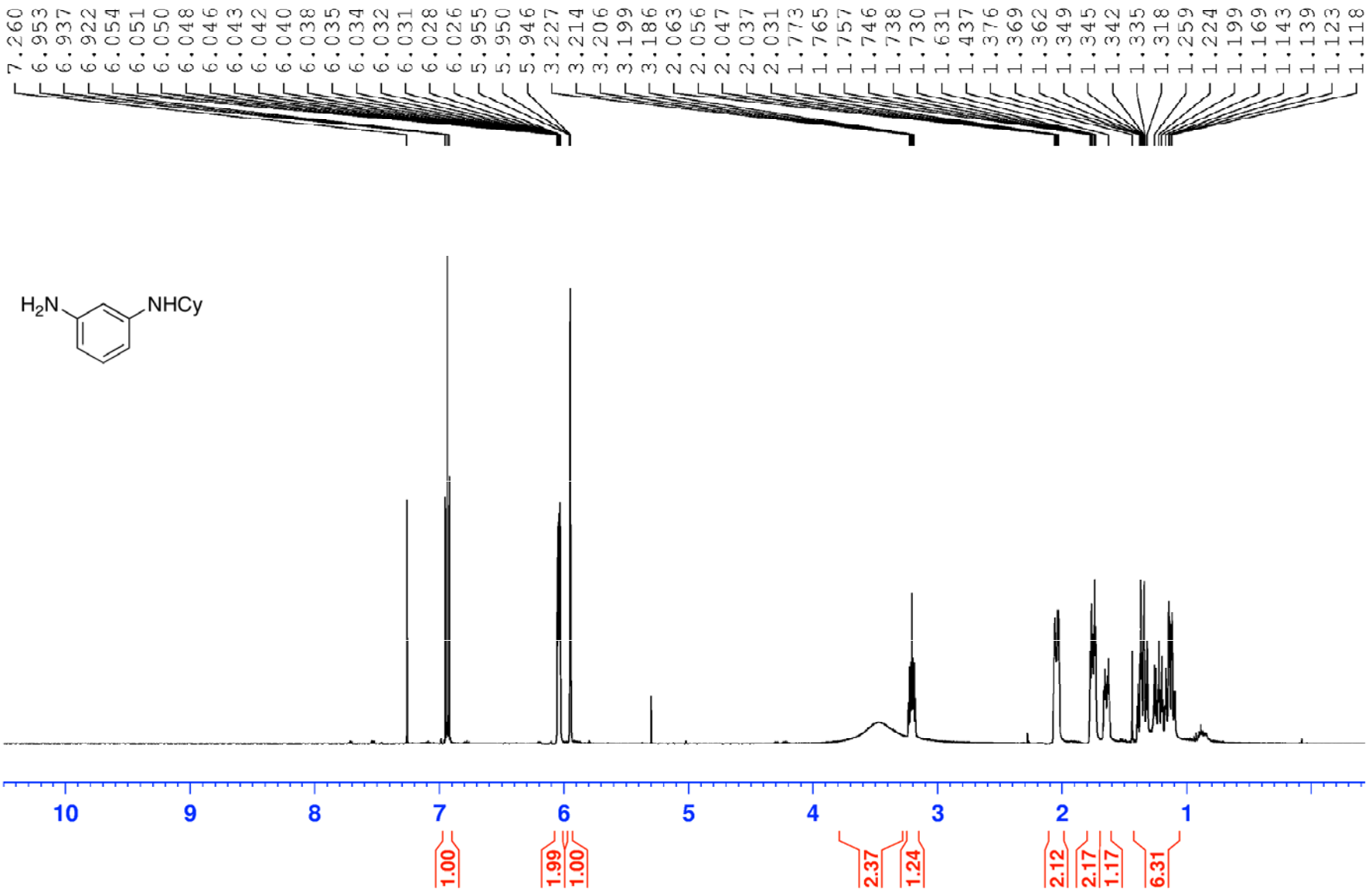
^{1}H NMR of *N*-(4-(octylamino)phenyl)acetamide (2n) (MeOD, 500 MHz, 300K)



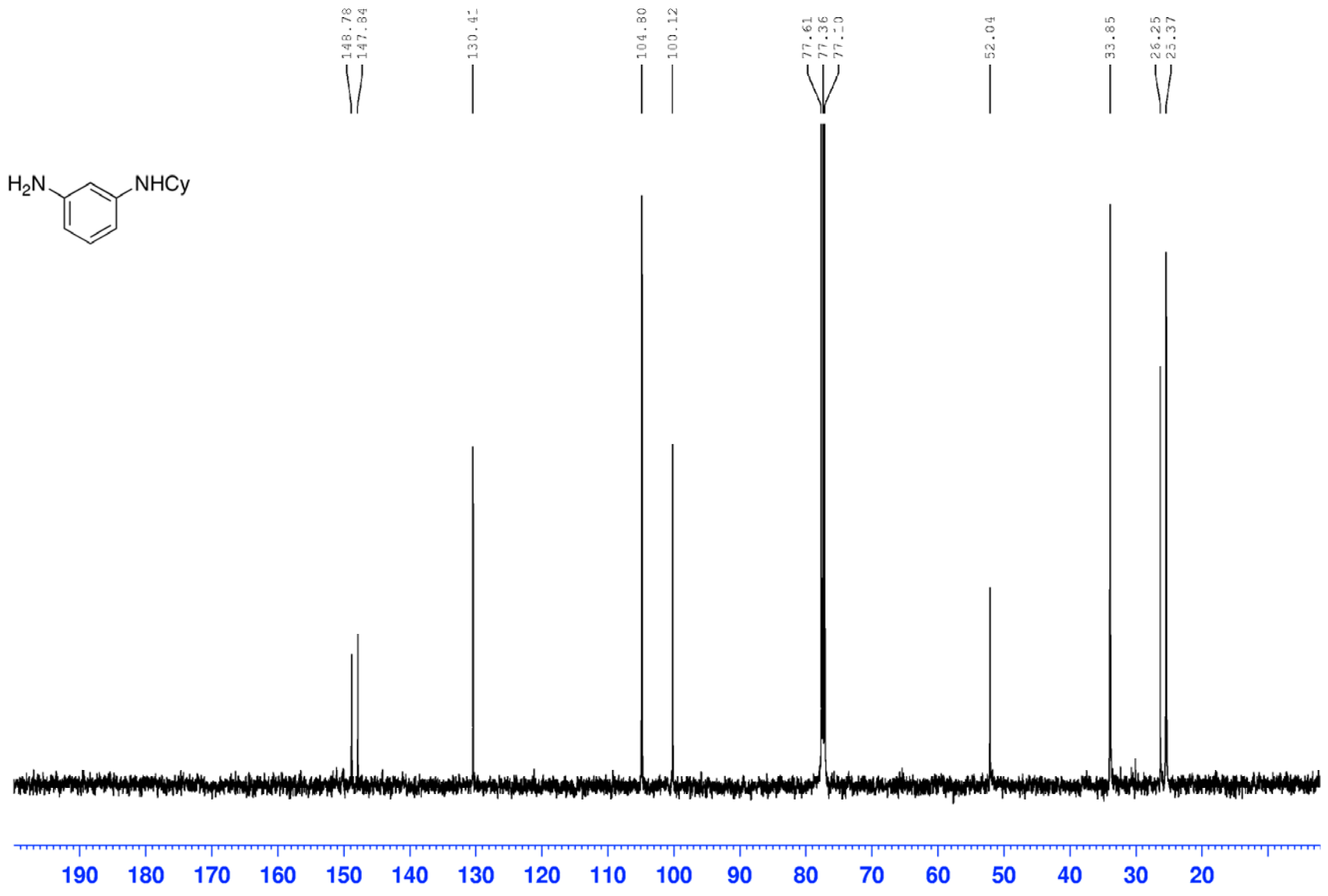
$^{13}C\{^{1}H\}$ NMR of *N*-(4-(octylamino)phenyl)acetamide (2n) (MeOD, 126 MHz, 300K)



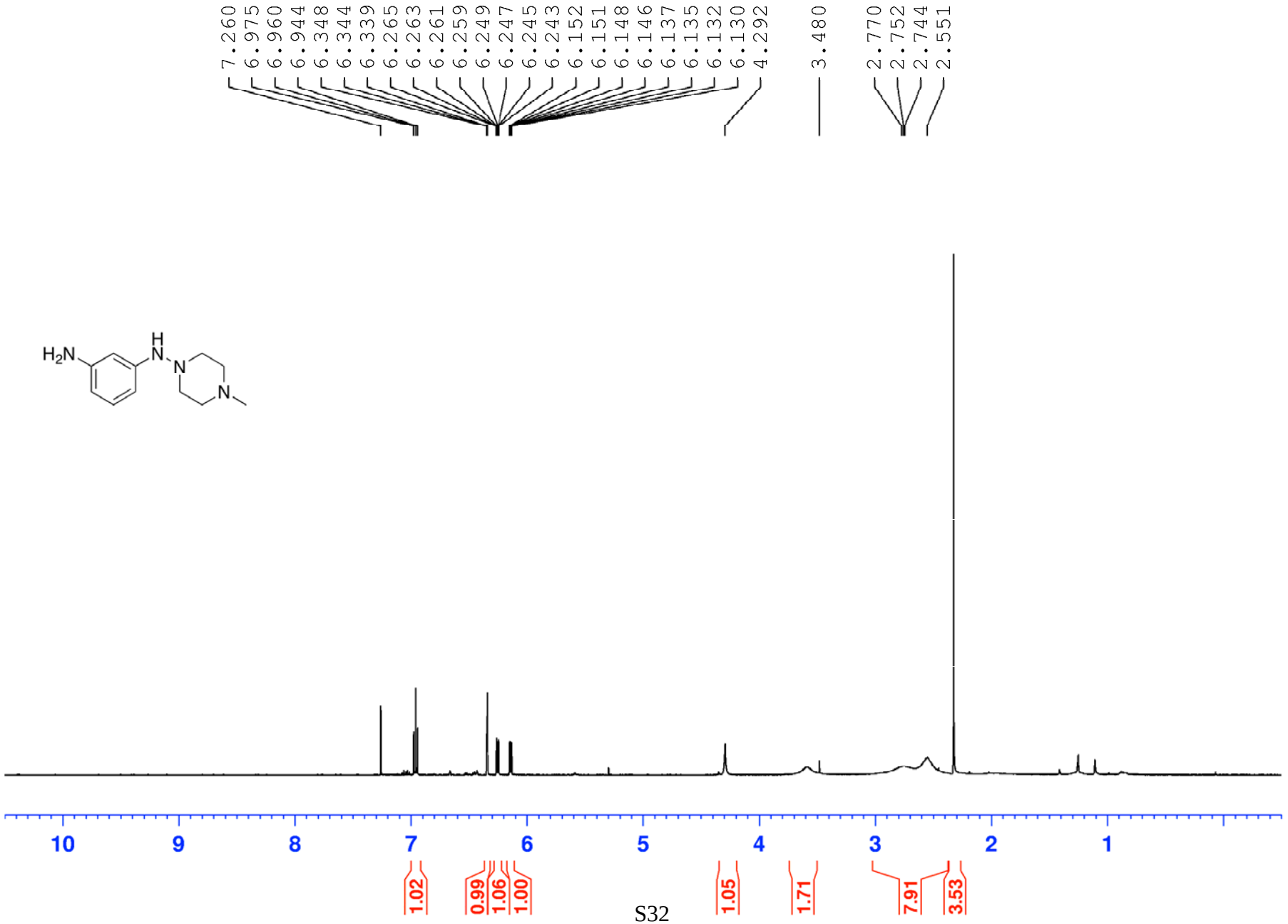
^{1}H NMR of N^{1}-cyclohexylbenzene-1,3-diamine (3a) ($CDCl_3$, 500 MHz, 300K)



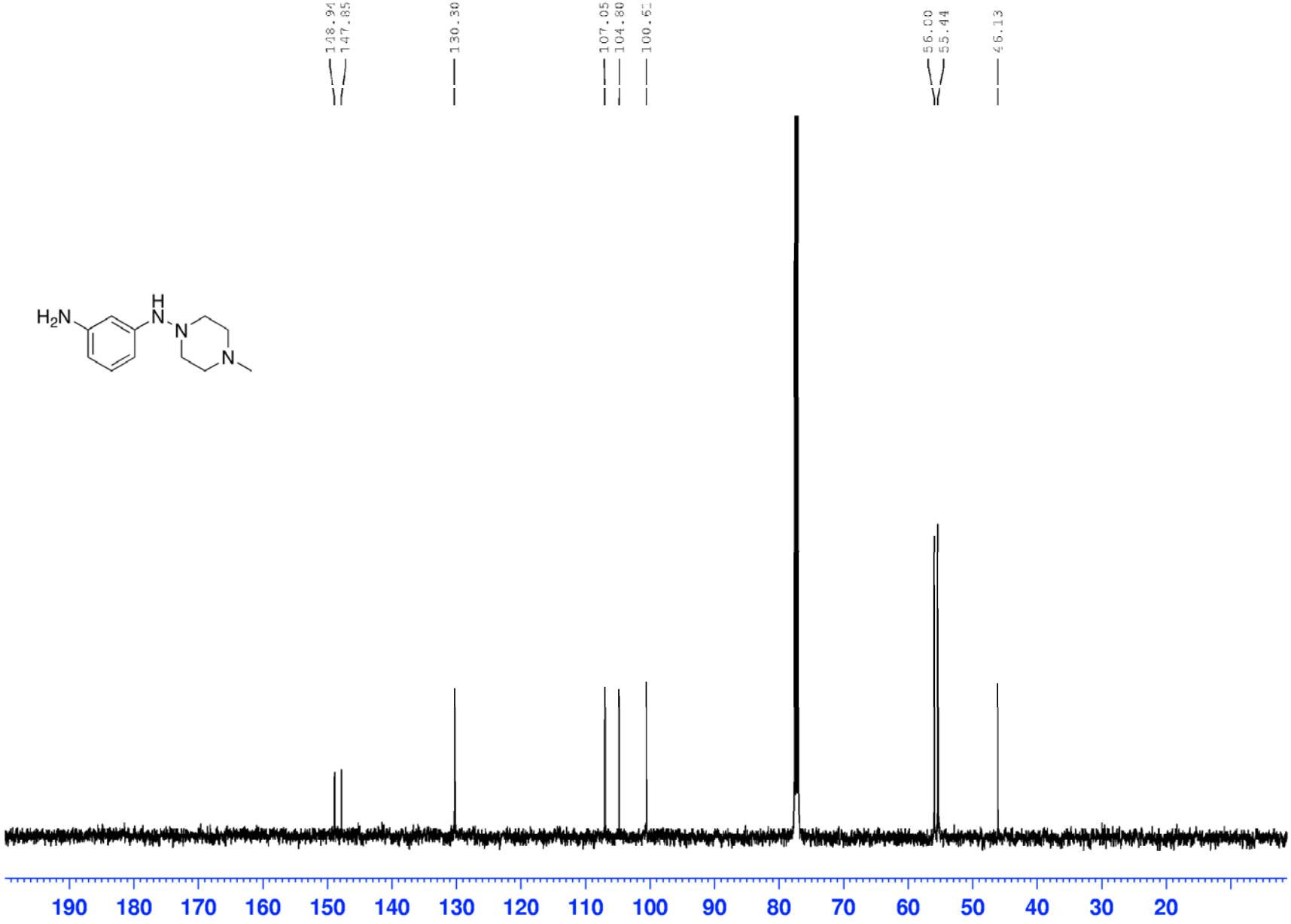
$^{13}C\{^{1}H\}$ NMR of N^1-cyclohexylbenzene-1,3-diamine (3a) ($CDCl_3$, 126 MHz, 300K)



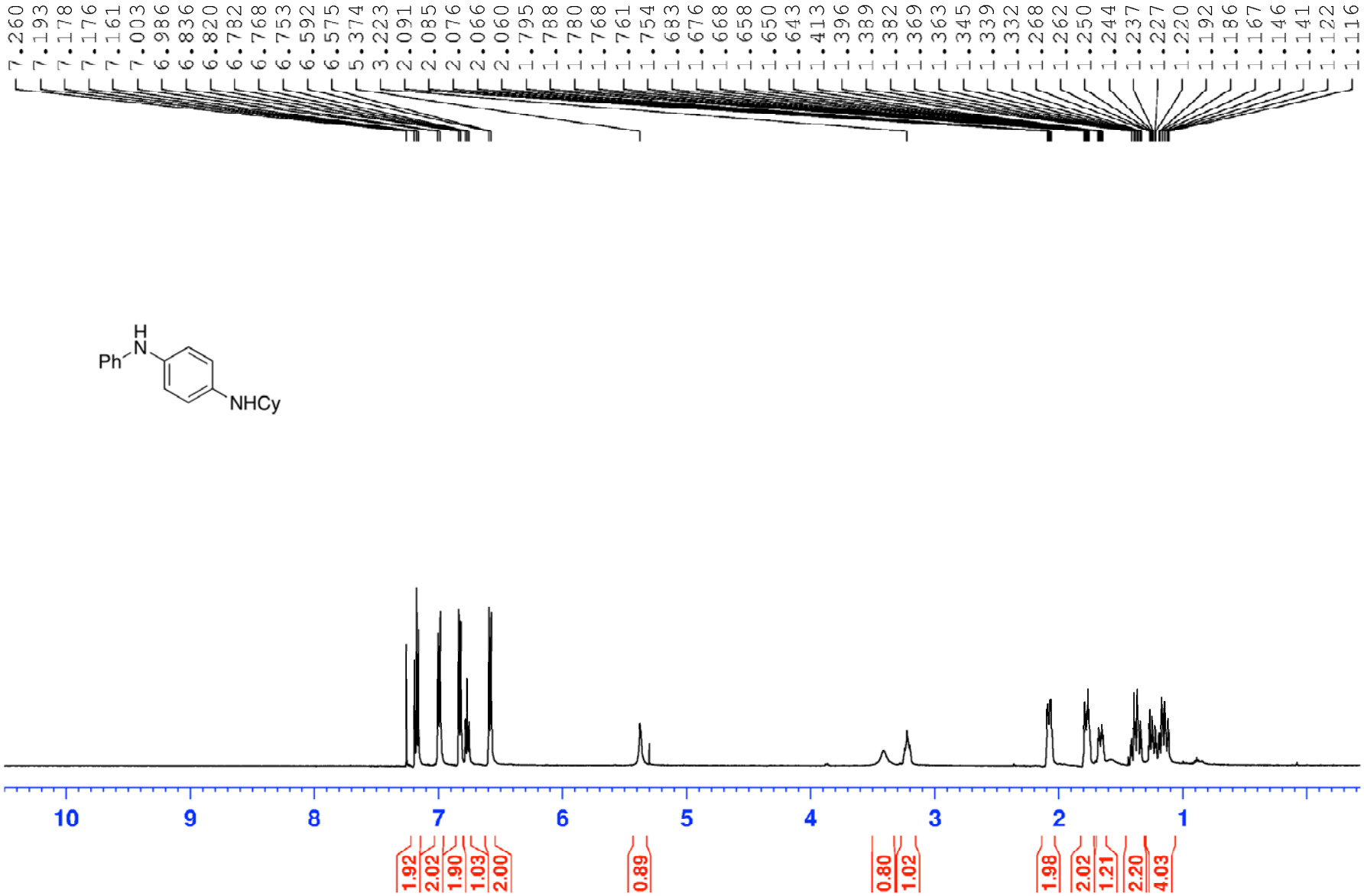
^{1}H NMR of N^1-(4-methylpiperazin-1-yl)benzene-1,3-diamine (3b) ($CDCl_3$, 500 MHz, 300K)



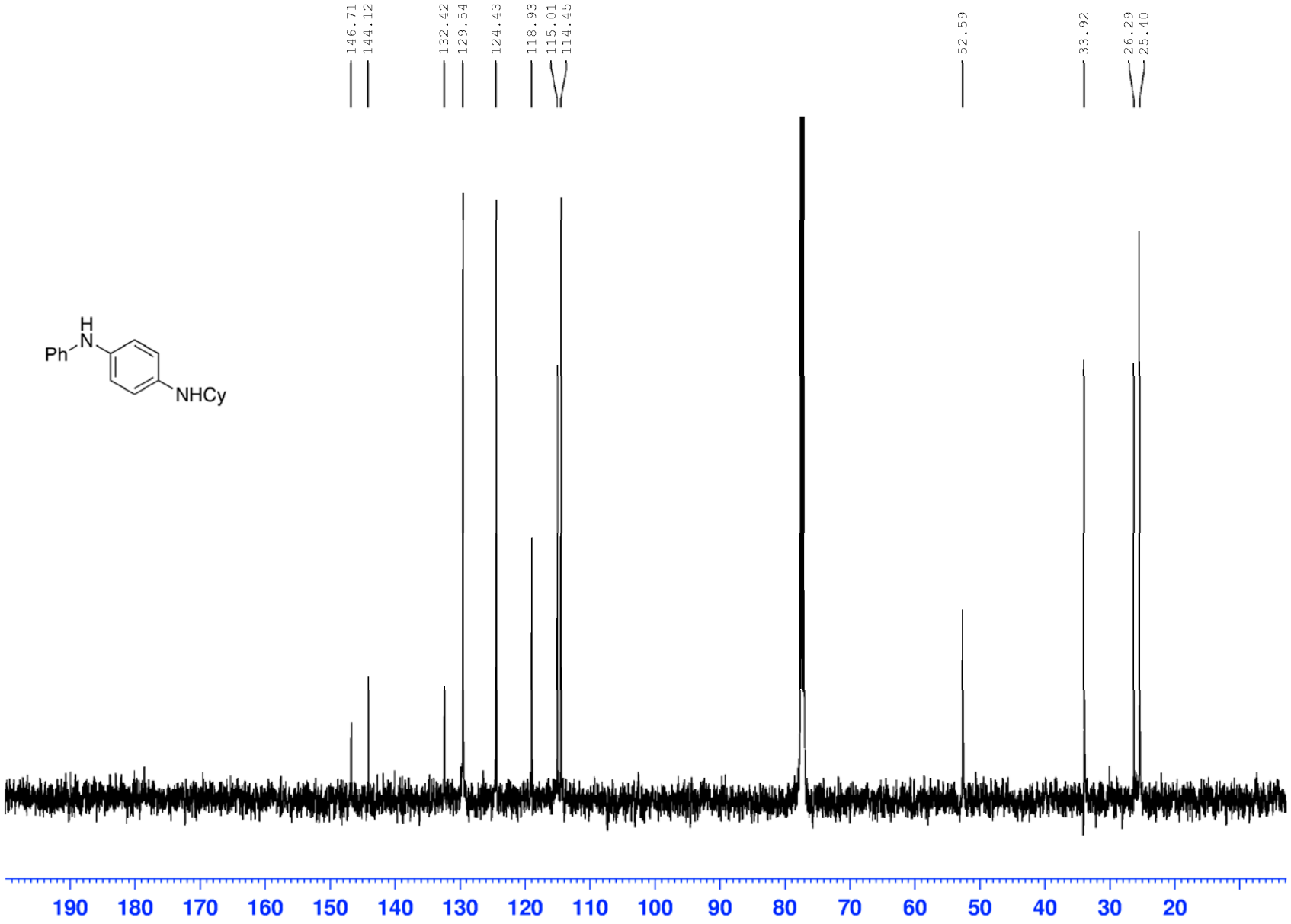
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-(4-methylpiperazin-1-yl)benzene-1,3-diamine (3b) ($CDCl_3$, 126 MHz, 300K)



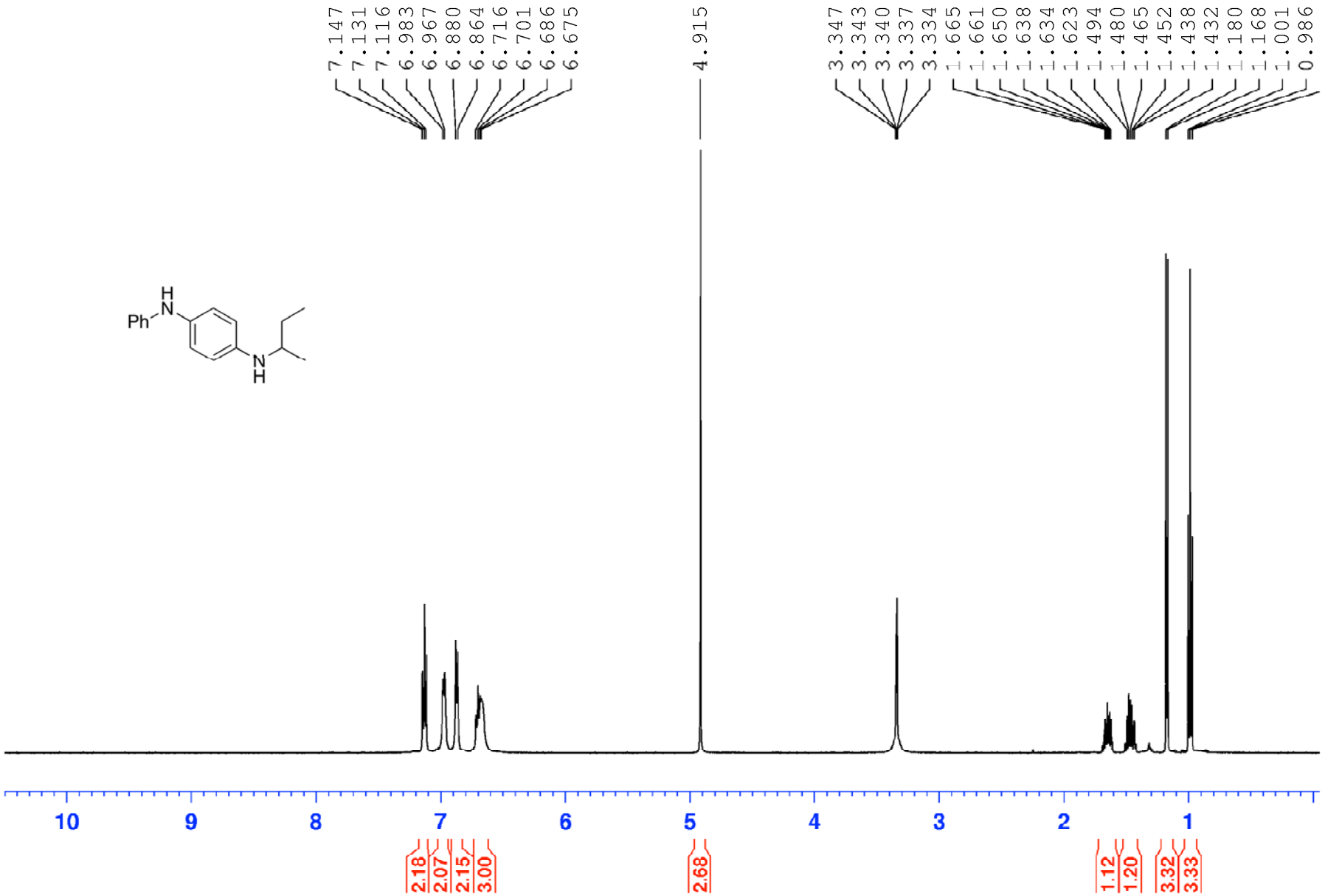
^{1}H NMR of N^1-cyclohexyl-N^4-phenylbenzene-1,4-diamine (3c) ($CDCl_3$, 500 MHz, 300K)



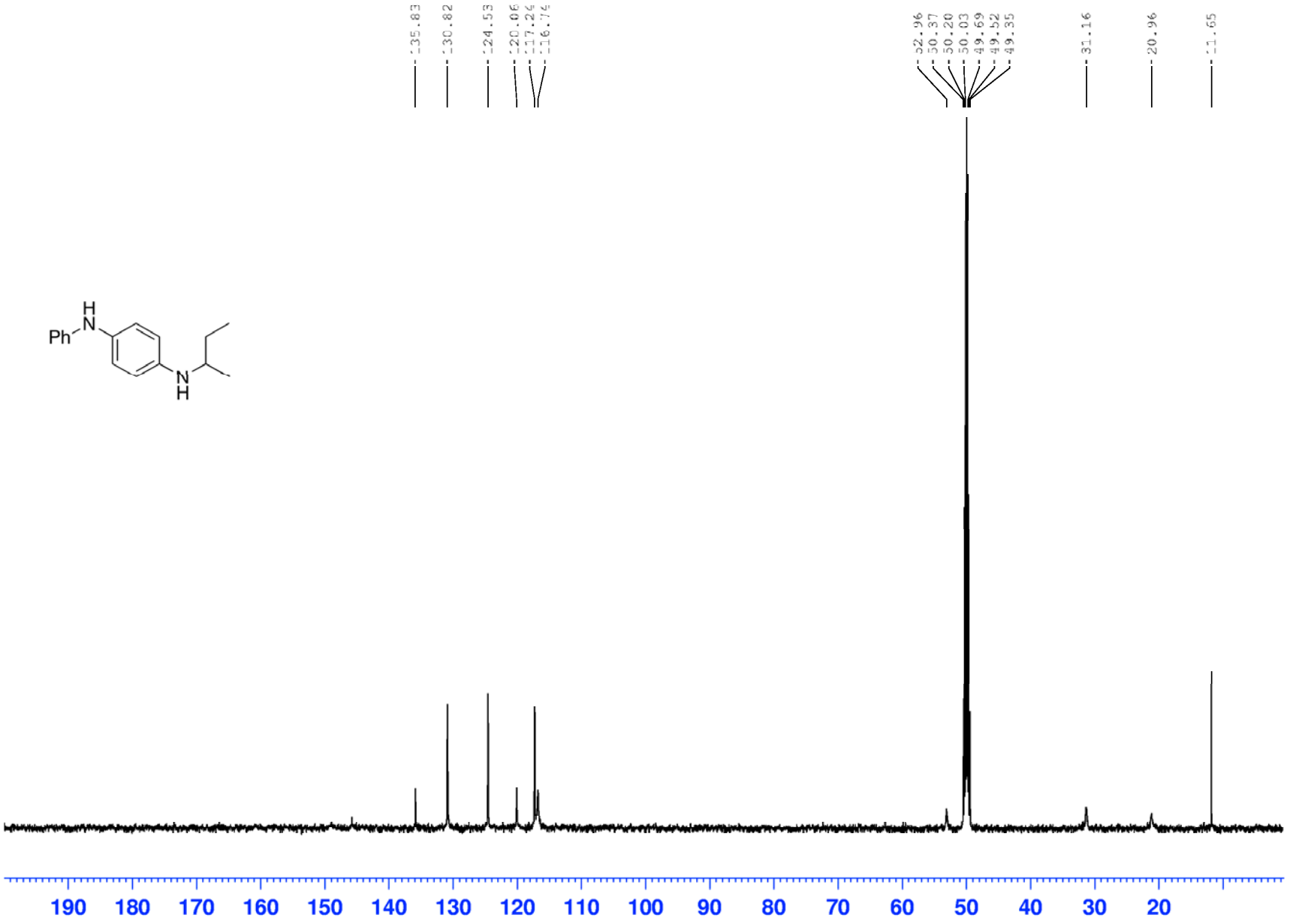
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-cyclohexyl-*N*^{4}-phenylbenzene-1,4-diamine (3c) ($CDCl_3$, 126 MHz, 300K)



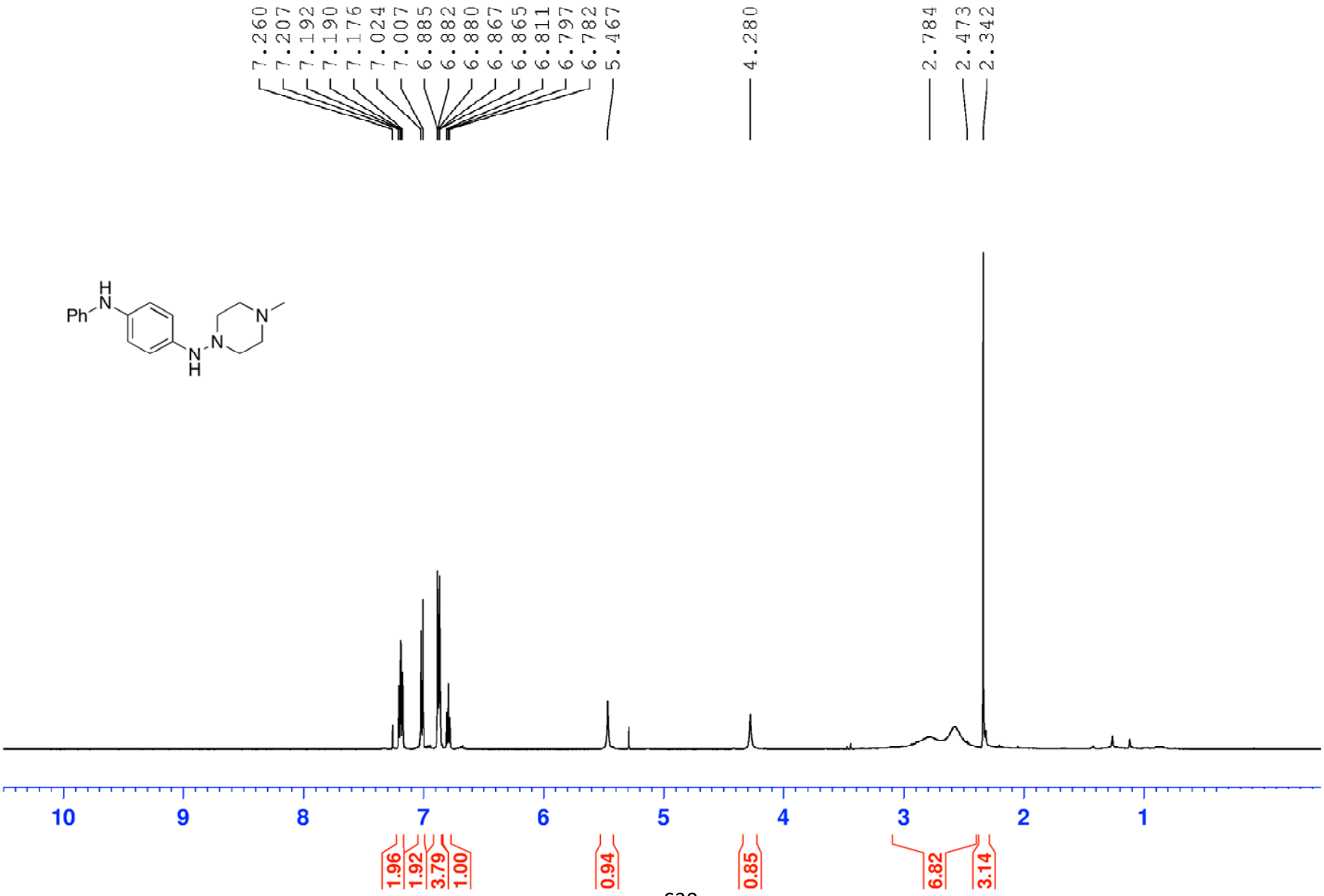
^{1}H NMR of *N*^{1}-*sec*-butyl-*N*^{4}-phenylbenzene-1,4-diamine (3d) (MeOD, 500 MHz, 300K)



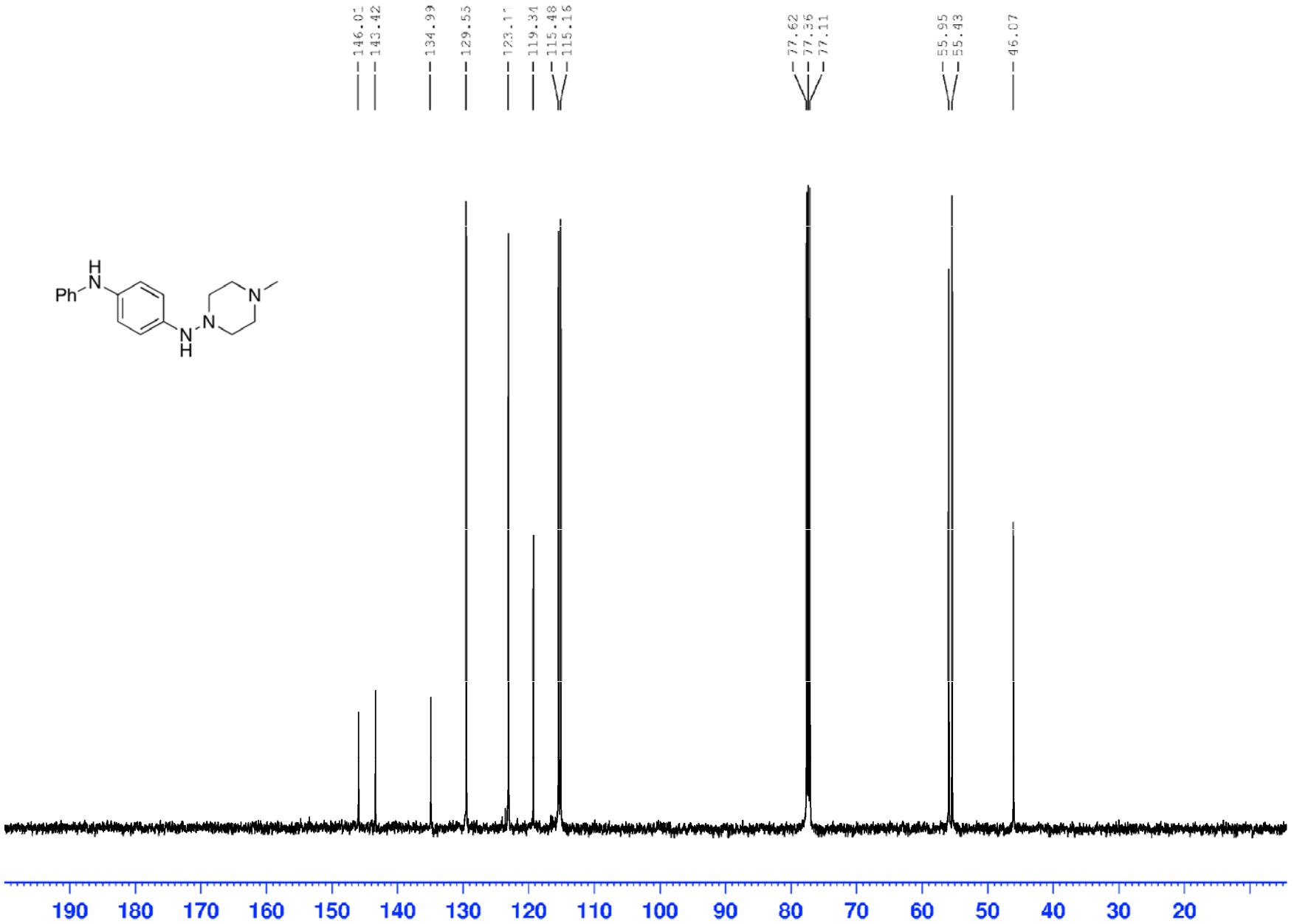
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-*sec*-butyl-*N*^{4}-phenylbenzene-1,4-diamine (3d) (MeOD, 126 MHz, 300K)



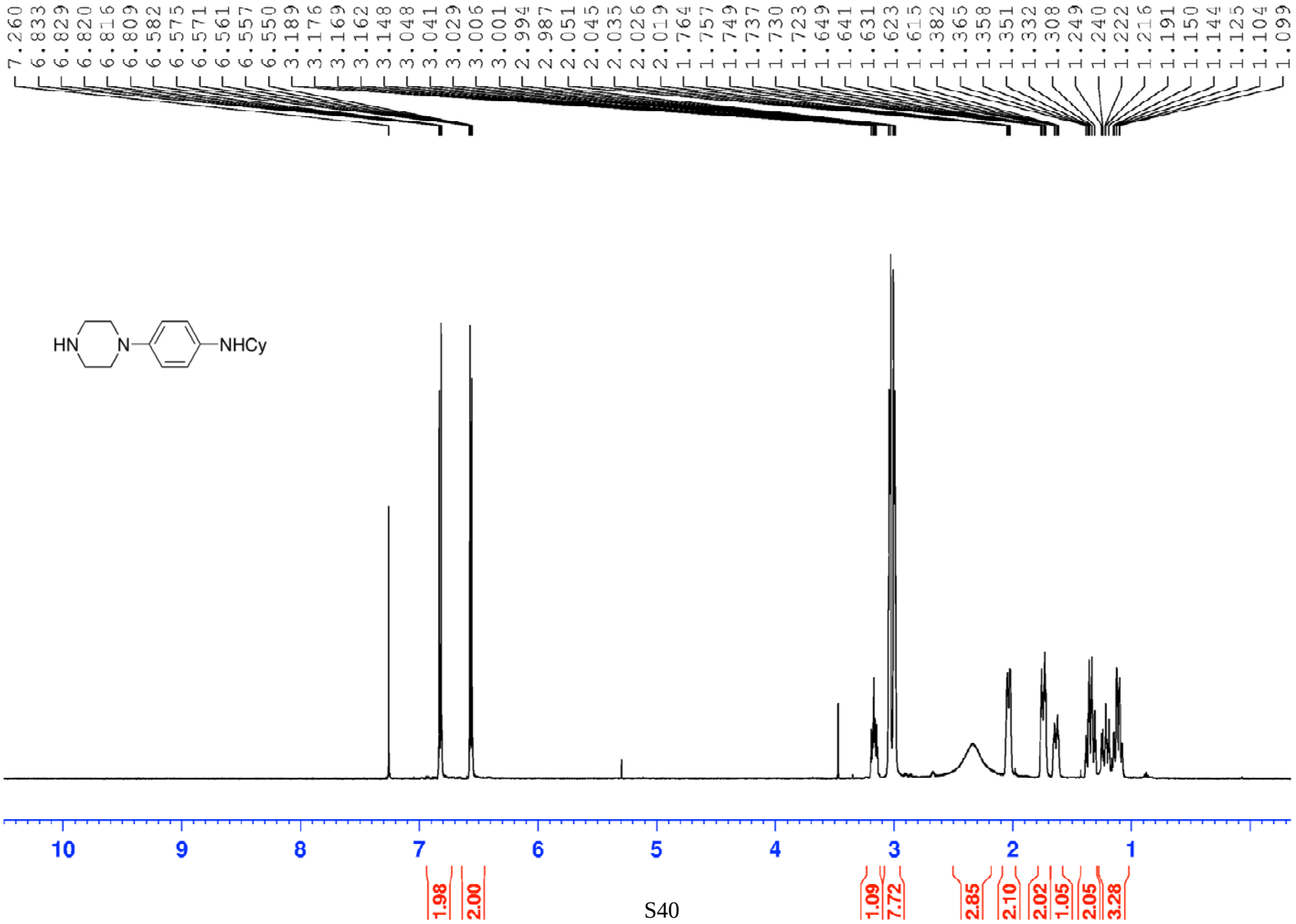
^{1}H NMR of N^{1}-(4-methylpiperazin-1-yl)-N^{4}-phenylbenzene-1,4-diamine (3e) ($CDCl_3$, 500 MHz, 300K)



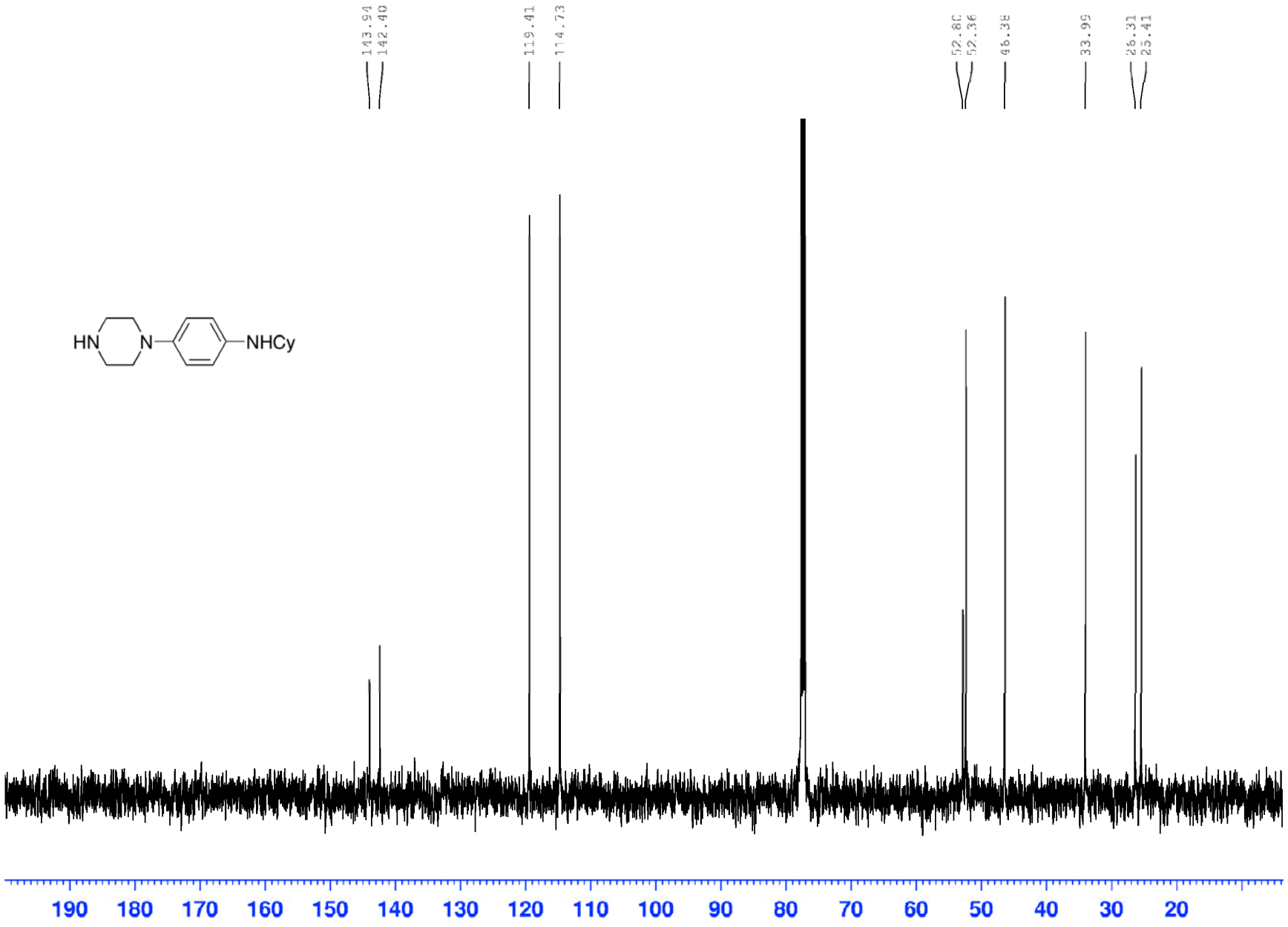
$^{13}C\{^{1}H\}$ NMR of N^1-(4-methylpiperazin-1-yl)-N^4-phenylbenzene-1,4-diamine (3e) ($CDCl_3$, 126 MHz, 300K)



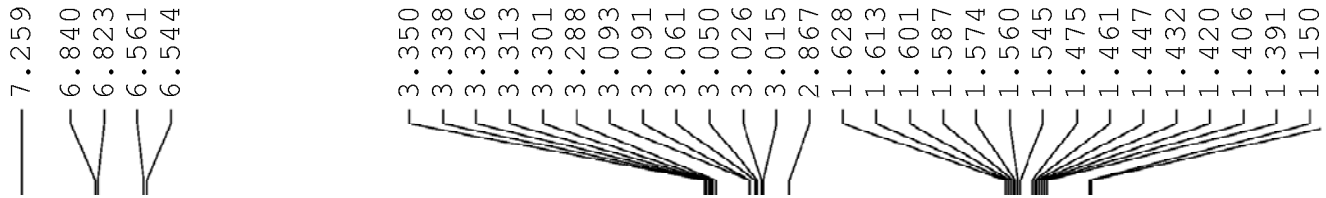
^{1}H NMR of *N*-cyclohexyl-4-(piperazin-1-yl)aniline (3f) ($CDCl_3$, 500 MHz, 300K)

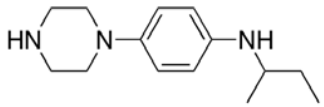


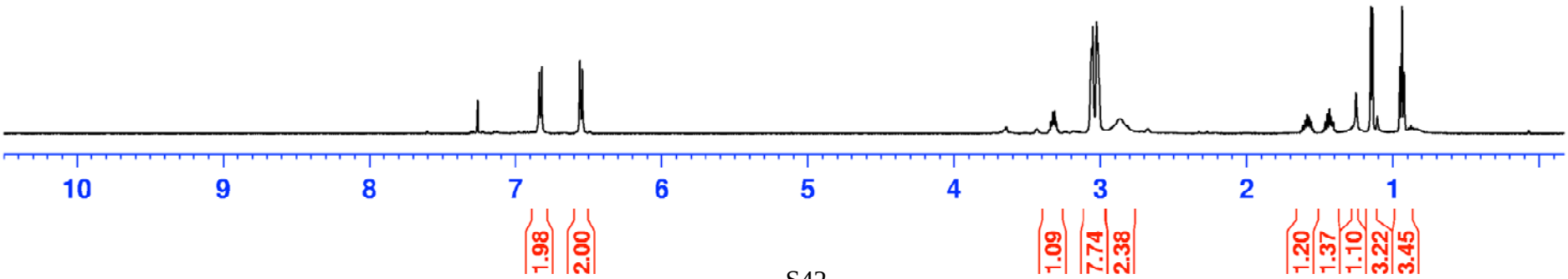
$^{13}C\{^{1}H\}$ NMR of *N*-cyclohexyl-4-(piperazin-1-yl)aniline (3f) ($CDCl_3$, 126 MHz, 300K)



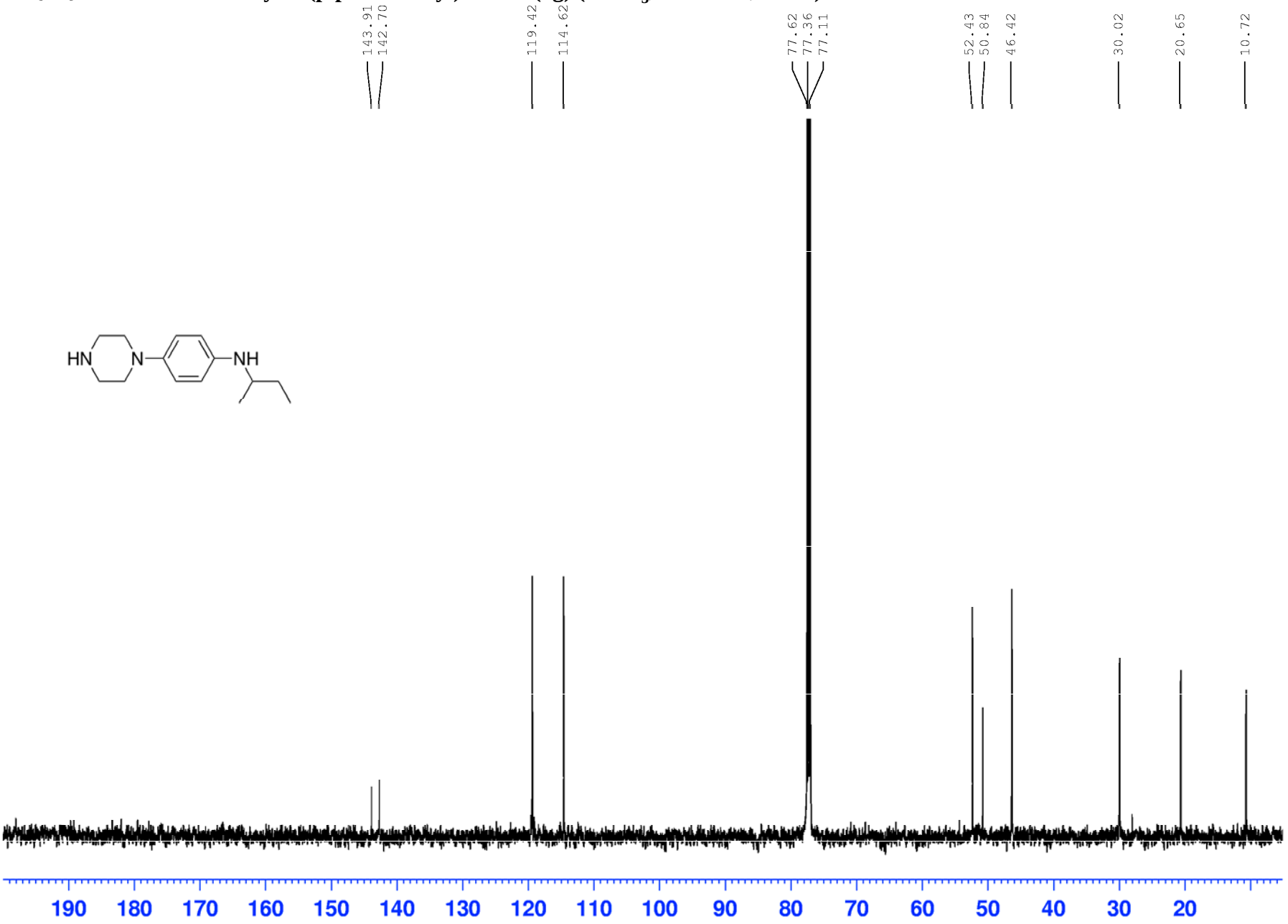
^{1}H NMR of *N-sec*-butyl-4-(piperazin-1-yl)aniline (3g) ($CDCl_3$, 500 MHz, 300K)



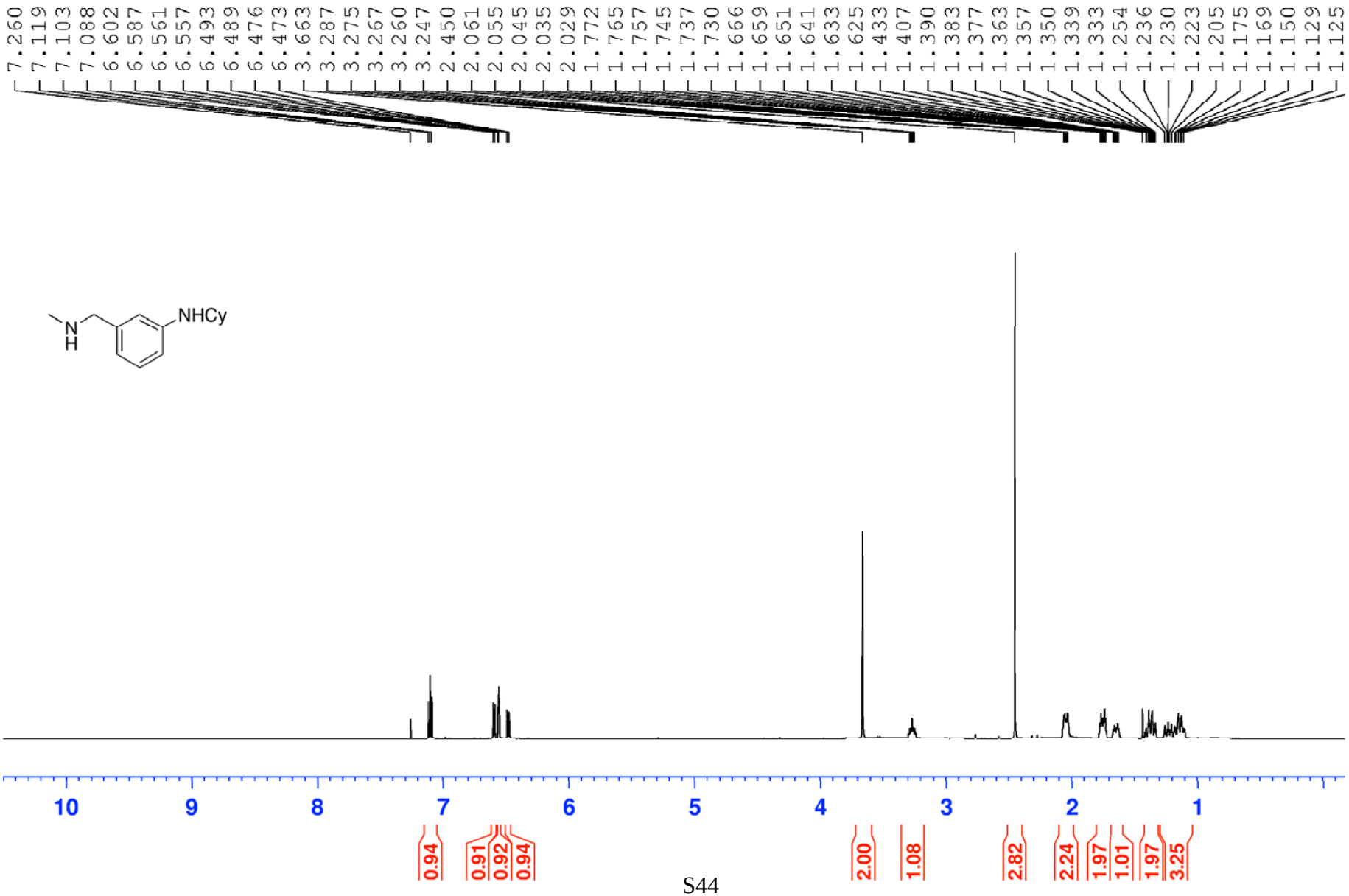




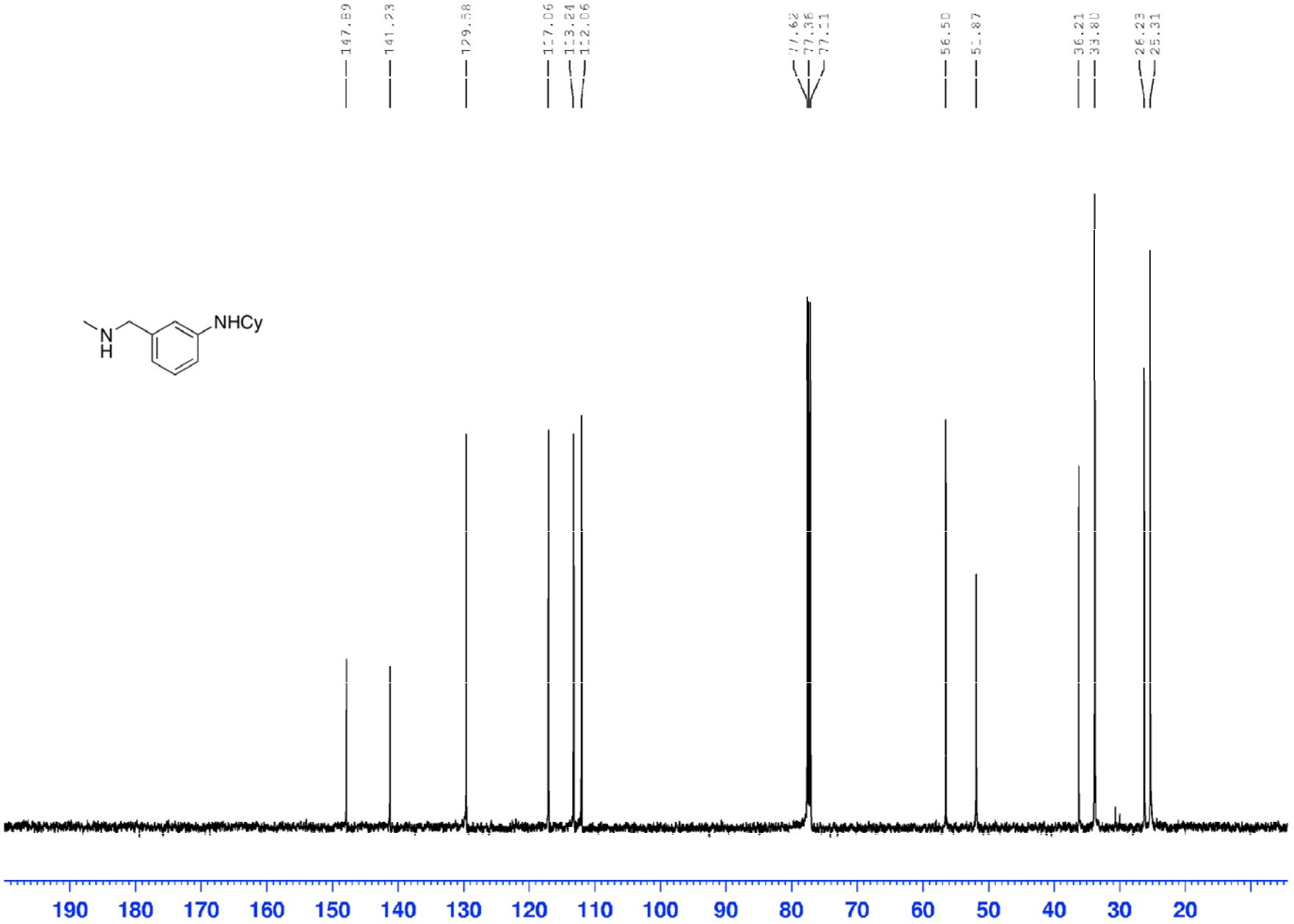
$^{13}C\{^{1}H\}$ NMR of *N-sec*-butyl-4-(piperazin-1-yl)aniline (3g) ($CDCl_3$, 126 MHz, 300K)



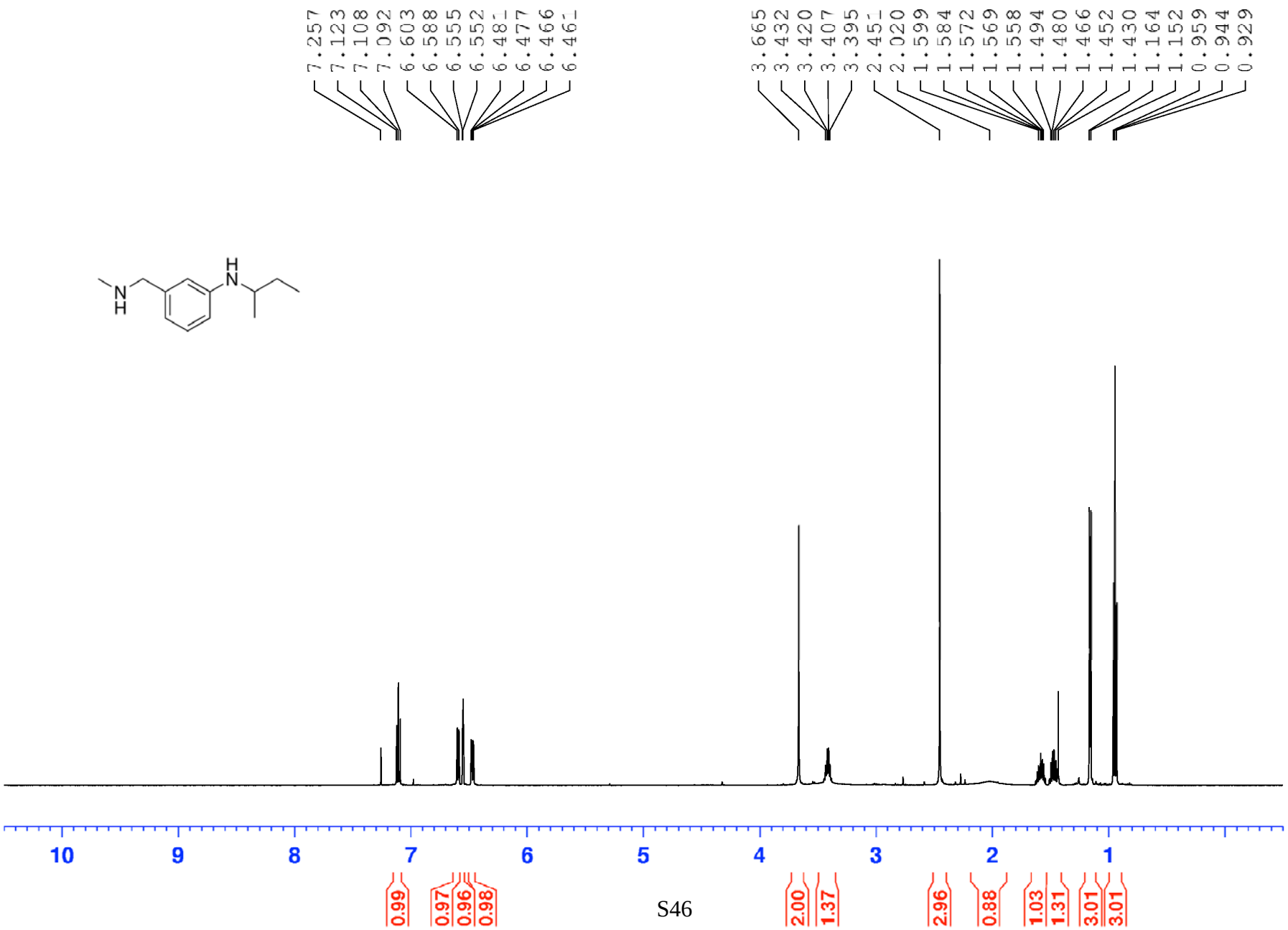
^{1}H NMR of *N*-cyclohexyl-3-((methylamino)methyl)aniline (3h) ($CDCl_3$, 500 MHz, 300K)



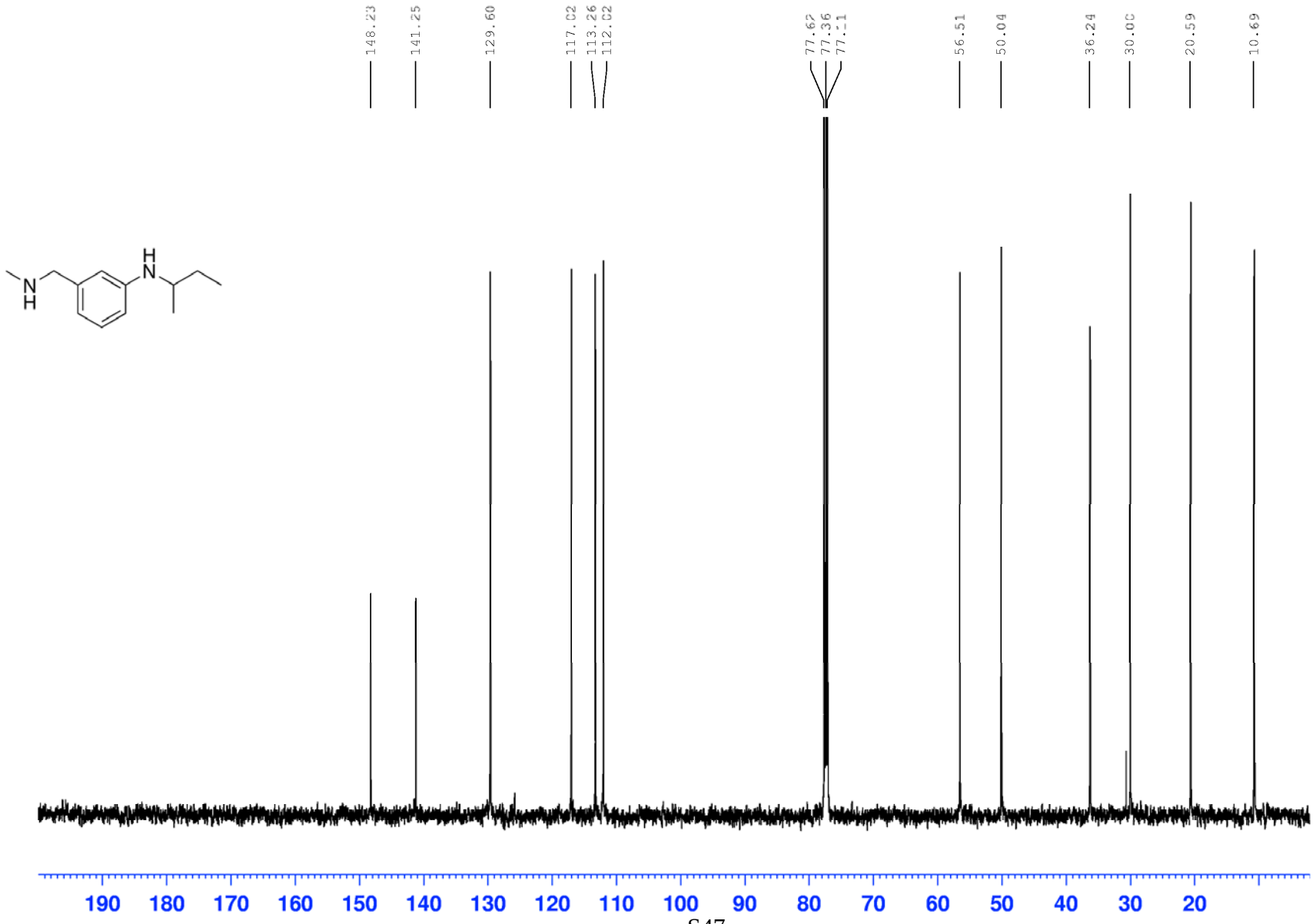
$^{13}C\{^{1}H\}$ NMR of *N*-cyclohexyl-3-((methylamino)methyl)aniline (3h) ($CDCl_3$, 126 MHz, 300K)



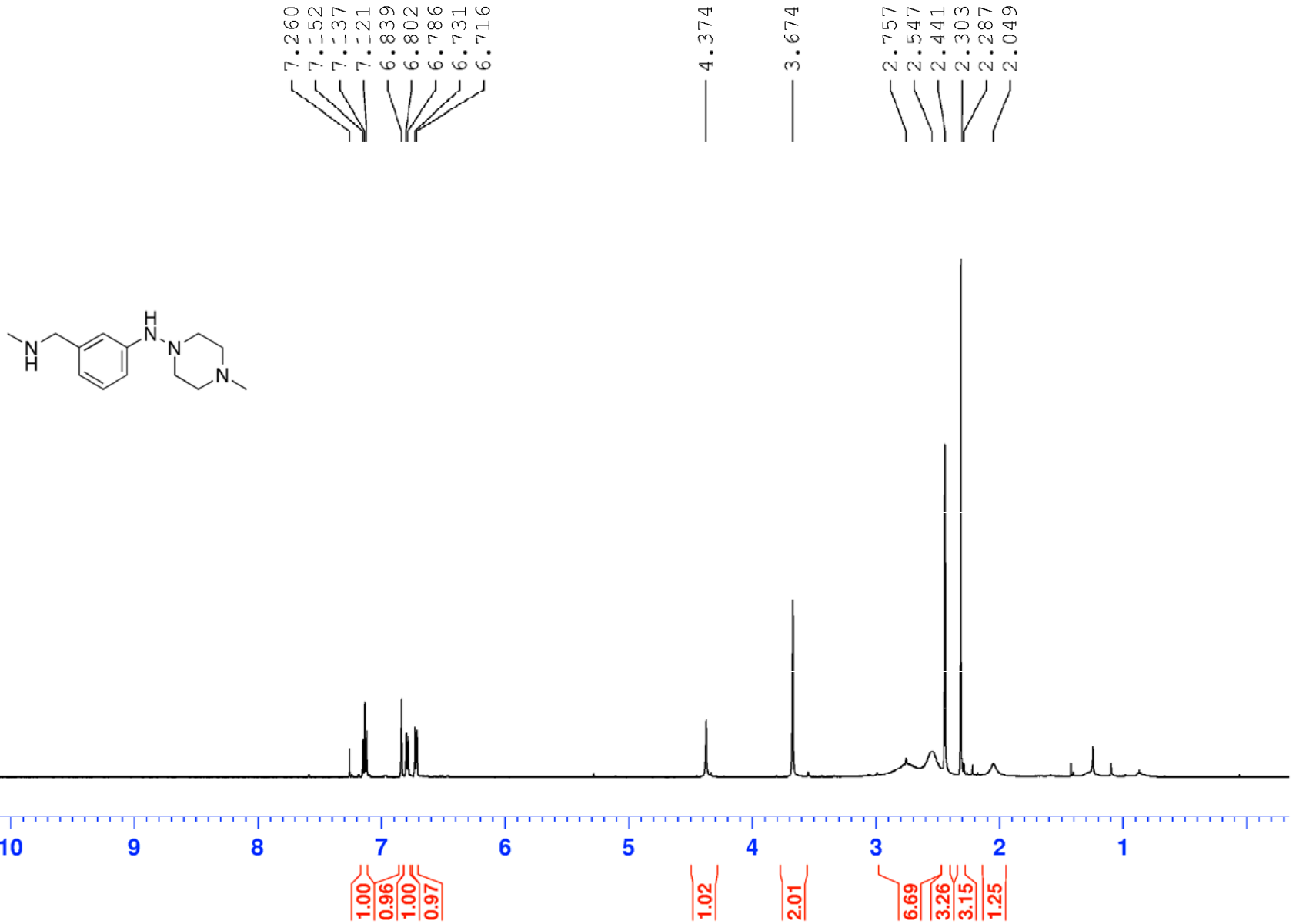
^{1}H NMR of *N-sec*-butyl-3-((methylamino)methyl)aniline (3i) ($CDCl_3$, 500 MHz, 300K)



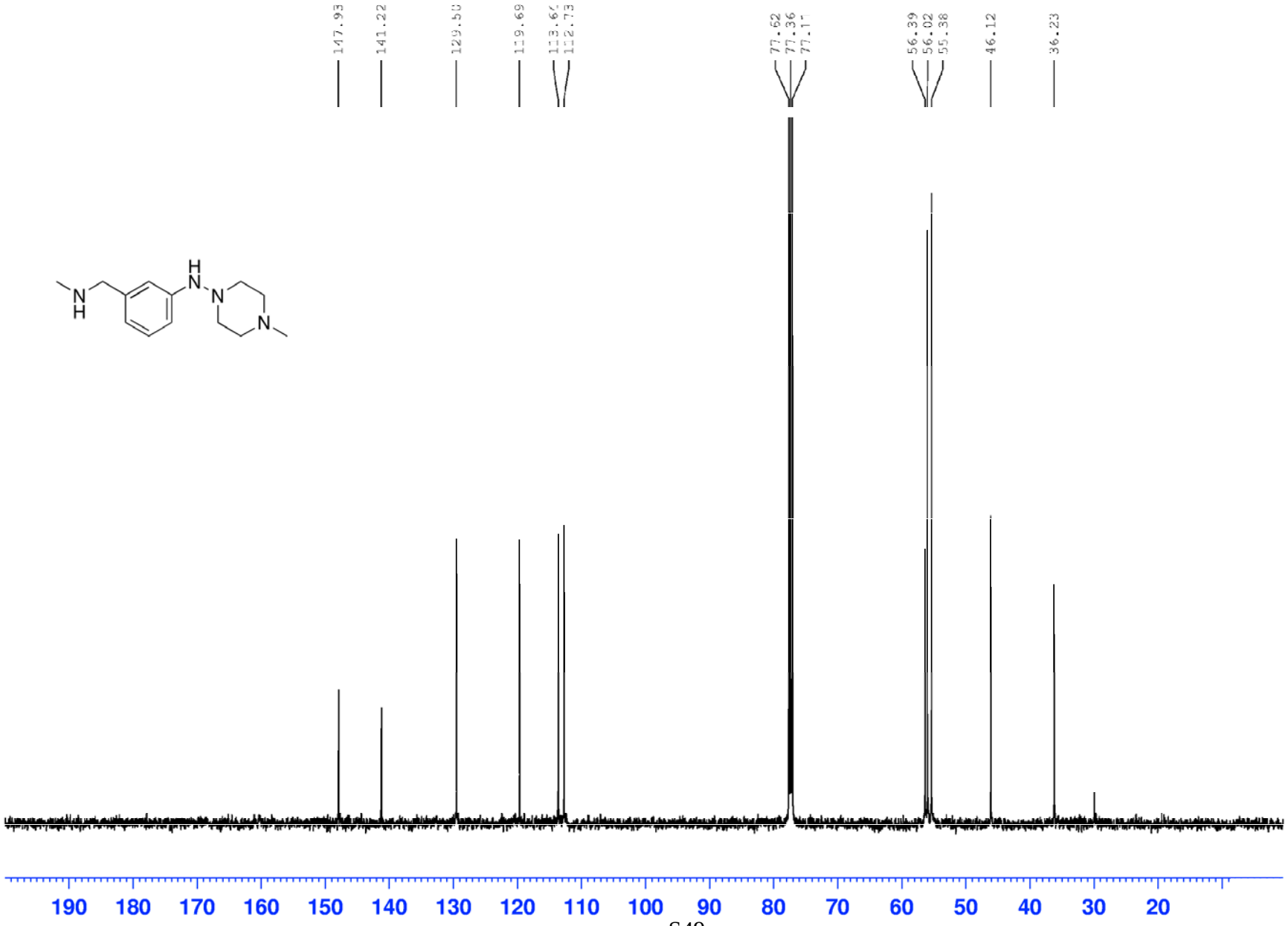
$^{13}C\{^{1}H\}$ NMR of *N*-*sec*-butyl-3-((methylamino)methyl)aniline (3i) ($CDCl_3$, 126 MHz, 300K)



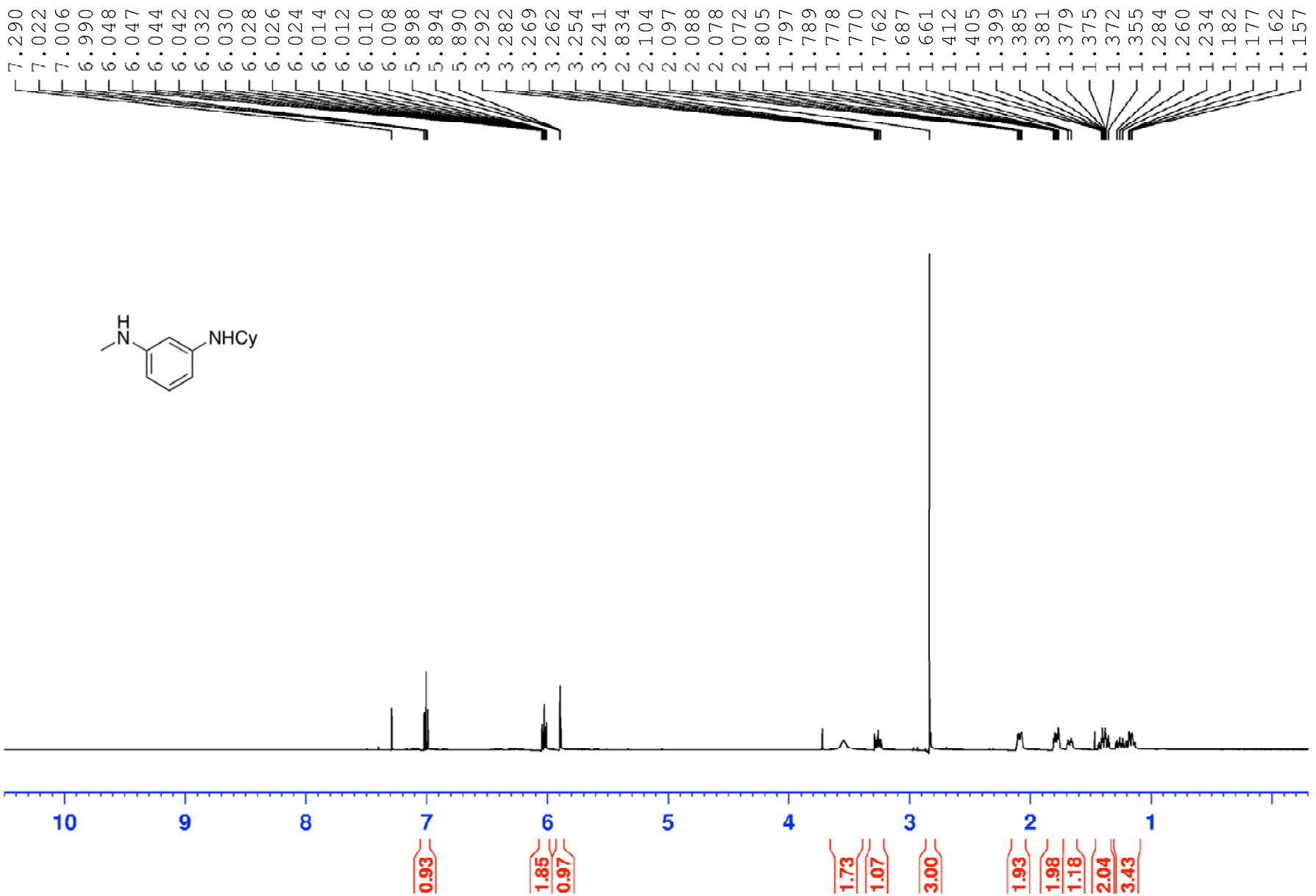
^{1}H NMR of 4-methyl-*N*-(3-((methylamino)methyl)phenyl)piperazin-1-amine (3j) ($CDCl_3$, 500 MHz, 300K)



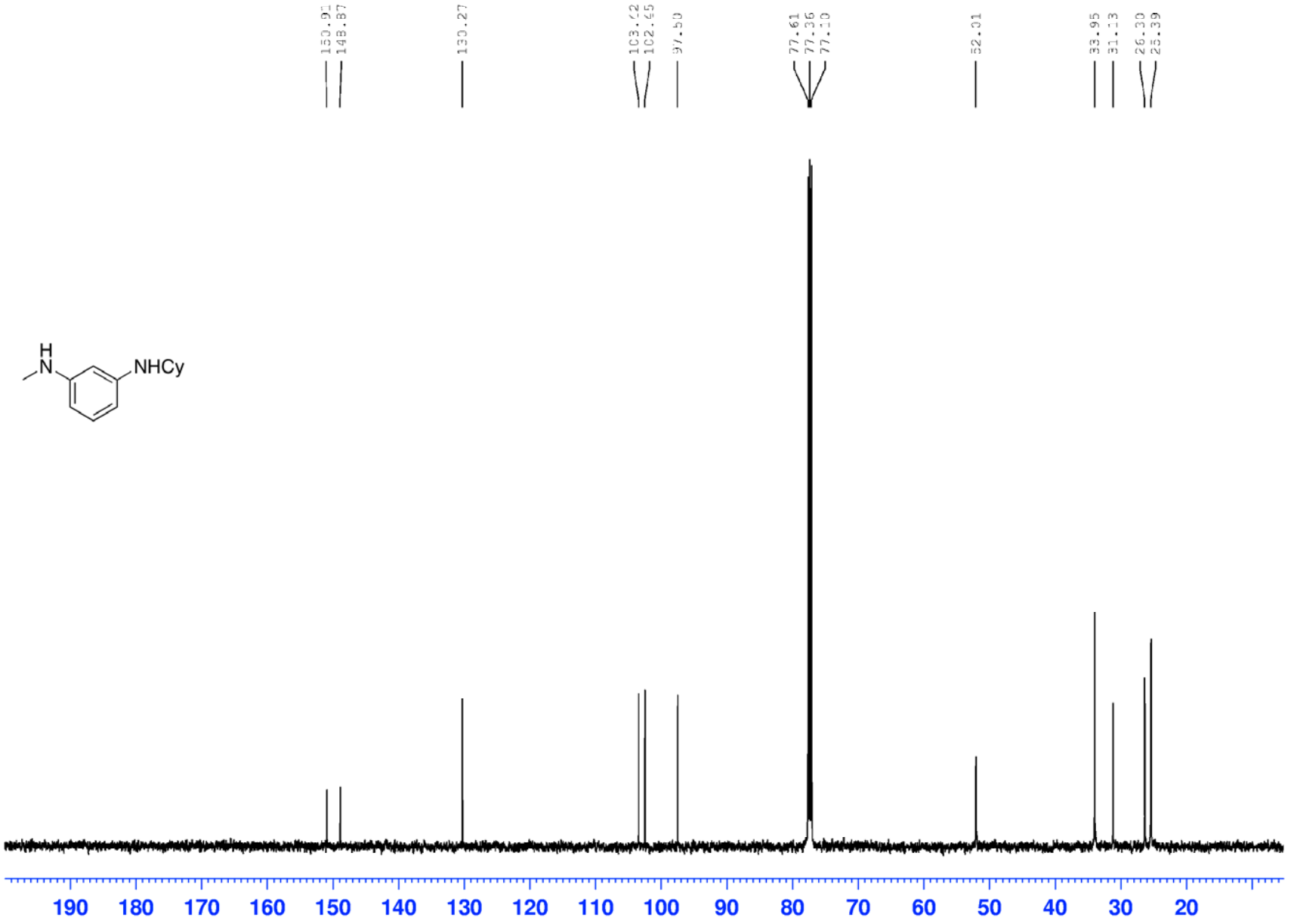
$^{13}C\{^{1}H\}$ NMR of 4-methyl-*N*-(3-((methylamino)methyl)phenyl)piperazin-1-amine (3j) ($CDCl_3$, 126 MHz, 300K)



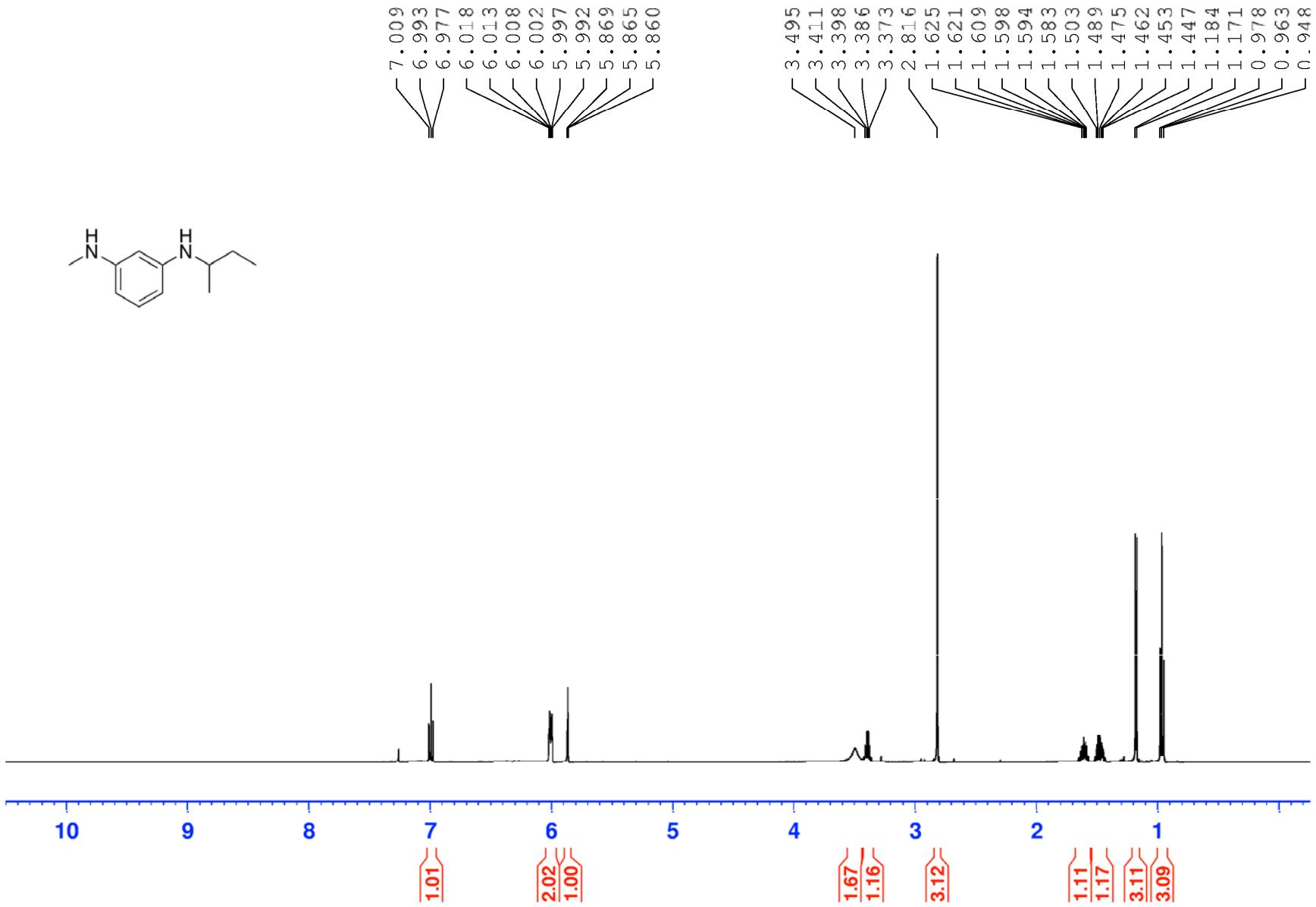
^{1}H NMR of N^1-cyclohexyl-N^3-methylbenzene-1,3-diamine (3k) ($CDCl_3$, 500 MHz, 300K)



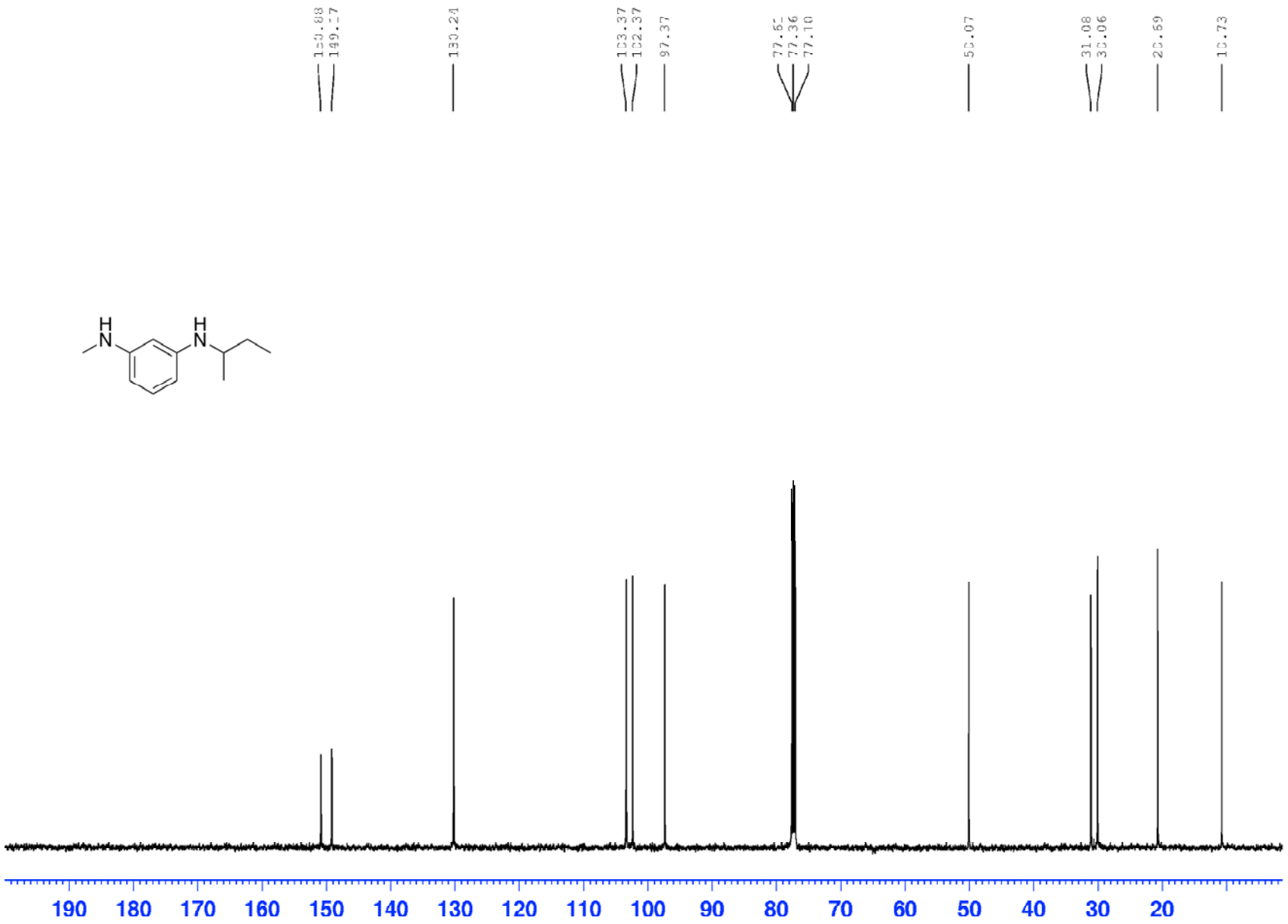
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-cyclohexyl-*N*^{3}-methylbenzene-1,3-diamine (3k) ($CDCl_3$, 126 MHz, 300K)



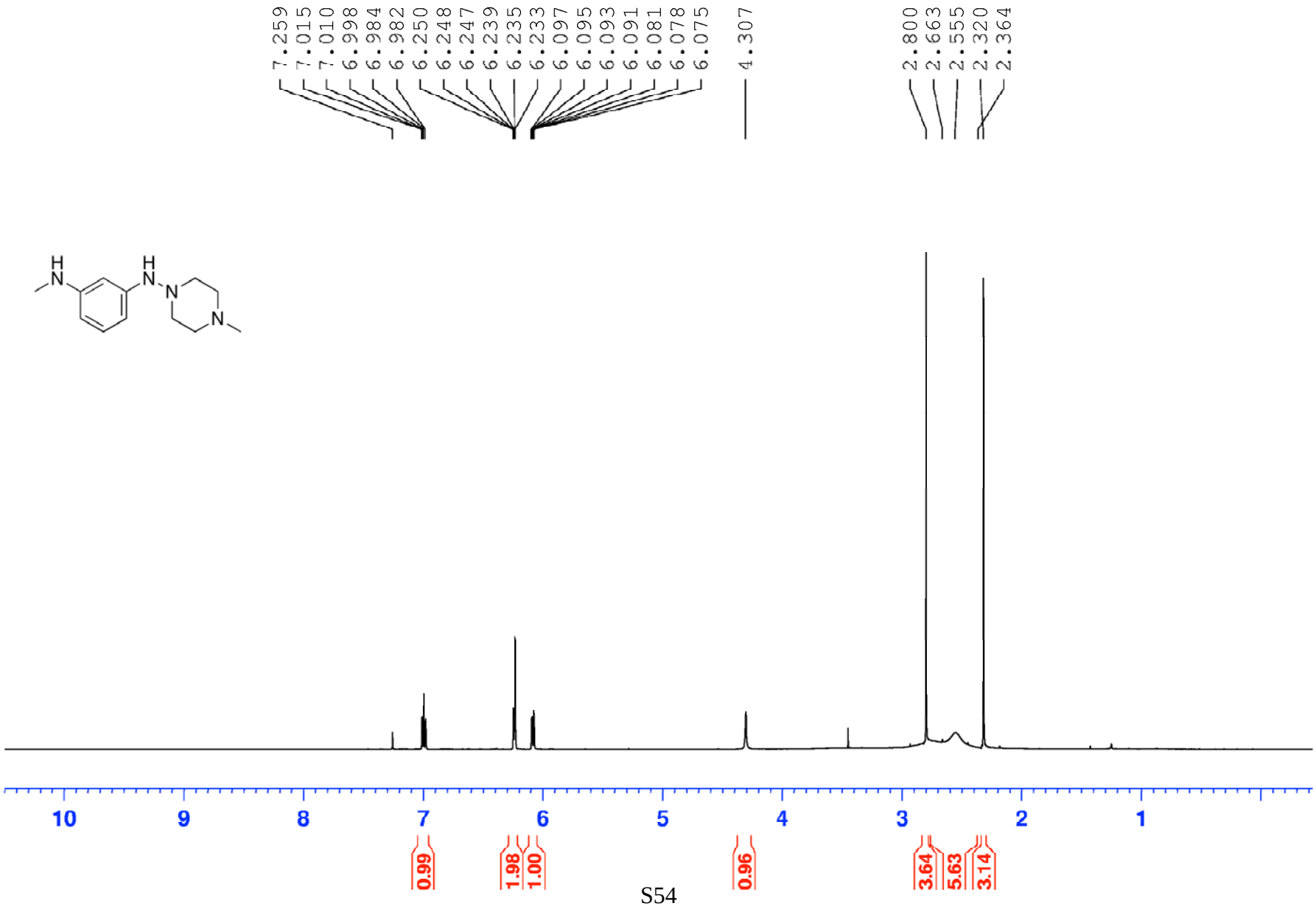
^{1}H NMR of N^1-*sec*-butyl-N^3-methylbenzene-1,3-diamine (3l) ($CDCl_3$, 500 MHz, 300K)



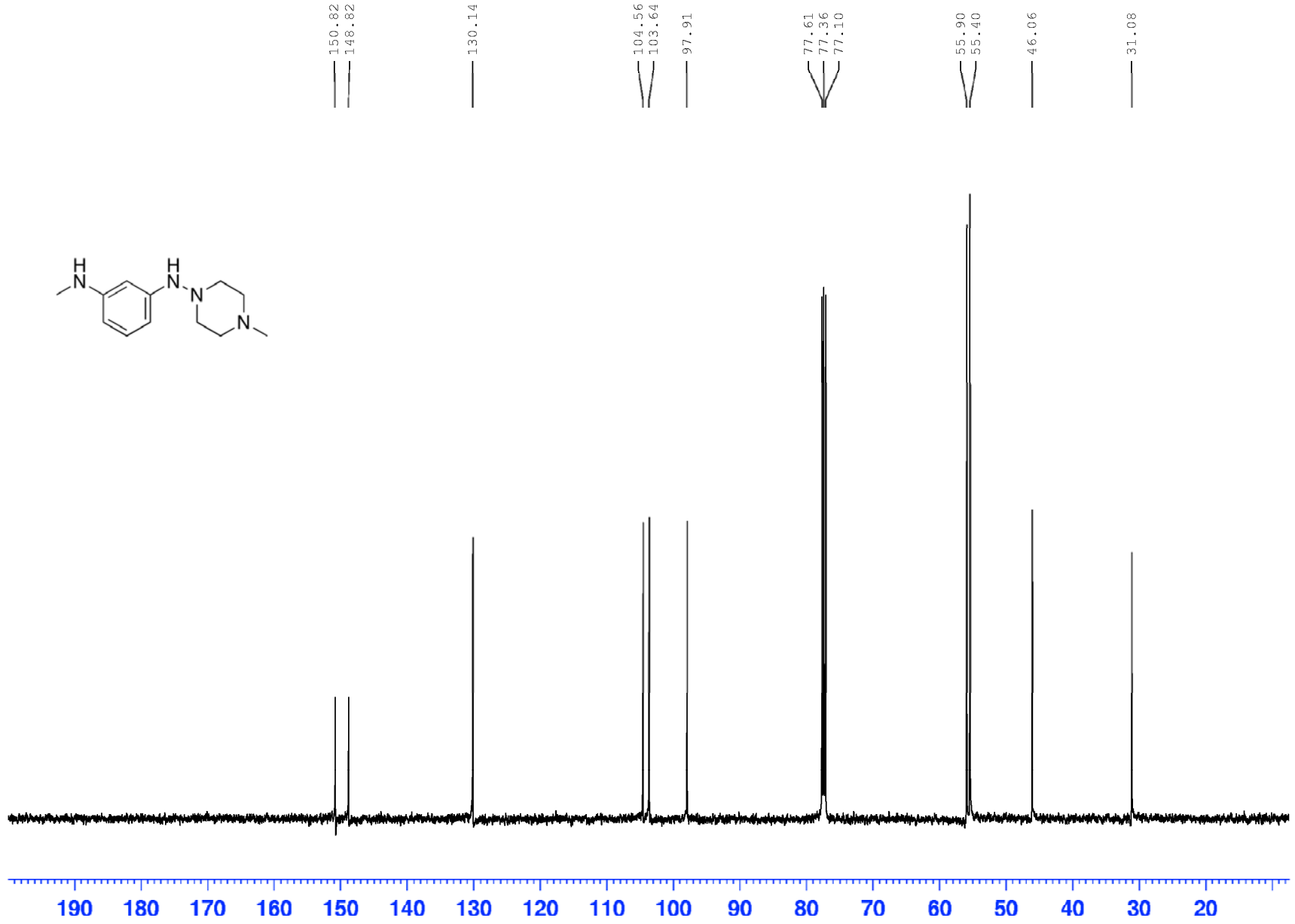
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-*sec*-butyl-*N*^{3}-methylbenzene-1,3-diamine (3l) ($CDCl_3$, 126 MHz, 300K)



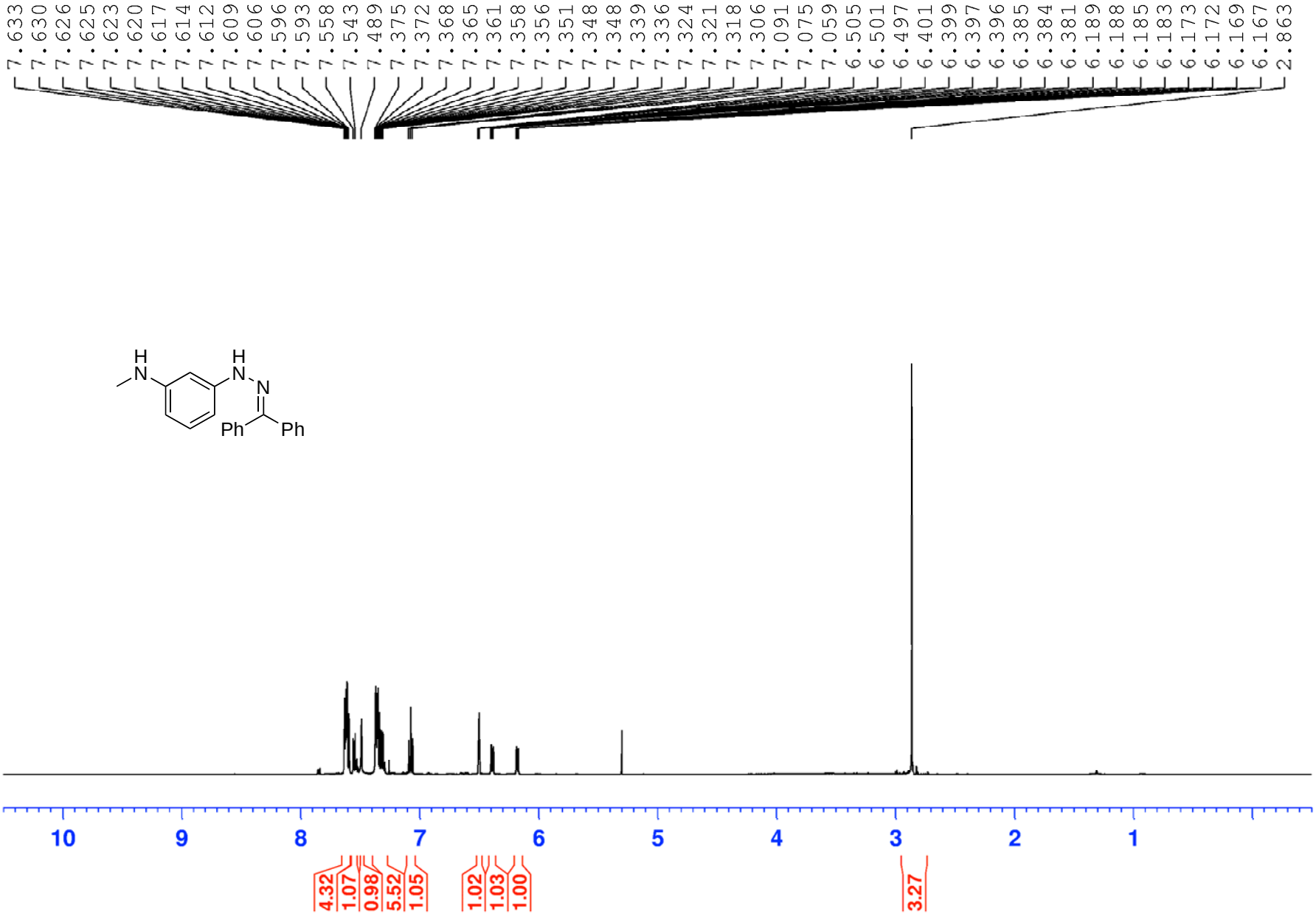
^{1}H NMR of *N*^{1}-methyl-*N*^{3}-(4-methylpiperazin-1-yl)benzene-1,3-diamine (3m) ($CDCl_3$, 500 MHz, 300K)



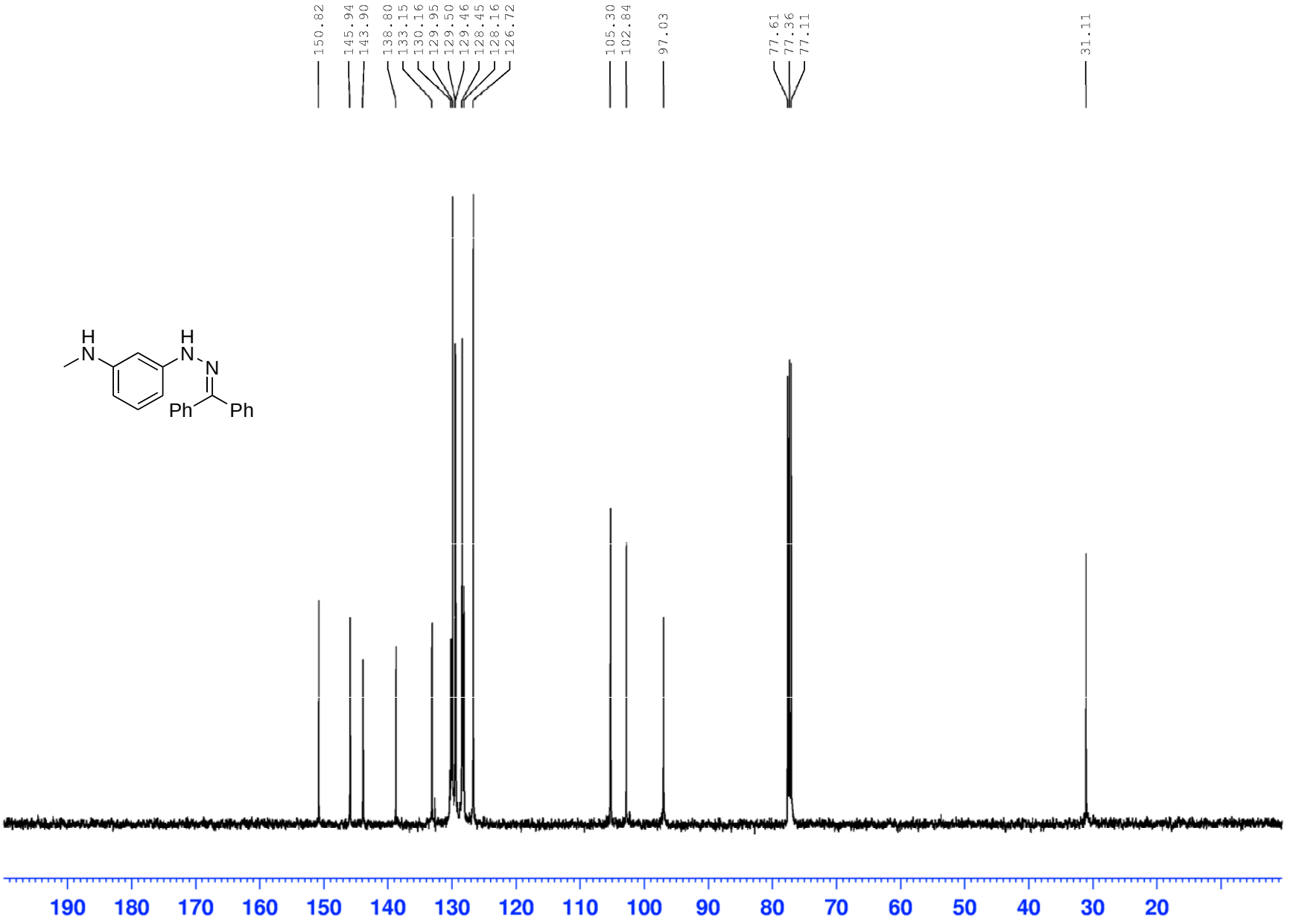
$^{13}C\{^{1}H\}$ NMR of N^1-methyl-N^3-(4-methylpiperazin-1-yl)benzene-1,3-diamine (3m) ($CDCl_3$, 126 MHz, 300K)



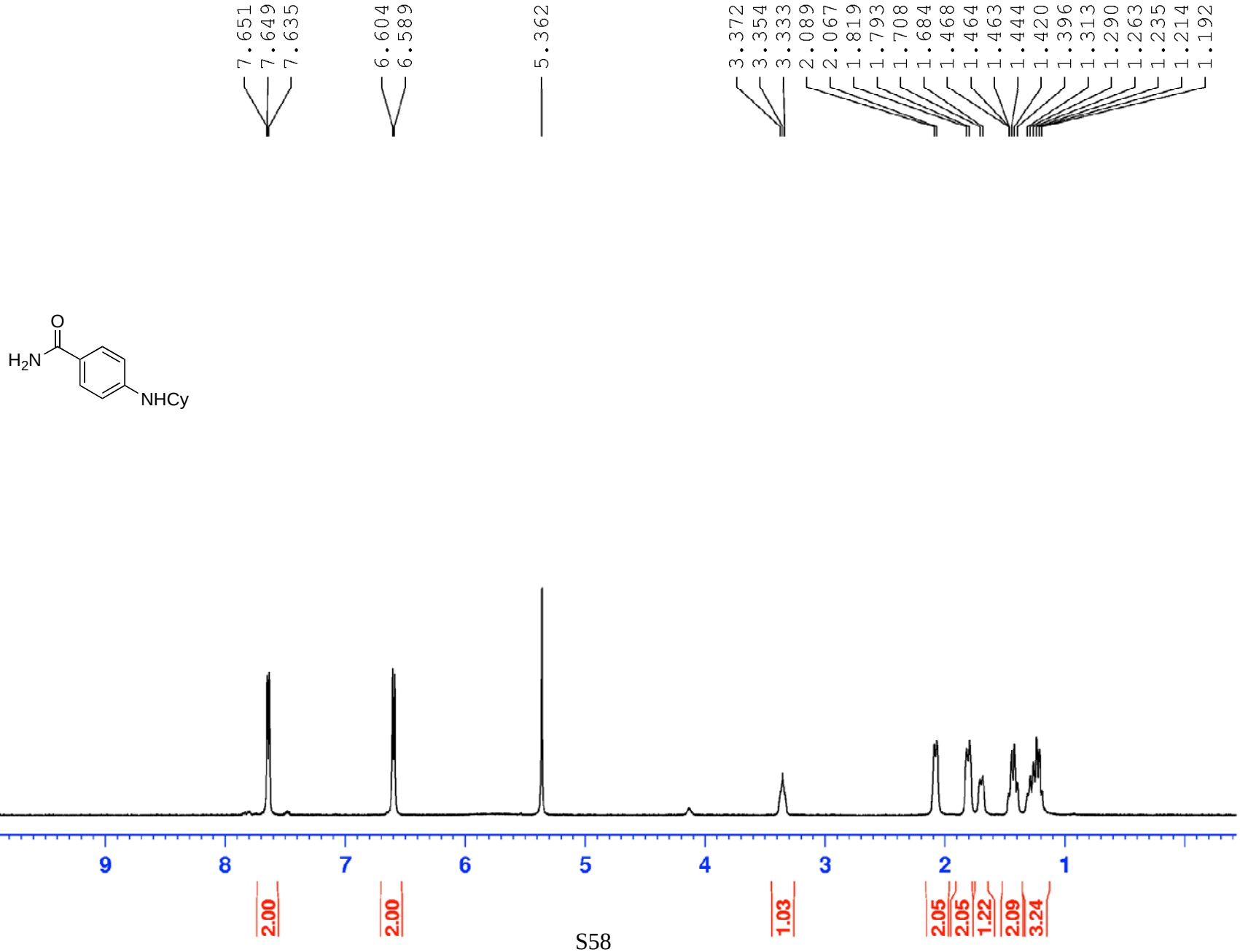
^{1}H NMR of 3-(2-(diphenylmethylene)hydrazinyl)-N-methylaniline (3n) ($CDCl_3$, 500 MHz, 300K)



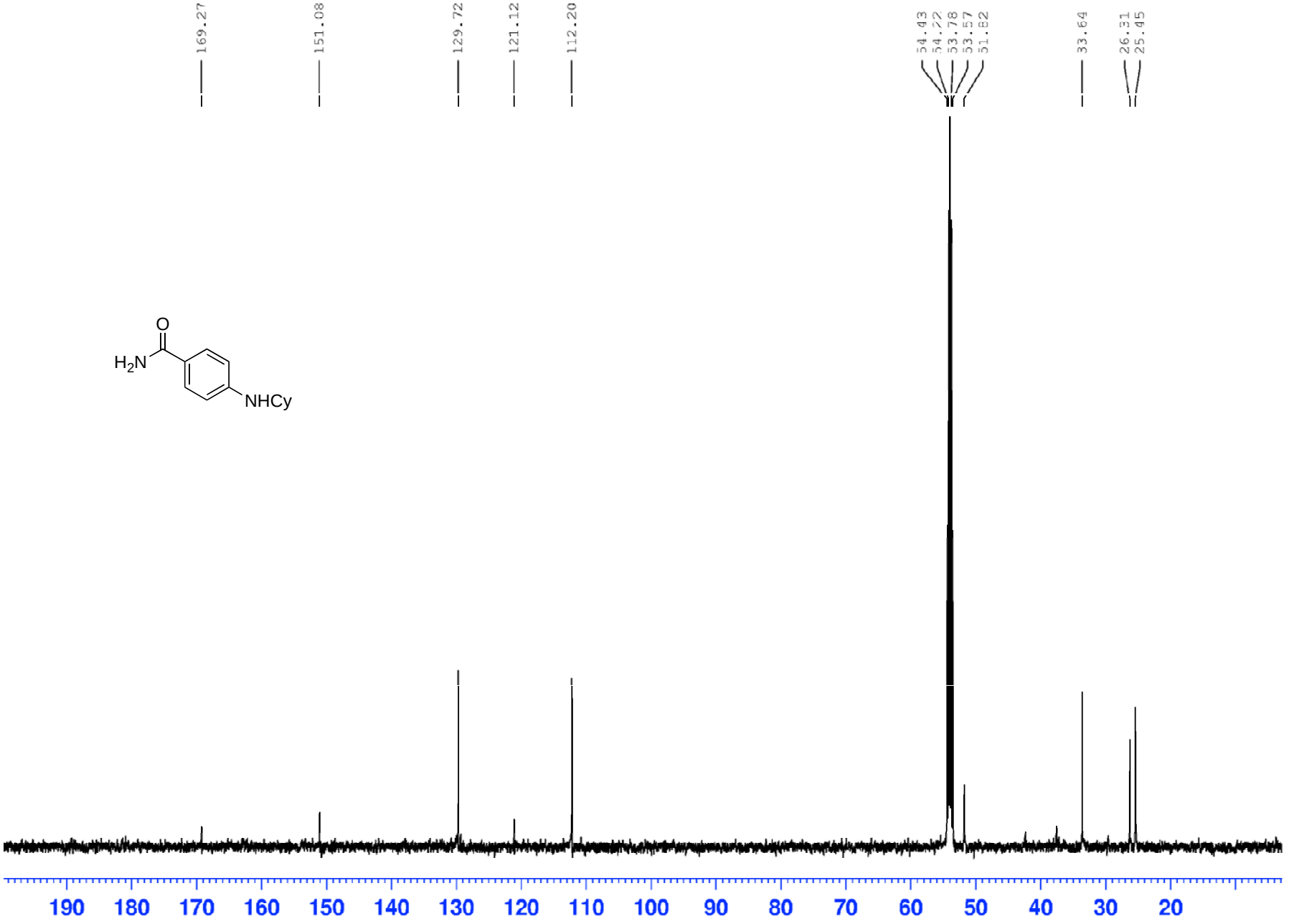
$^{13}C\{^{1}H\}$ NMR of 3-(2-(diphenylmethylene)hydrazinyl)-N-methylaniline (3n) ($CDCl_3$, 126 MHz, 300K)



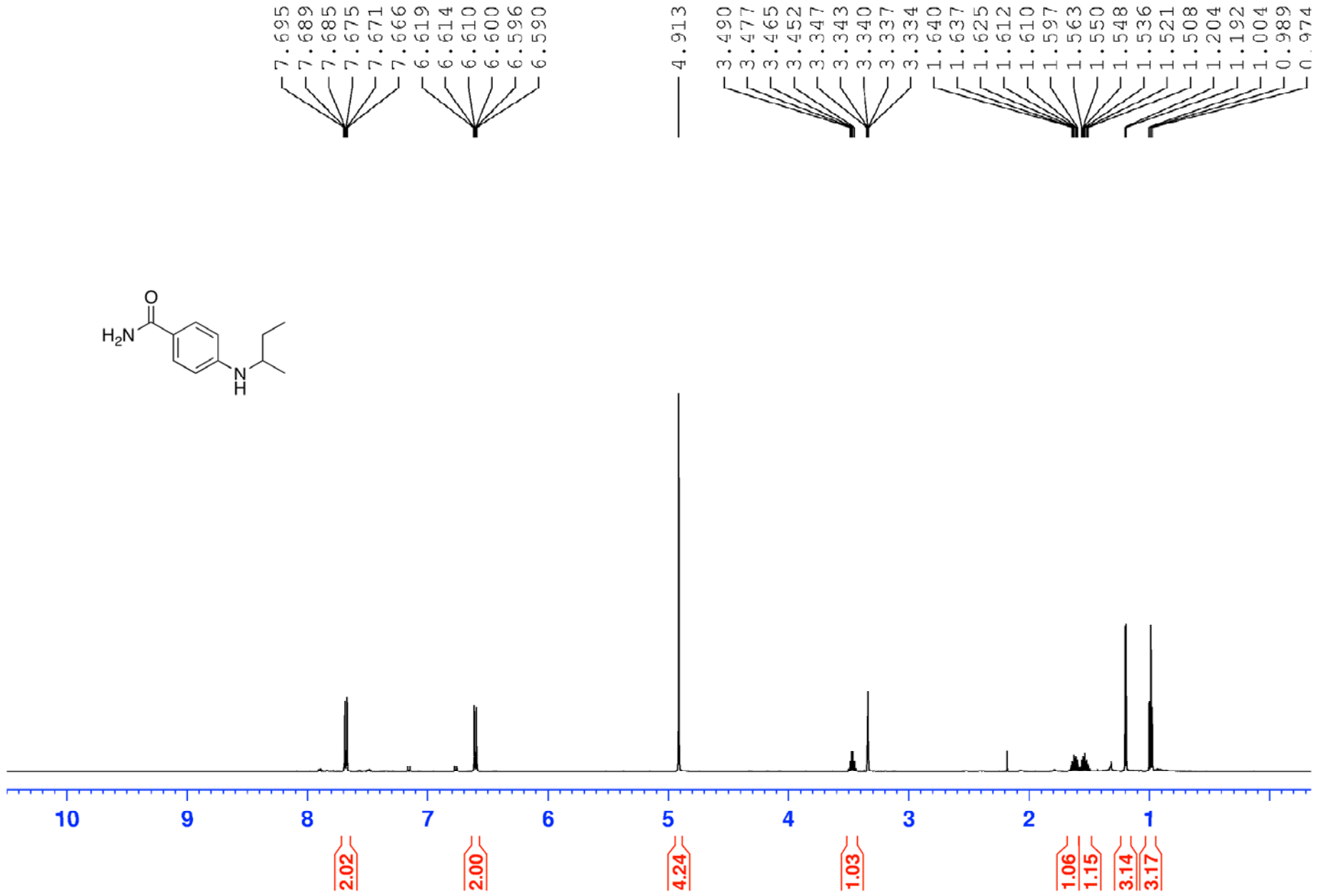
^{1}H NMR of 4-(cyclohexylamino)benzamide (3o) (MeOD, 500 MHz, 300K)



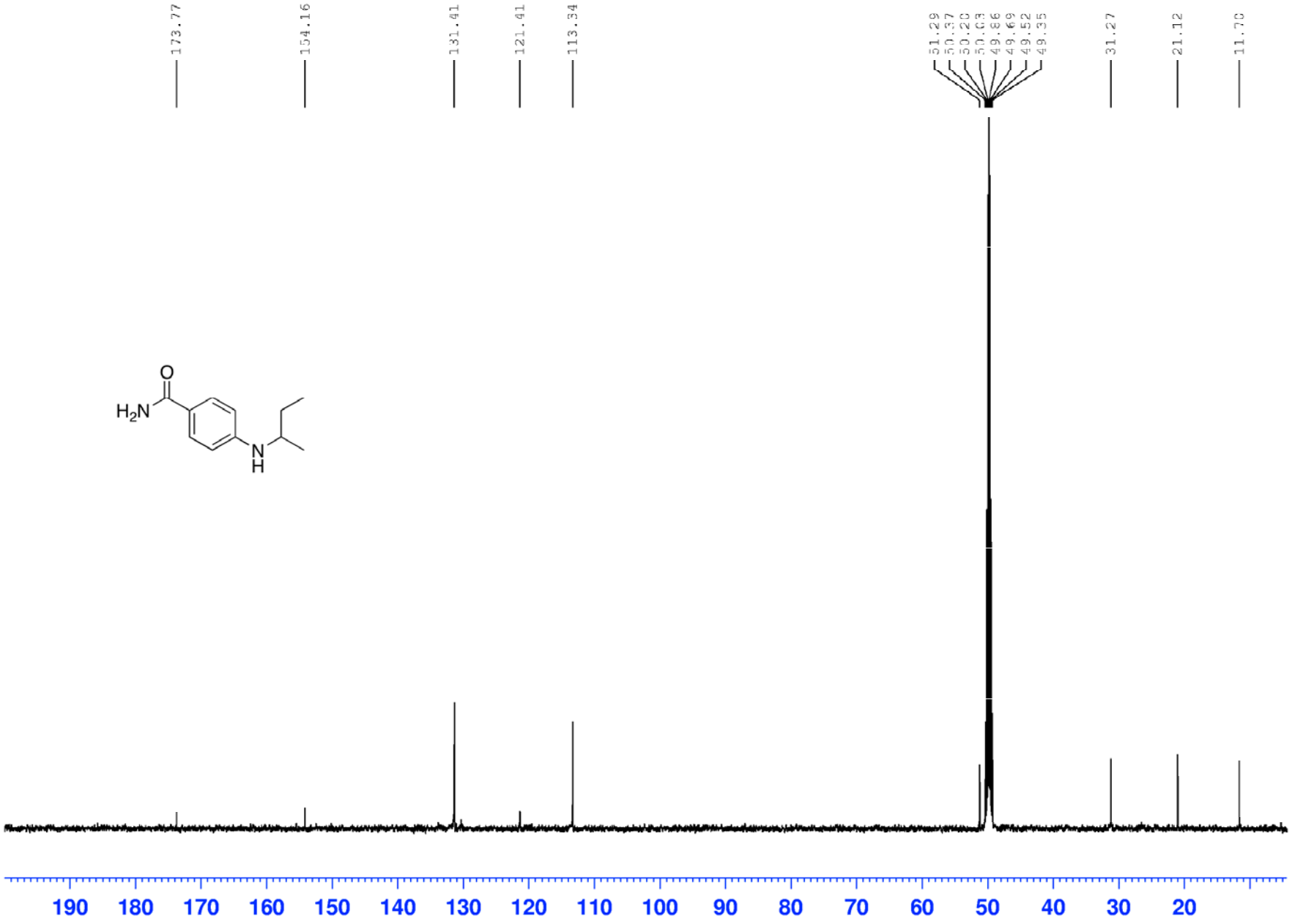
$^{13}C\{^{1}H\}$ NMR of 4-(cyclohexylamino)benzamide (3o) (MeOD, 126 MHz, 300K)



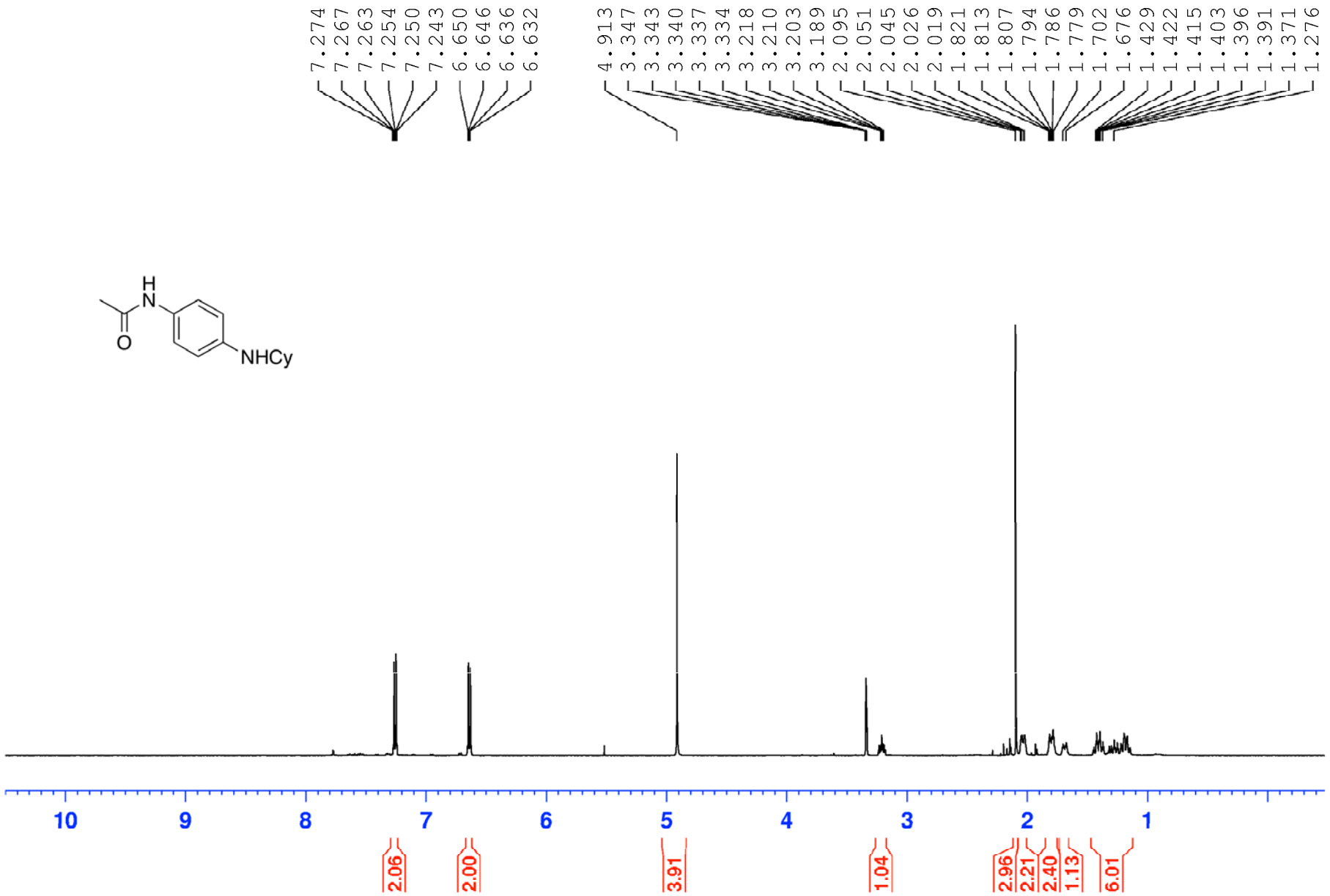
^{1}H NMR of 4-(*sec*-butylamino)benzamide (3p) (MeOD, 500 MHz, 300K)



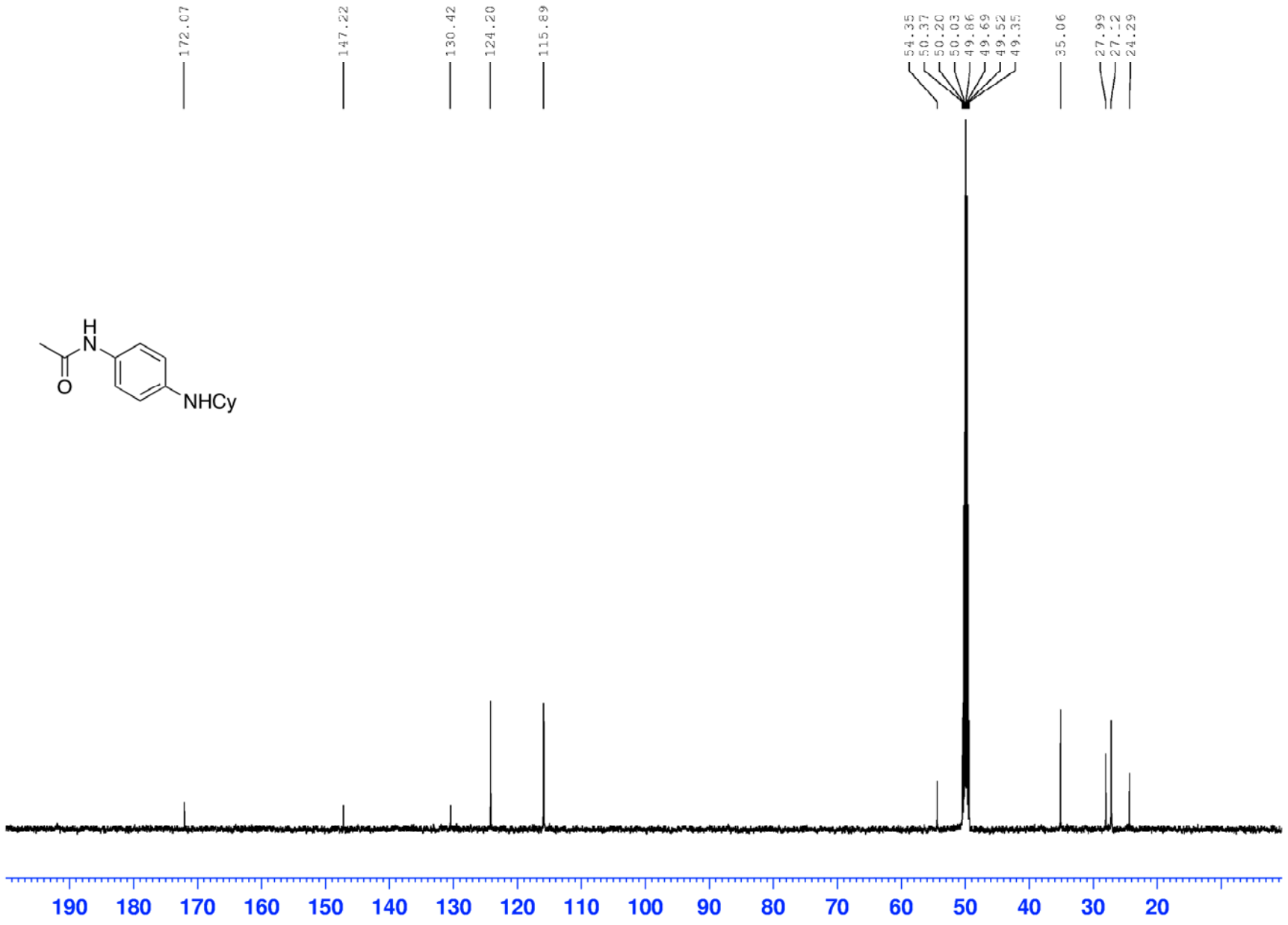
$^{13}C\{^{1}H\}$ NMR of 4-(*sec*-butylamino)benzamide (3p) (MeOD, 126 MHz, 300K)



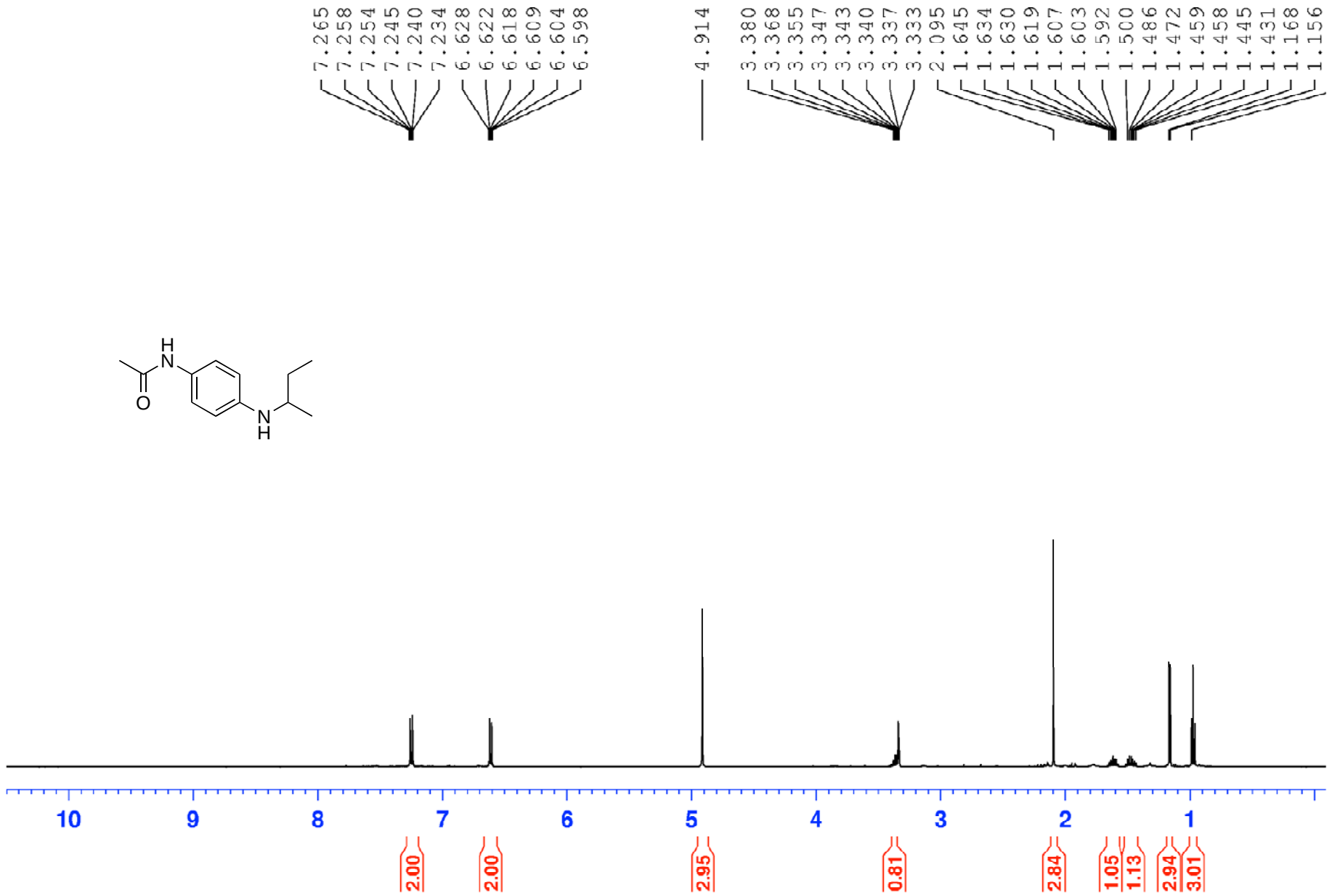
^{1}H NMR of N-(4-(cyclohexylamino)phenyl)acetamide (3q) (MeOD, 500 MHz, 300K)



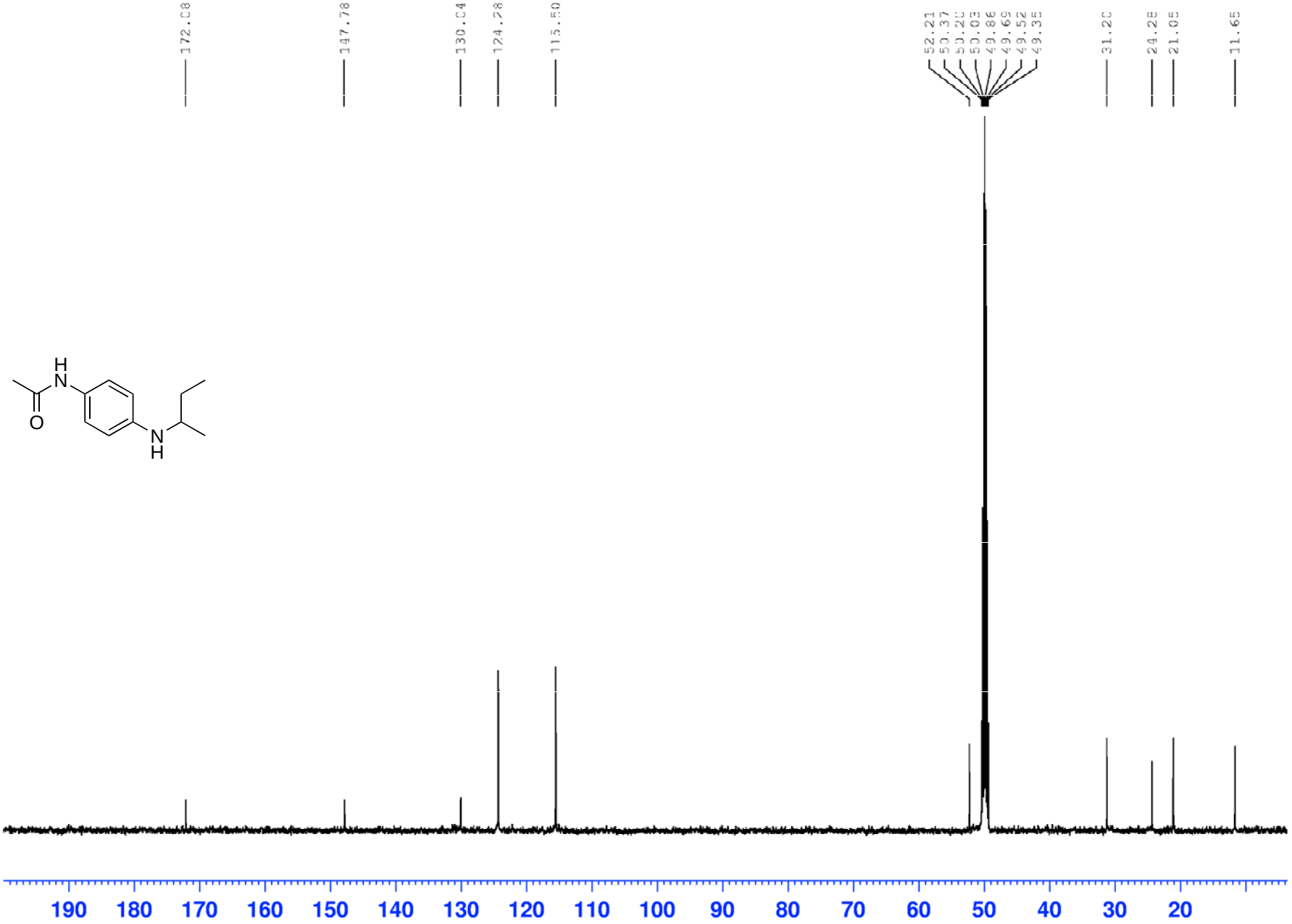
$^{13}C\{^{1}H\}$ NMR of N-(4-(cyclohexylamino)phenyl)acetamide (3q) (MeOD, 126 MHz, 300K)



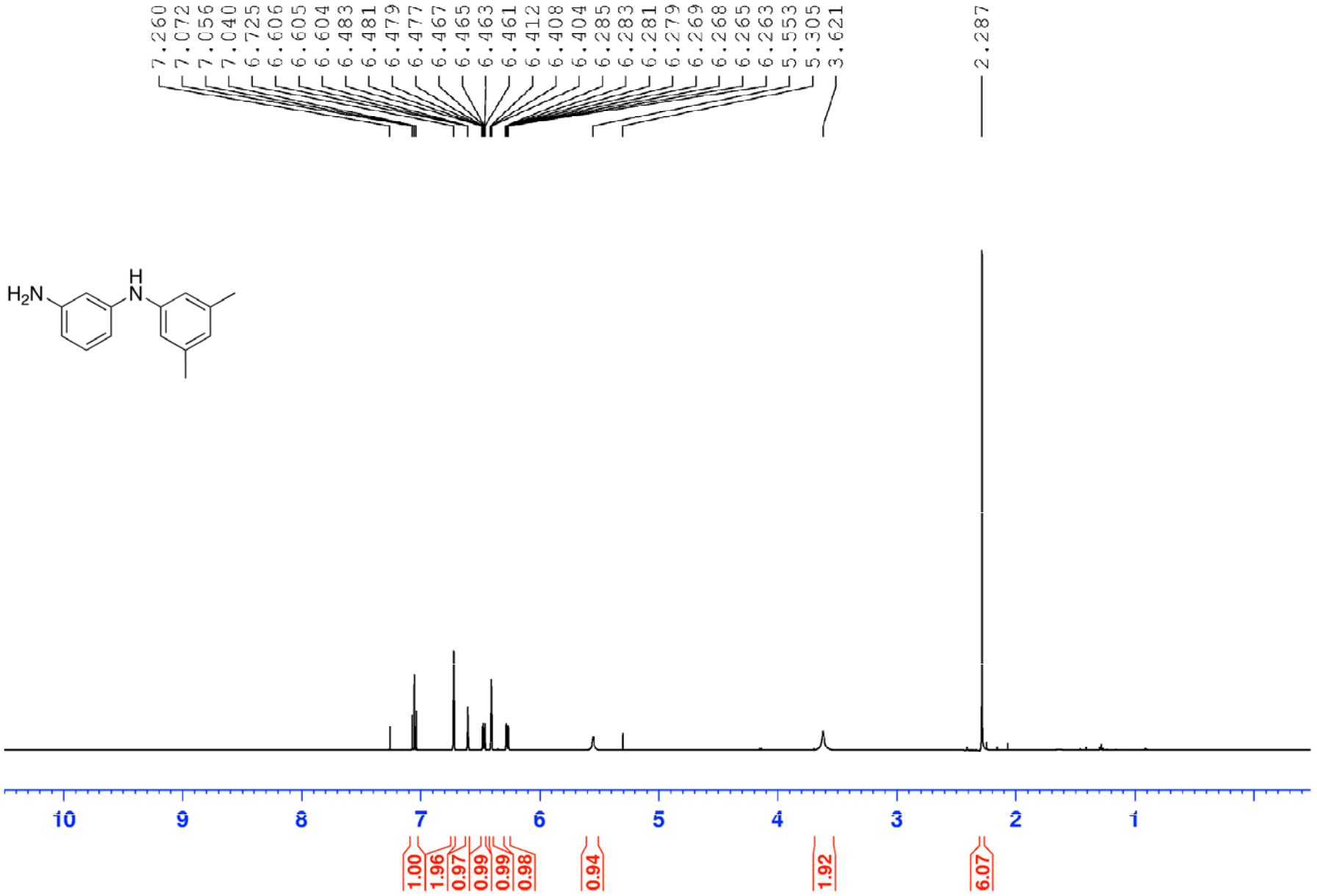
^{1}H NMR of N-(4-(sec-butylamino)phenyl)acetamide (3r) (MeOD, 500 MHz, 300K)



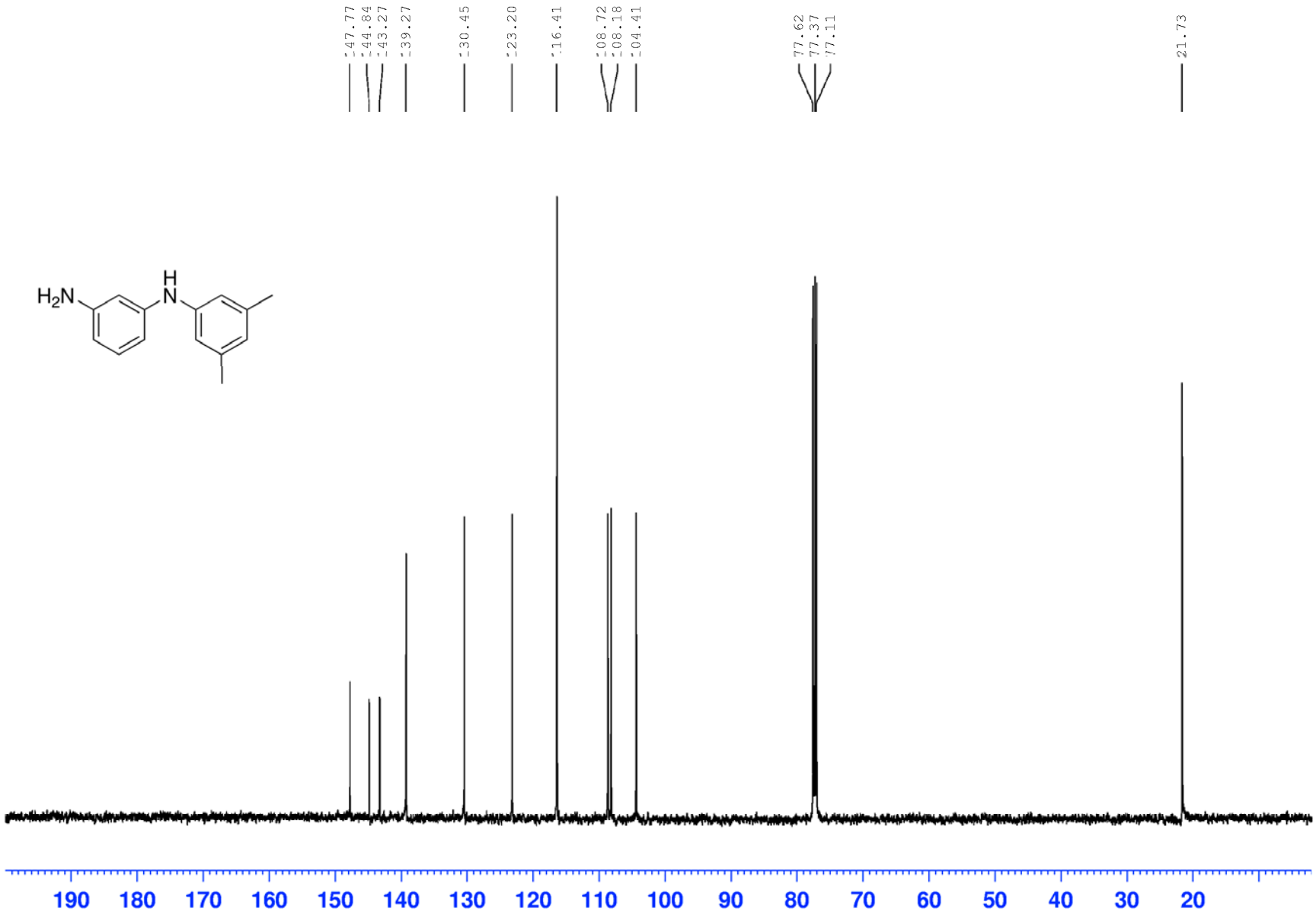
$^{13}C\{^{1}H\}$ NMR of N-(4-(sec-butylamino)phenyl)acetamide (3r) (MeOD, 126 MHz, 300K)



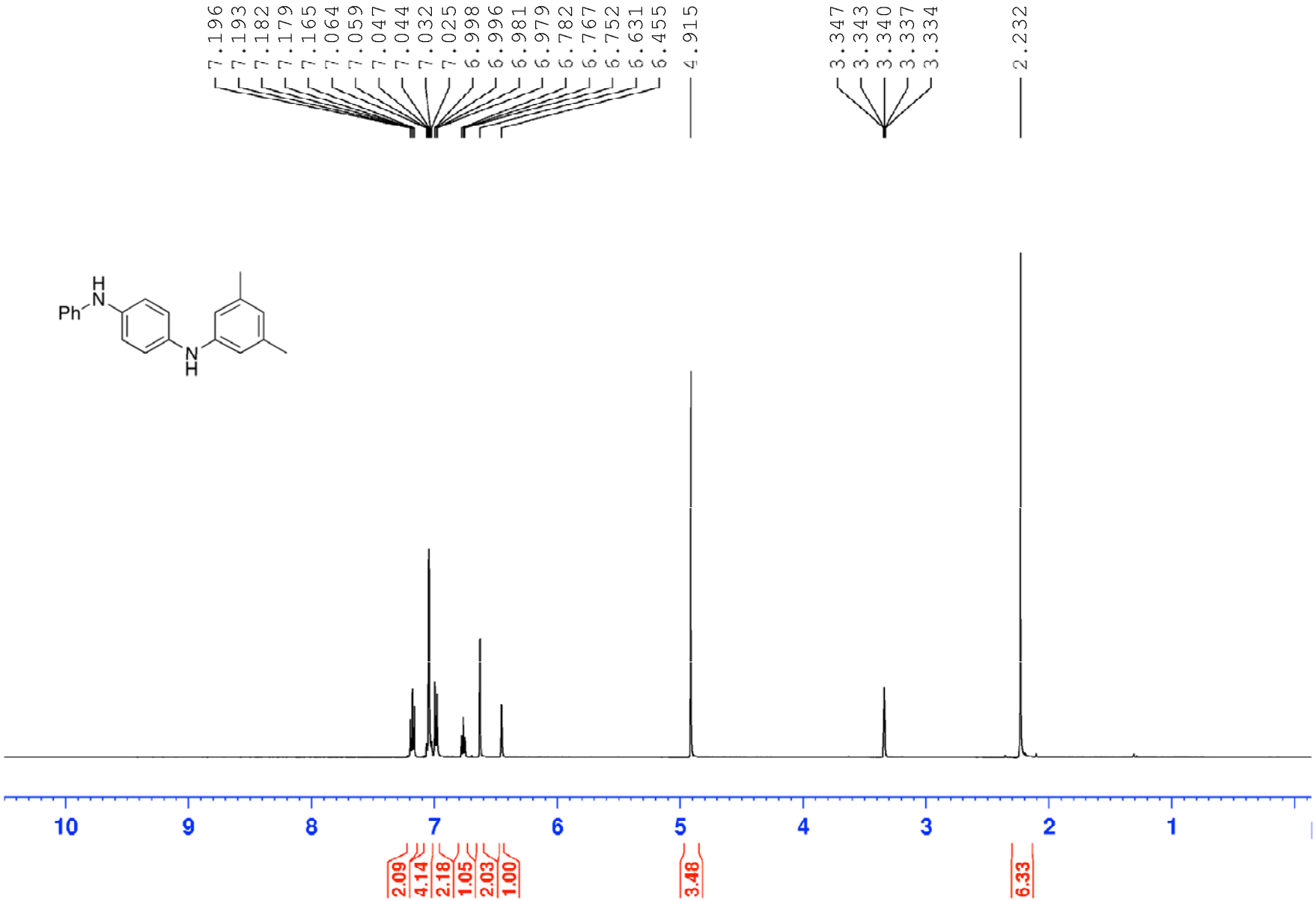
^{1}H NMR of N^{1}-(3,5-dimethylphenyl)benzene-1,3-diamine (4a) ($CDCl_3$, 500 MHz, 300K)



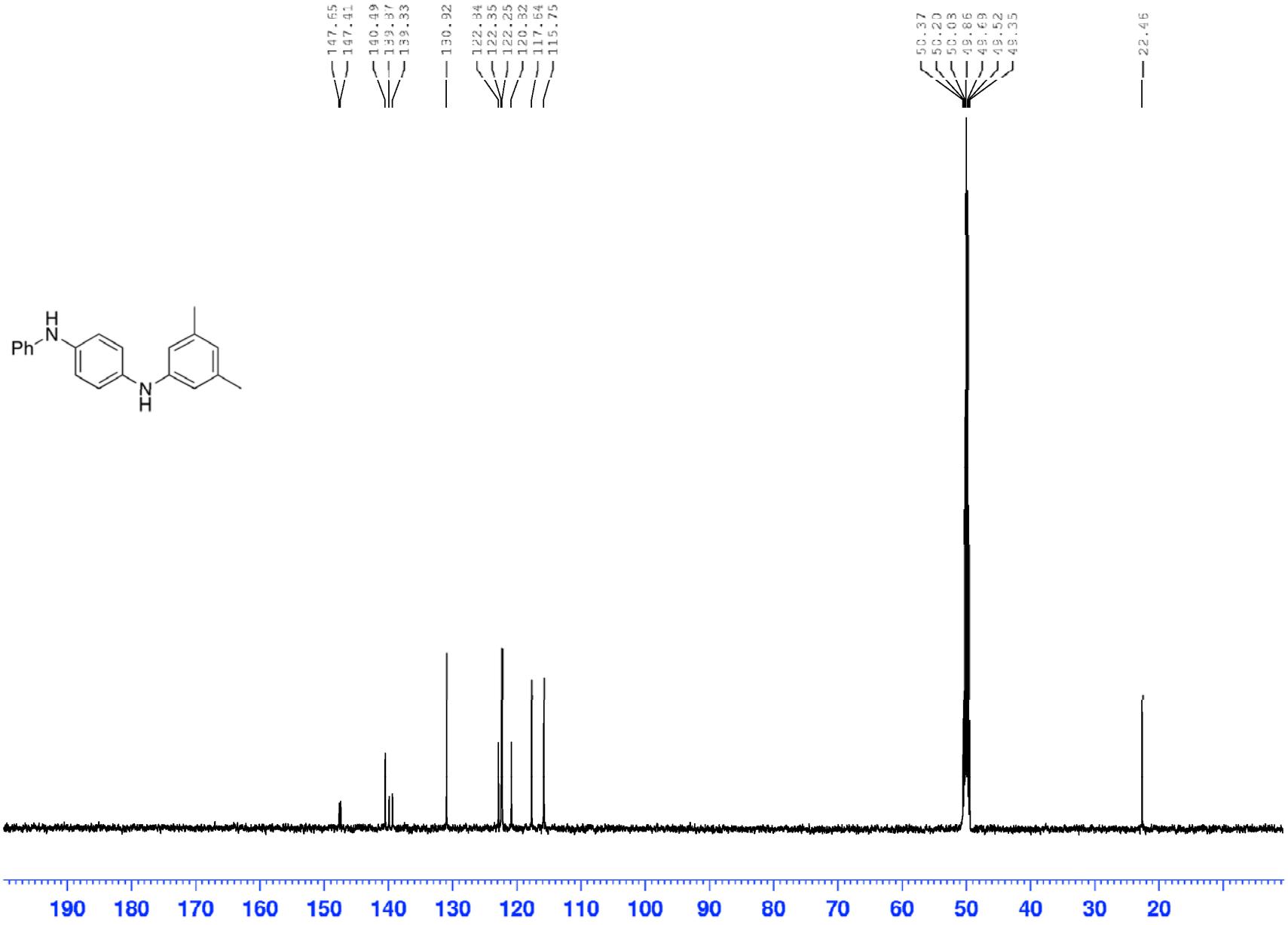
$^{13}C\{^{1}H\}$ NMR of N^1-(3,5-dimethylphenyl)benzene-1,3-diamine (4b) ($CDCl_3$, 126 MHz, 300K)



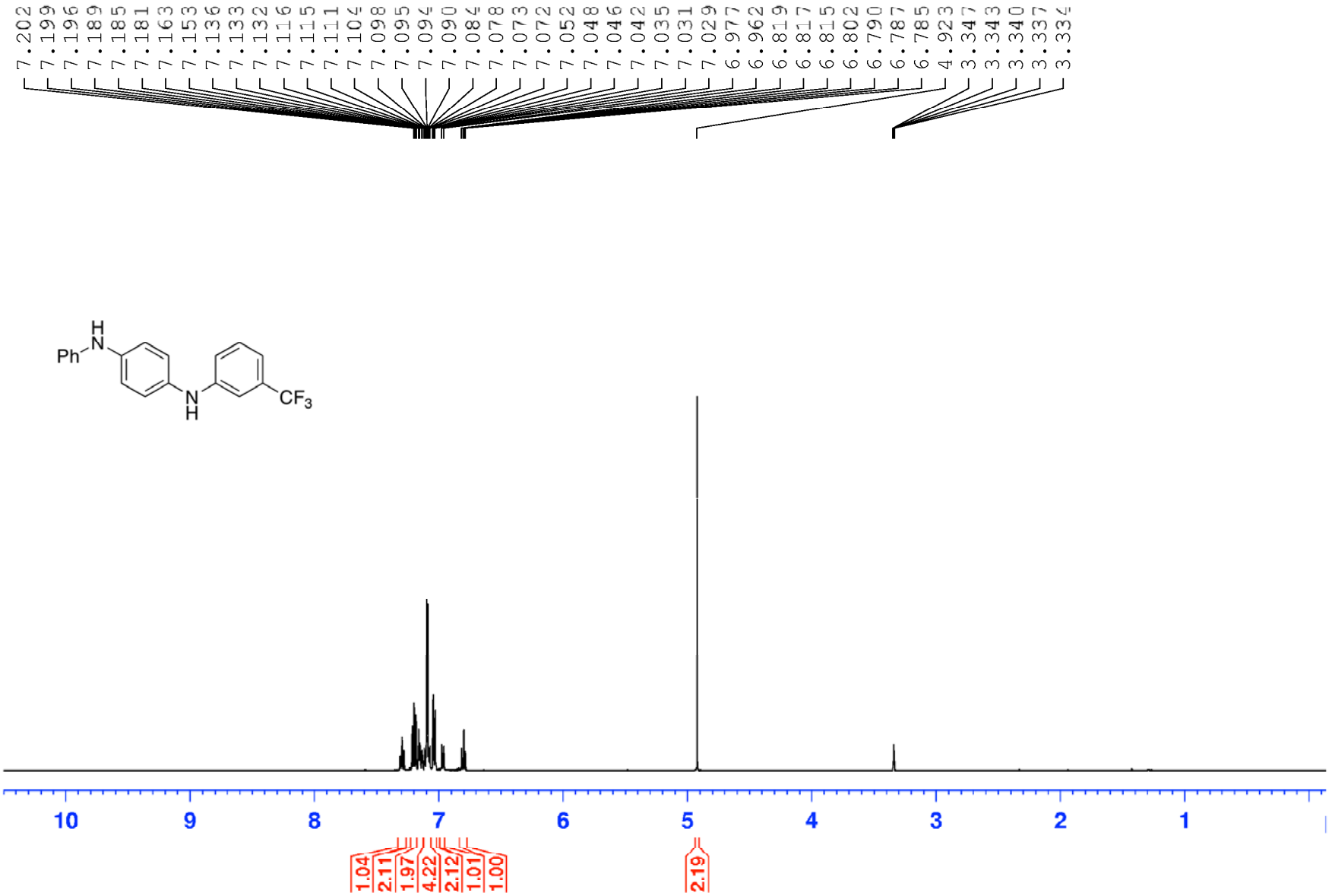
^{1}H NMR of N^{1}-(3,5-dimethylphenyl)-N^{4}-phenylbenzene-1,4-diamine (4b) (MeOD, 500 MHz, 300K)



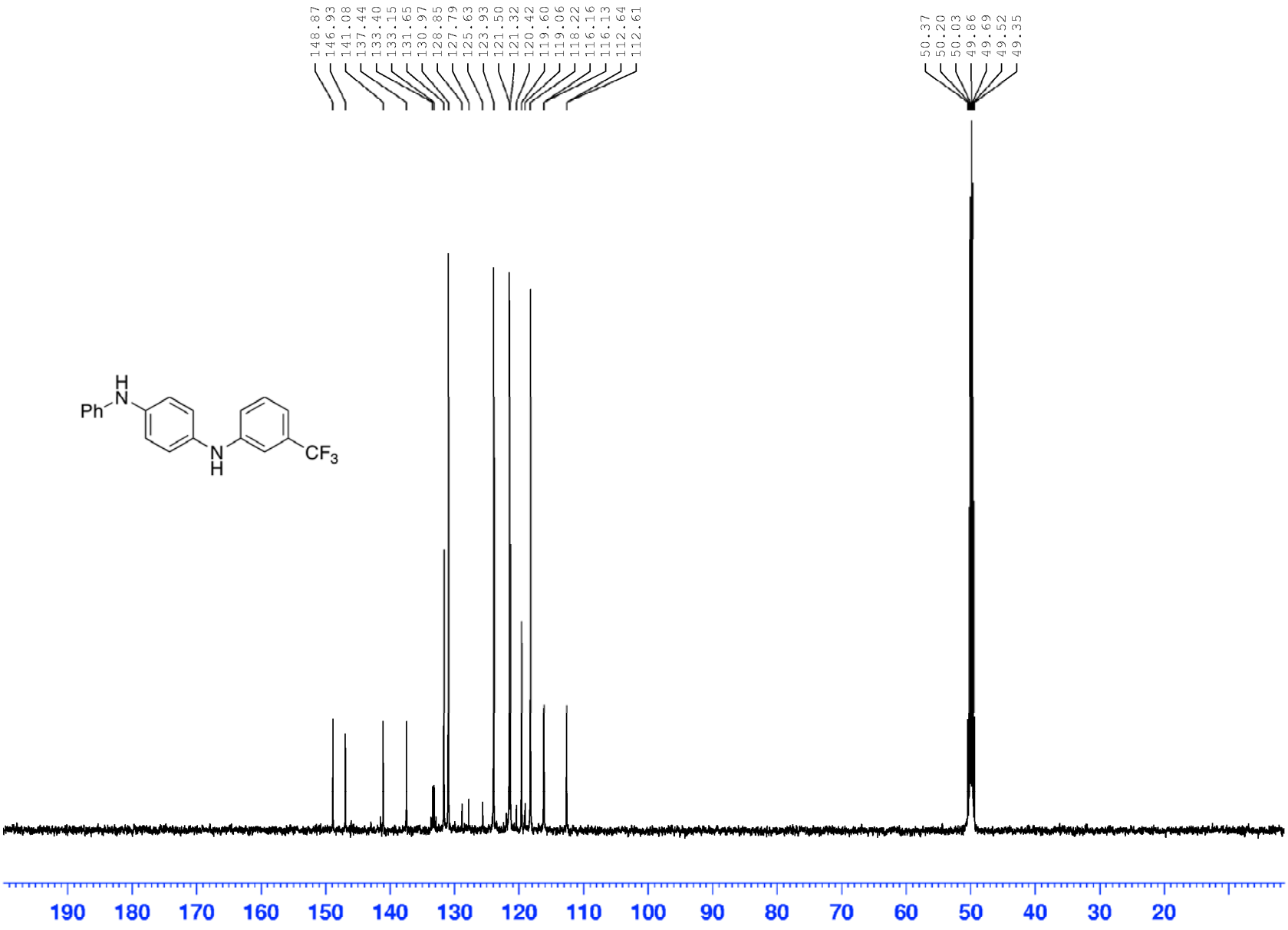
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-(3,5-dimethylphenyl)-*N*^{4}-phenylbenzene-1,4-diamine (4b) (MeOD, 126 MHz, 300K)



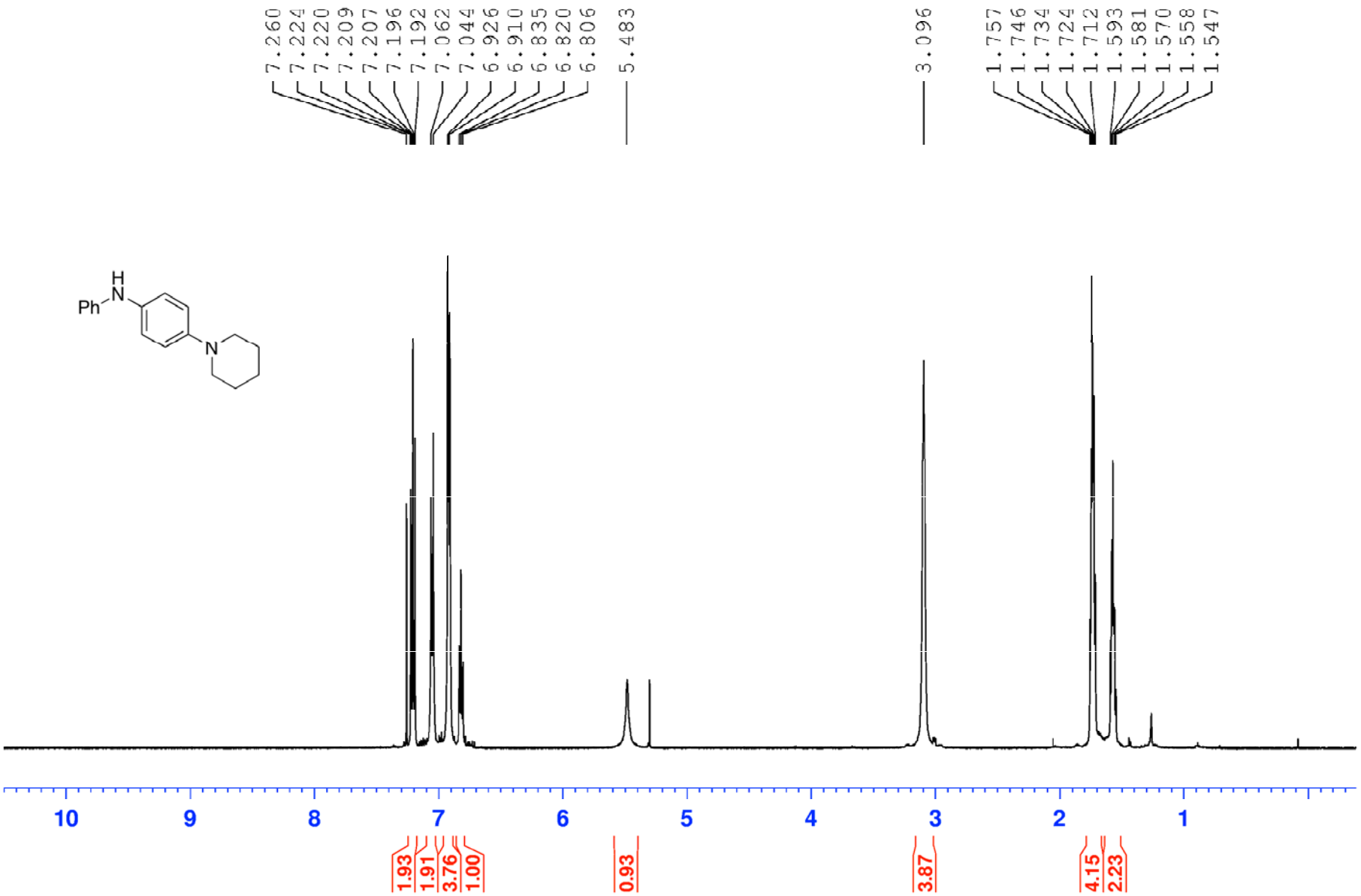
^{1}H NMR of N^{1}-phenyl-N^{4}-(3-(trifluoromethyl)phenyl)benzene-1,4-diamine (4c) (MeOD, 500 MHz, 300K)



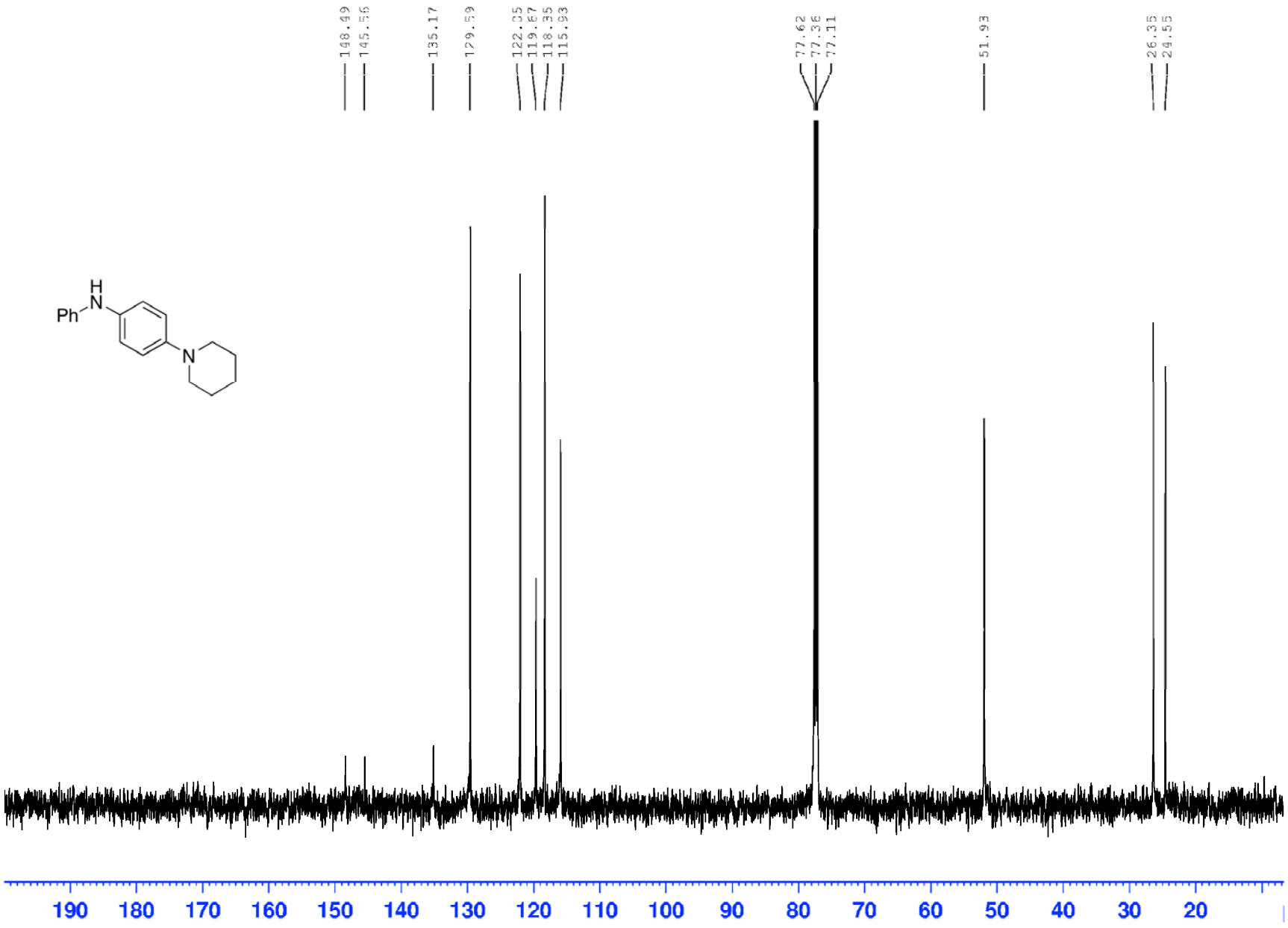
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^4-(3-(trifluoromethyl)phenyl)benzene-1,4-diamine (4c) (MeOD, 126 MHz, 300K)



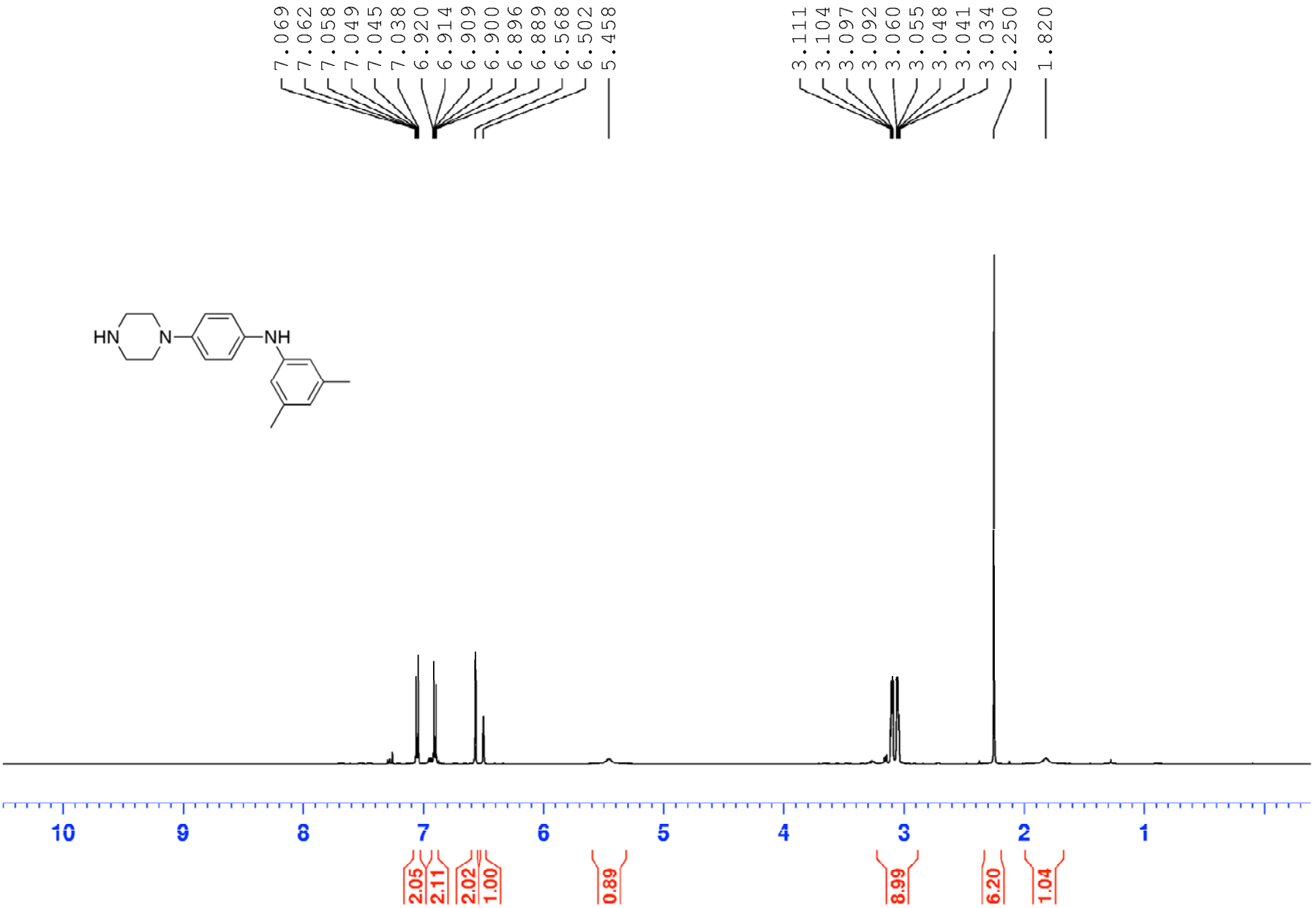
^{1}H NMR of *N*-phenyl-4-(piperidin-1-yl)aniline (4d) ($CDCl_3$, 500 MHz, 300K)



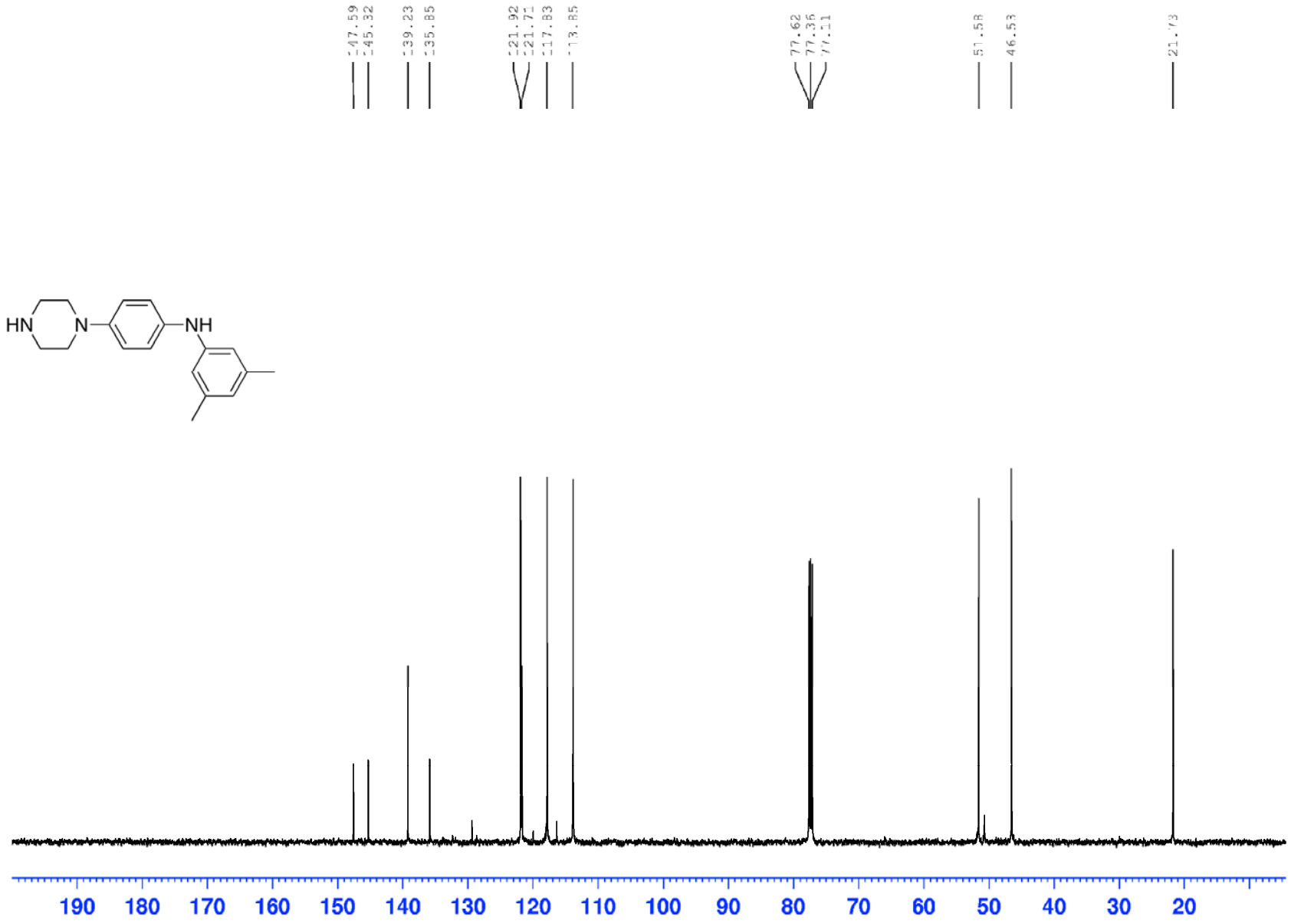
$^{13}C\{^{1}H\}$ NMR of *N*-phenyl-4-(piperidin-1-yl)aniline (4d) ($CDCl_3$, 126 MHz, 300K)



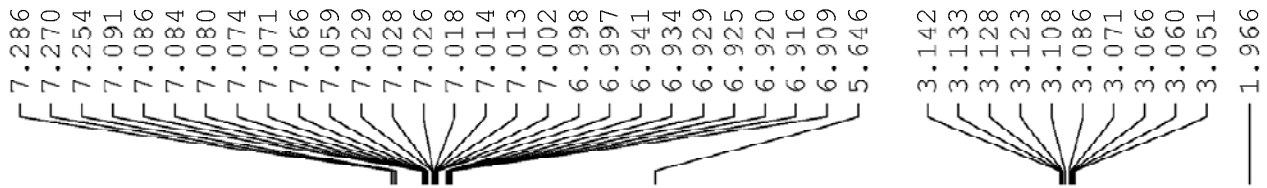
^{1}H NMR of 3,5-dimethyl-N-(4-(piperazin-1-yl)phenyl)aniline (4e) ($CDCl_3$, 500 MHz, 300K)

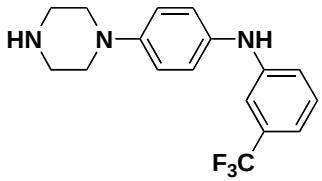


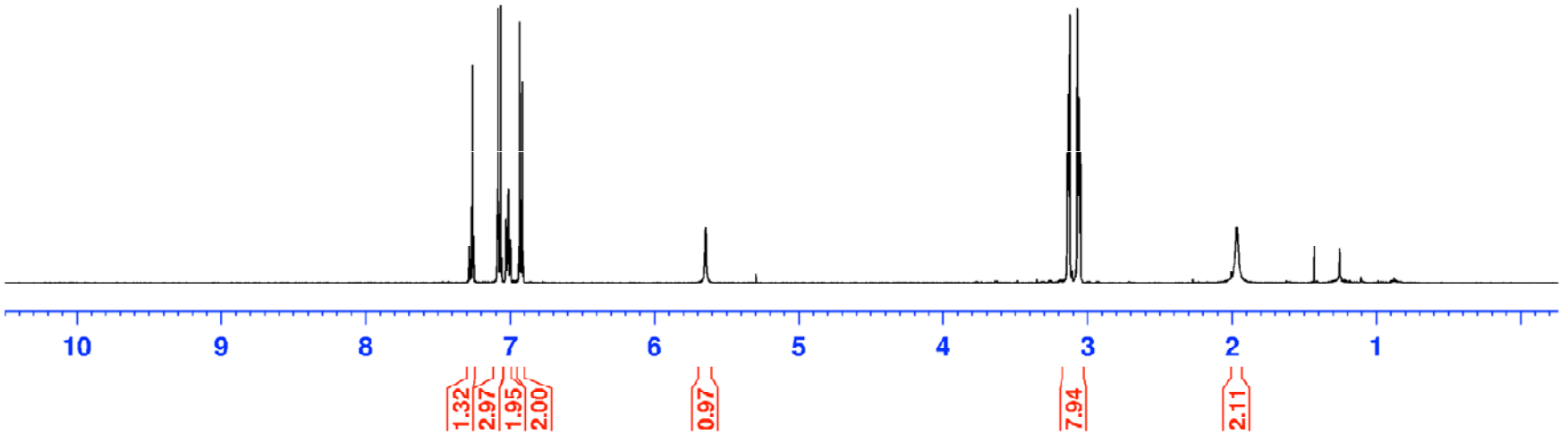
$^{13}C\{^{1}H\}$ NMR of 3,5-dimethyl-N-(4-(piperazin-1-yl)phenyl)aniline (4e) ($CDCl_3$, 126 MHz, 300K)



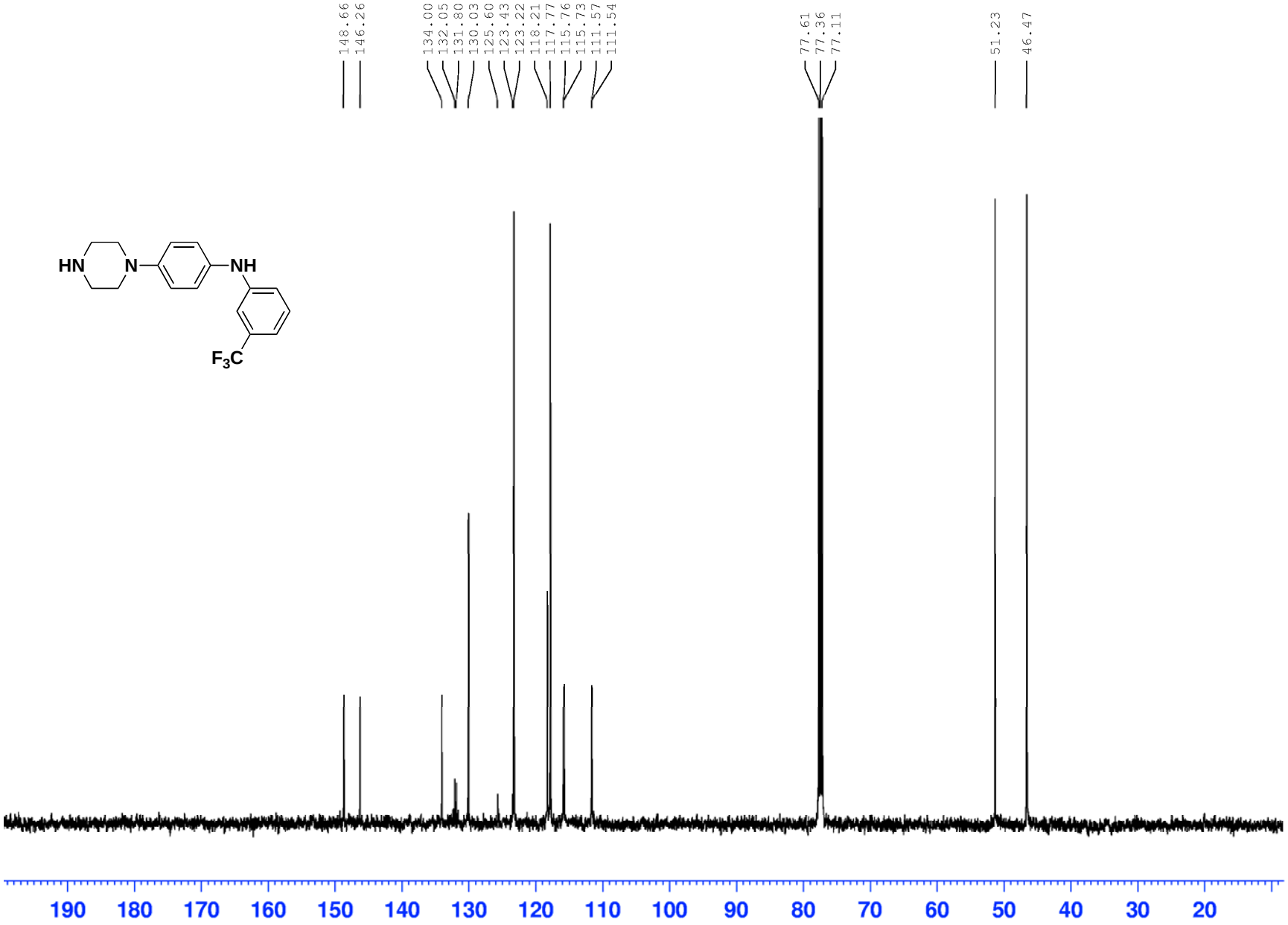
^{1}H NMR of N-(4-(piperazin-1-yl)phenyl)-3-(trifluoromethyl)aniline (4f) ($CDCl_3$, 500 MHz, 300K)



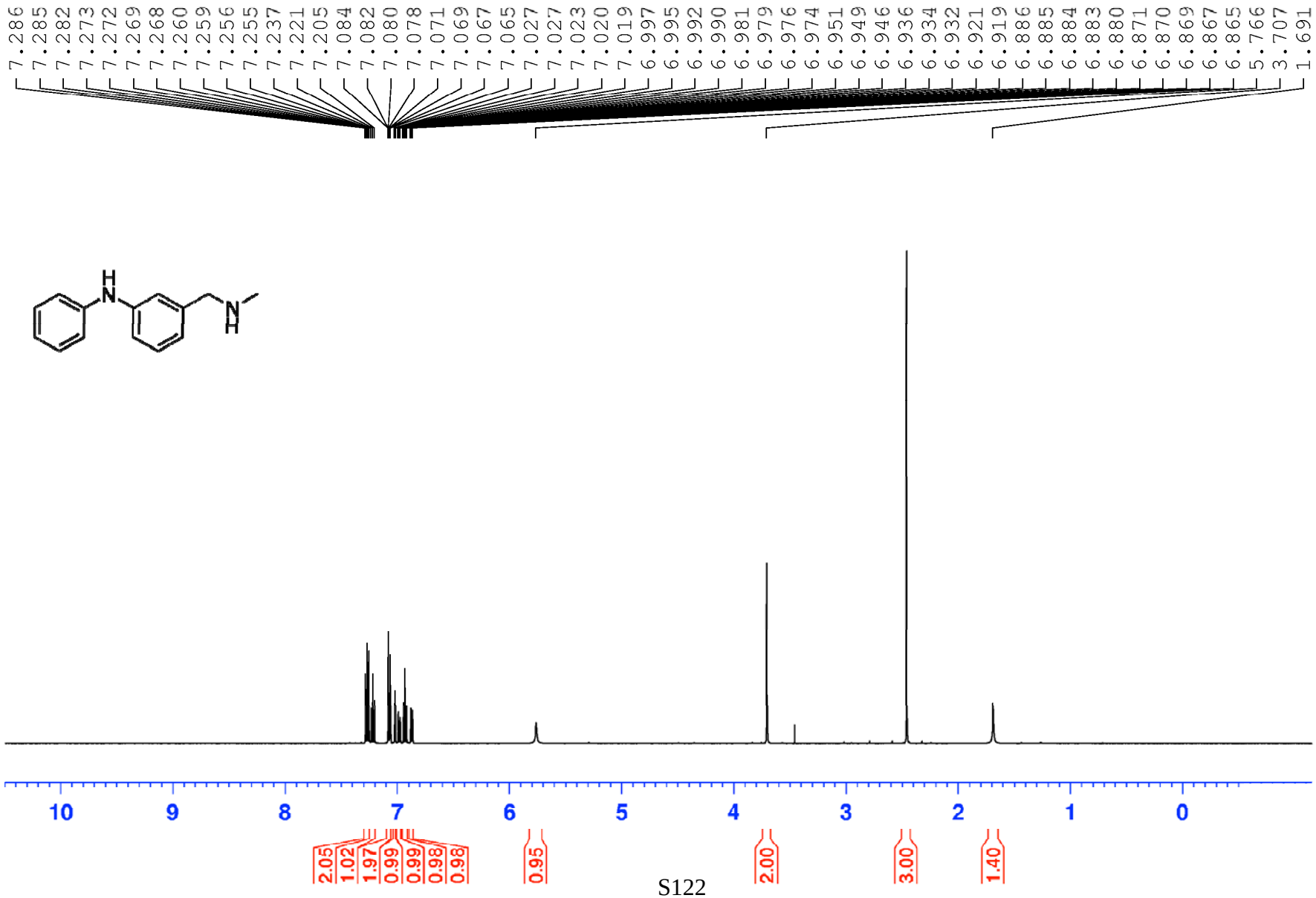




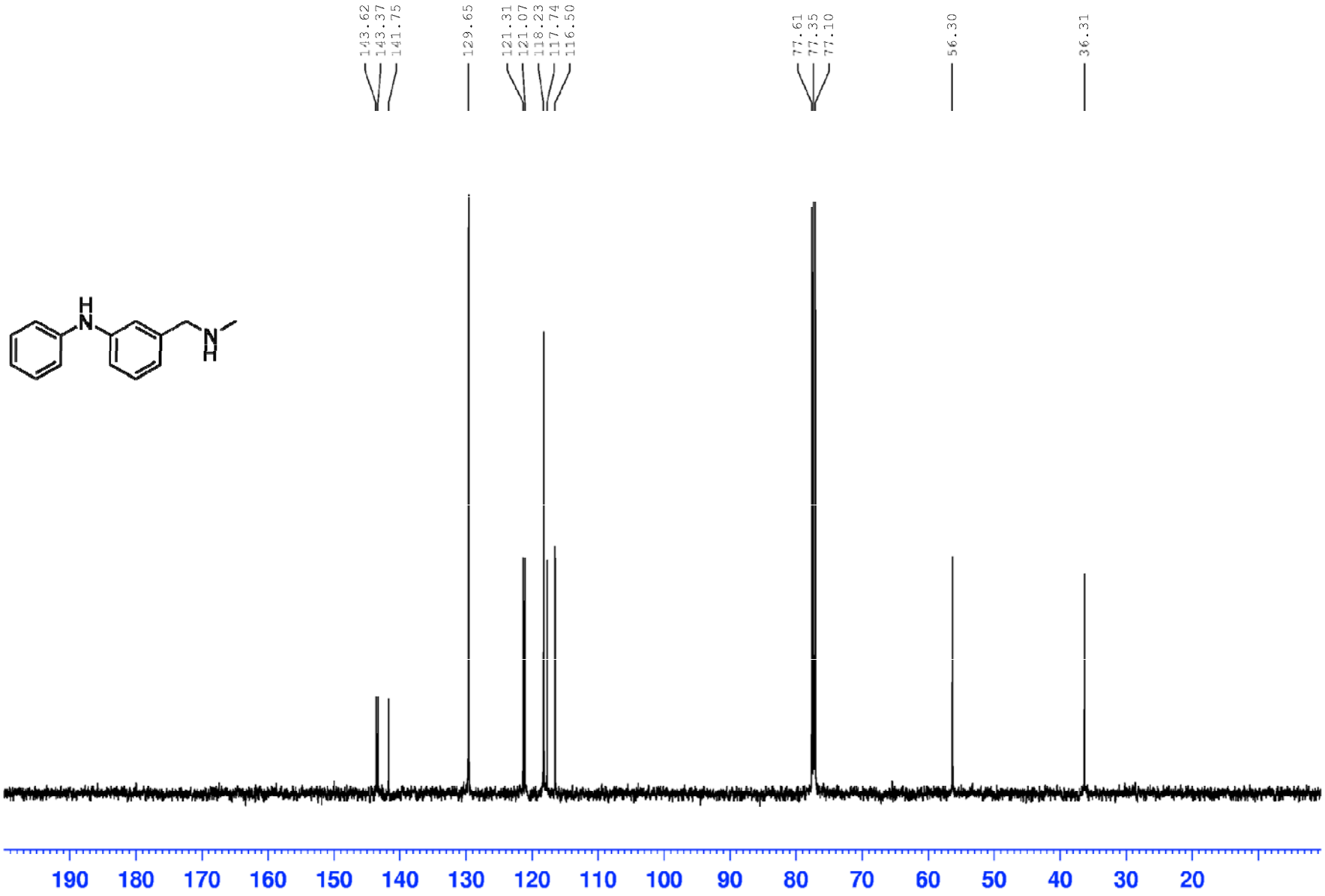
$^{13}C\{^{1}H\}$ NMR of N-(4-(piperazin-1-yl)phenyl)-3-(trifluoromethyl)aniline (4f) ($CDCl_3$, 126 MHz, 300K)



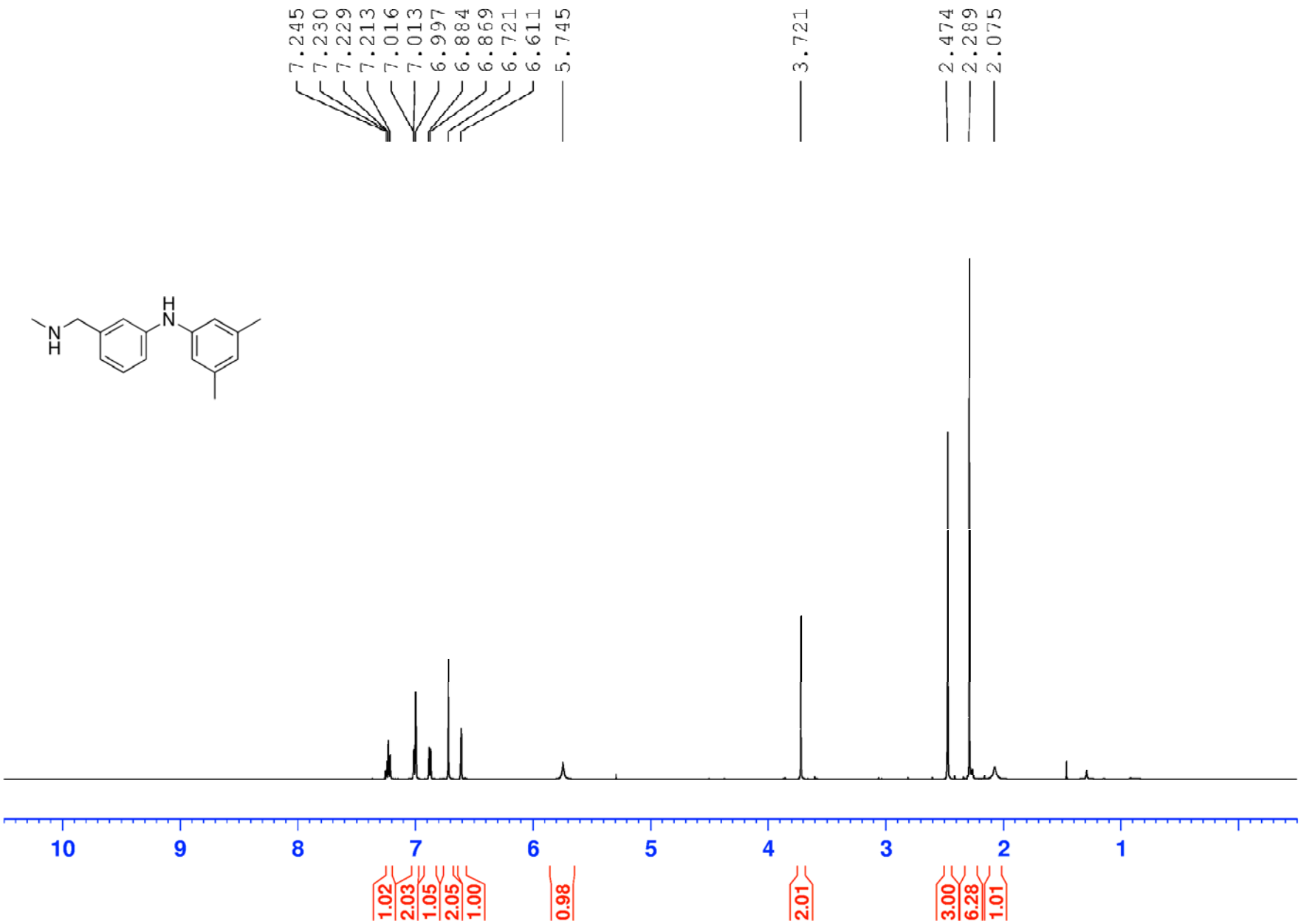
^{1}H NMR of 3-((methylamino)methyl)-*N*-phenylaniline (4g) ($CDCl_3$, 500 MHz, 300K)



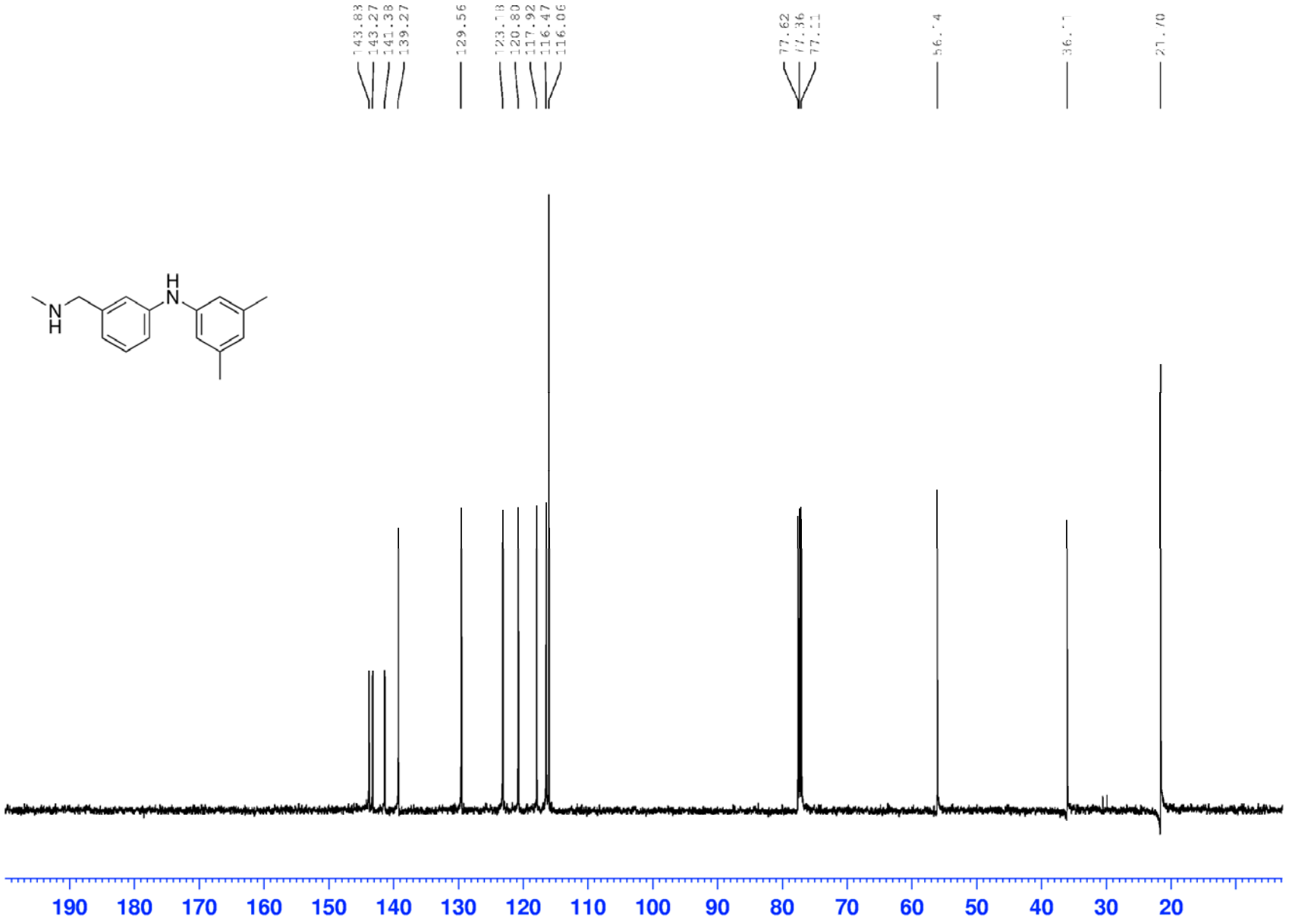
$^{13}C\{^{1}H\}$ NMR of 3-((methylamino)methyl)-*N*-phenylaniline (4g) ($CDCl_3$, 126 MHz, 300K)



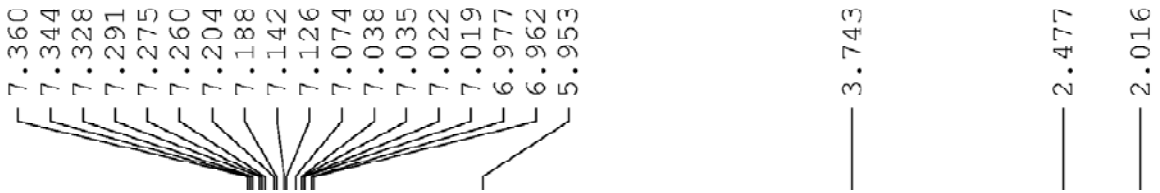
^{1}H NMR of 3,5-dimethyl-*N*-(3-((methylamino)methyl)phenyl)aniline (4h) ($CDCl_3$, 500 MHz, 300K)

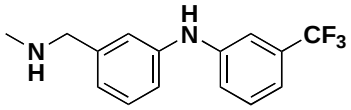


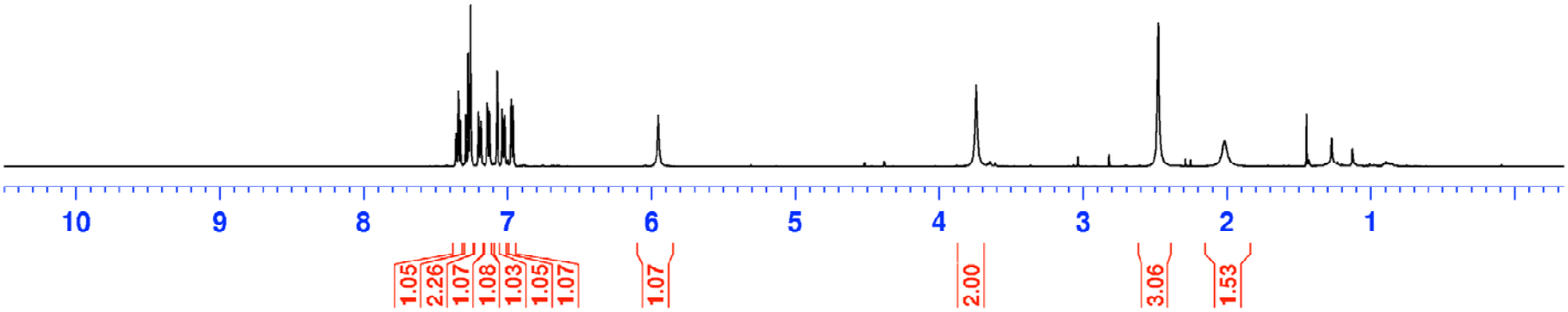
$^{13}C\{^{1}H\}$ NMR of 3,5-dimethyl-*N*-(3-((methylamino)methyl)phenyl)aniline (4h) ($CDCl_3$, 126 MHz, 300K)



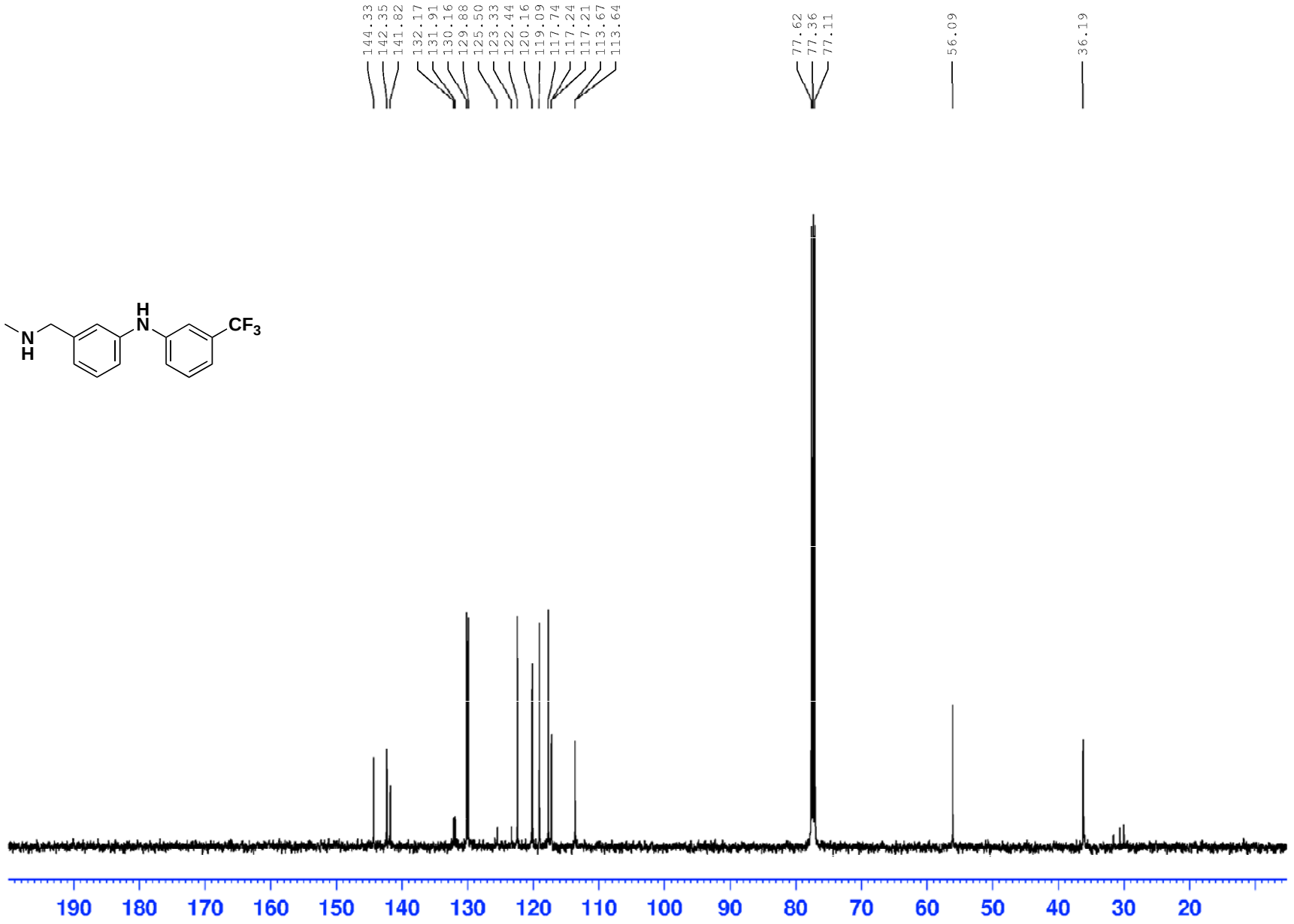
^{1}H NMR of 3-((methylamino)methyl)-*N*-(3-(trifluoromethyl)phenyl)aniline (4i) ($CDCl_3$, 500 MHz, 300K)



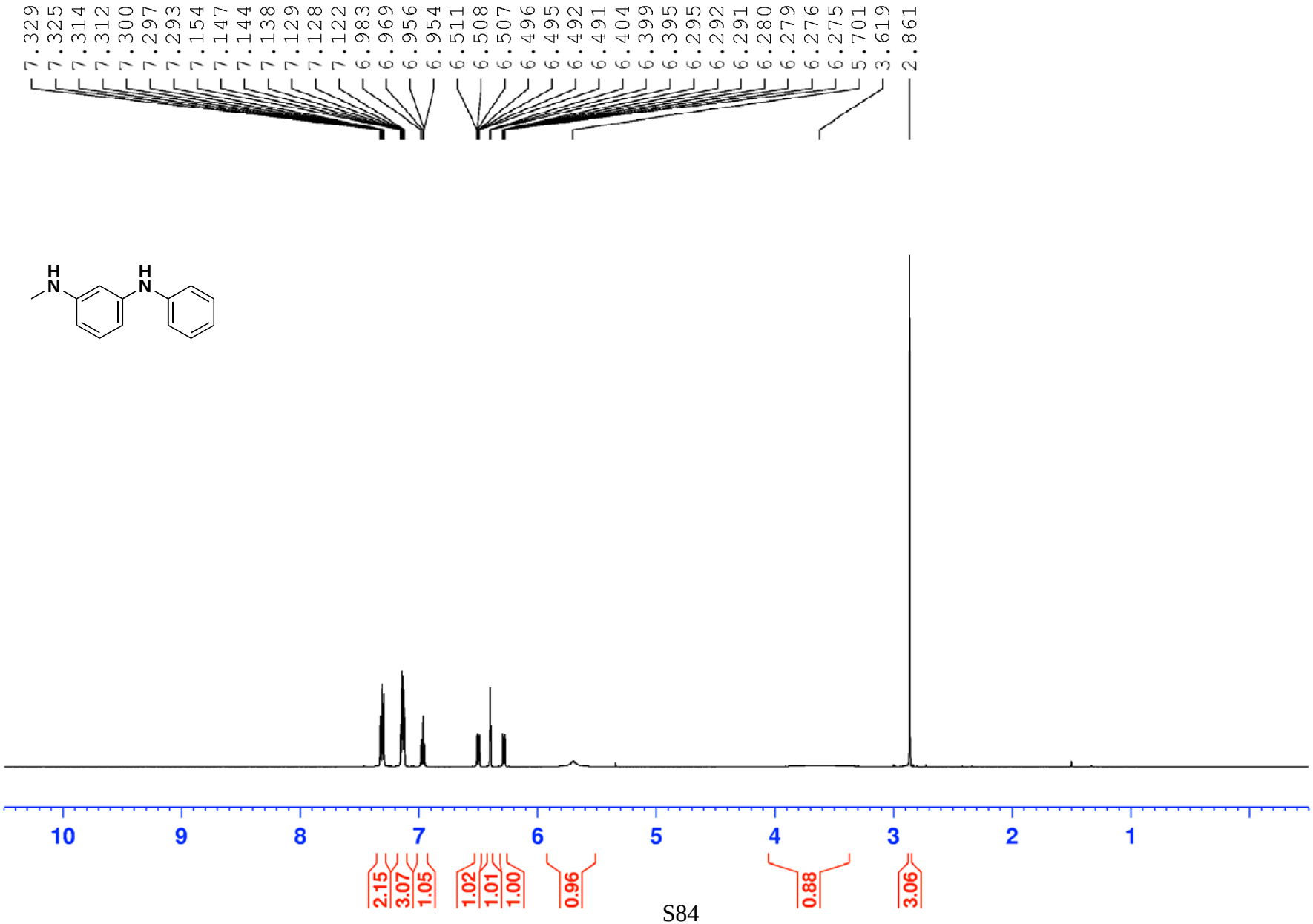




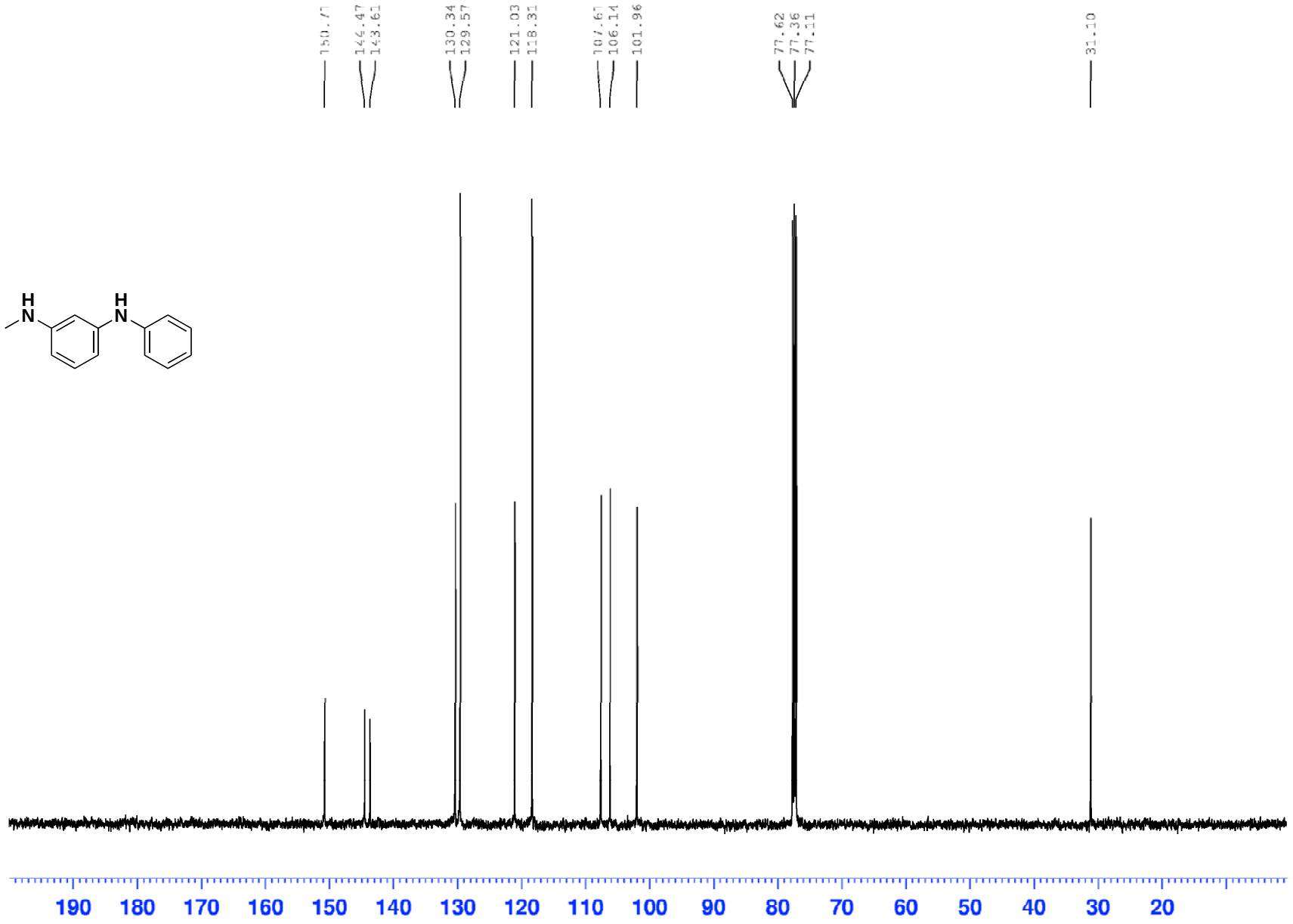
$^{13}C\{^{1}H\}$ NMR of 3-((methylamino)methyl)-*N*-(3-(trifluoromethyl)phenyl)aniline (4i) ($CDCl_3$, 126 MHz, 300K)



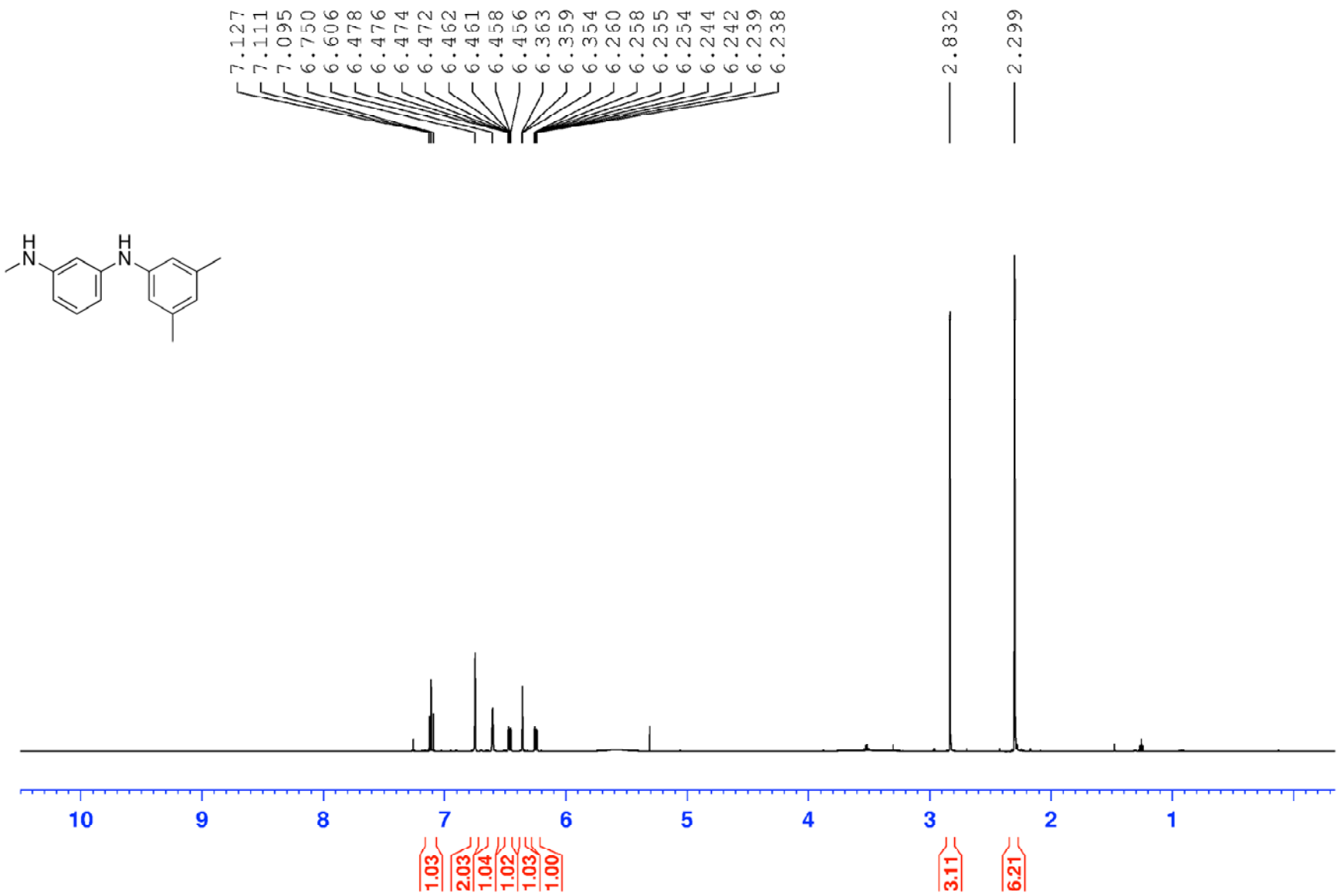
^{1}H NMR of N^1-methyl-N^3-phenylbenzene-1,3-diamine (4j) ($CDCl_3$, 500 MHz, 300K)



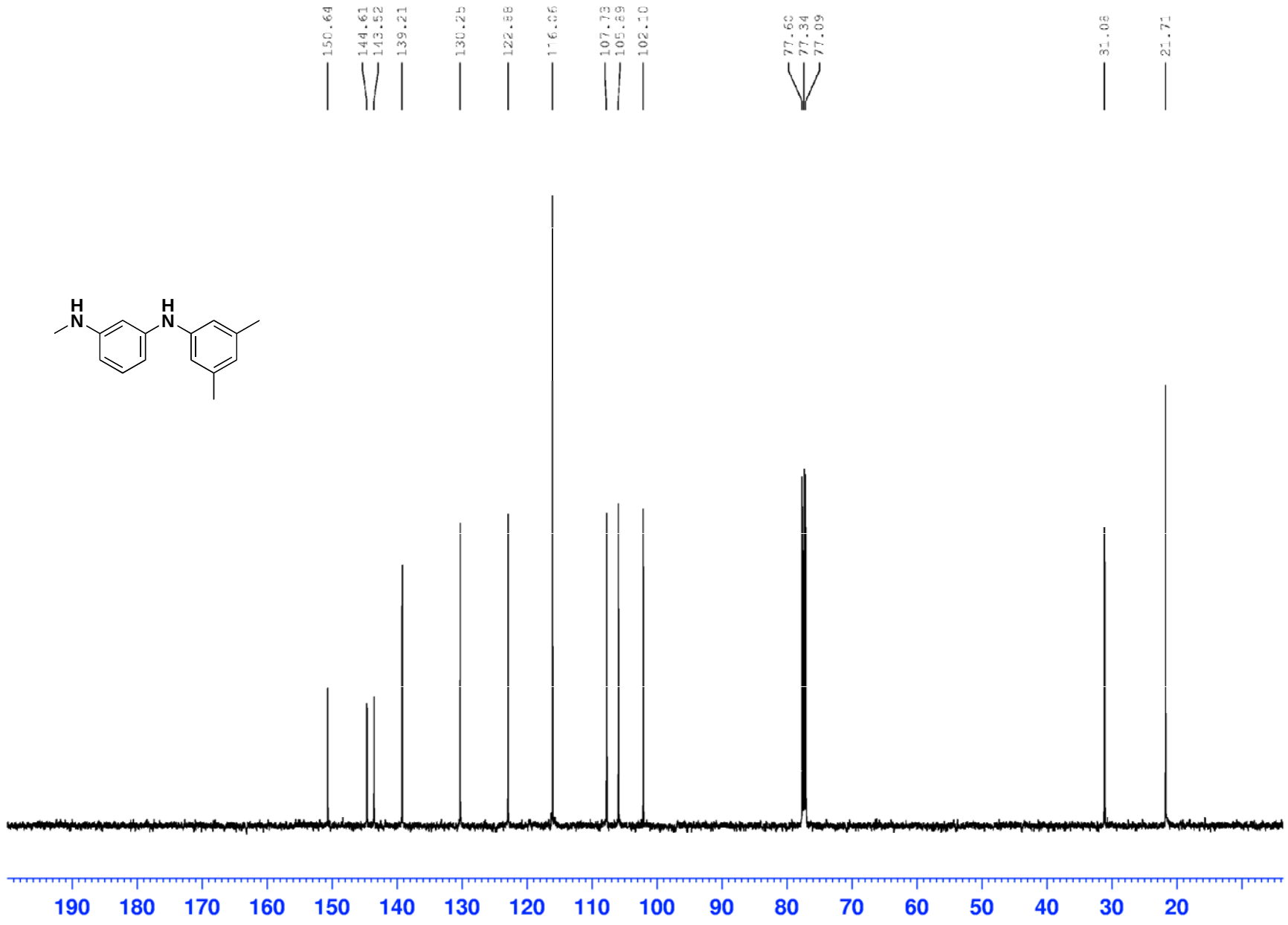
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-methyl-*N*^{3}-phenylbenzene-1,3-diamine (4j) ($CDCl_3$, 126 MHz, 300K)



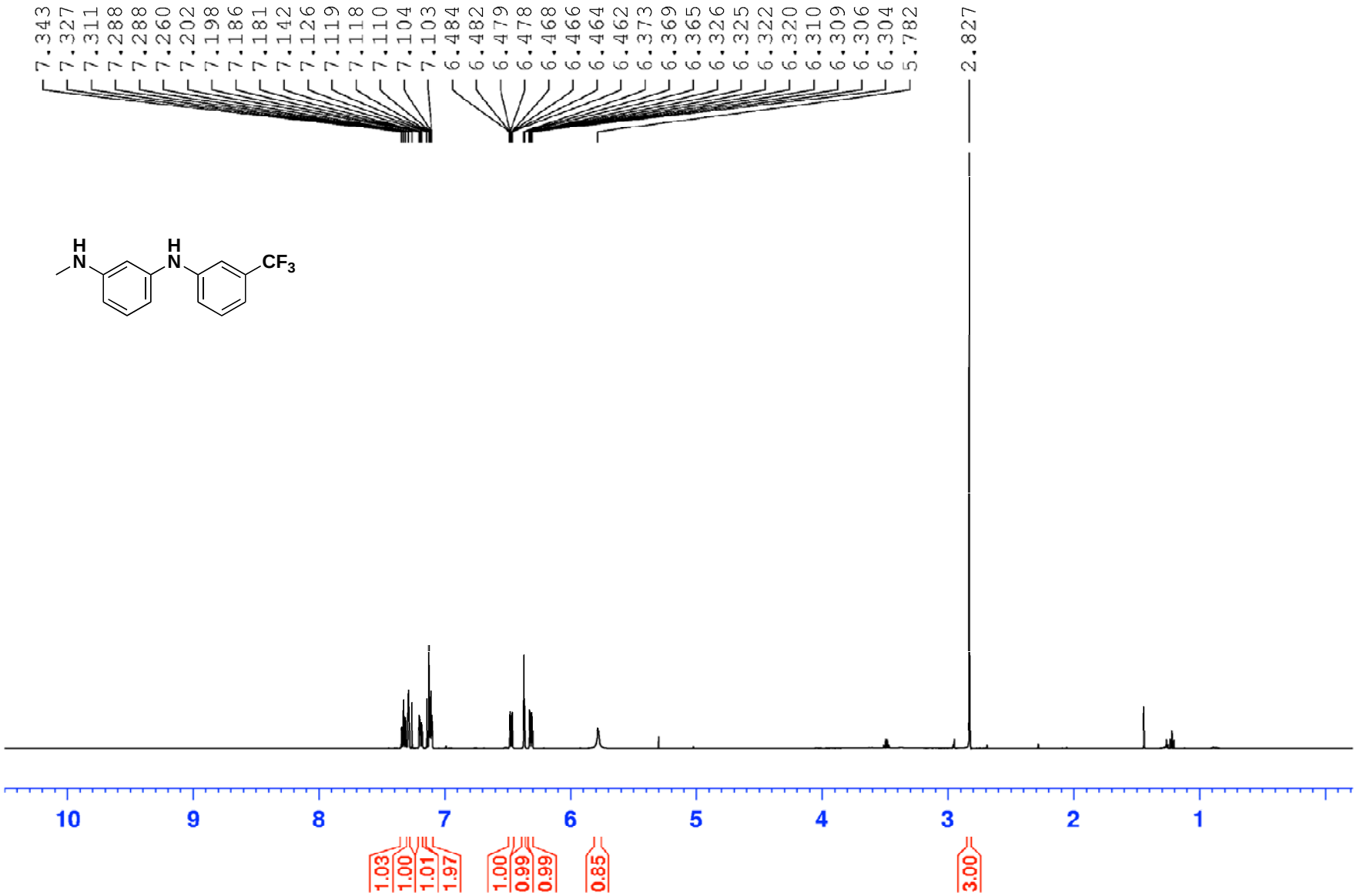
^{1}H NMR of *N*^{1}-(3,5-dimethylphenyl)-*N*^{3}-methylbenzene-1,3-diamine (4k) ($CDCl_3$, 500 MHz, 300K)



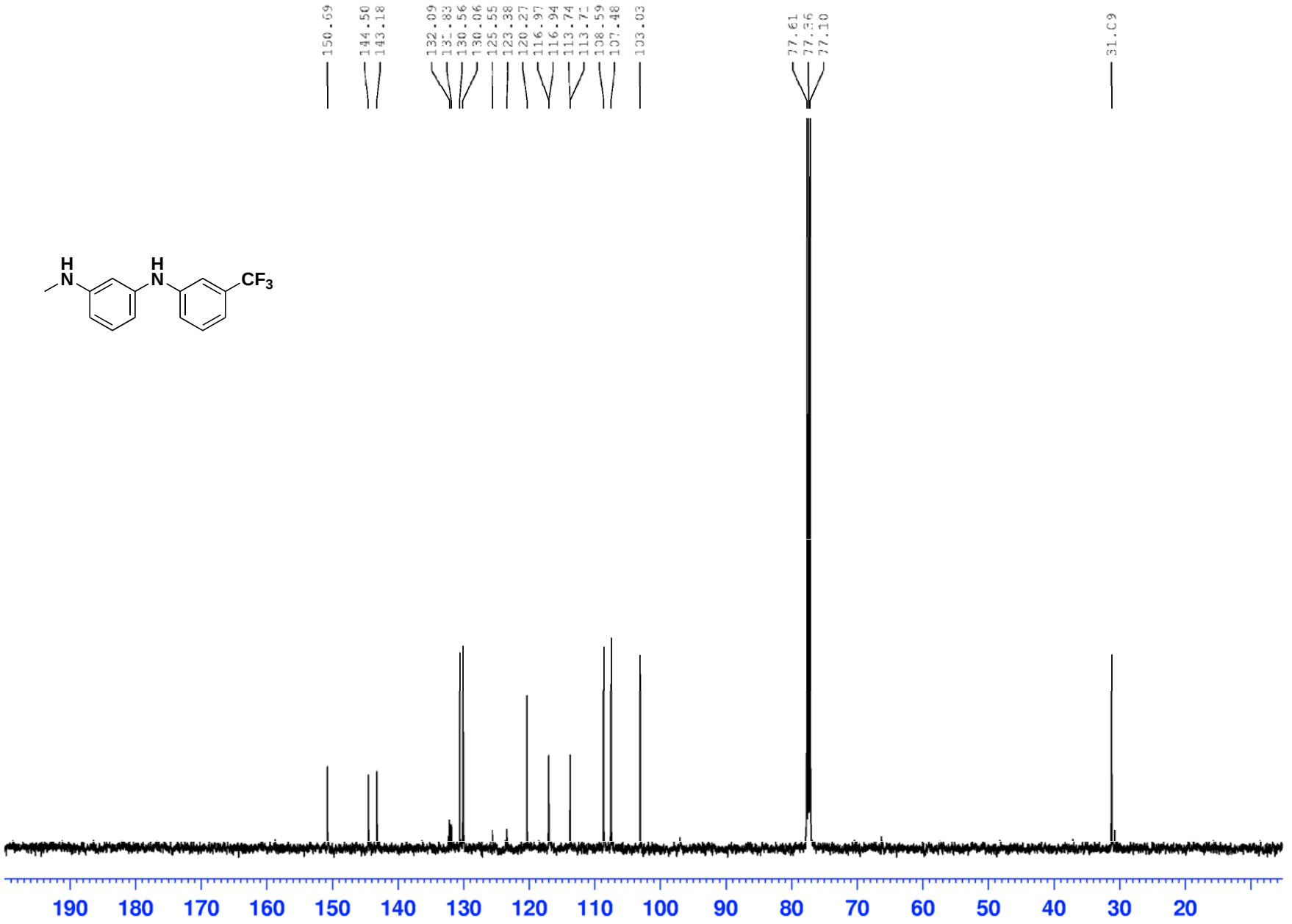
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-(3,5-dimethylphenyl)-*N*^{3}-methylbenzene-1,3-diamine (4k) ($CDCl_3$, 126 MHz, 300K)



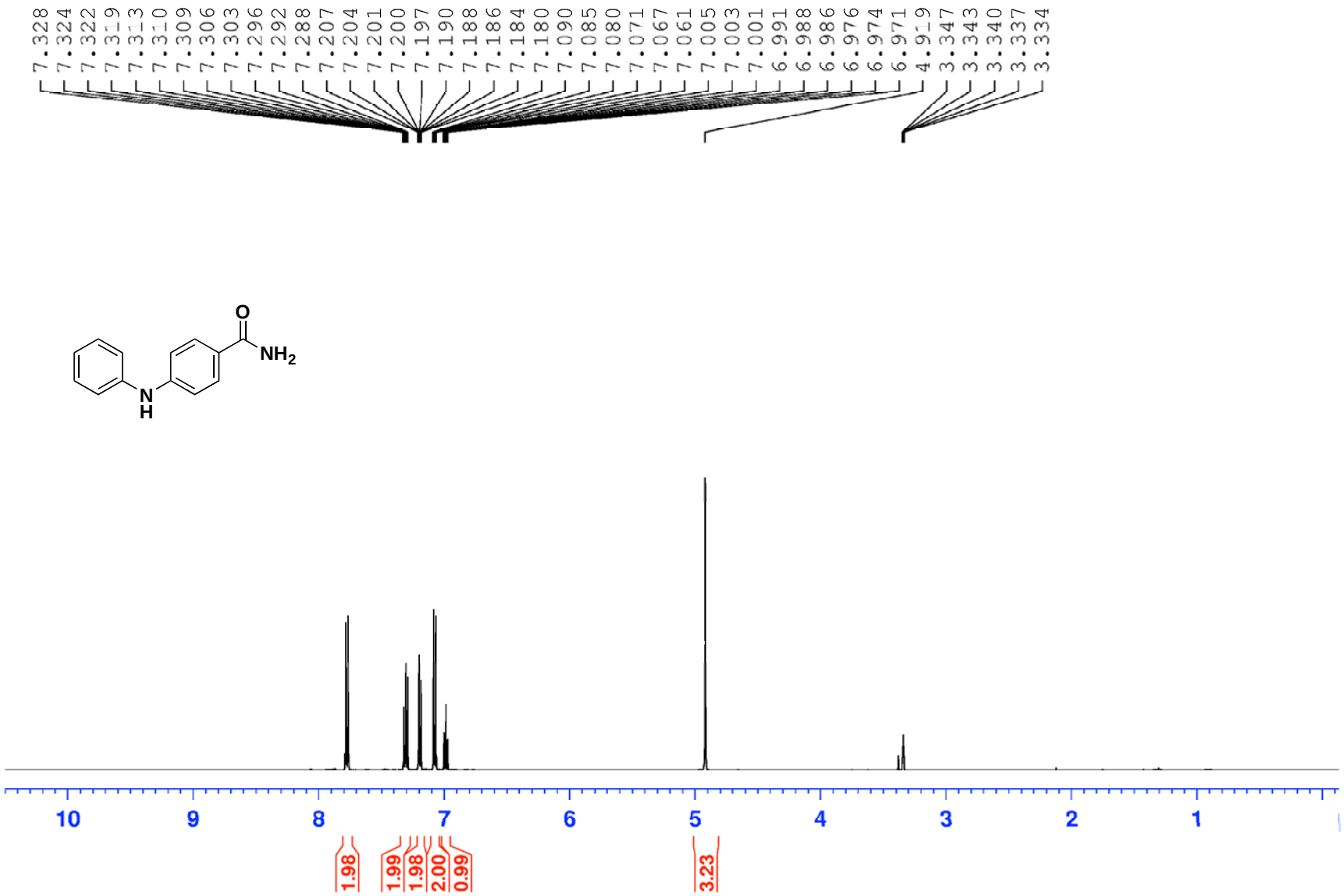
^{1}H NMR of N^1-methyl-N^3-(3-(trifluoromethyl)phenyl)benzene-1,3-diamine (4l) ($CDCl_3$, 500 MHz, 300K)



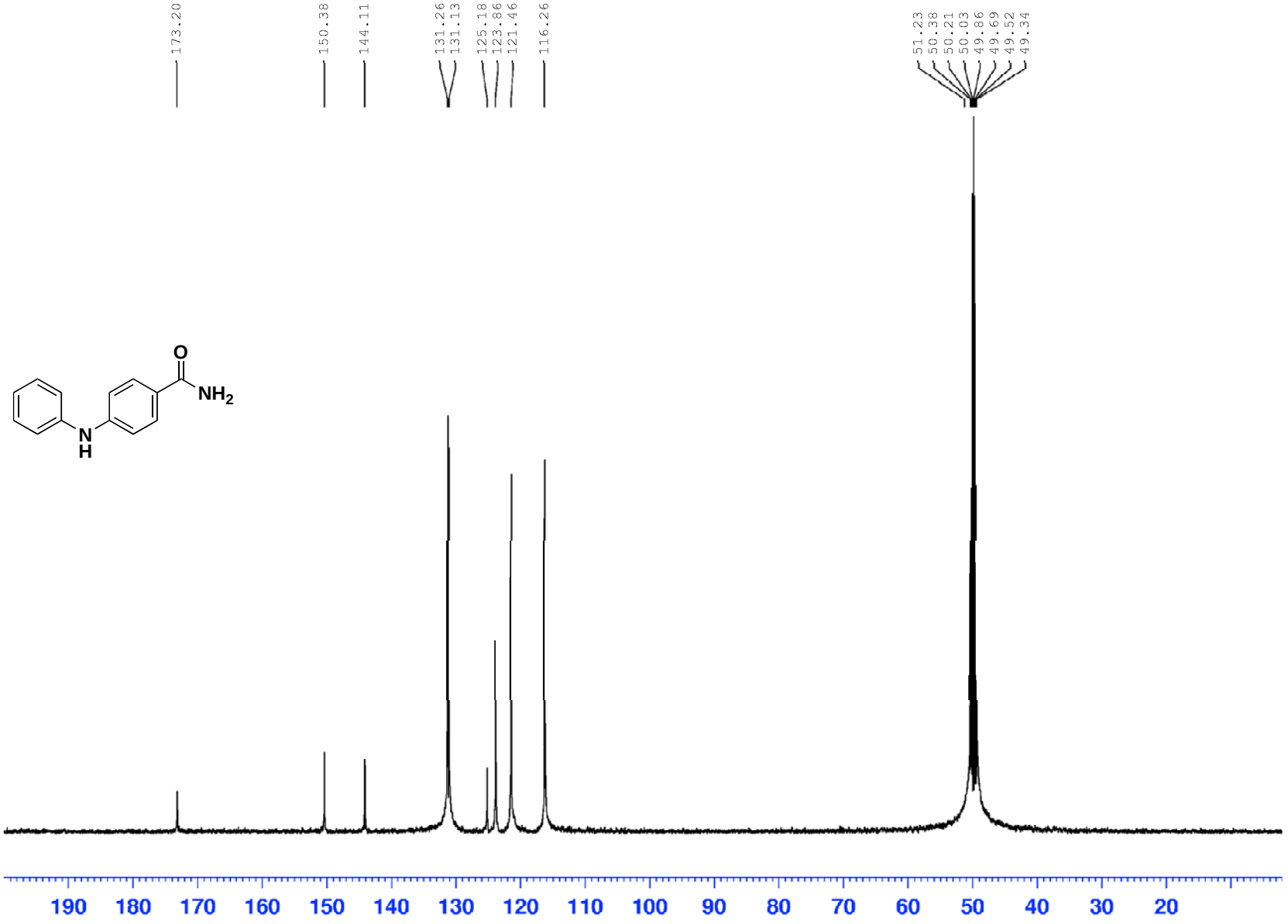
$^{13}C\{^{1}H\}$ NMR of *N*^{1}-methyl-*N*^{3}-(3-(trifluoromethyl)phenyl)benzene-1,3-diamine (4l) ($CDCl_3$, 126 MHz, 300K)



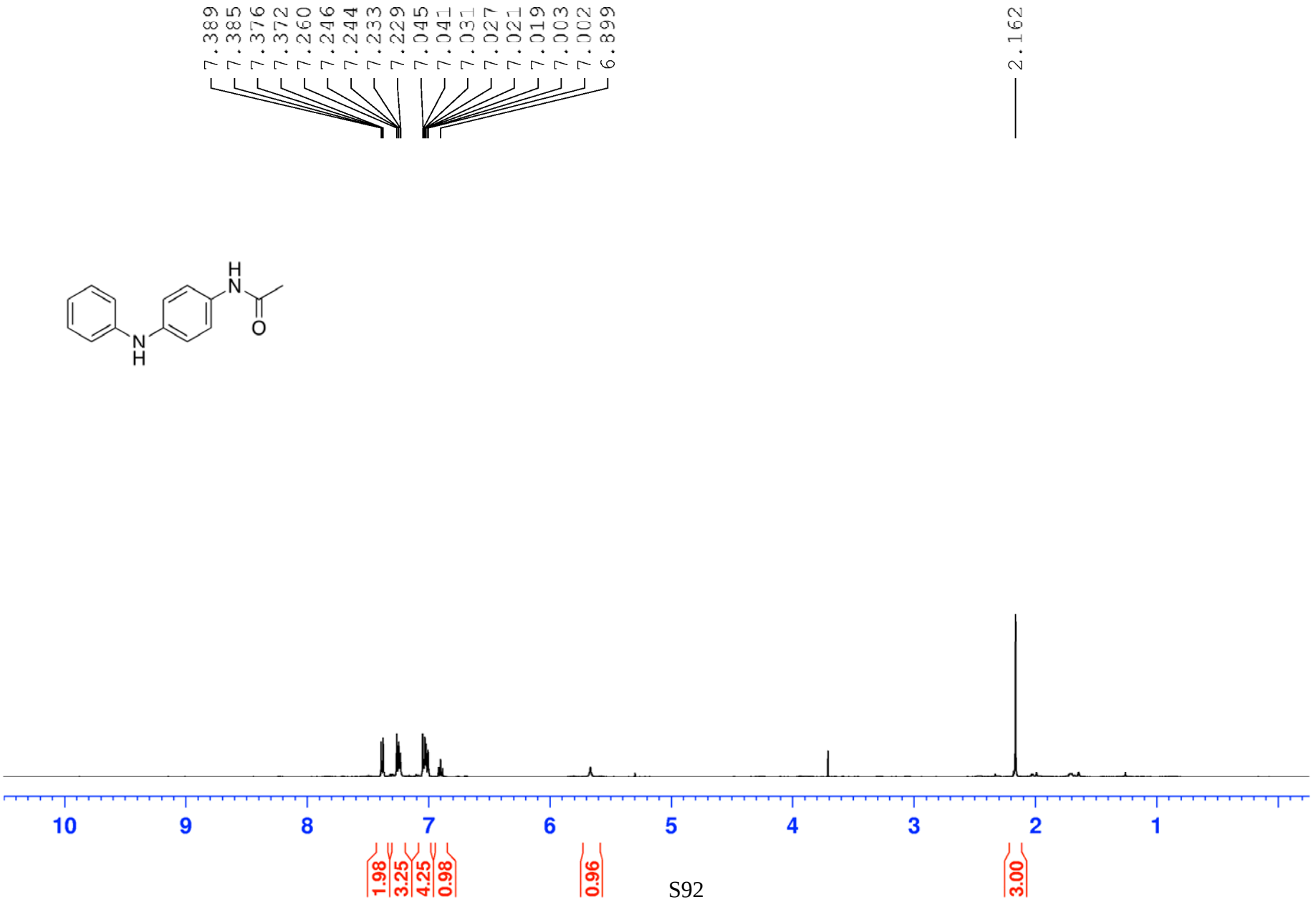
^{1}H NMR of 4-(phenylamino)benzamide (4m) (MeOD, 500 MHz, 300K)



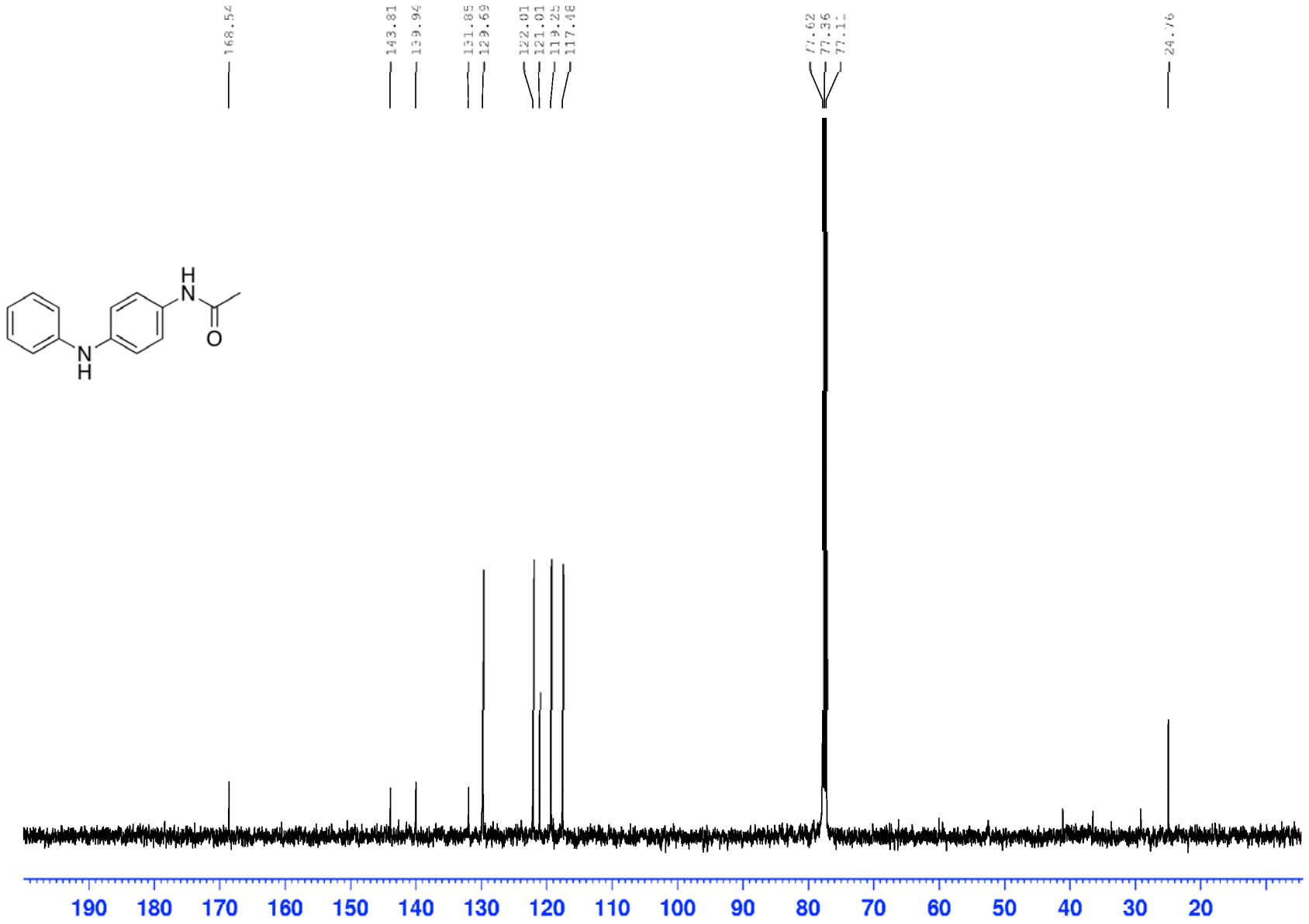
$^{13}C\{^{1}H\}$ NMR of 4-(phenylamino)benzamide (4m) (MeOD, 126 MHz, 300K)



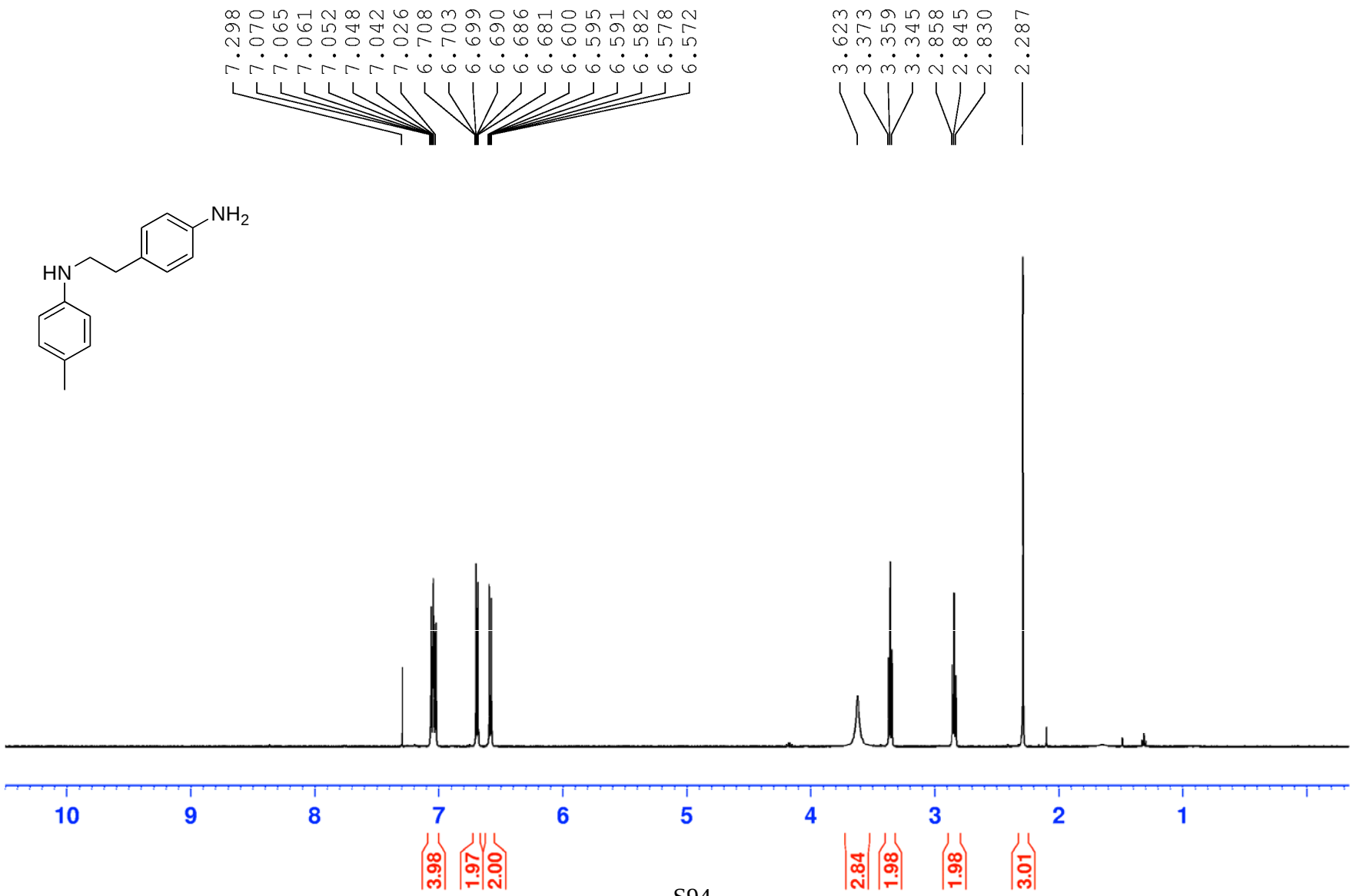
^{1}H NMR of *N*-(4-(phenylamino)phenyl)acetamide (4n) ($CDCl_3$, 500 MHz, 300K)



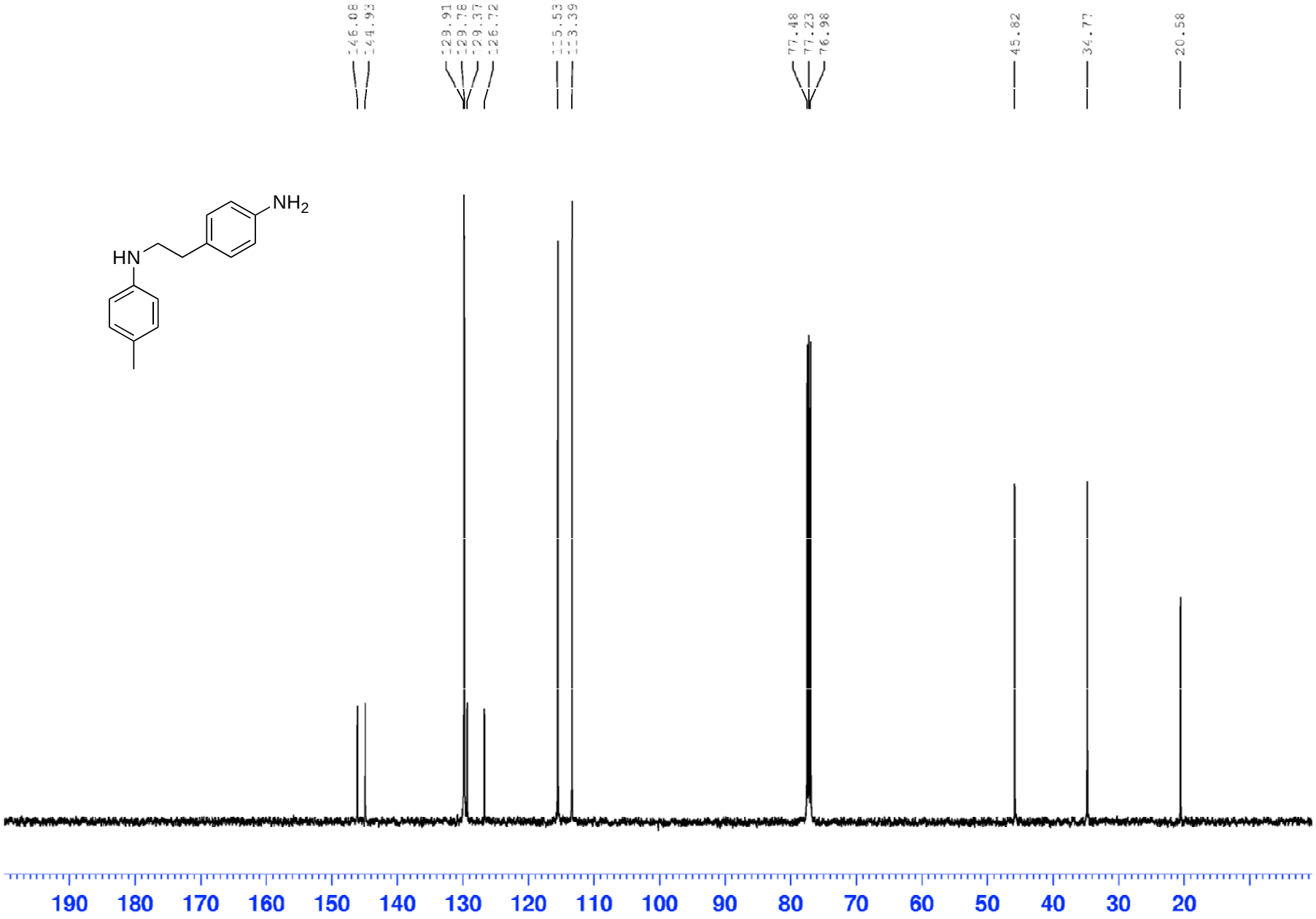
$^{13}C\{^{1}H\}$ NMR of *N*-(4-(phenylamino)phenyl)acetamide (4n) ($CDCl_3$, 126 MHz, 300K)



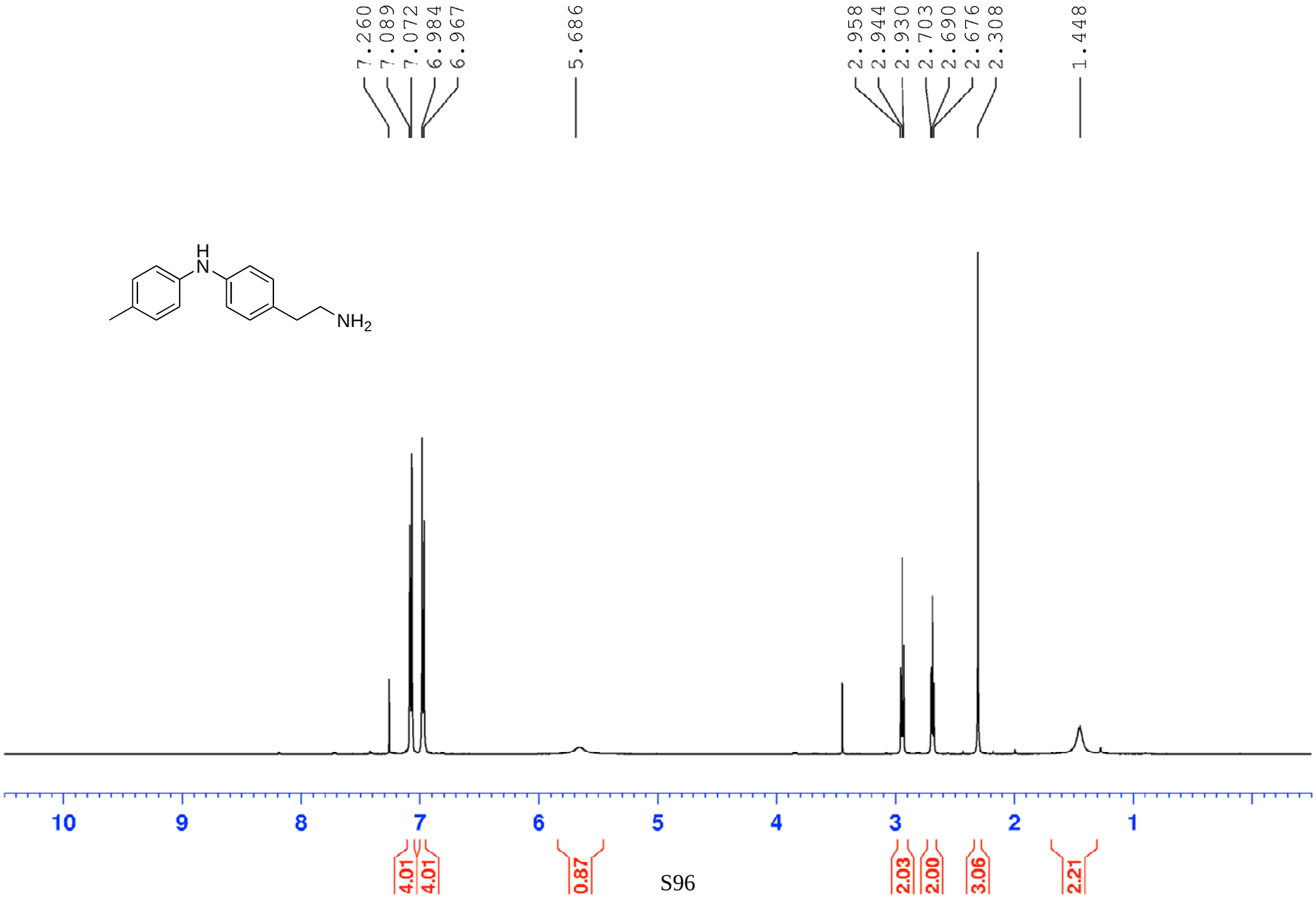
^{1}H NMR of *N*-(4-aminophenethyl)-4-methylaniline (5a) ($CDCl_3$, 500 MHz, 300K)



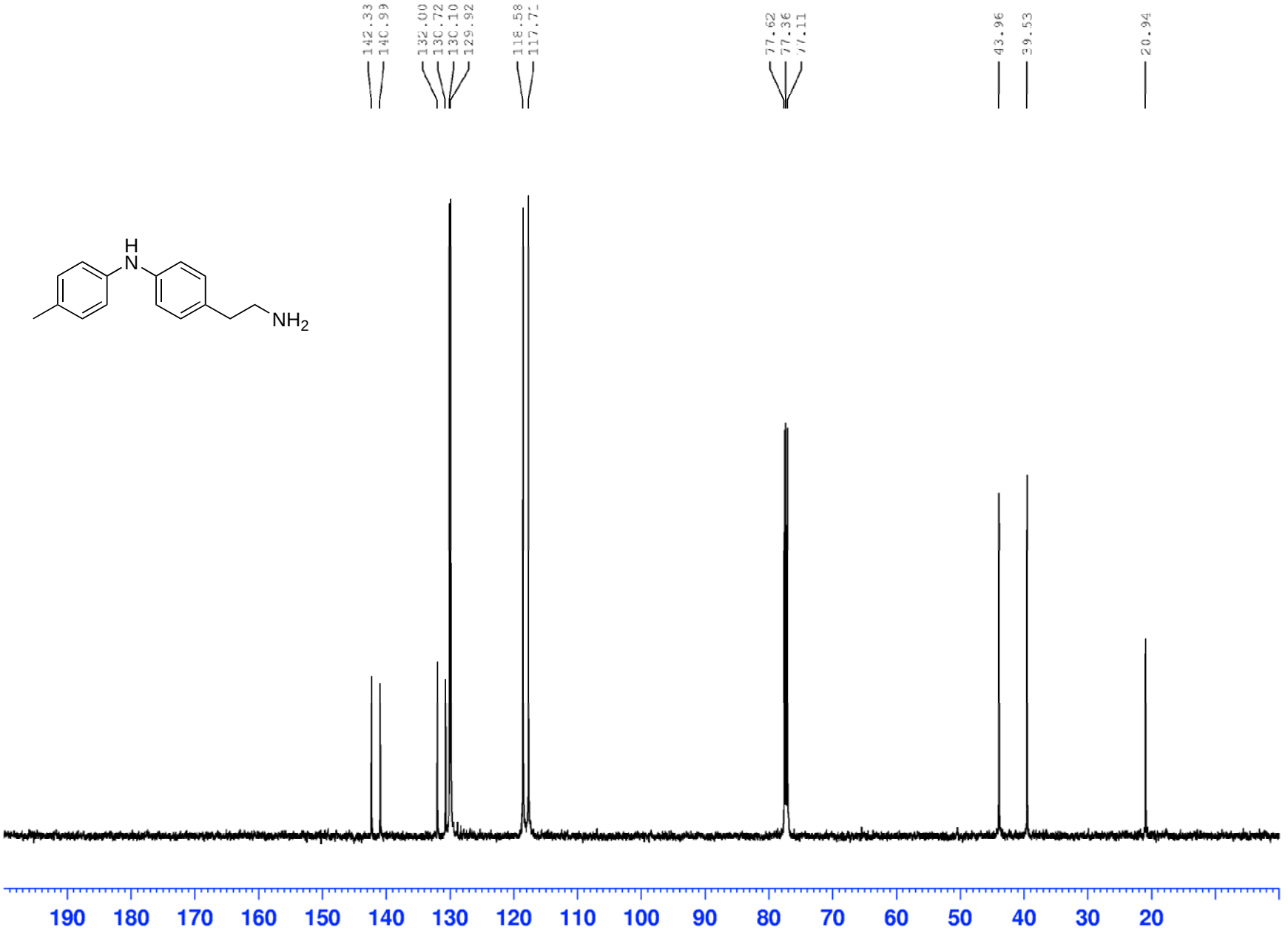
$^{13}C\{^{1}H\}$ NMR of *N*-(4-aminophenethyl)-4-methylaniline (5a) ($CDCl_3$, 126 MHz, 300K)



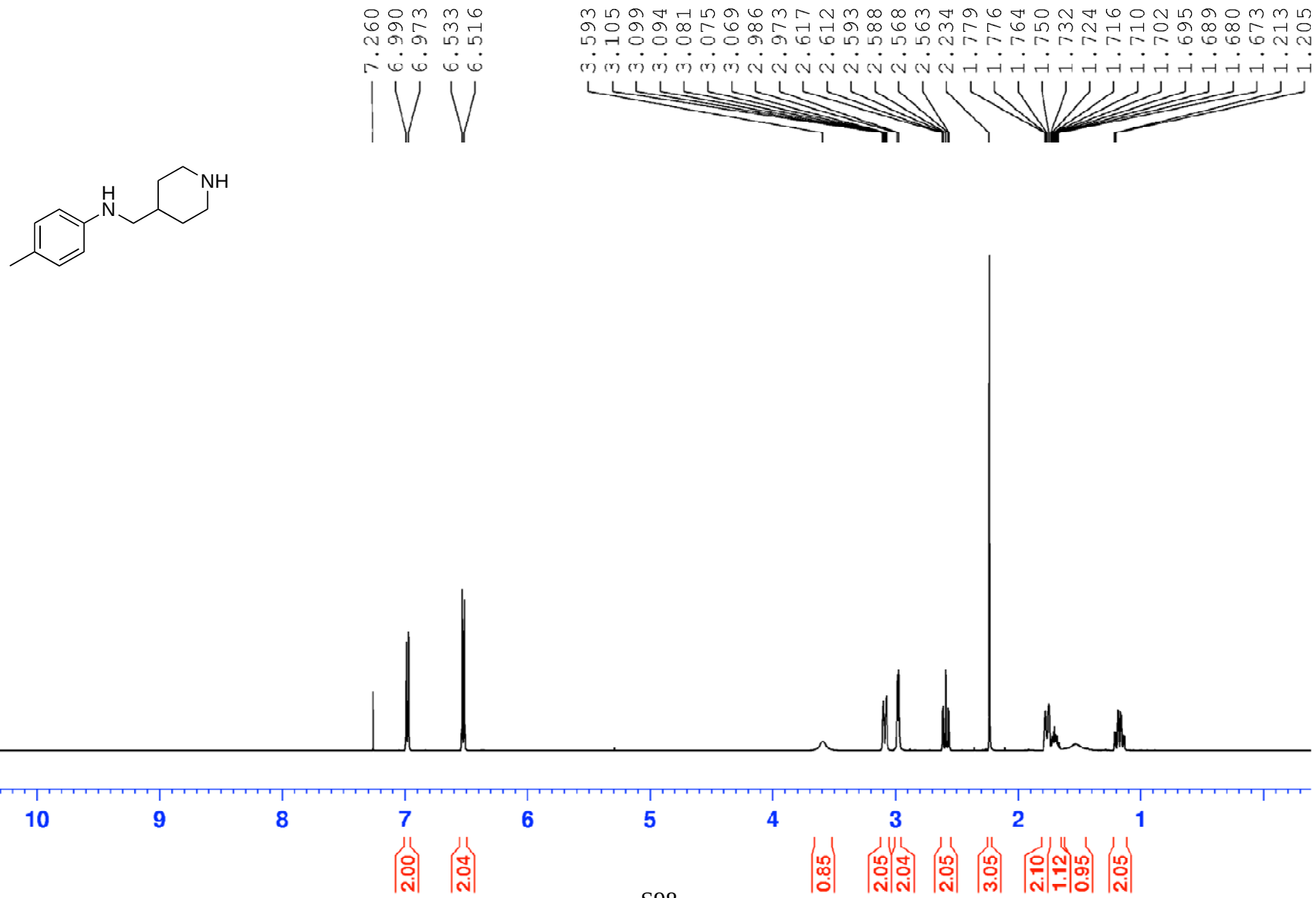
^{1}H NMR of 4-(2-aminoethyl)-N-p-tolylaniline (5a') ($CDCl_3$, 500 MHz, 300K)



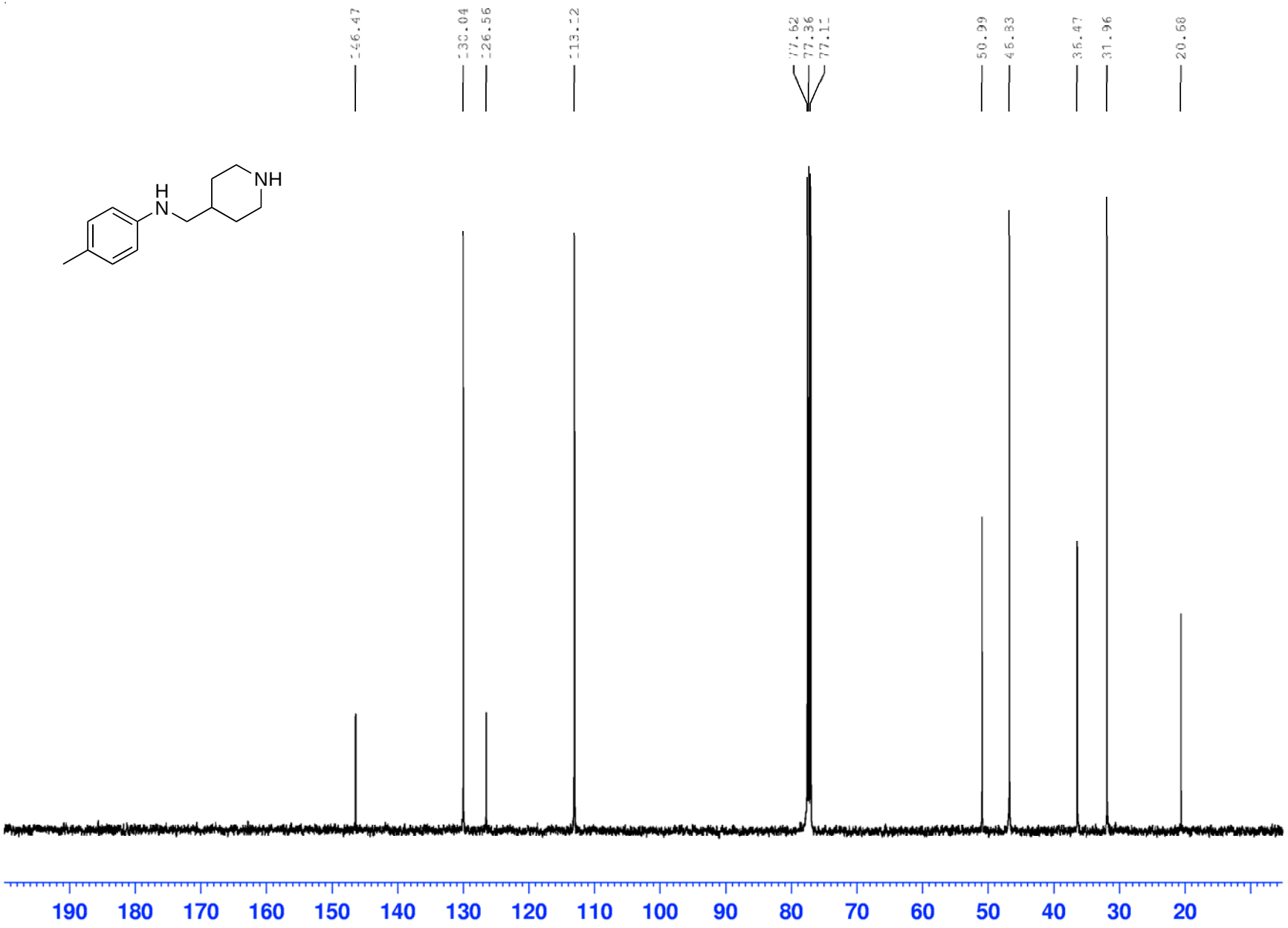
$^{13}C\{^{1}H\}$ NMR of 4-(2-aminoethyl)-*N*-*p*-tolylaniline (5a') ($CDCl_3$, 126 MHz, 300K)



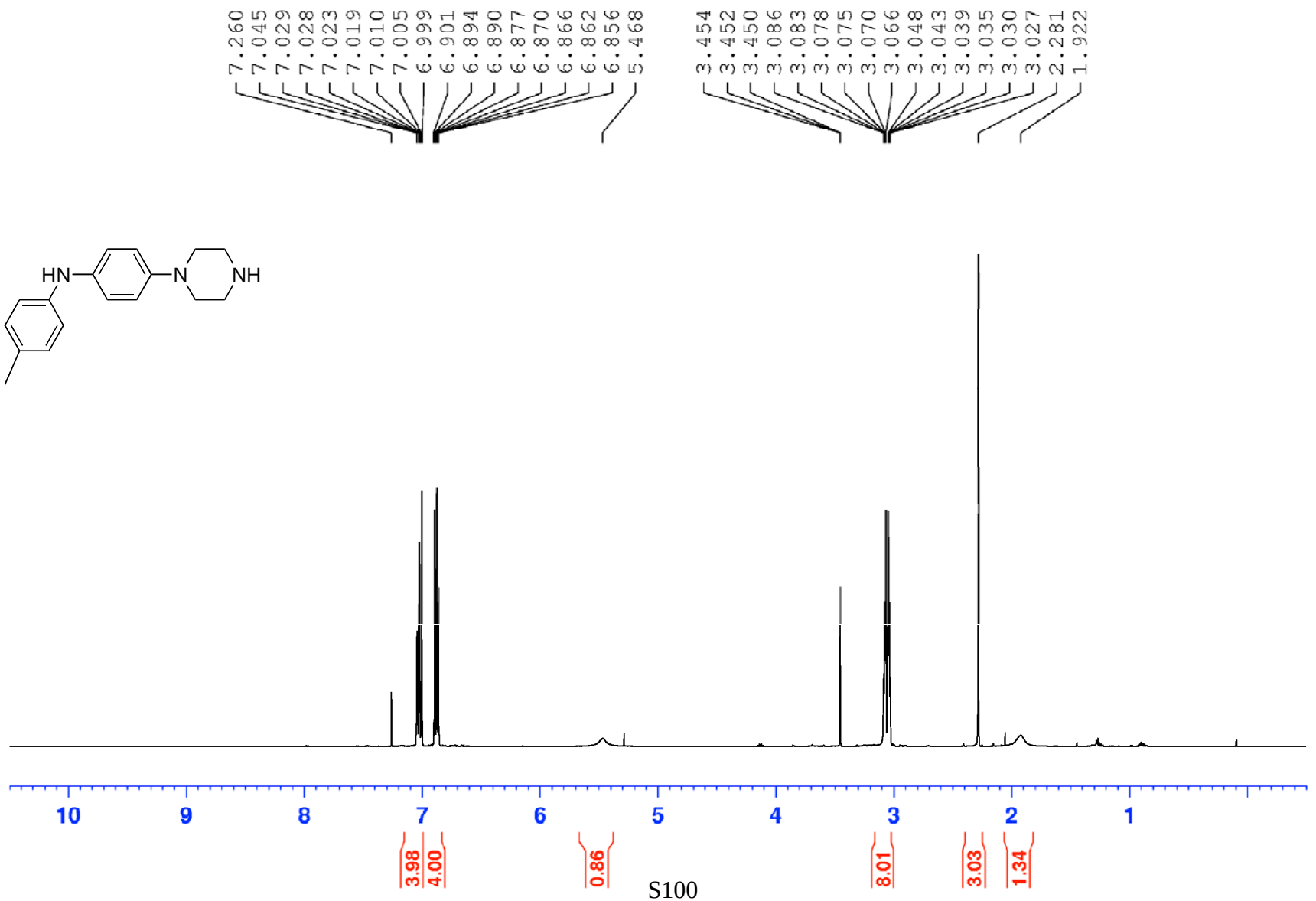
^{1}H NMR of 4-methyl-*N*-(piperidin-4-ylmethyl)aniline (5b) ($CDCl_3$, 500 MHz, 300K)



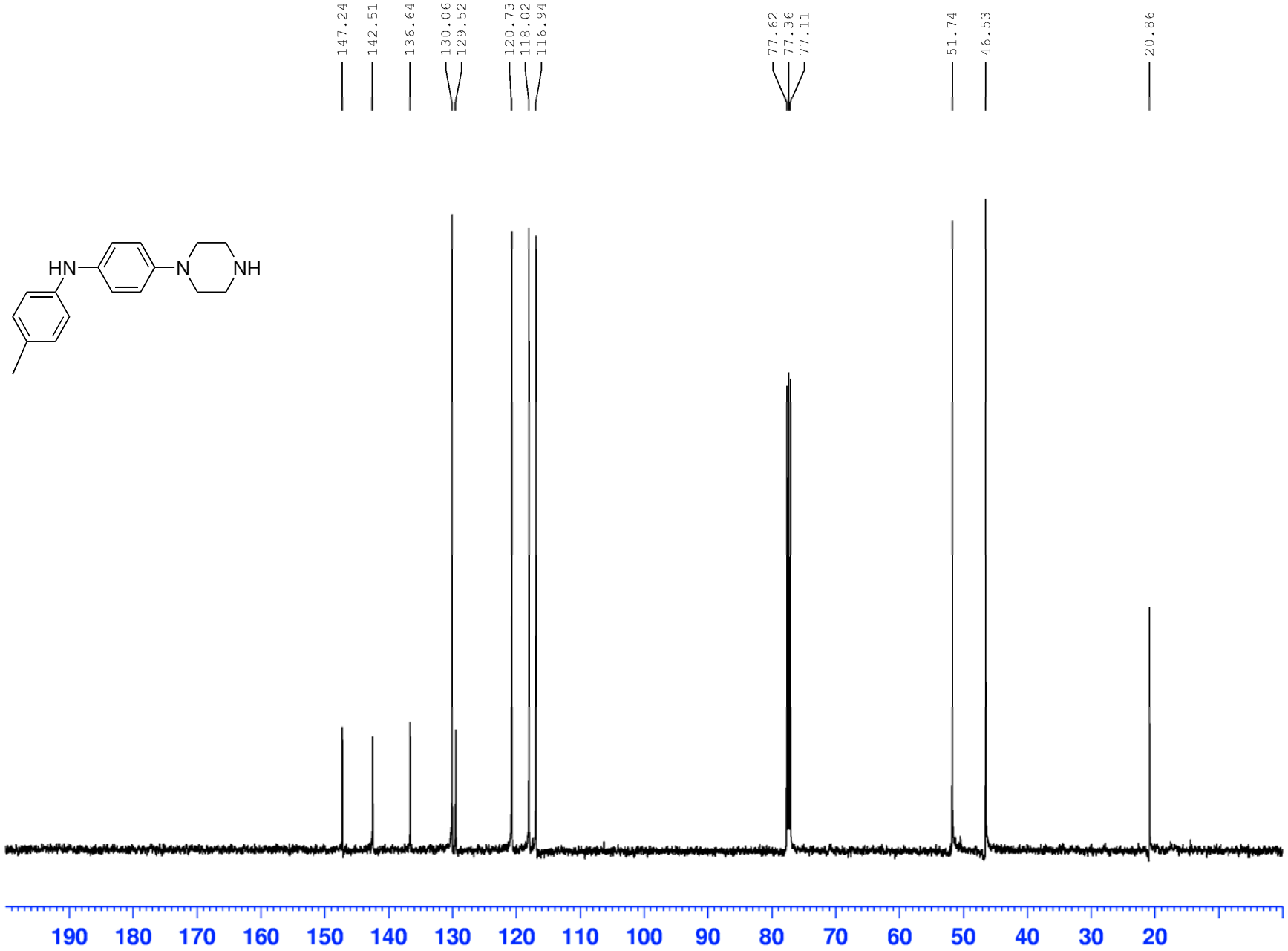
$^{13}C\{^{1}H\}$ NMR of 4-methyl-*N*-(piperidin-4-ylmethyl)aniline (5b) ($CDCl_3$, 126 MHz, 300K)



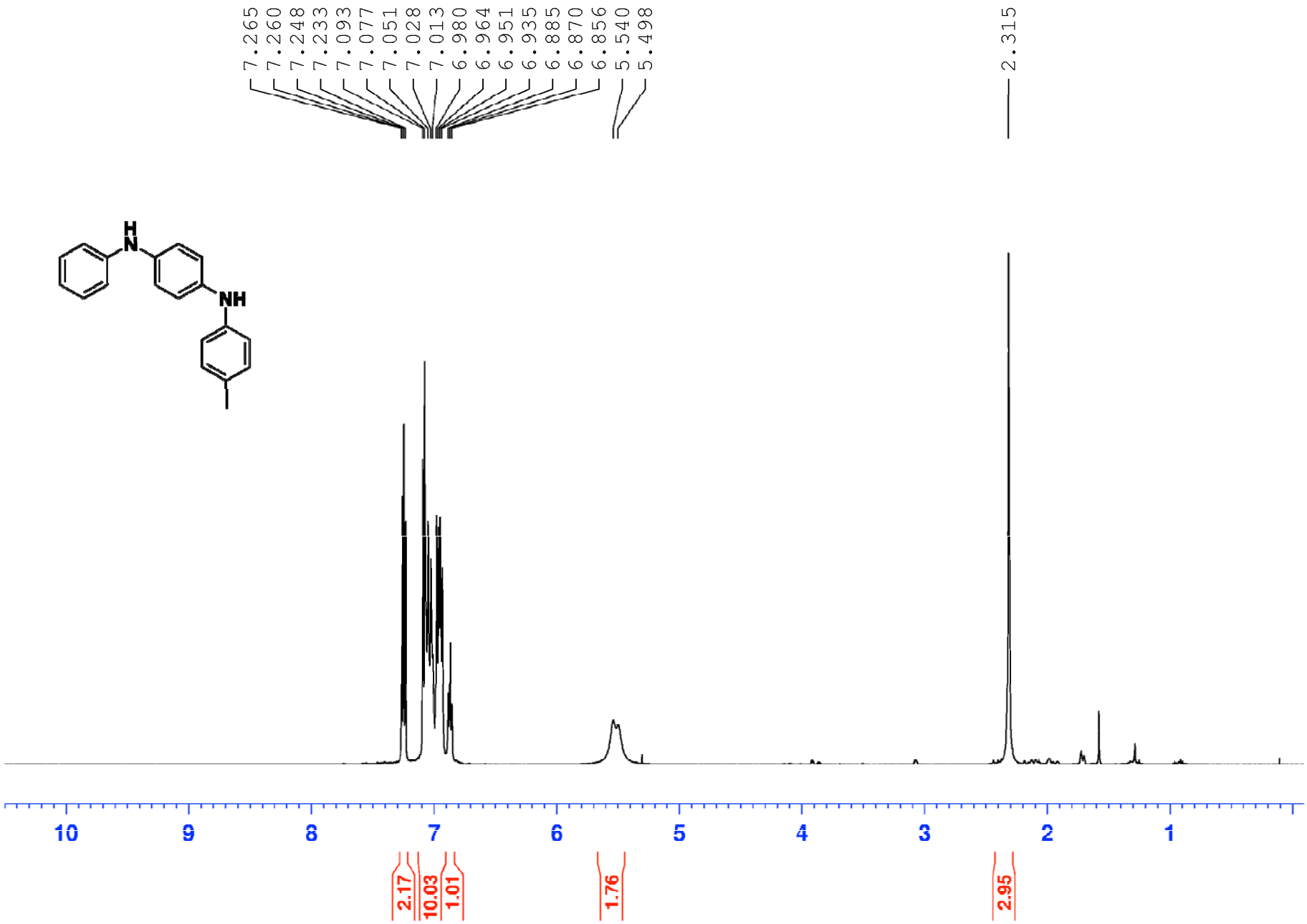
^{1}H NMR of 4-methyl-*N*-(4-(piperazin-1-yl)phenyl)aniline (5c) ($CDCl_3$, 500 MHz, 300K)



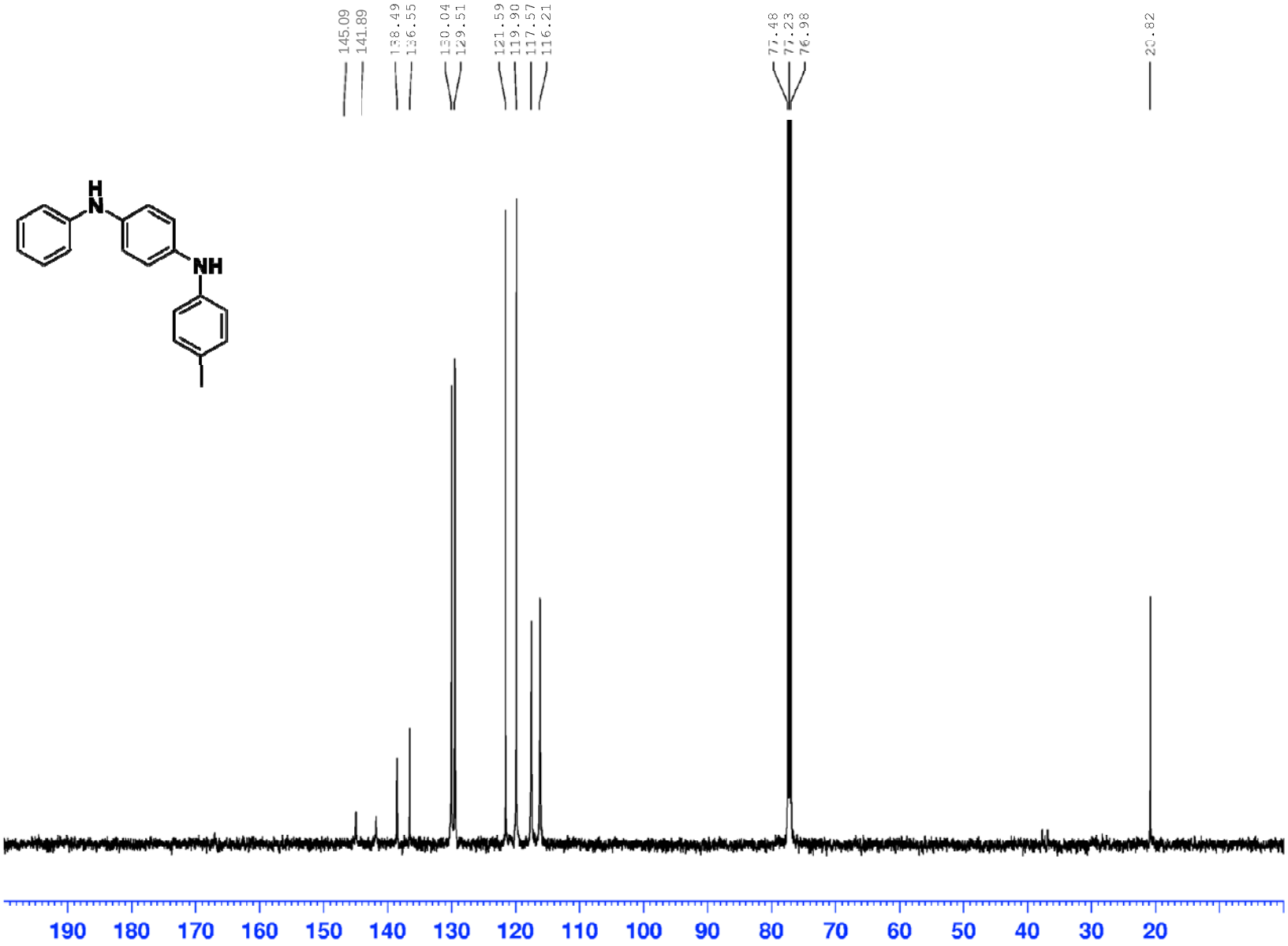
$^{13}C\{^{1}H\}$ NMR of 4-methyl-*N*-(4-(piperazin-1-yl)phenyl)aniline (5c) ($CDCl_3$, 126 MHz, 300K)



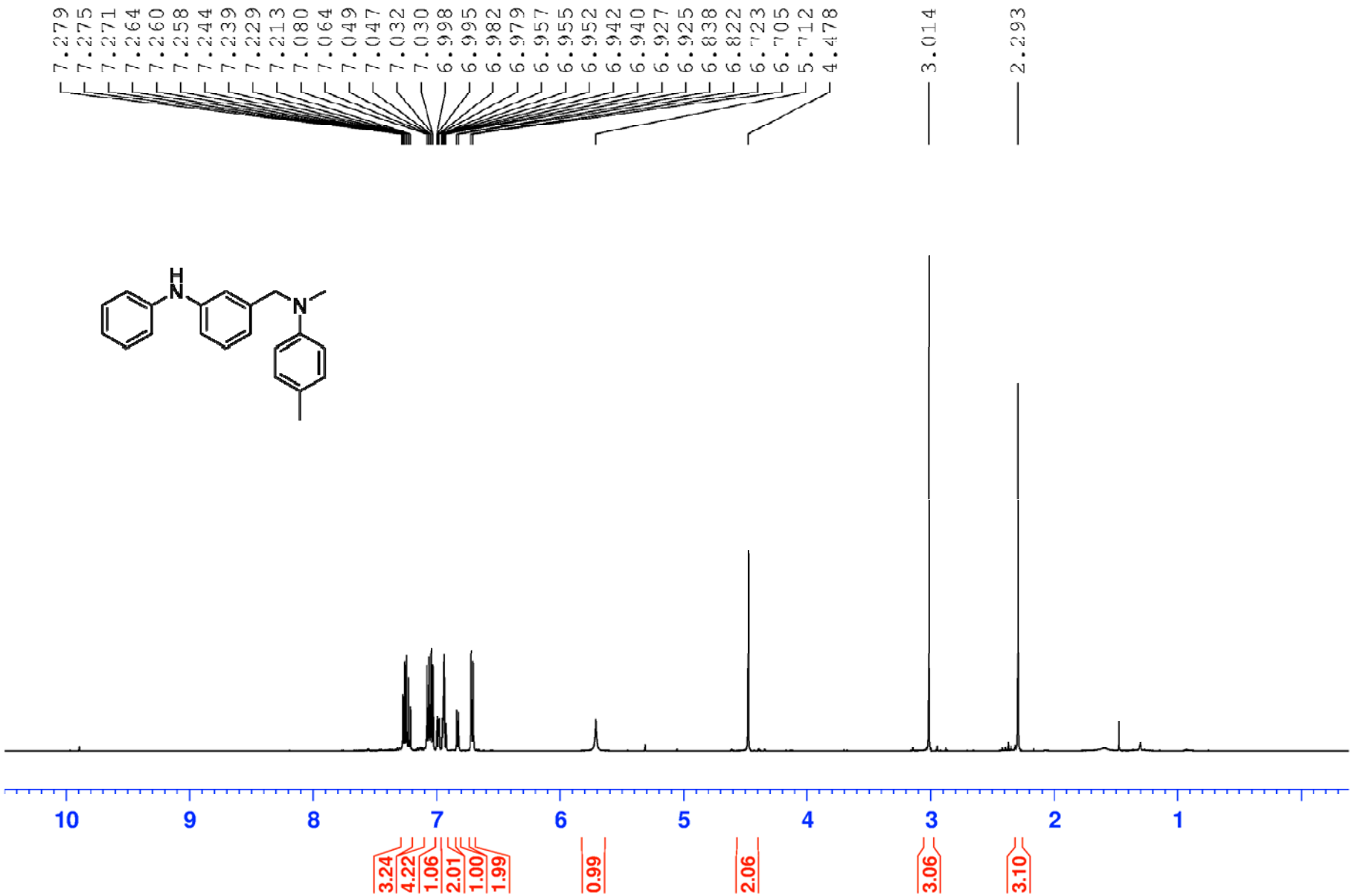
^{1}H NMR of N^1-phenyl-N^4-*p*-tolylbenzene-1,4-diamine (5d) ($CDCl_3$, 500 MHz, 300K)



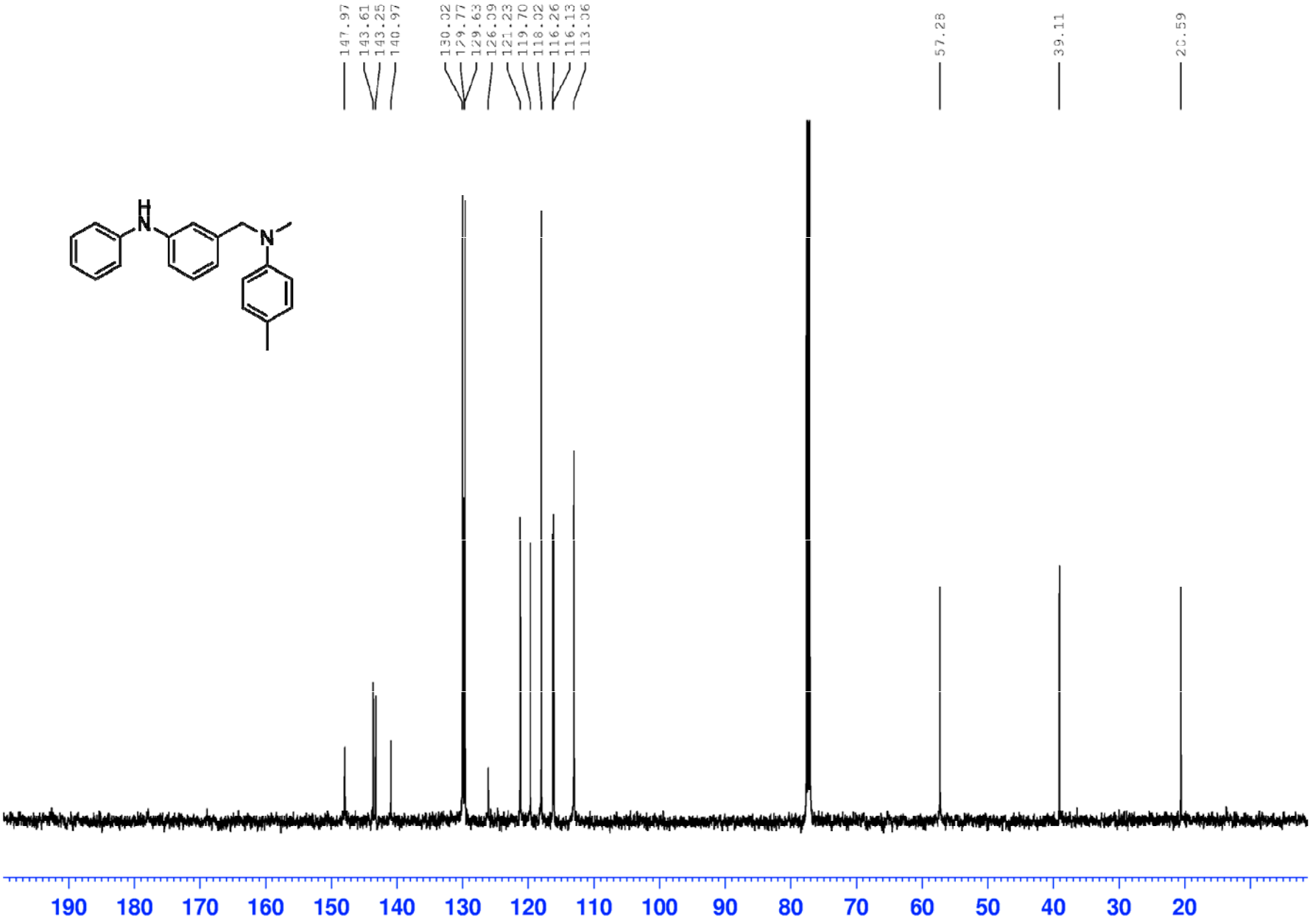
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^4-*p*-tolylbenzene-1,4-diamine (5d) ($CDCl_3$, 126 MHz, 300K)



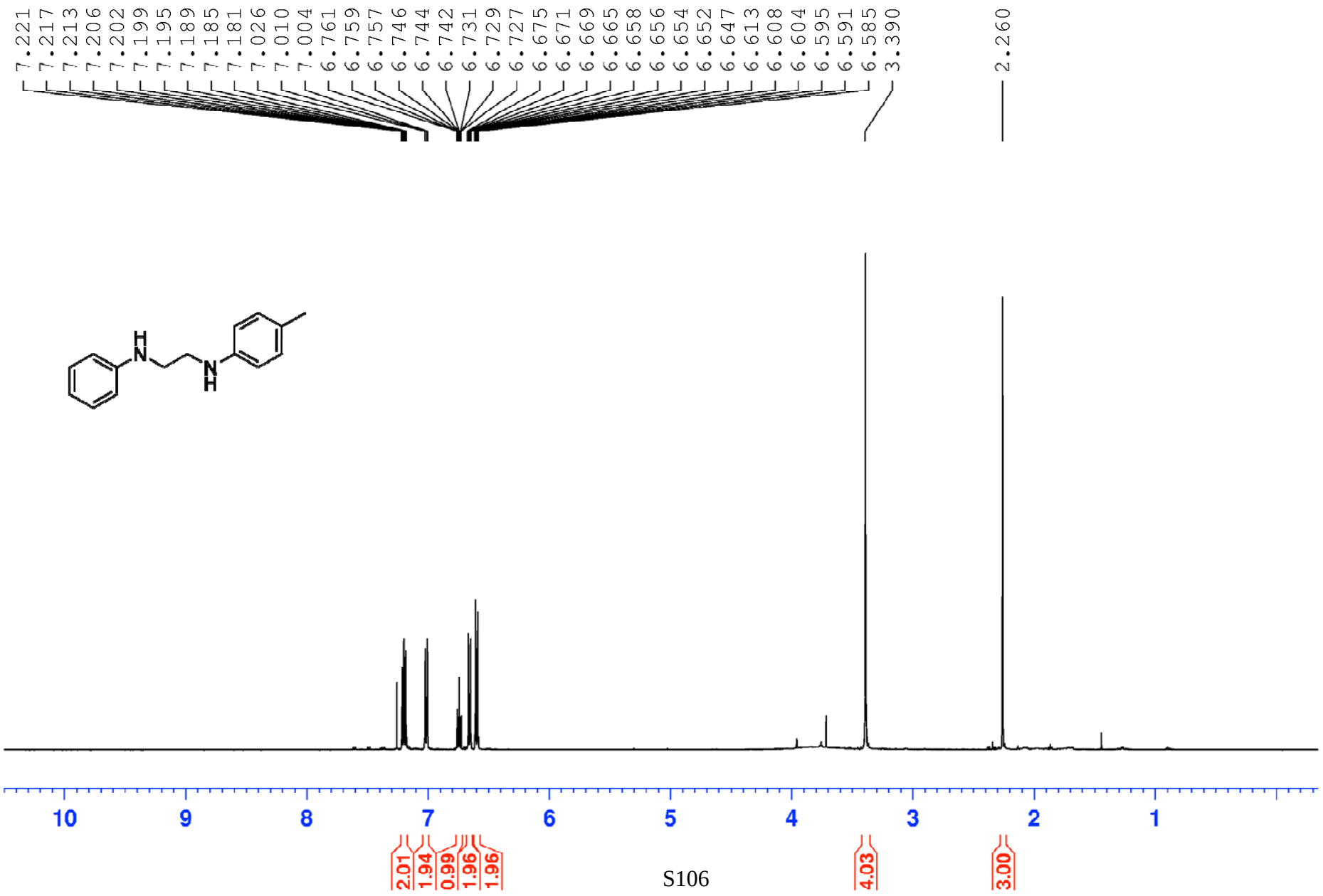
^{1}H NMR of *N*,4-dimethyl-*N*-(3-(phenylamino)benzyl)aniline (5e) ($CDCl_3$, 500 MHz, 300K)



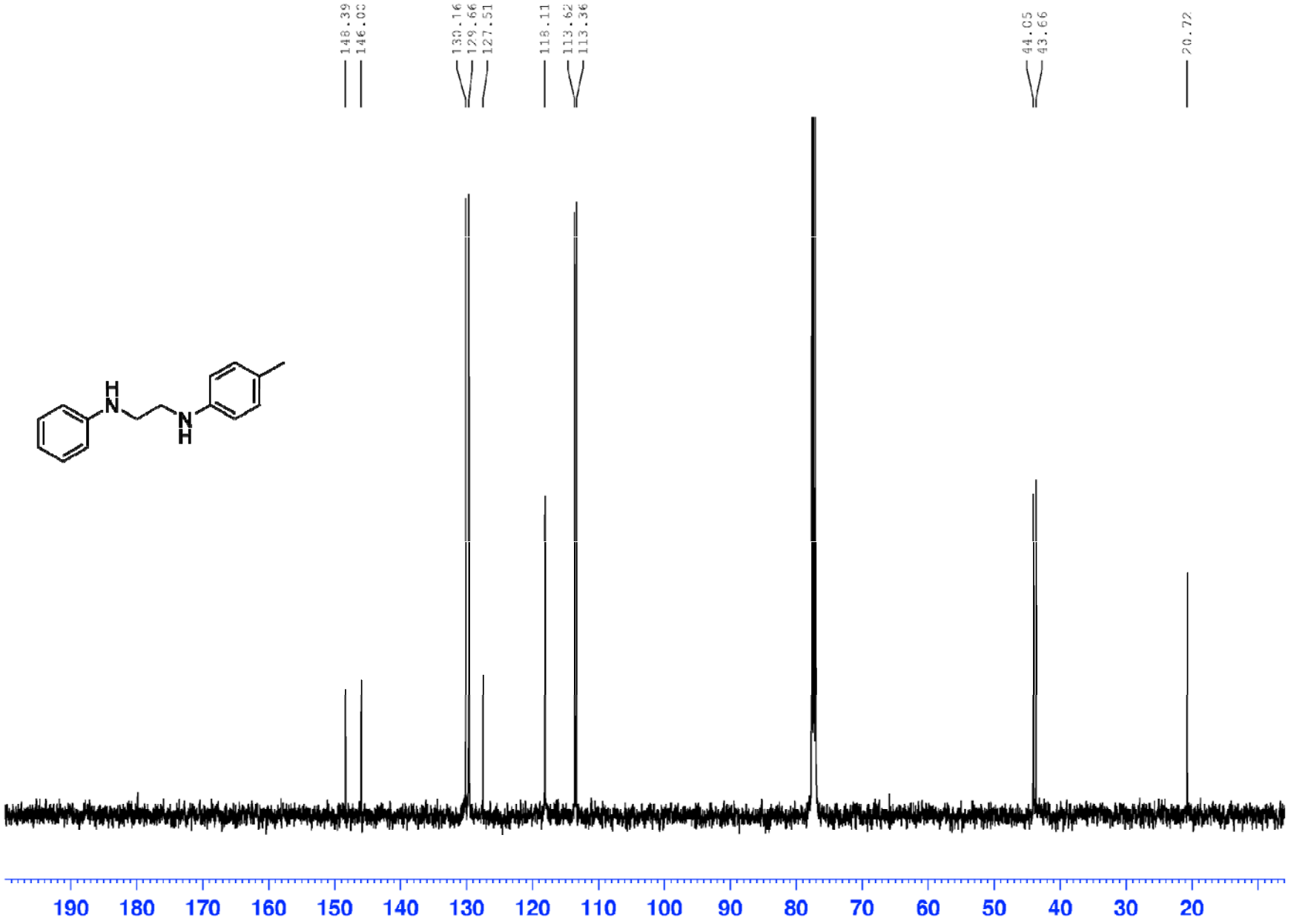
$^{13}C\{^{1}H\}$ NMR of *N*,4-dimethyl-*N*-(3-(phenylamino)benzyl)aniline (5e) ($CDCl_3$, 126 MHz, 300K)



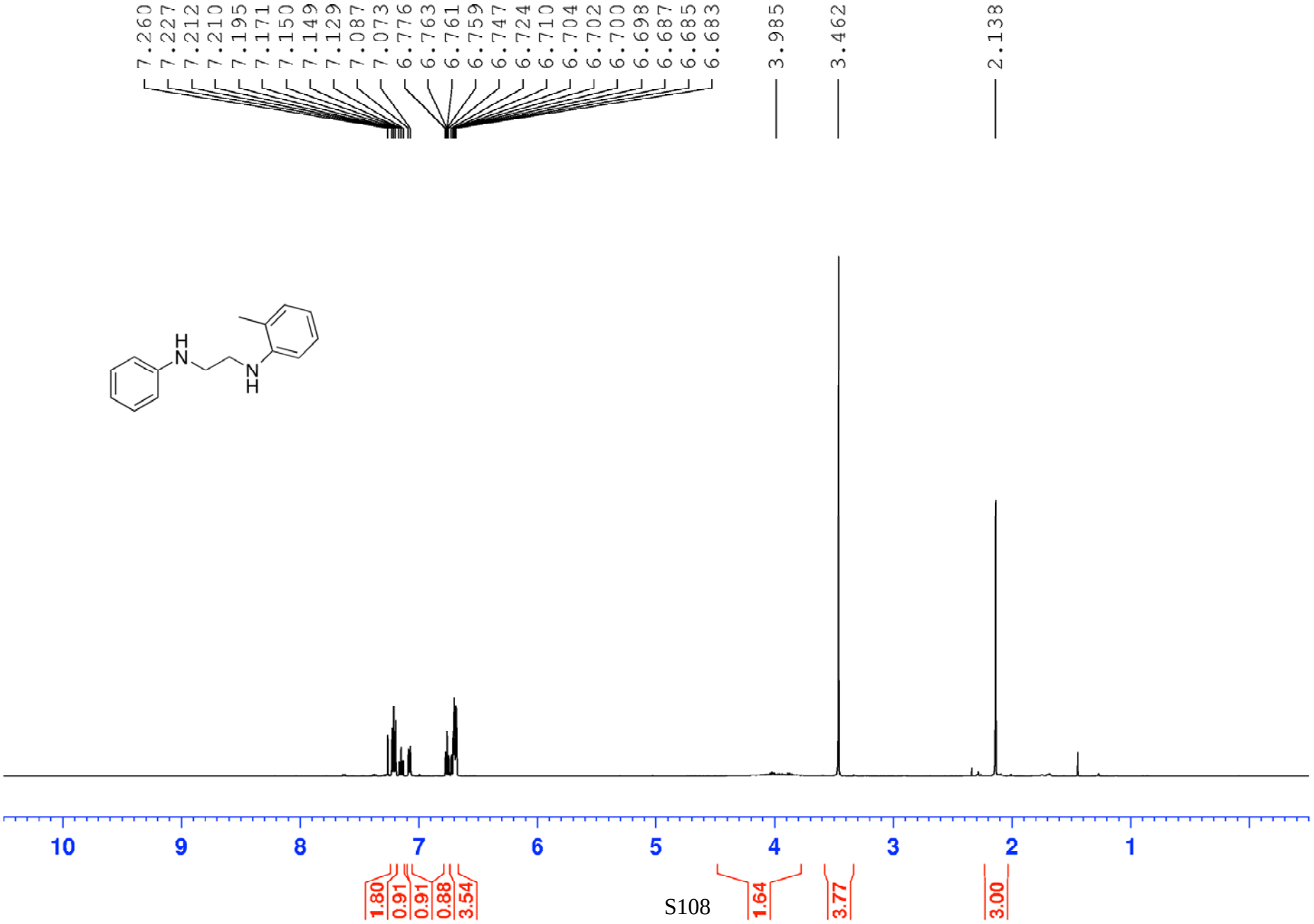
^{1}H NMR of N^{1}-phenyl-N^{2}-p-tolylethane-1,2-diamine (5f) ($CDCl_3$, 500 MHz, 300K)



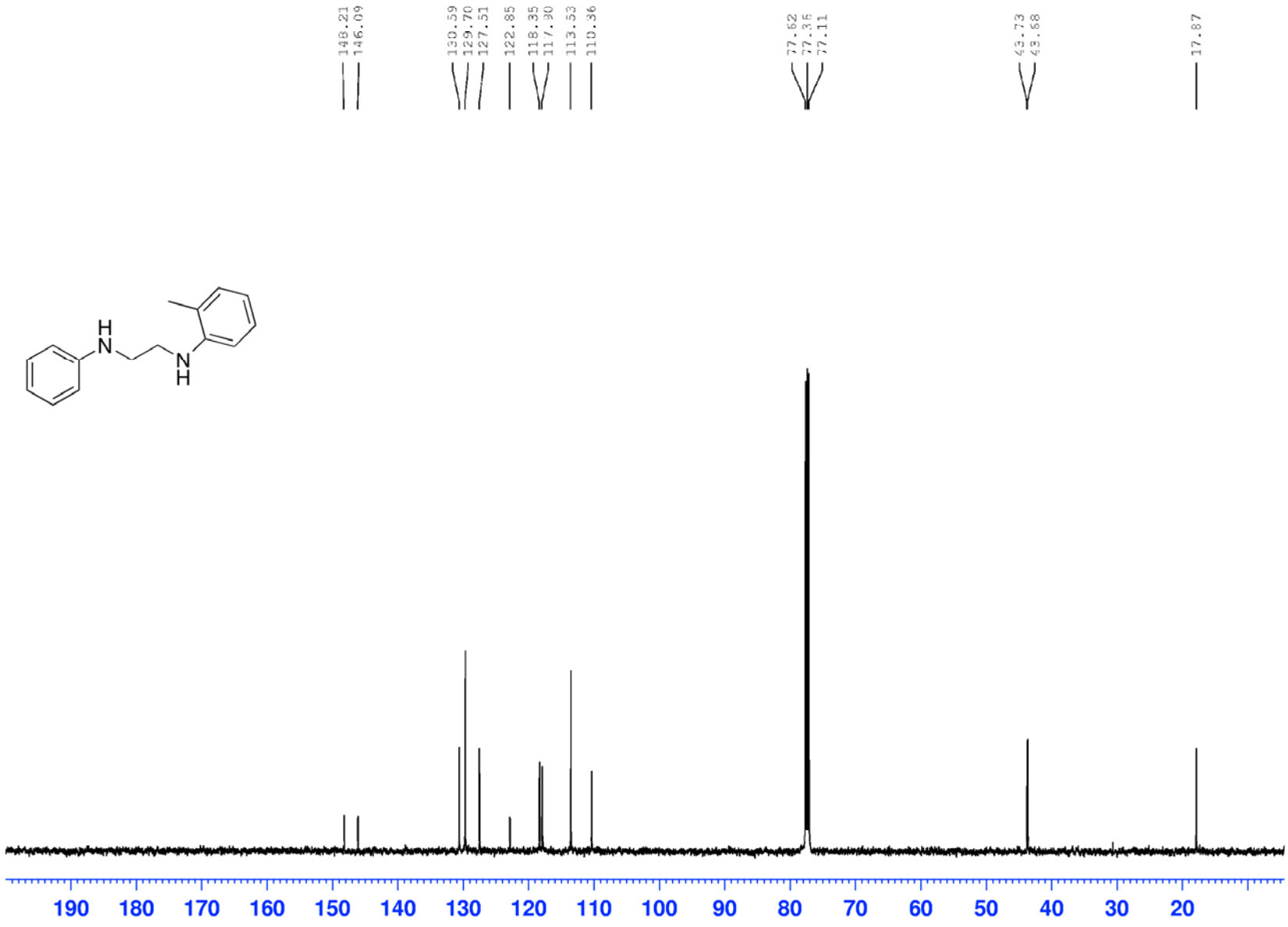
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-p-tolylethane-1,2-diamine (5f) ($CDCl_3$, 126 MHz, 300K)



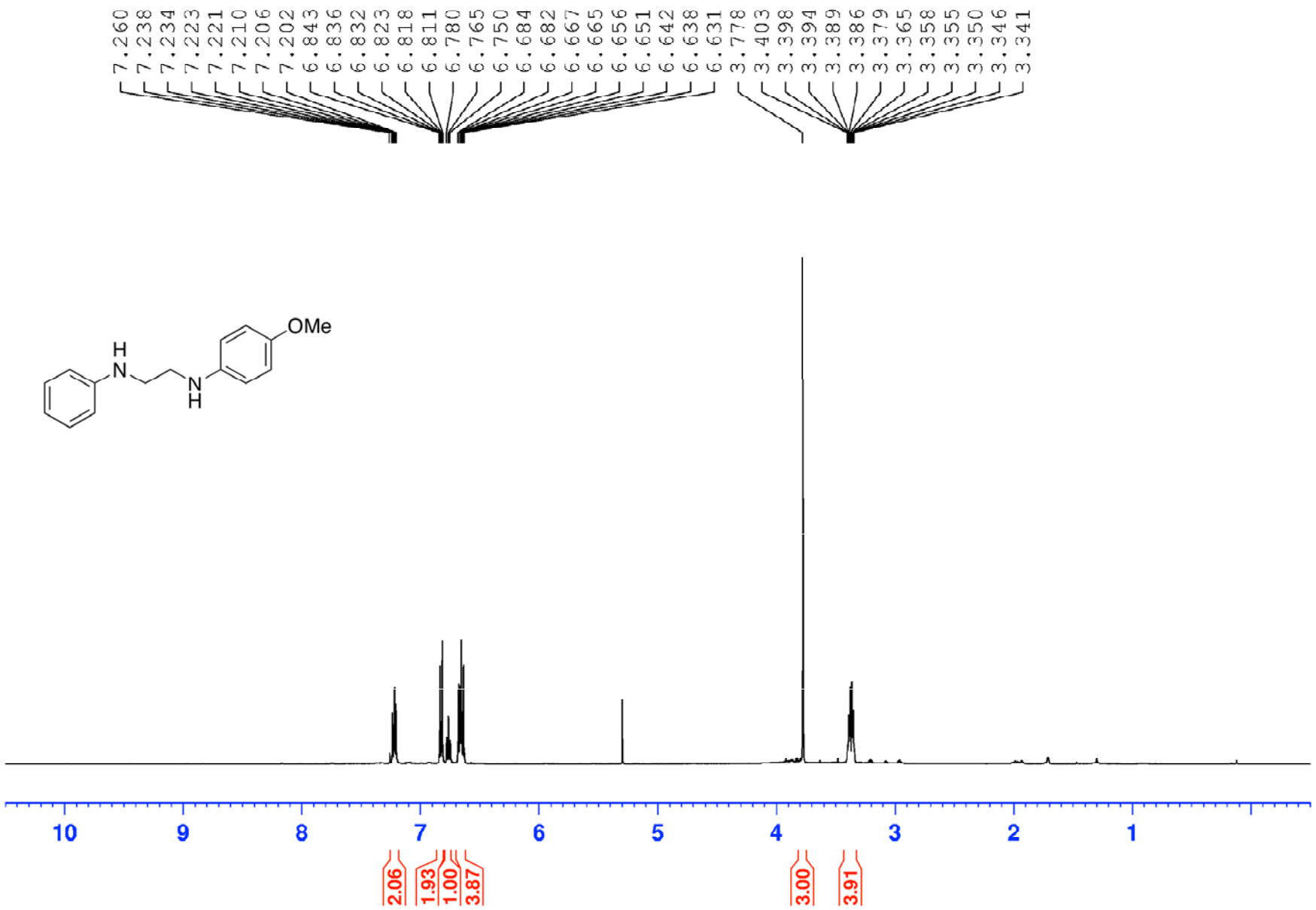
^{1}H NMR of N^{1}-phenyl-N^{2}-o-tolylethane-1,2-diamine (5g) ($CDCl_3$, 500 MHz, 300K)



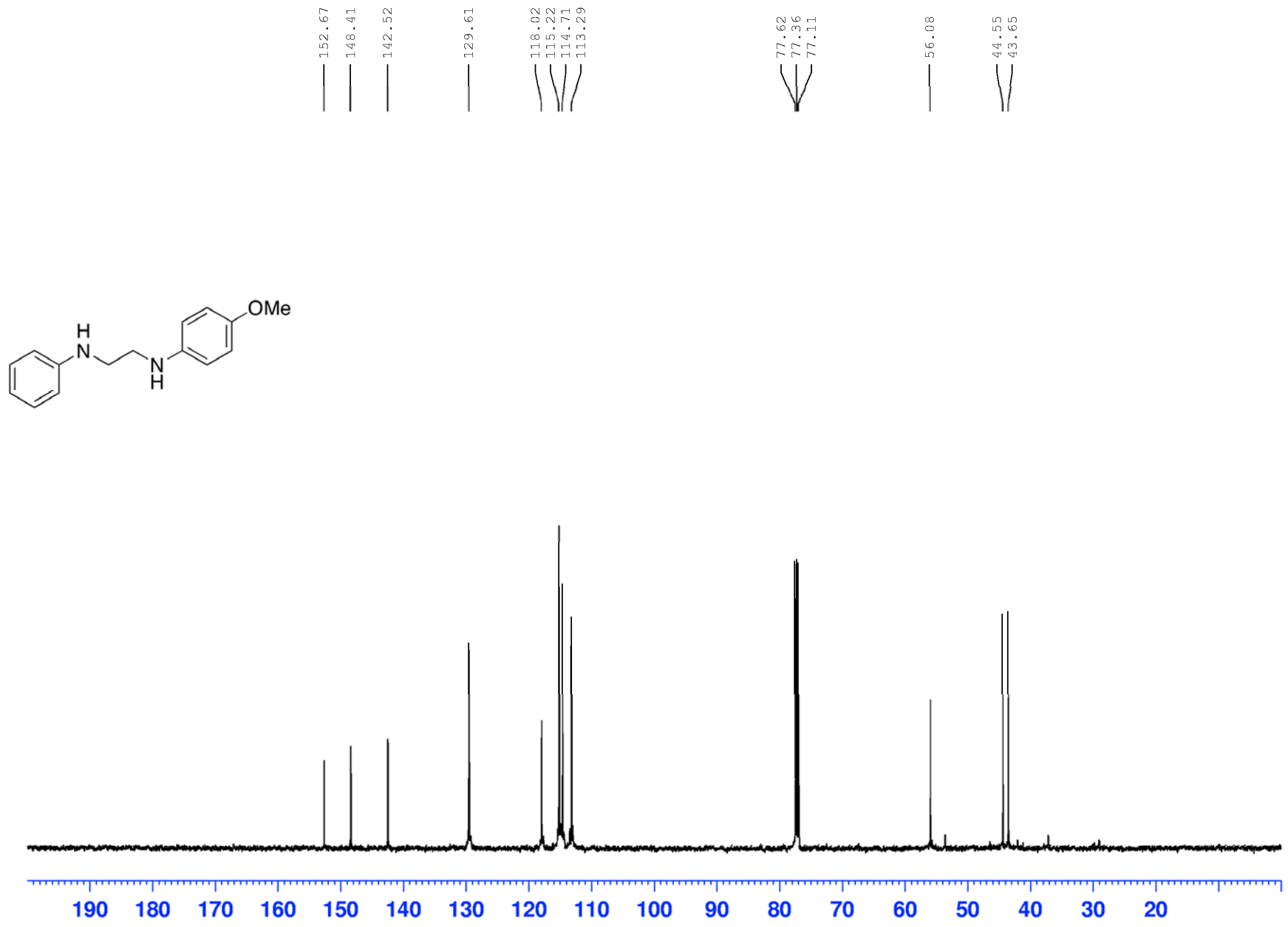
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-o-tolylethane-1,2-diamine (5g) ($CDCl_3$, 126 MHz, 300K)



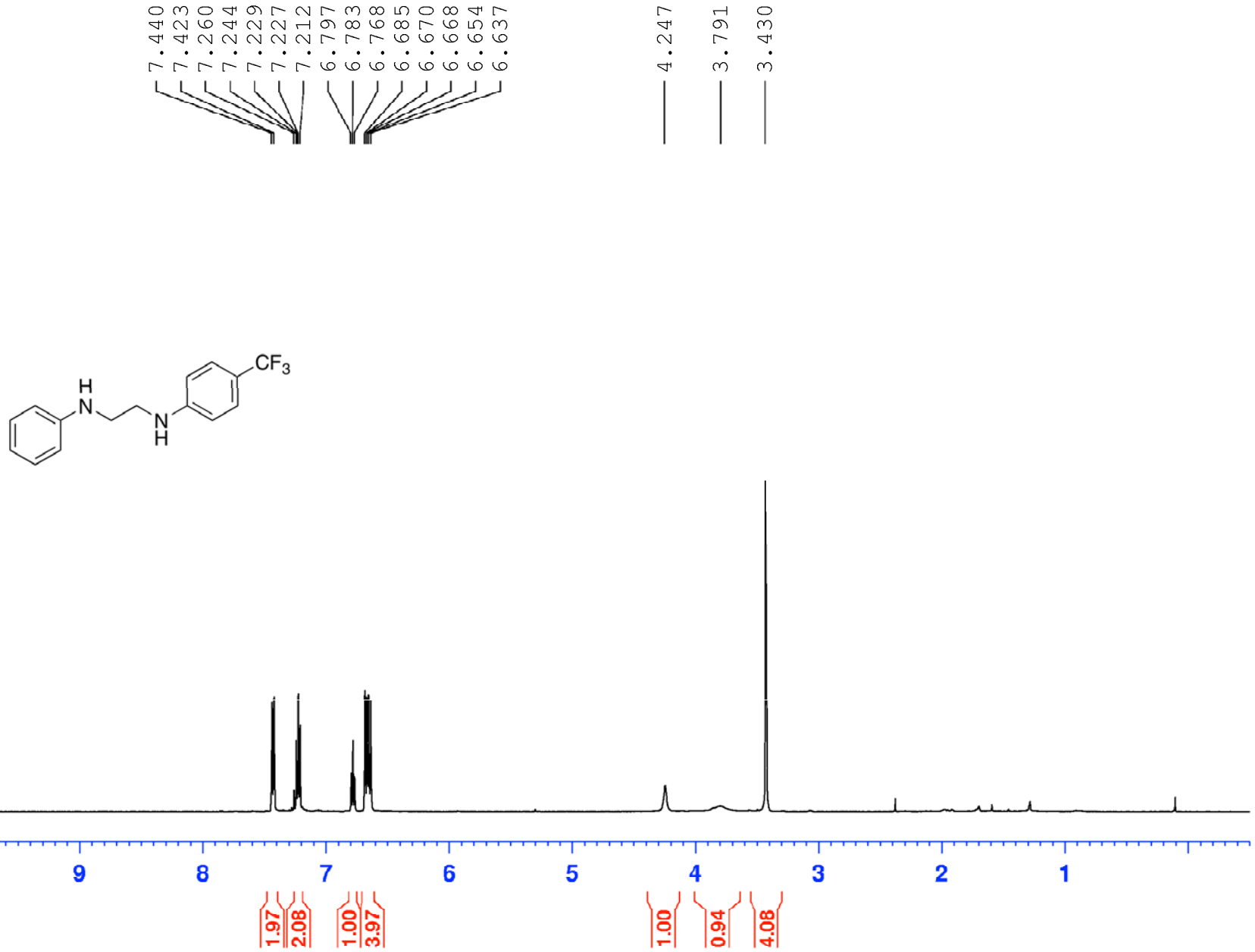
^{1}H NMR of N^{1}-(4-methoxyphenyl)-N^{2}-phenylethane-1,2-diamine (5h) ($CDCl_3$, 500 MHz, 300K)



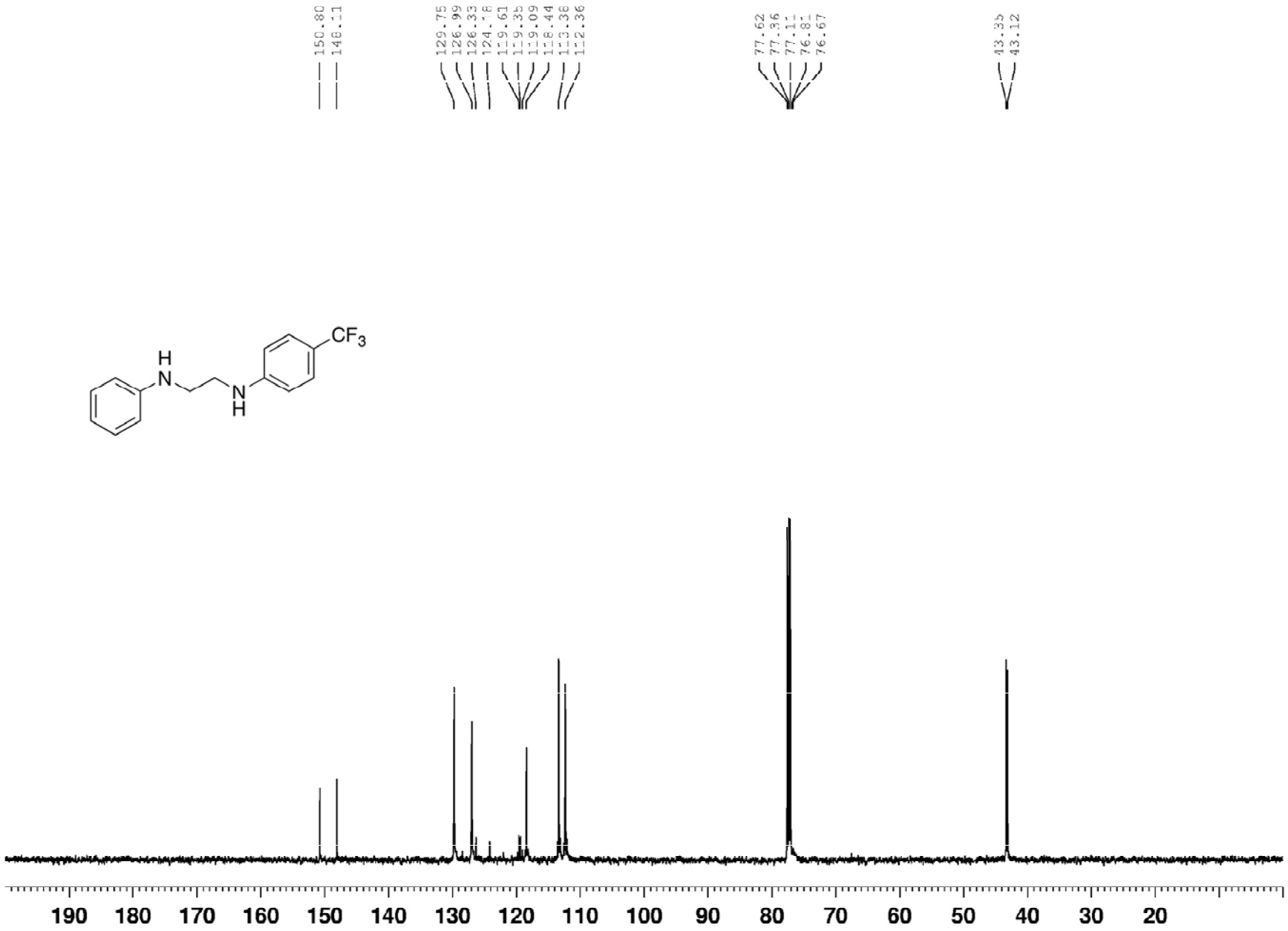
$^{13}C\{^{1}H\}$ NMR of N^1-(4-methoxyphenyl)-N^2-phenylethane-1,2-diamine (5h) ($CDCl_3$, 126 MHz, 300K)



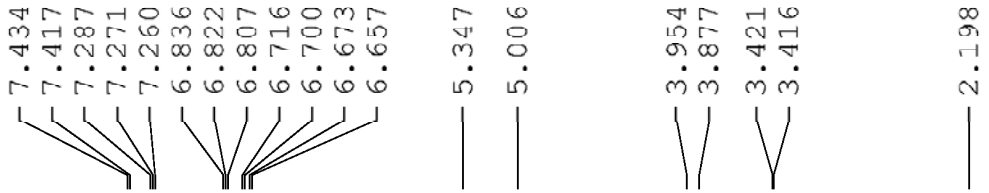
^{1}H NMR of N^{1}-phenyl-N^{2}-(4-(trifluoromethyl)phenyl)ethane-1,2-diamine (5i) ($CDCl_3$, 500 MHz, 300K)

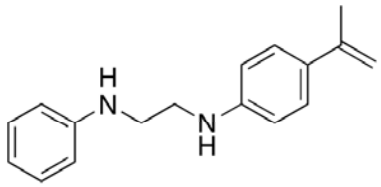


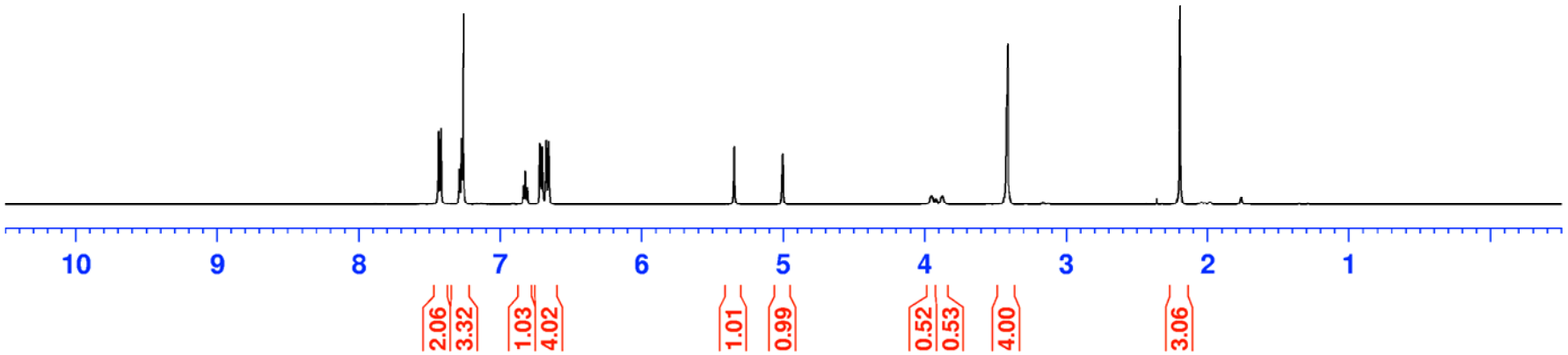
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-(4-(trifluoromethyl)phenyl)ethane-1,2-diamine (5i) ($CDCl_3$, 126 MHz, 300K)



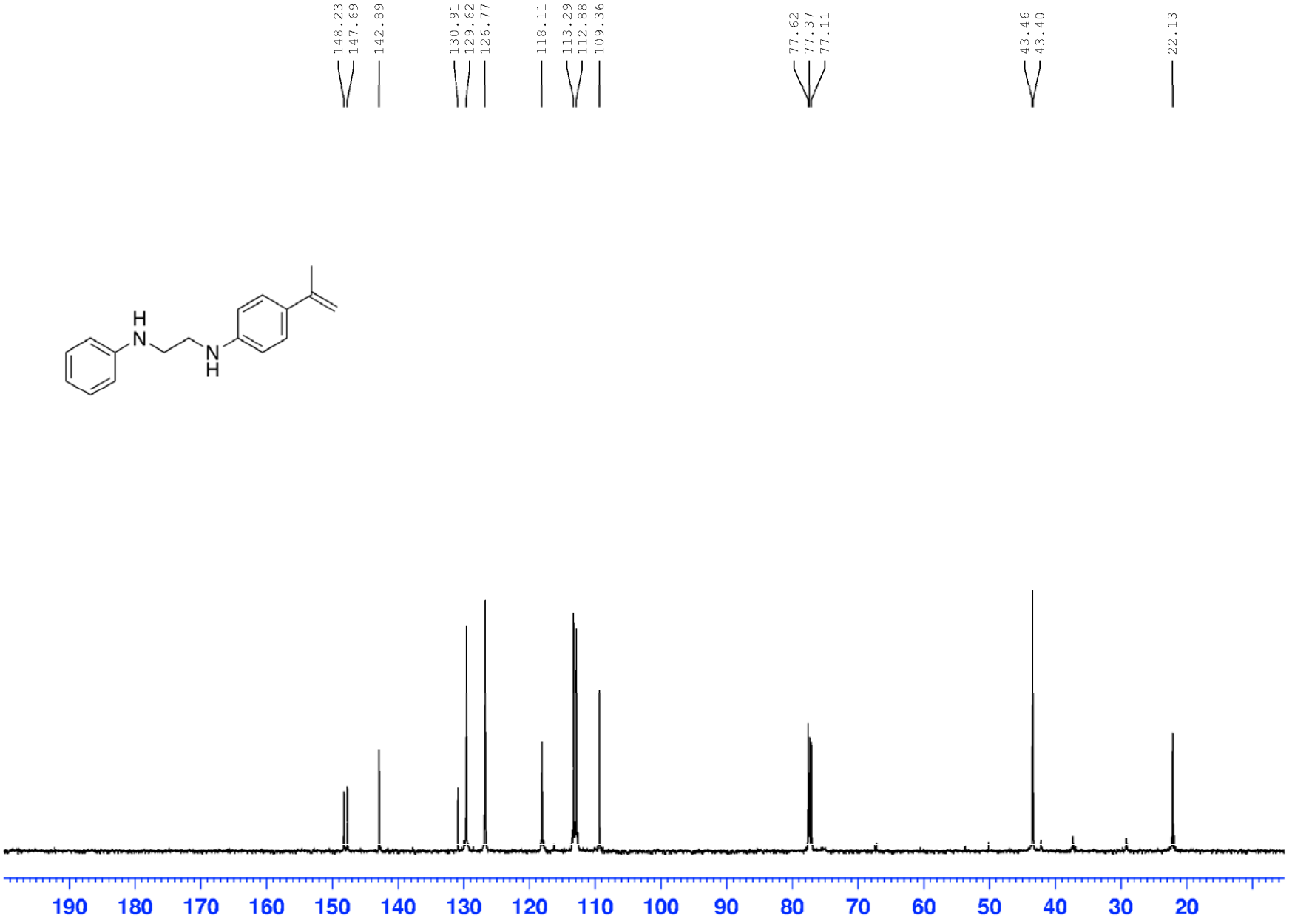
^{1}H NMR of N^{1}-phenyl-N^{2}-(4-(prop-1-en-2-yl)phenyl)ethane-1,2-diamine (5j) ($CDCl_3$, 500 MHz, 300K)



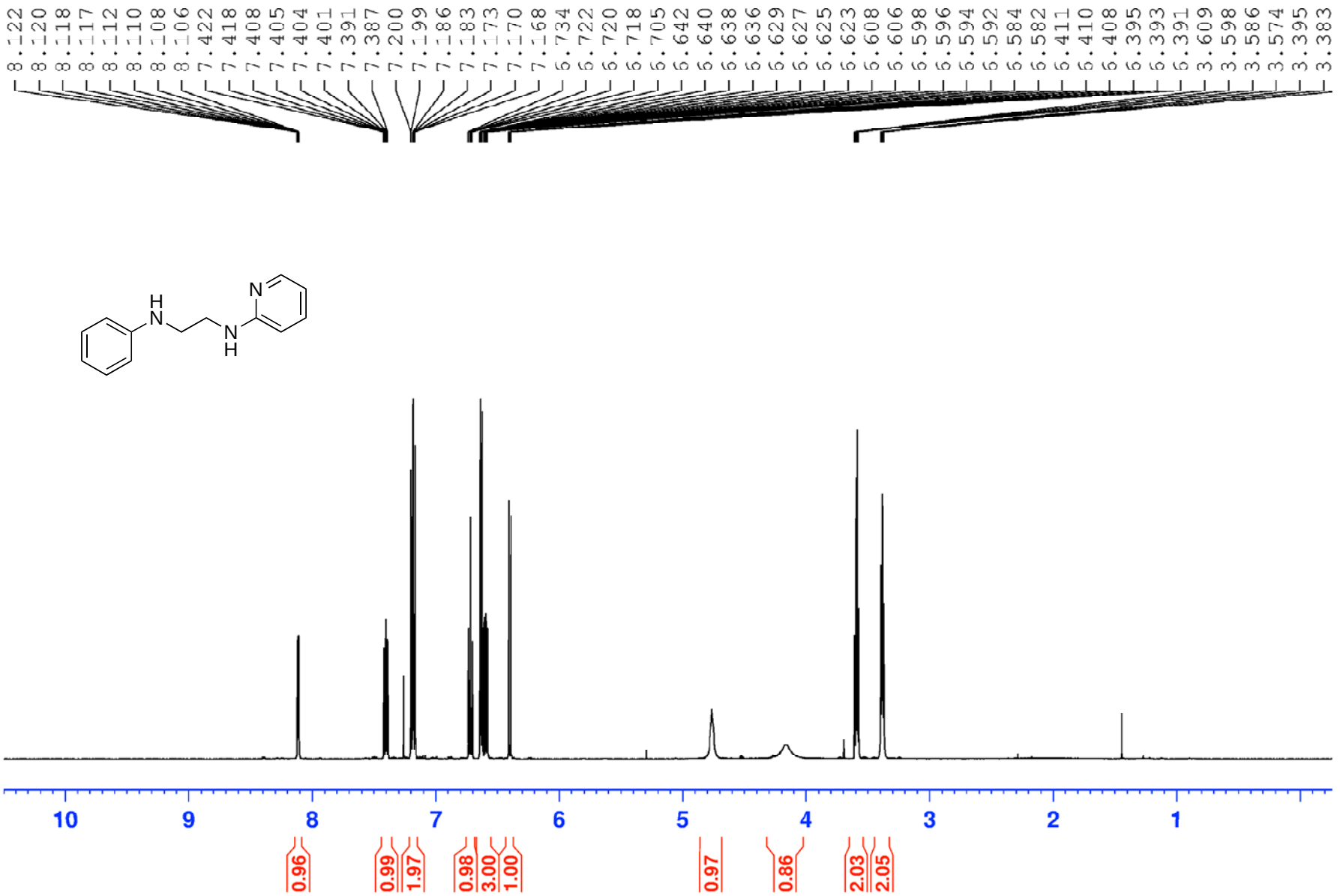




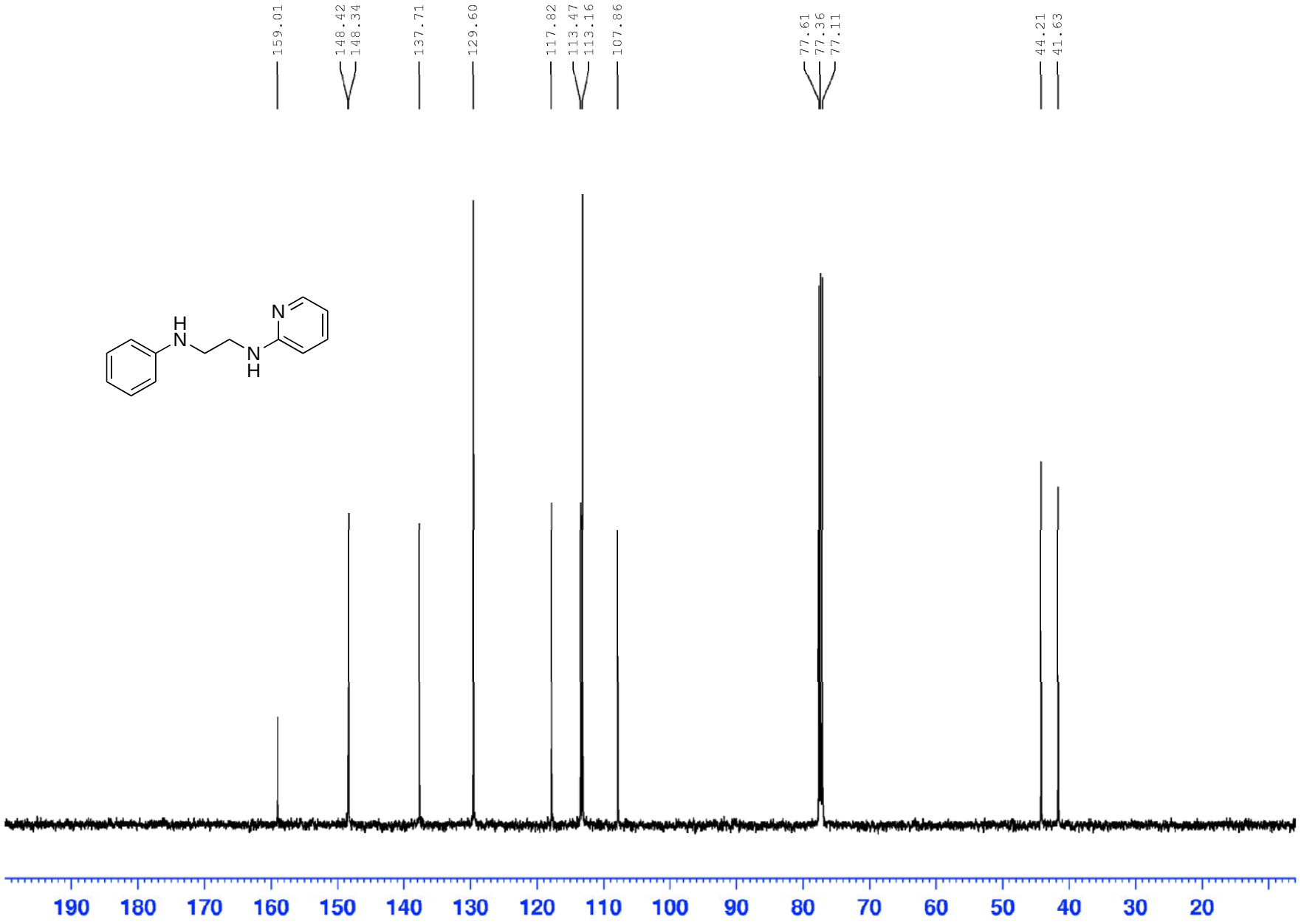
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-(4-(prop-1-en-2-yl)phenyl)ethane-1,2-diamine (5j) ($CDCl_3$, 126 MHz, 300K)



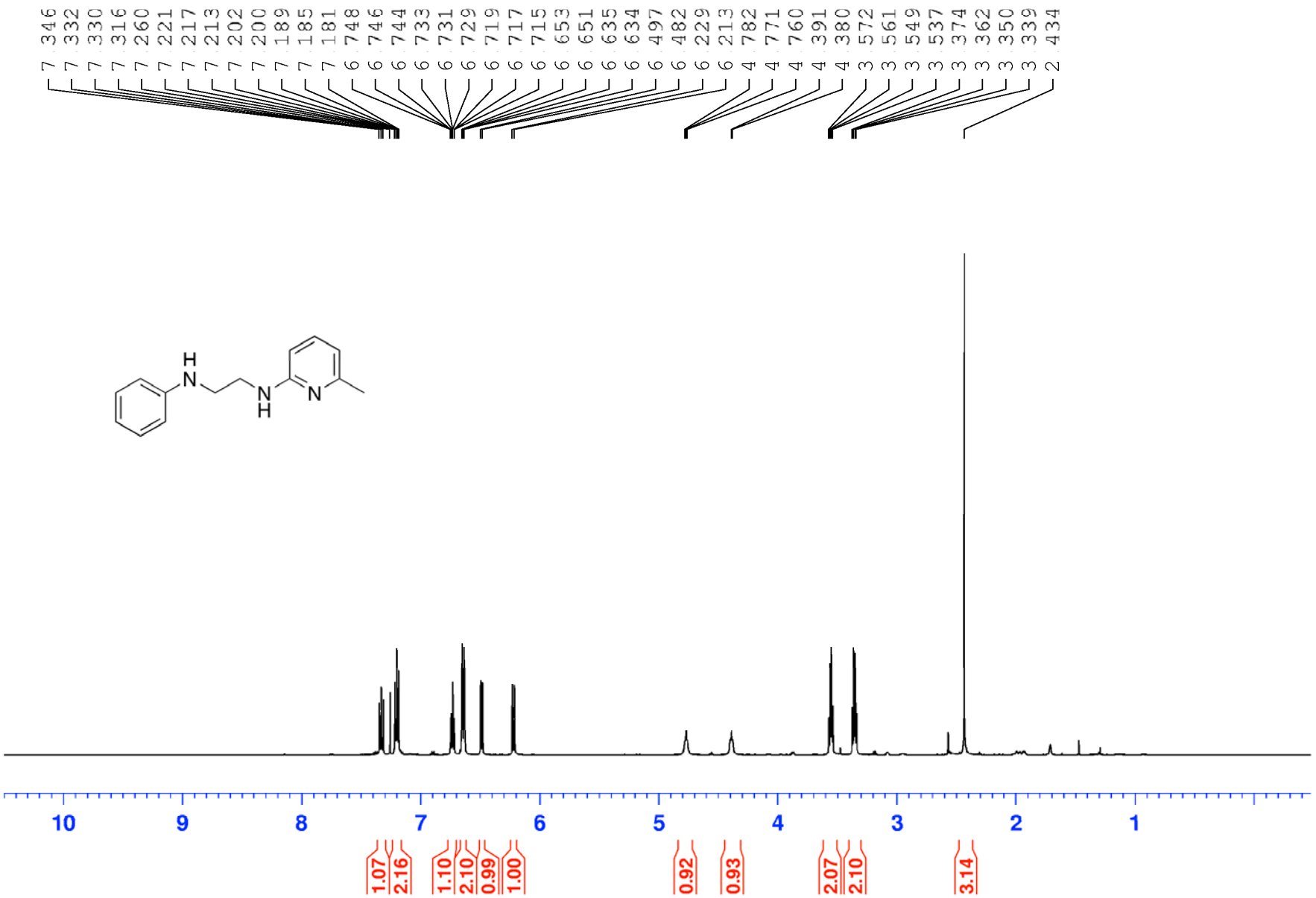
^{1}H NMR of N^{1}-phenyl-N^{2}-(pyridin-2-yl)ethane-1,2-diamine (5k) ($CDCl_3$, 500 MHz, 300K)



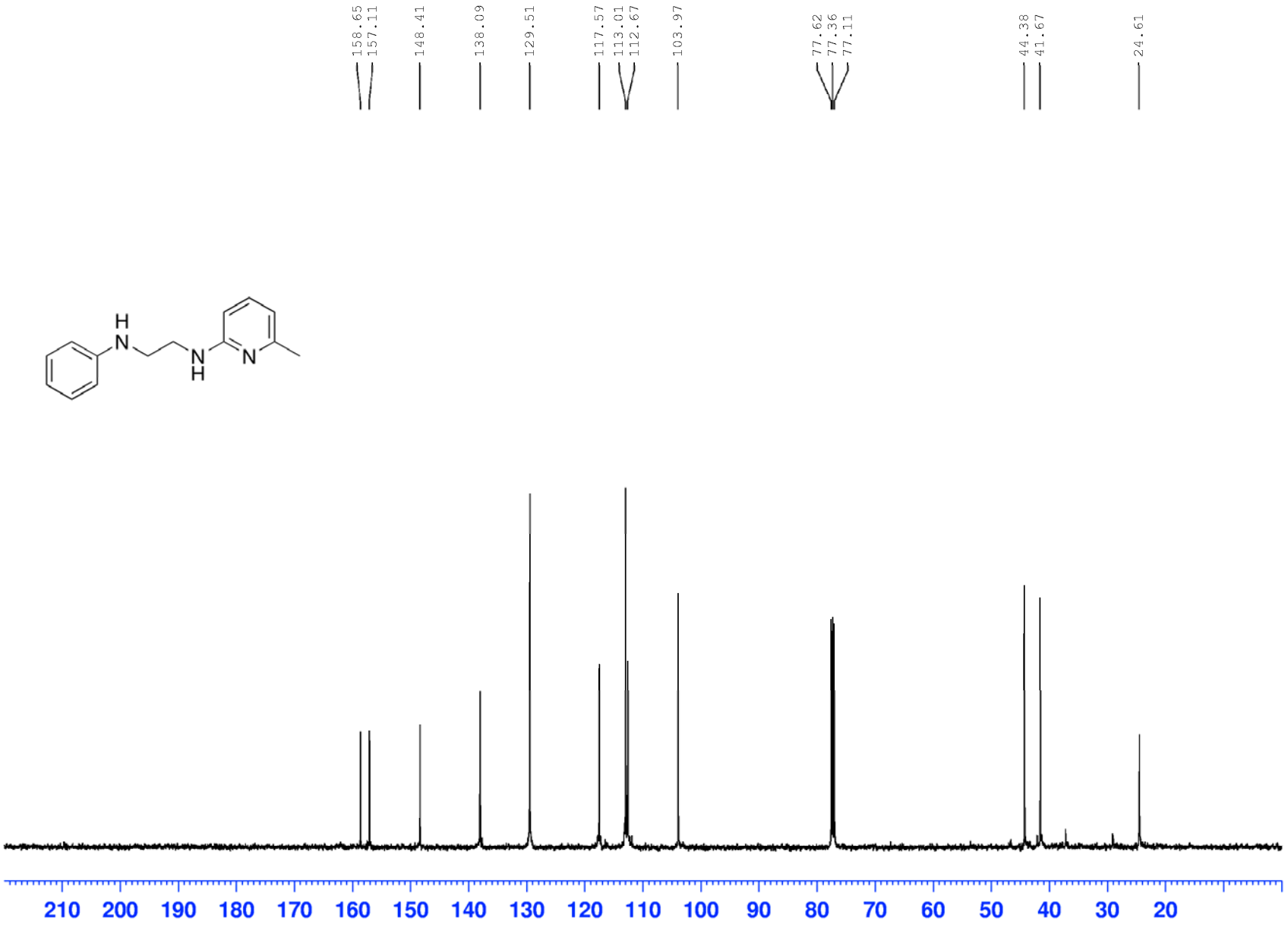
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-(pyridin-2-yl)ethane-1,2-diamine (5k) ($CDCl_3$, 126 MHz, 300K)



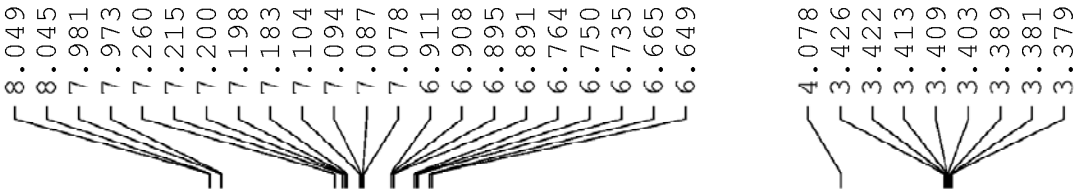
^{1}H NMR of N^{1}-(6-methylpyridin-2-yl)-N^{2}-phenylethane-1,2-diamine (5l) ($CDCl_3$, 500 MHz, 300K)

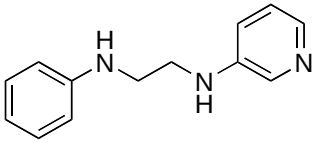


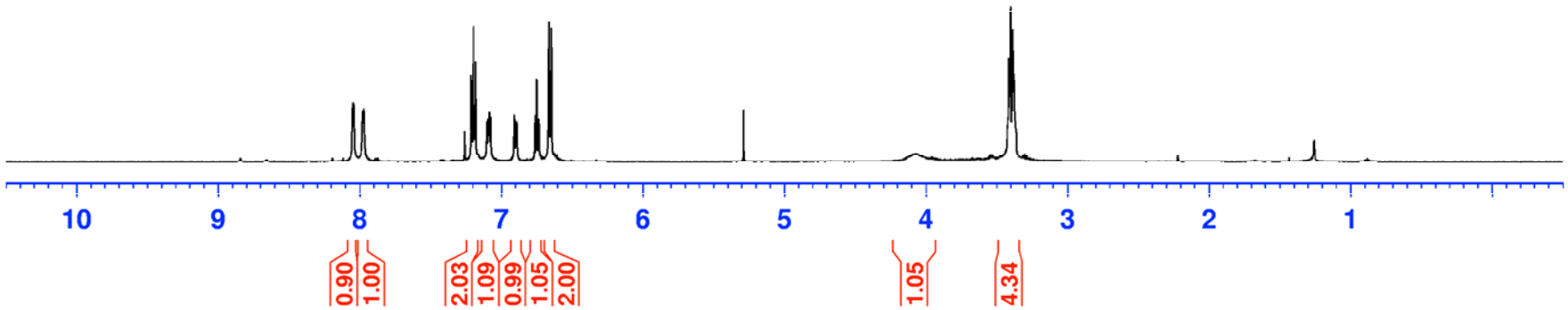
$^{13}C\{^{1}H\}$ NMR of N^1-(6-methylpyridin-2-yl)-N^2-phenylethane-1,2-diamine (5l) ($CDCl_3$, 126 MHz, 300K)



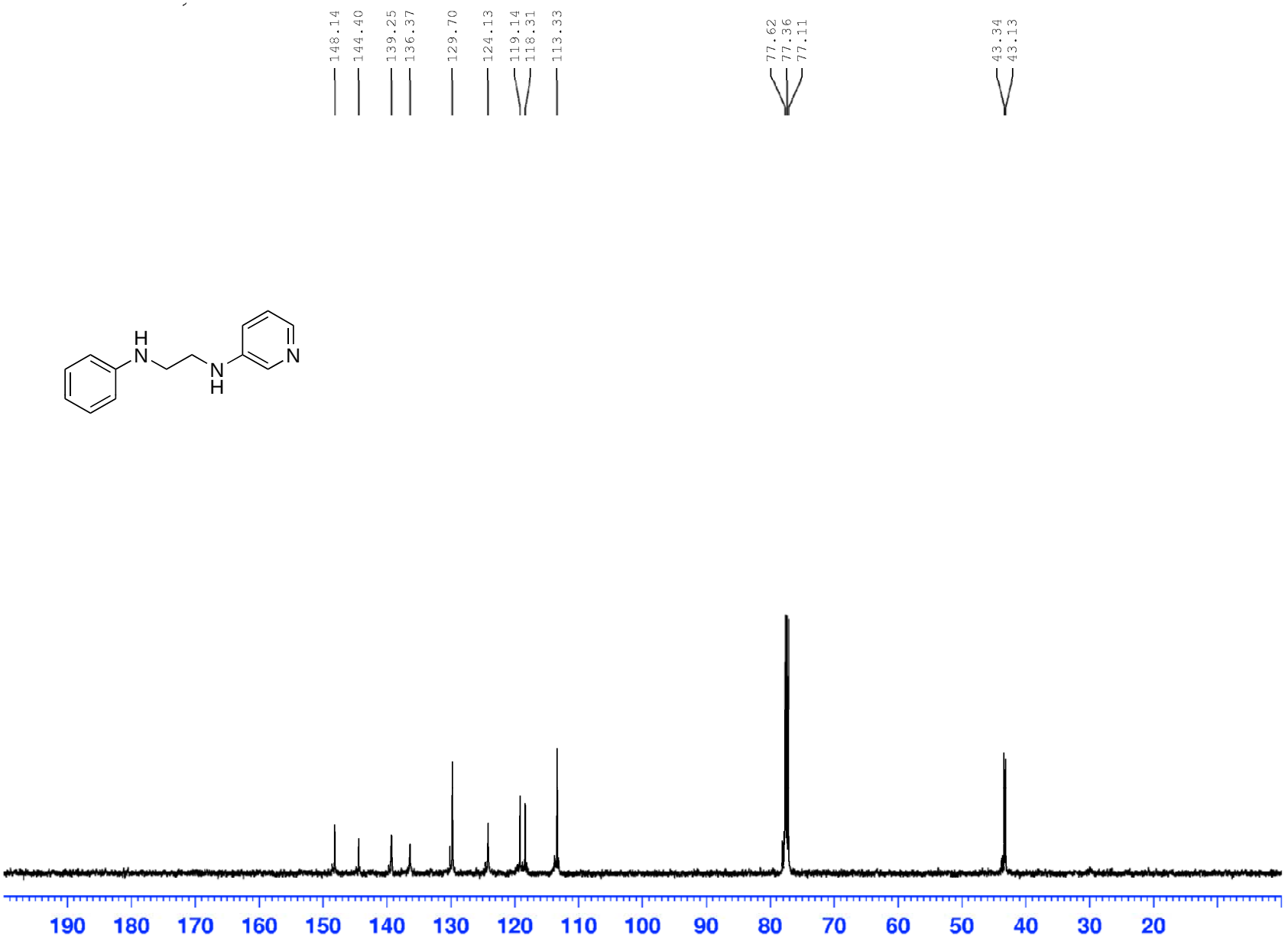
^{1}H NMR of N^{1}-phenyl-N^{2}-(pyridin-3-yl)ethane-1,2-diamine (5m) ($CDCl_3$, 500 MHz, 300K)



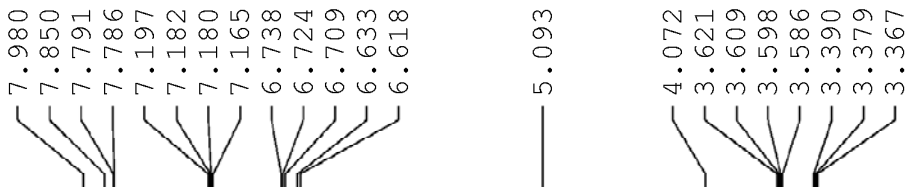


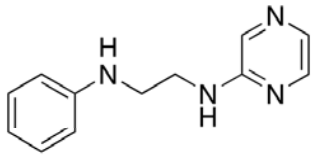


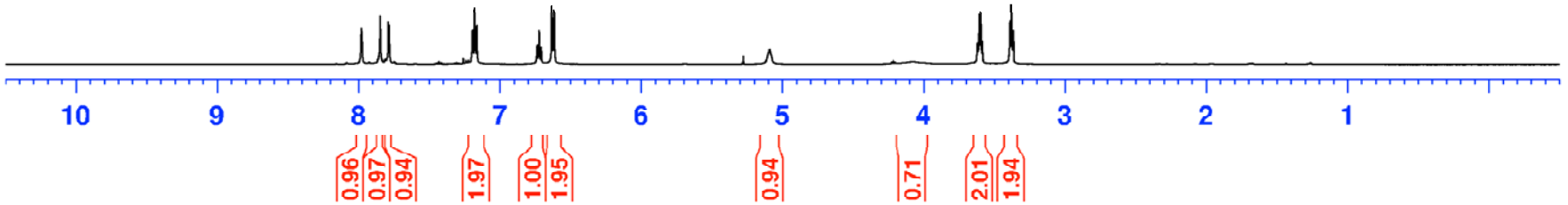
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-(pyridin-3-yl)ethane-1,2-diamine (5m) ($CDCl_3$, 126 MHz, 300K)



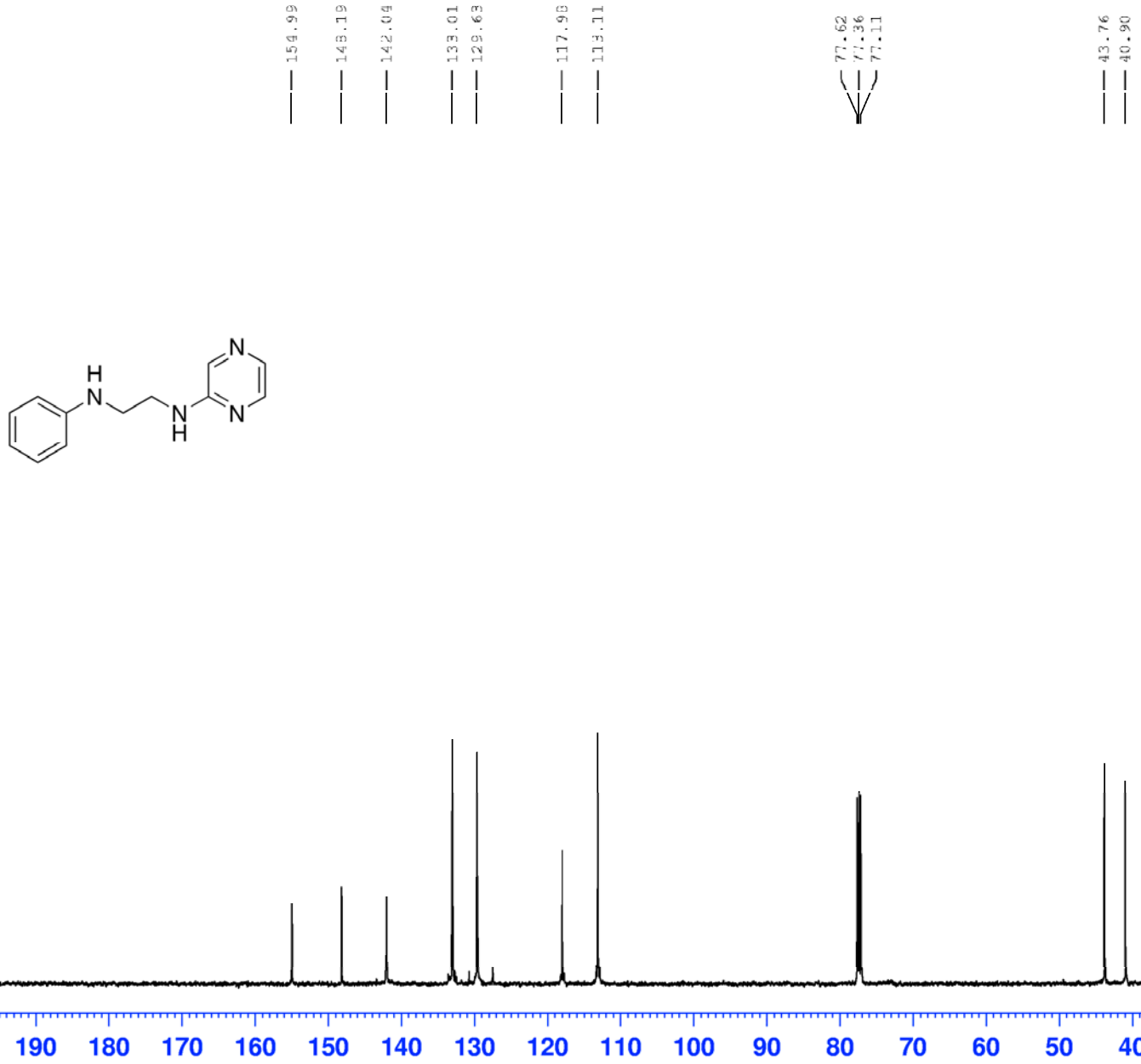
^{1}H NMR of N^{1}-phenyl-N^{2}-(pyrazin-2-yl)ethane-1,2-diamine (5n) ($CDCl_3$, 500 MHz, 300K)



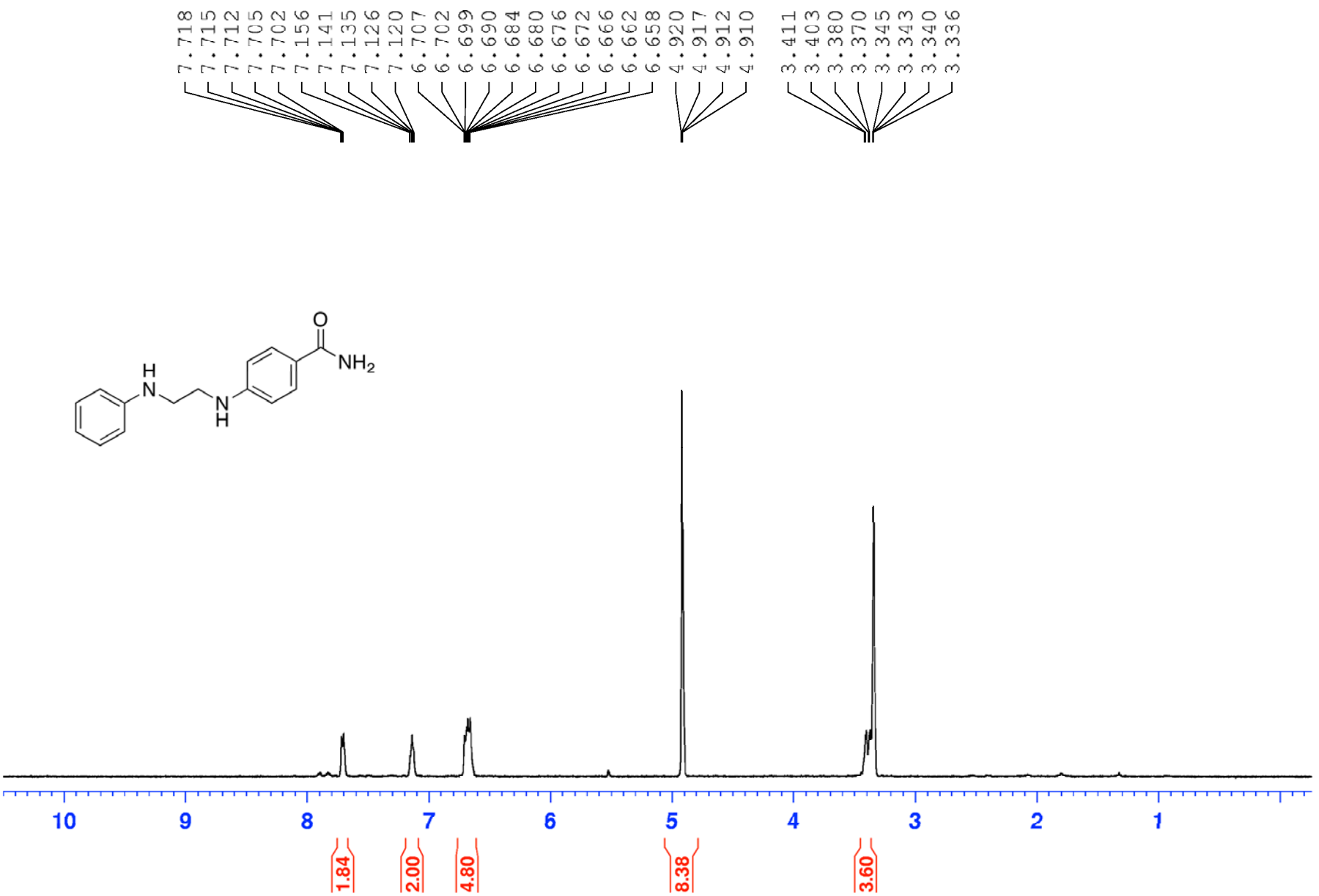




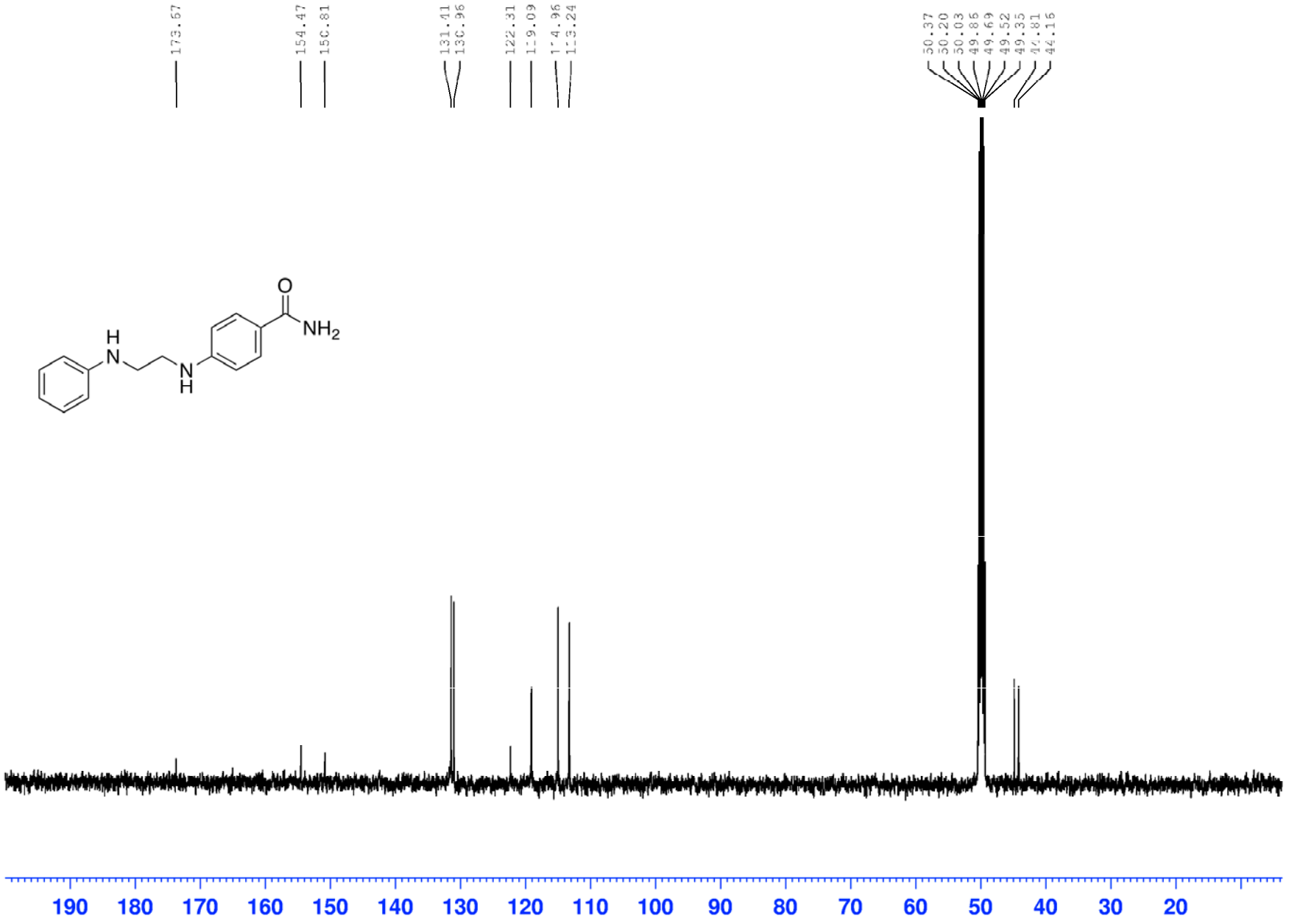
$^{13}C\{^{1}H\}$ NMR of N^1-phenyl-N^2-(pyrazin-2-yl)ethane-1,2-diamine (5n) ($CDCl_3$, 126 MHz, 300K)



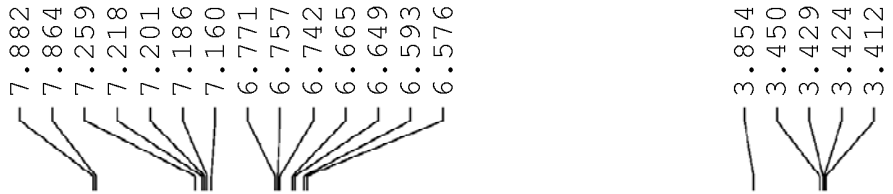
^{1}H NMR of 4-(2-(phenylamino)ethylamino)benzamide (5o) (MeOD, 500 MHz, 300K)

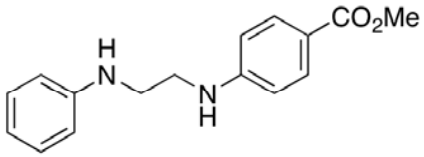


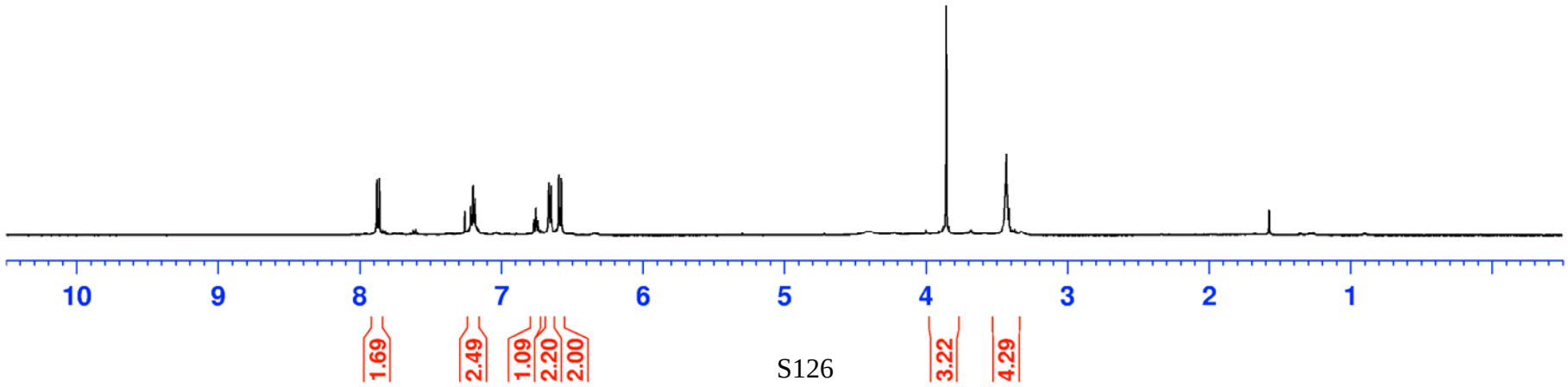
$^{13}C\{^{1}H\}$ NMR of 4-(2-(phenylamino)ethylamino)benzamide (5o) 126 MHz, 300K)



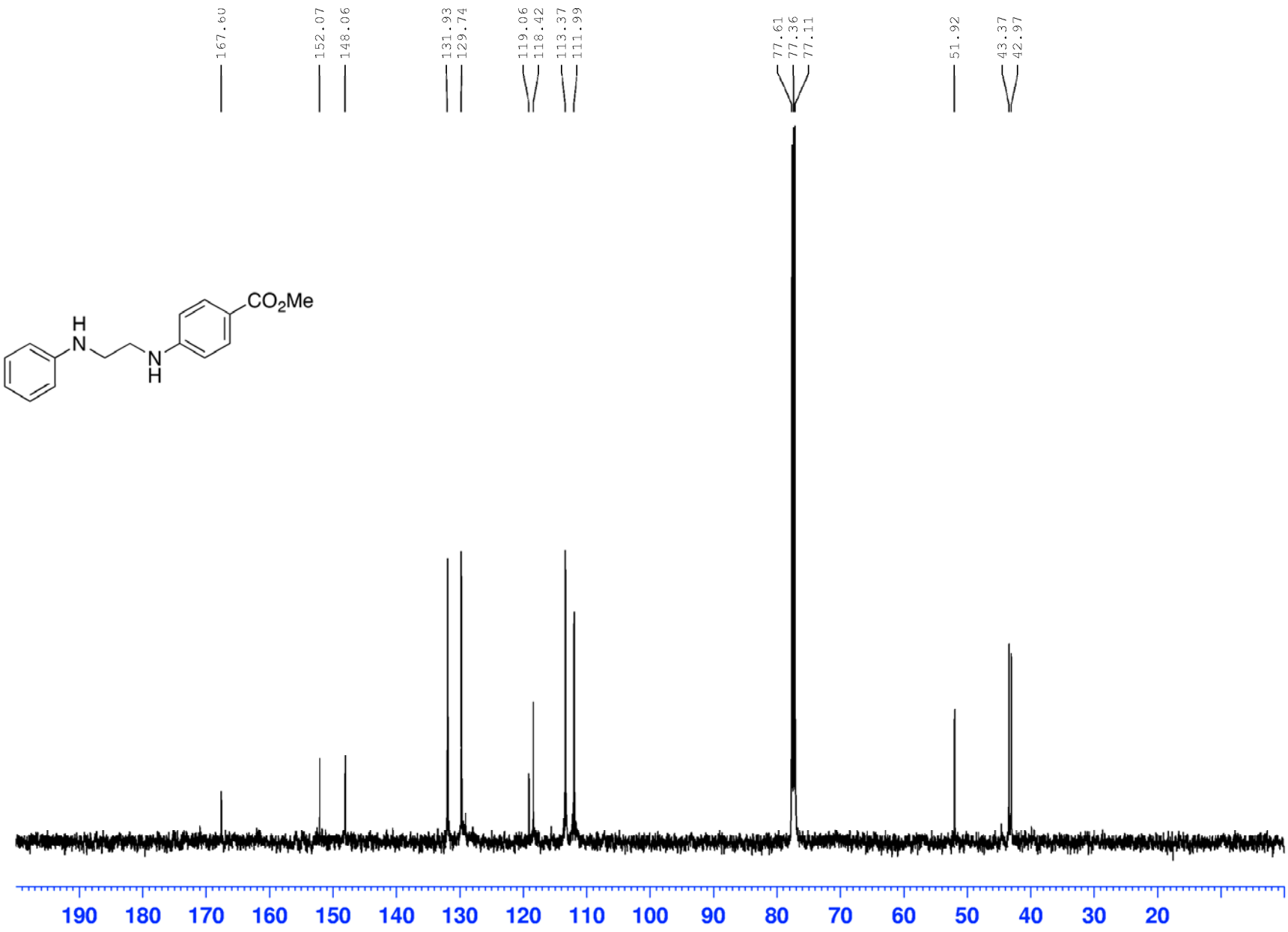
^{1}H NMR of methyl 4-(2-(phenylamino)ethylamino)benzoate (5p) ($CDCl_3$, 500 MHz, 300K)



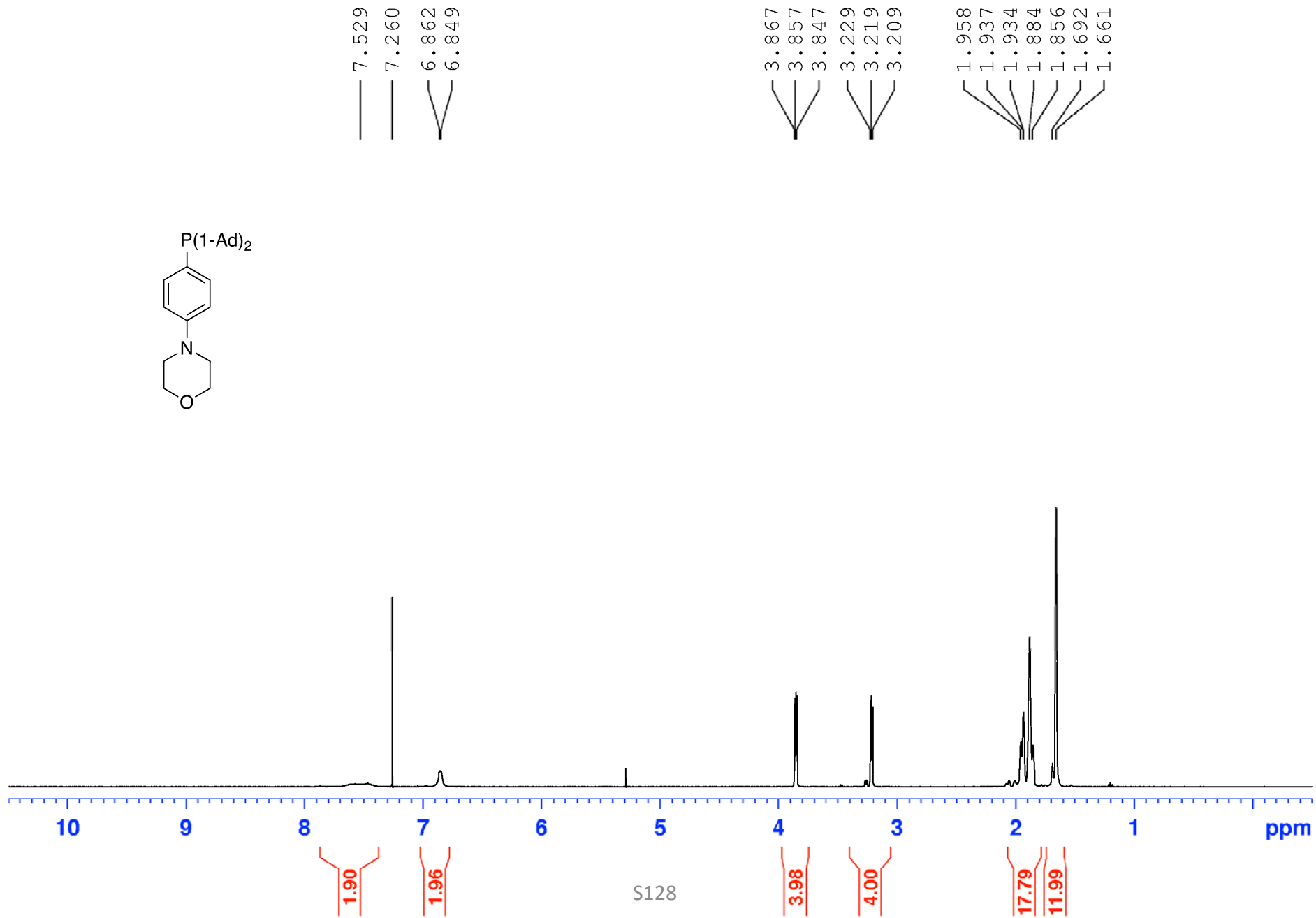




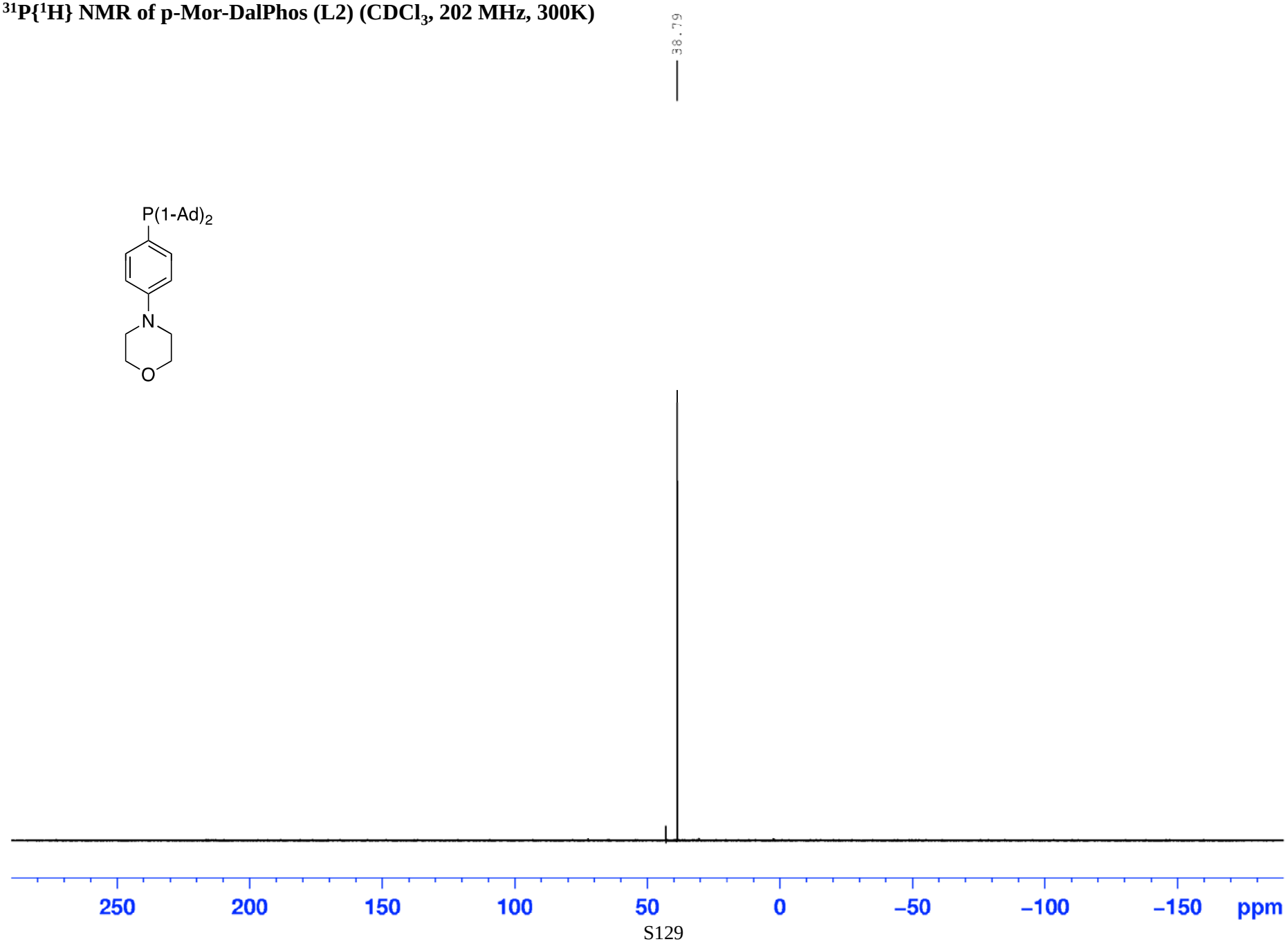
$^{13}C\{^{1}H\}$ NMR of methyl 4-(2-(phenylamino)ethylamino)benzoate (5p) ($CDCl_3$, 126 MHz, 300K)



^{1}H NMR of p-Mor-DalPhos (L2) ($CDCl_3$, 500 MHz, 300K)



$^{31}P\{^{1}H\}$ NMR of p-Mor-DalPhos (L2) ($CDCl_3$, 202 MHz, 300K)



$^{13}C\{^{1}H\}$ NMR of p-Mor-DalPhos (L2) ($CDCl_3$, 126 MHz, 300K)