

Supporting Information

**Palladium-catalyzed ortho C–H Arylation of Aniline
Carbamates with Diazonium Salts under Mild Condition:
Expedient Synthesis of Carbazole Alkaloids**

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India

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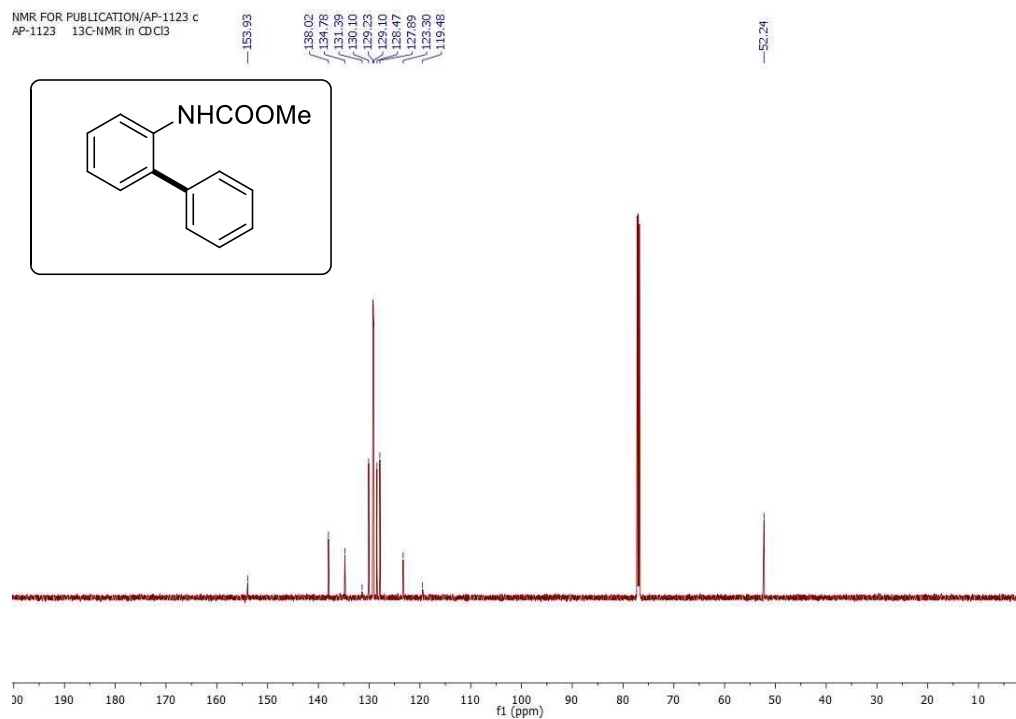
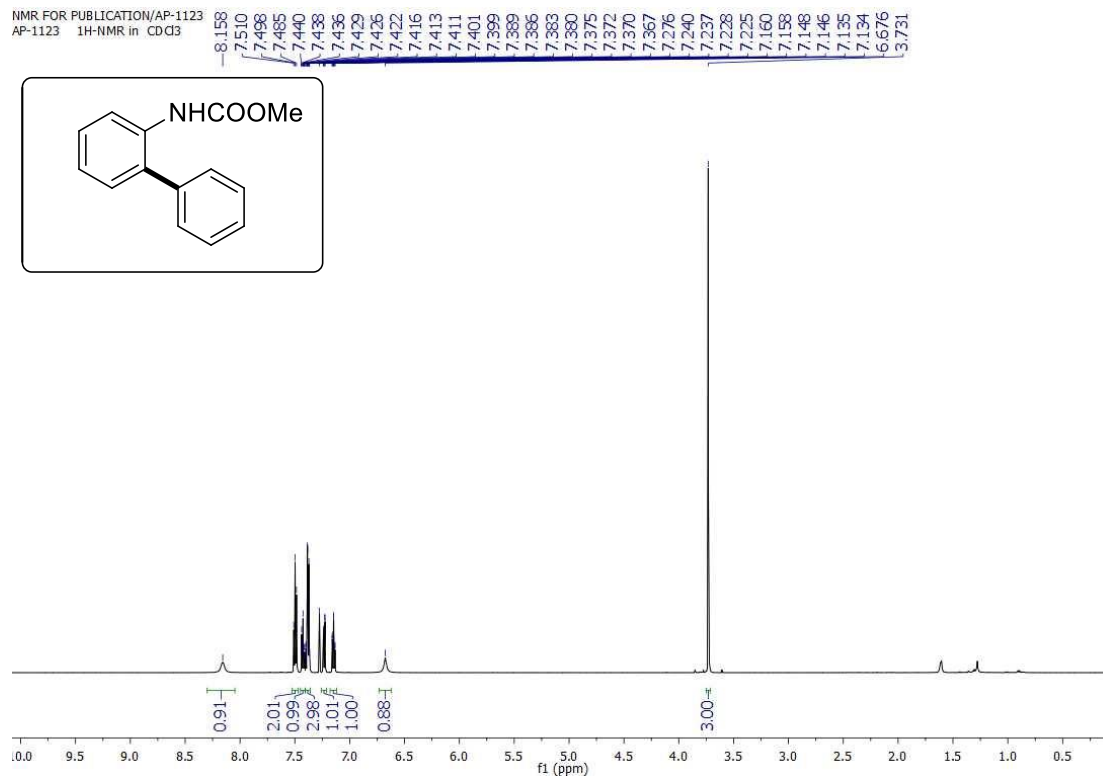
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Table S 1: Attempted conditions for de-methylation of O-Methylmahanine

Entry	Conditions	Time	Results
1 ¹	BBr ₃ , DCM, -78 °C ~rt	30 min	Decomposed
2 ²	TMSCl, NaI, CH ₃ CN, rt	45 min	Decomposed
3 ³	BF ₃ -Et ₂ O, DMS, 0°C	30 min	Decomposed
4 ⁴	Trimethyliodosilane, DCM, rt	45 min	Decomposed
5 ⁵	AlCl ₃ in benzene, reflux,	24 h	No reaction
6 ⁶	AlI ₃ , pyridine, MeCN	24 h	No reaction

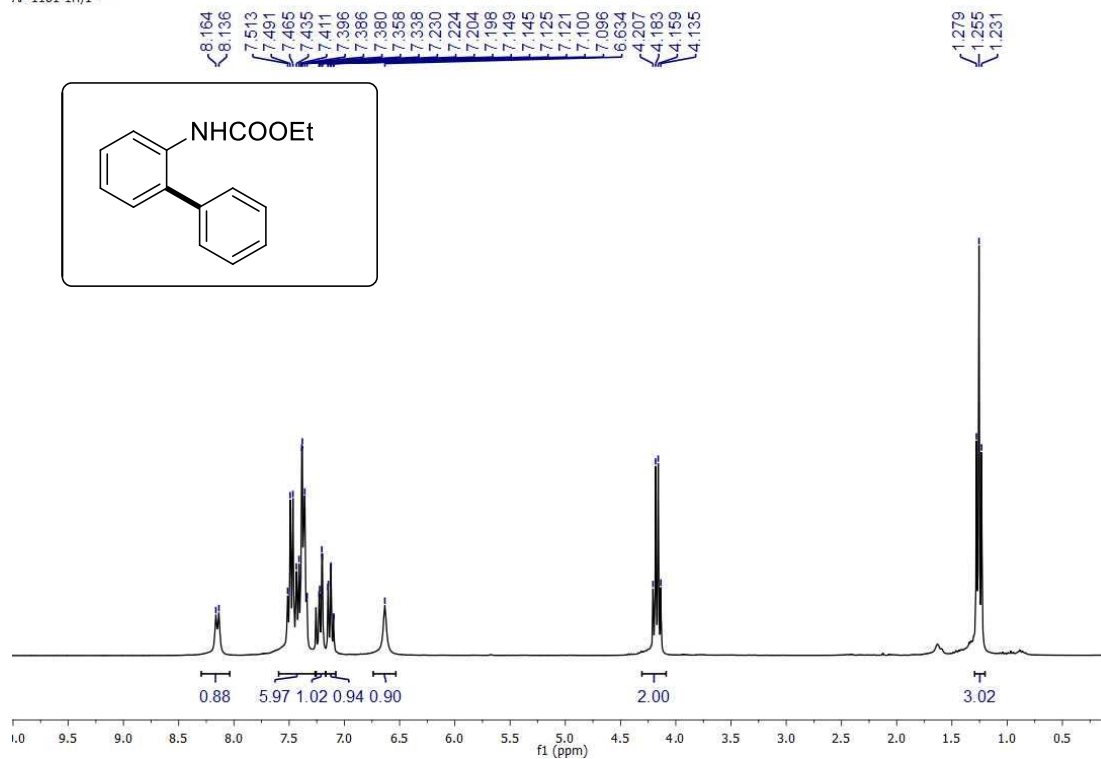
Scheme S1: ^1H NMR and ^{13}C NMR Spectra of all compounds

^1H NMR and ^{13}C NMR Spectra of compound 3a

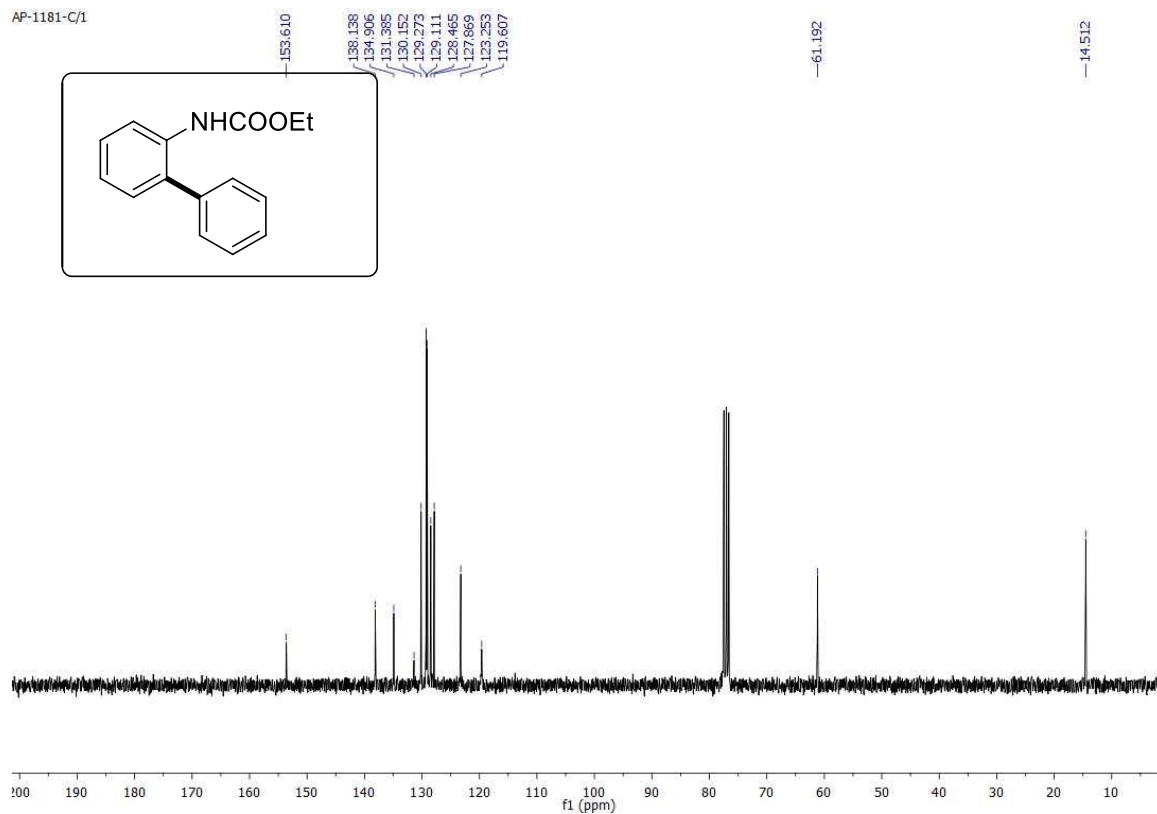


^1H NMR and ^{13}C NMR Spectra of compound 3b

AP-1181-1H/1 —

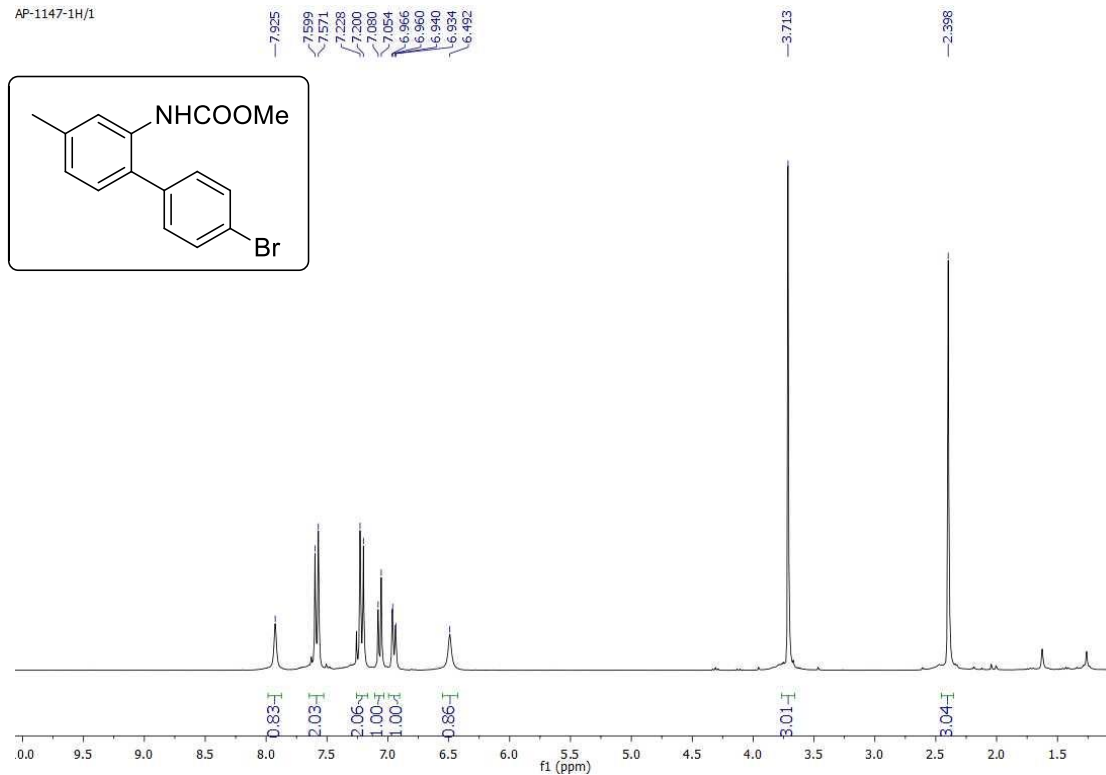


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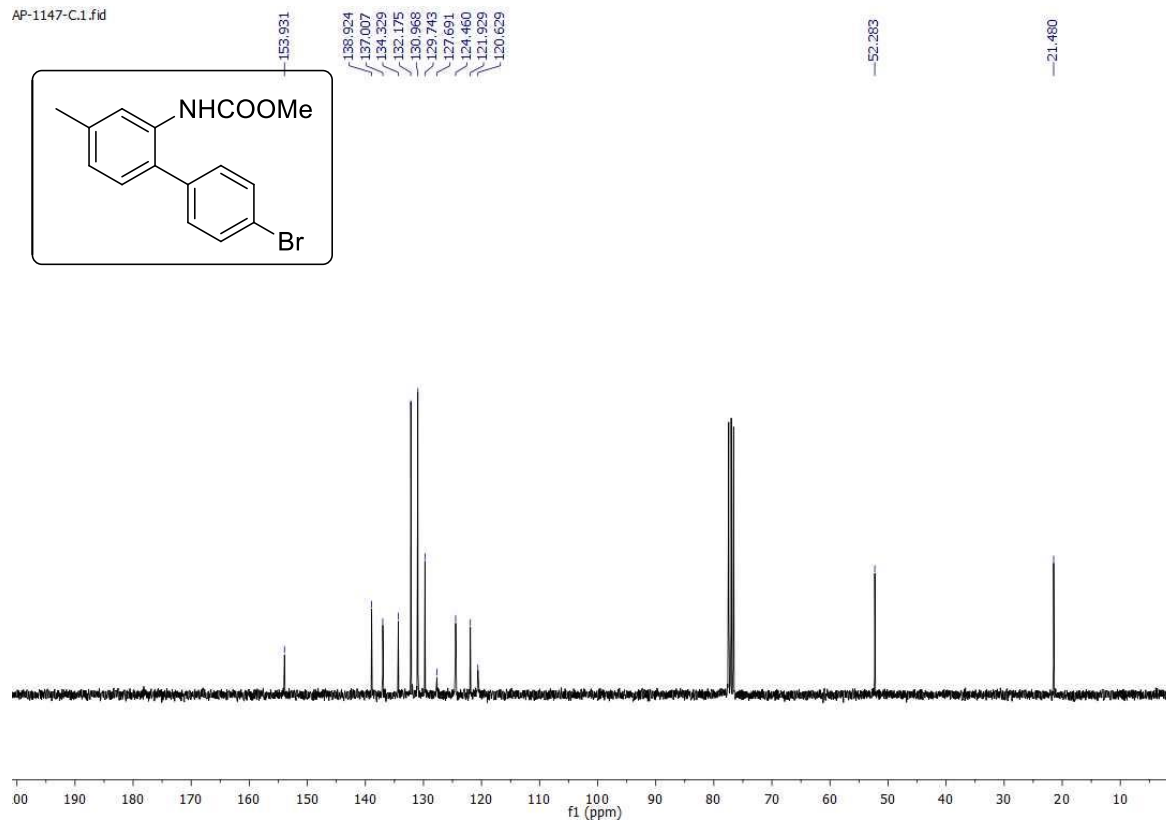


¹H NMR and ¹³C NMR Spectra of compound 3c

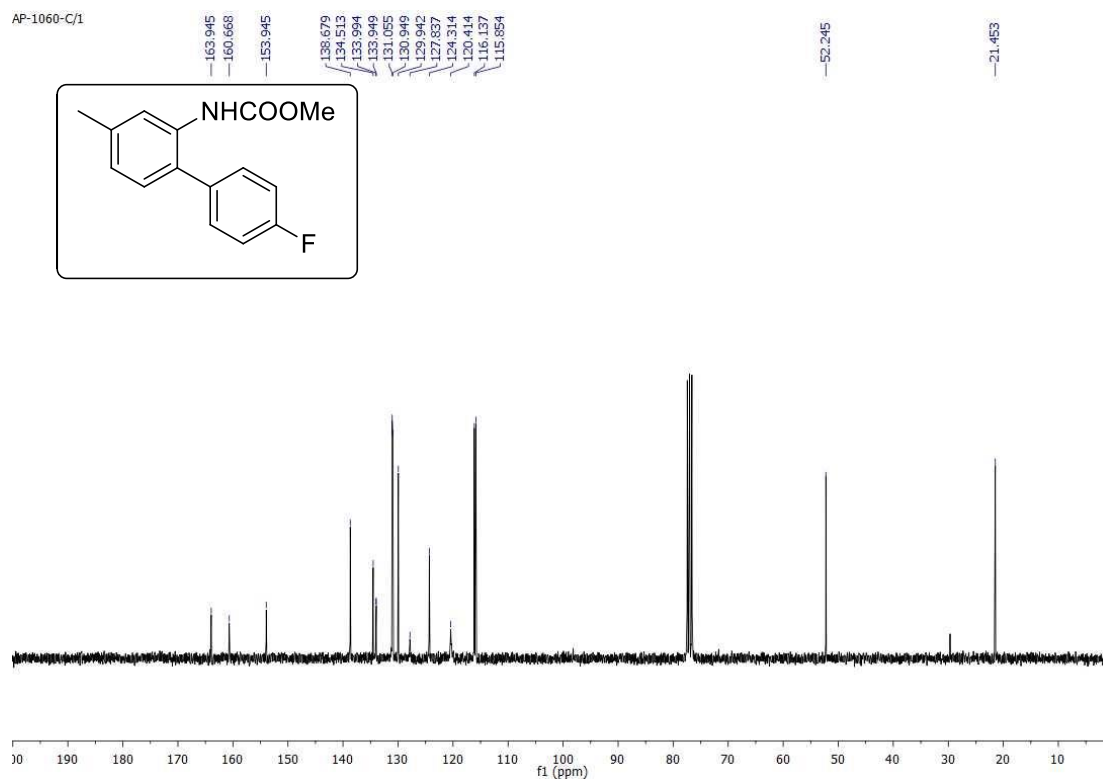
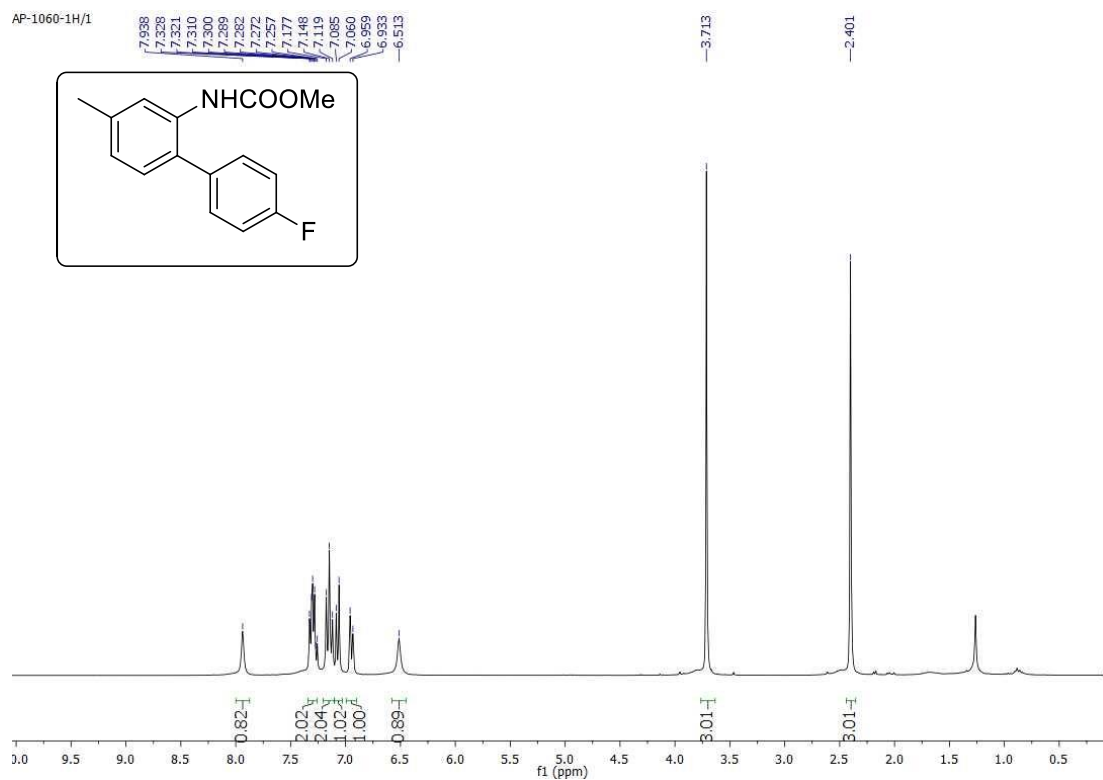
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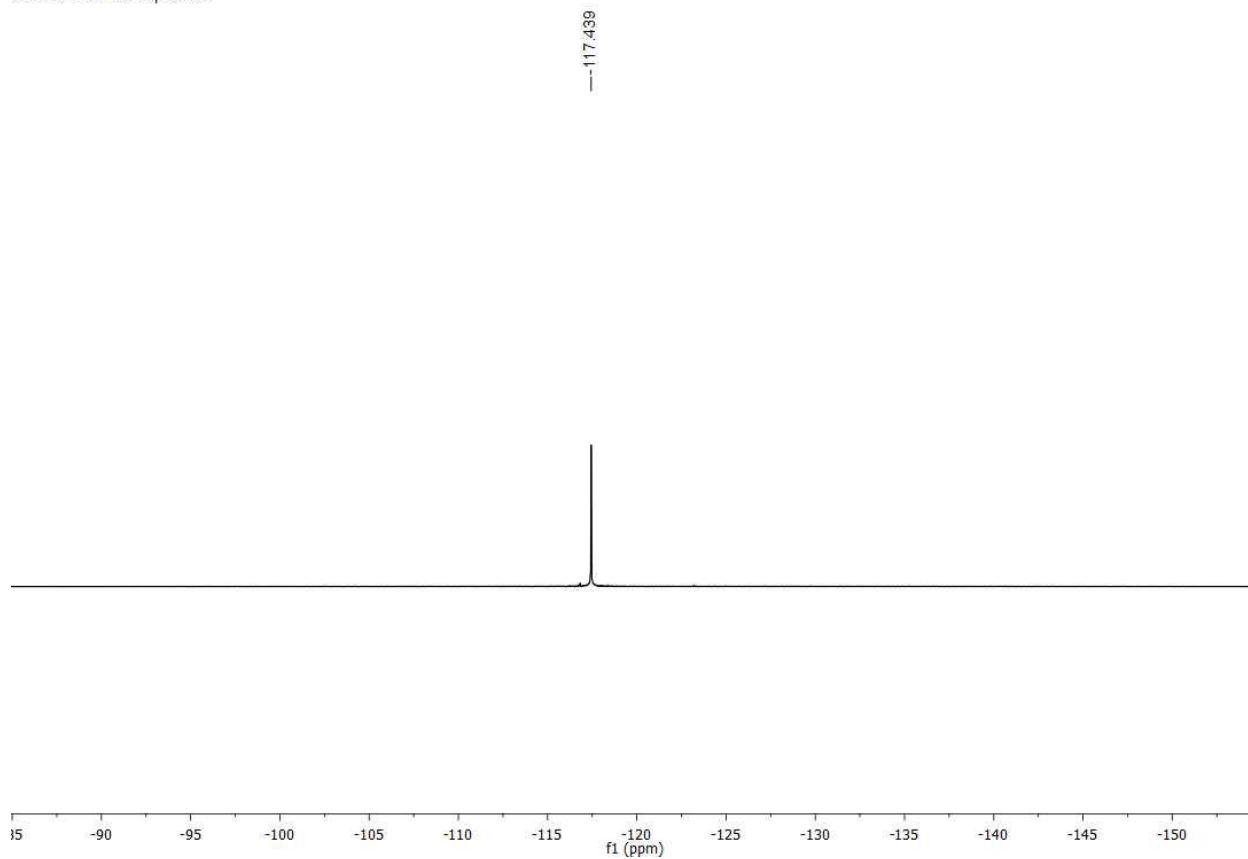


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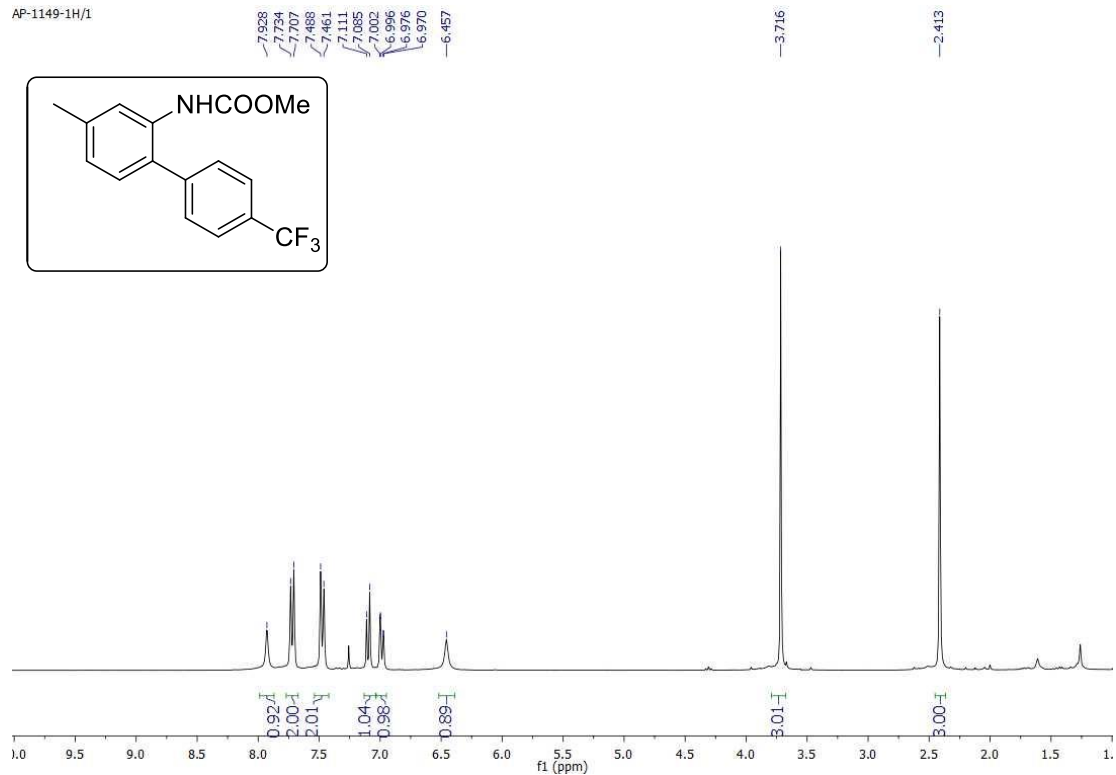
^1H NMR, ^{13}C NMR and ^{19}F NMR Spectra of compound 3d



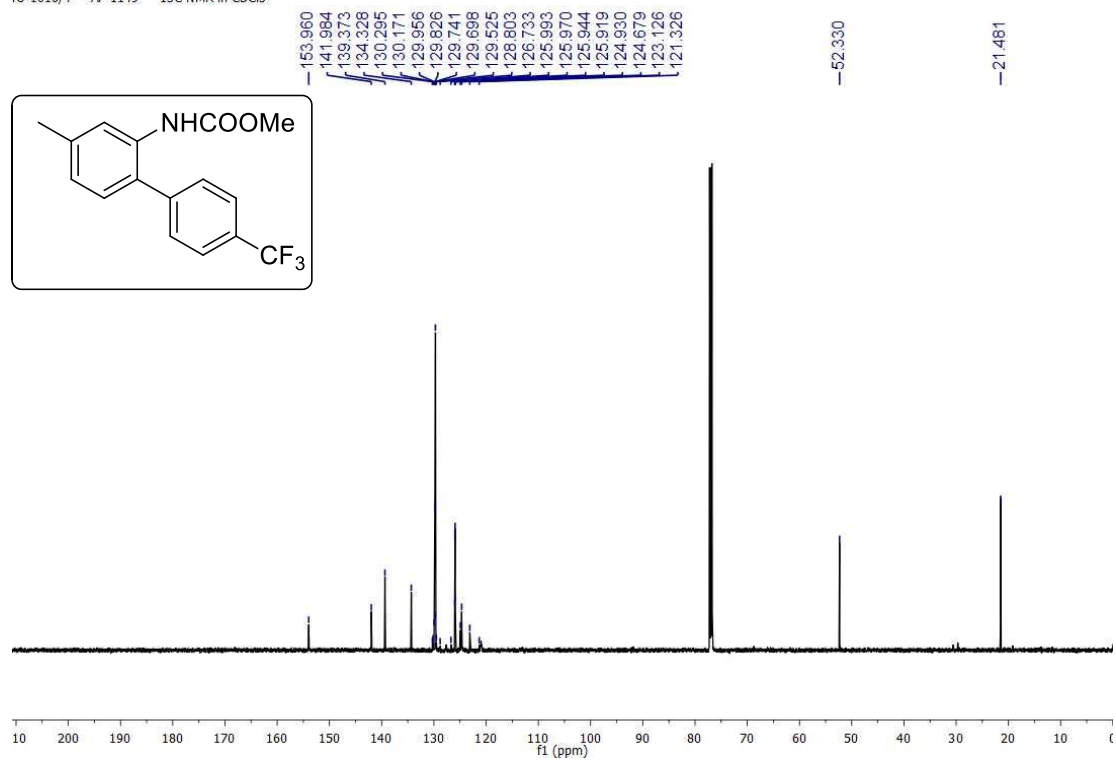


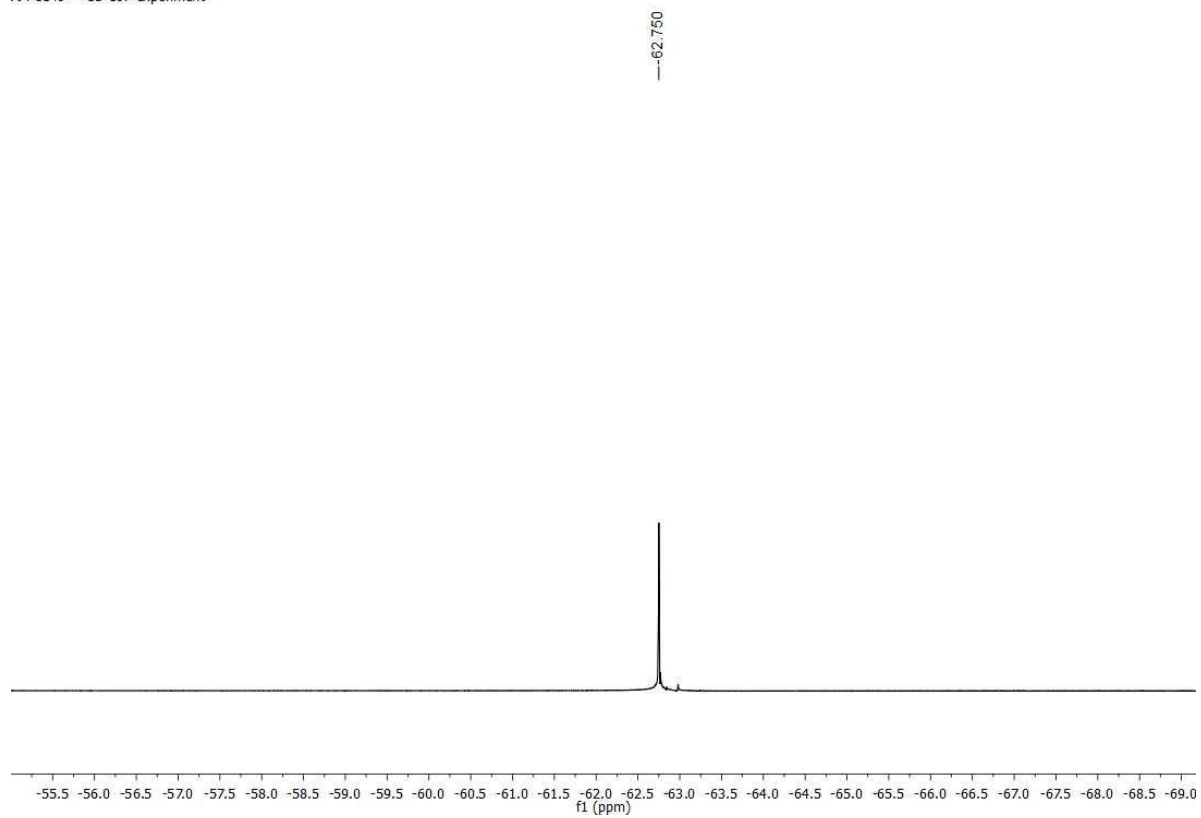
^1H NMR, ^{13}C NMR and ^{19}F NMR Spectra of compound 3e

AP-1149-1H/1



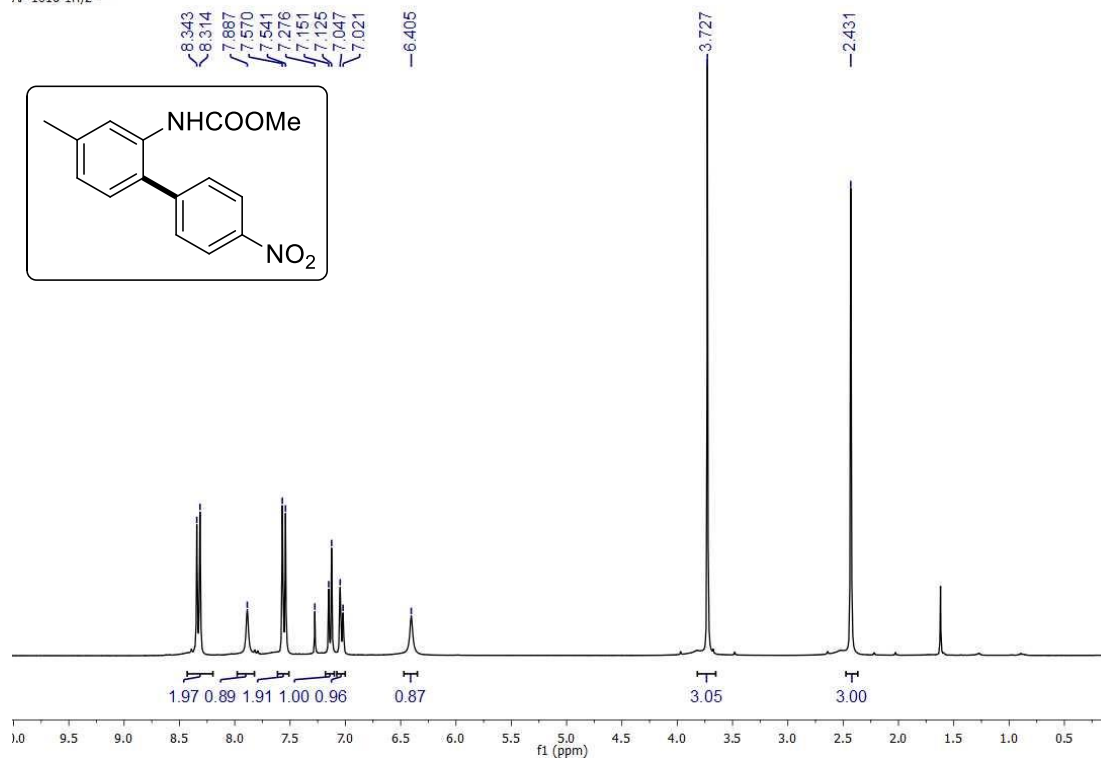
RJ-1016/4 - AP-1149 ^{13}C -NMR in CDCl_3



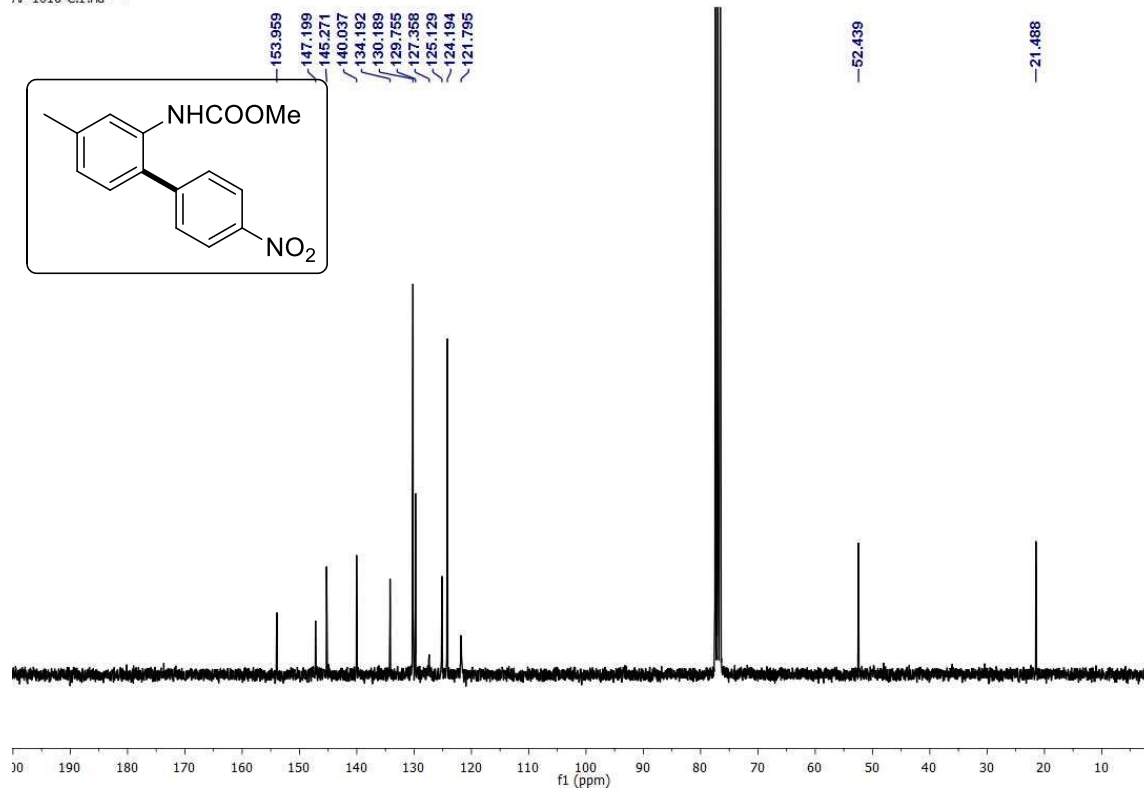


^1H NMR and ^{13}C NMR Spectra of compound 3f

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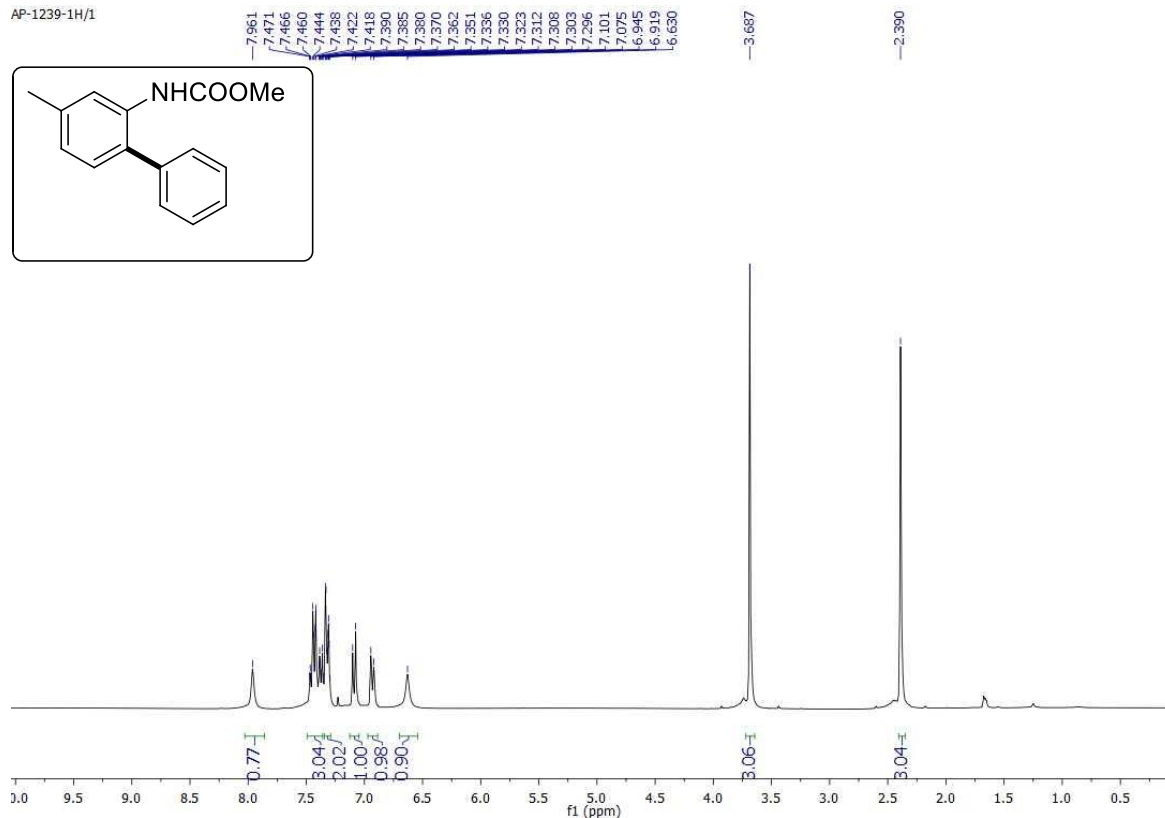
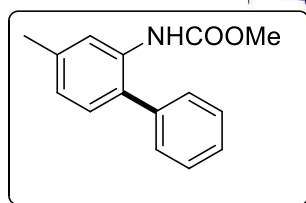


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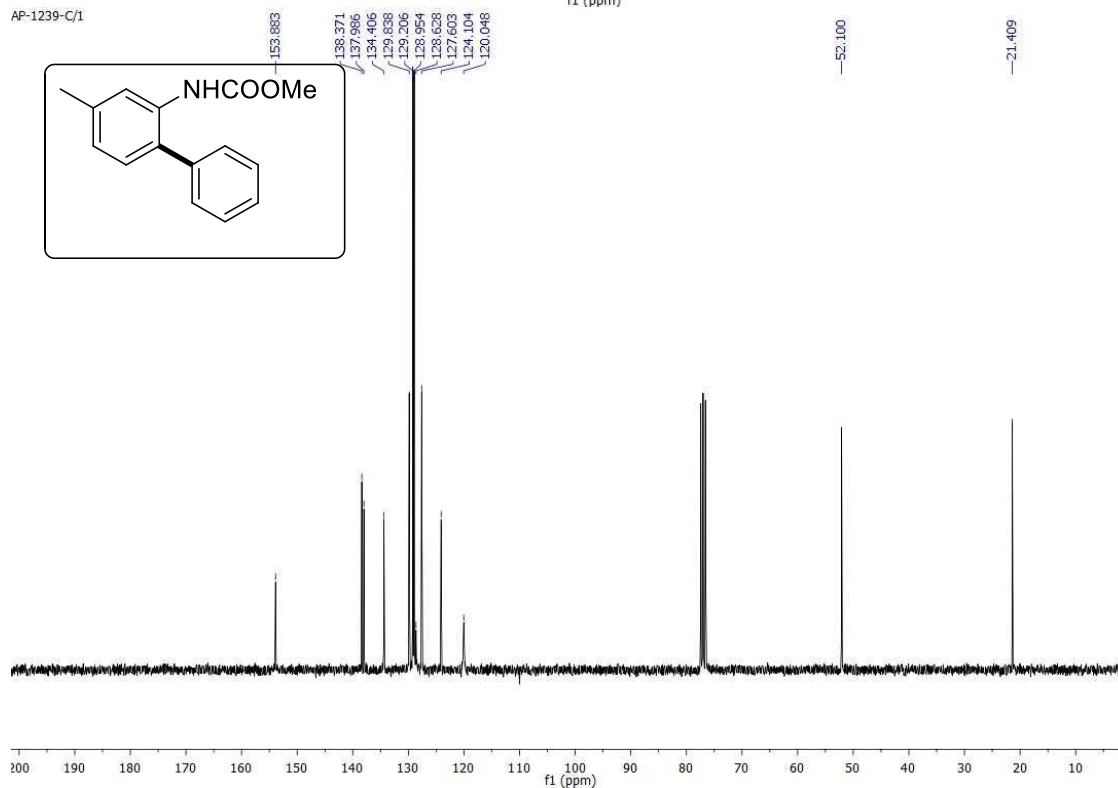
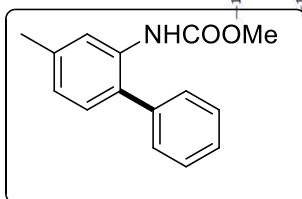


^1H NMR and ^{13}C NMR Spectra of compound 3g

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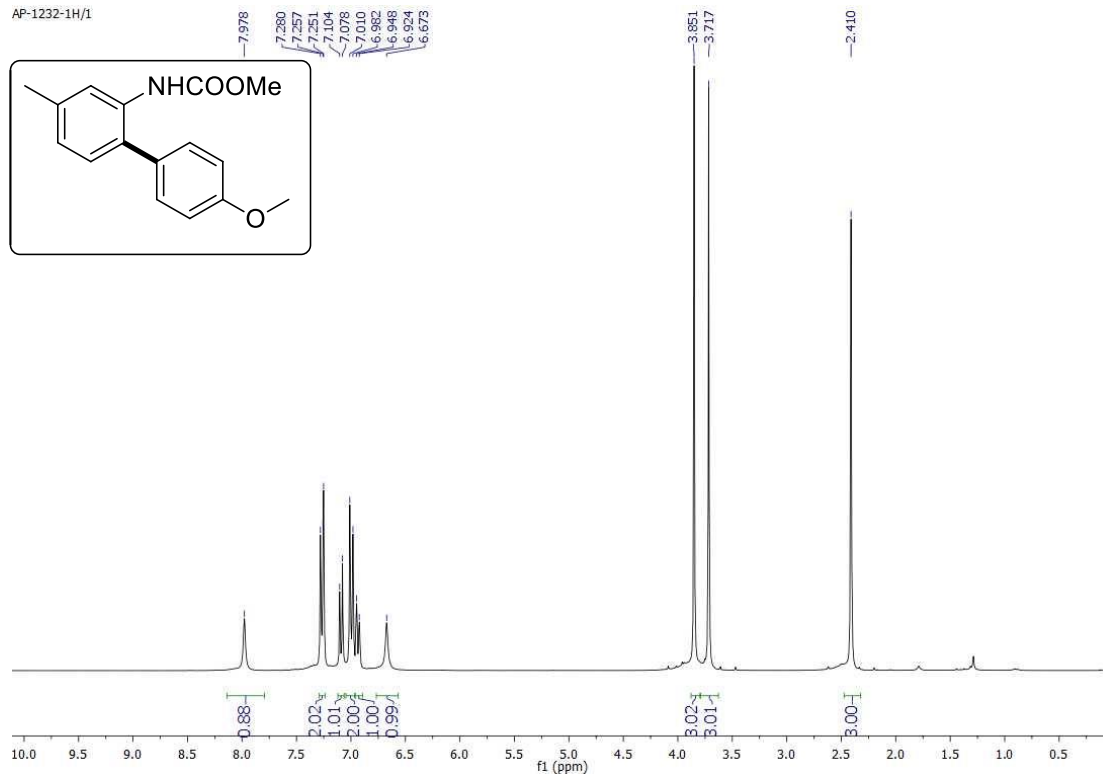


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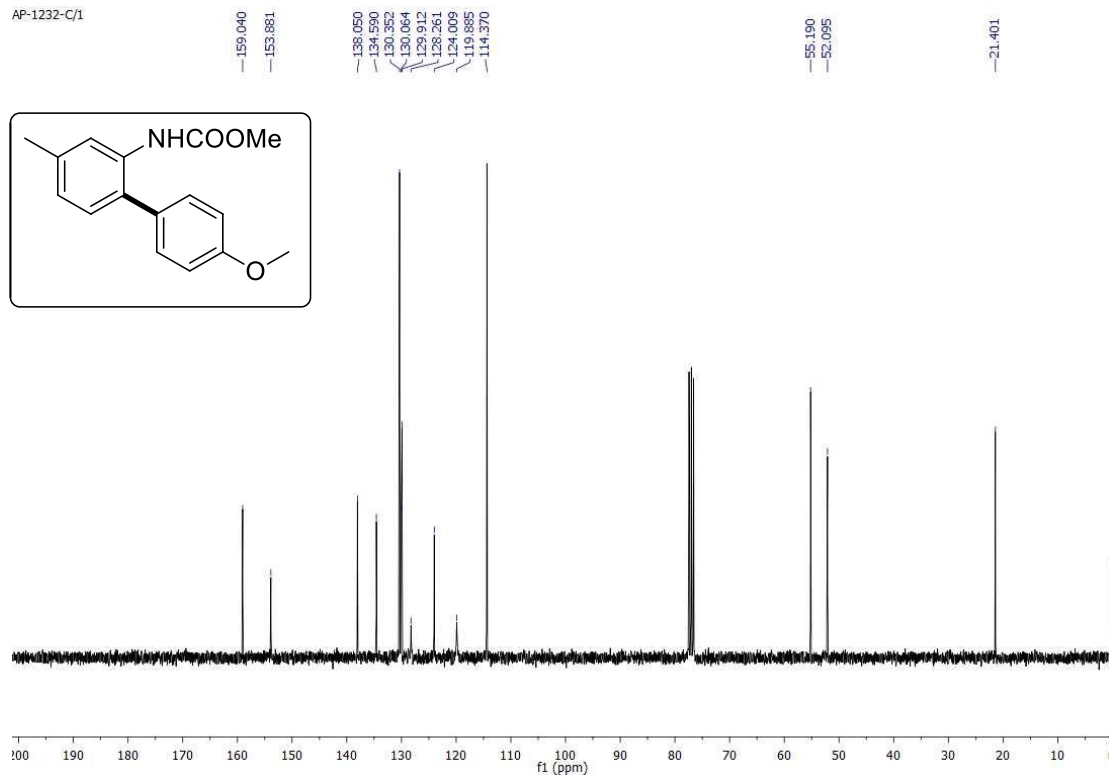


¹H NMR and ¹³C NMR Spectra of compound 3h

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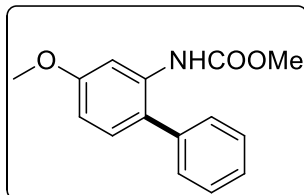
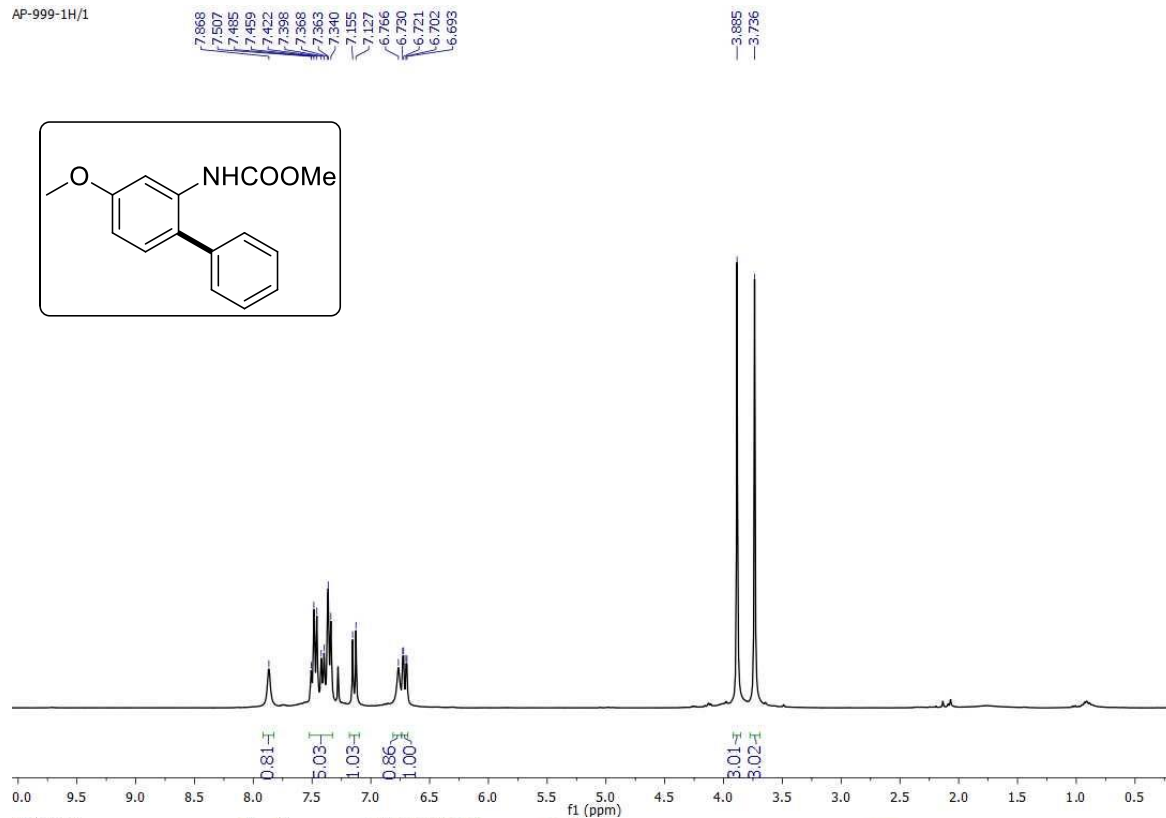


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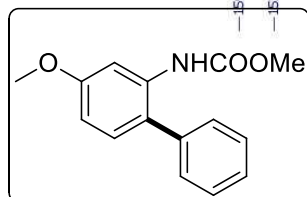
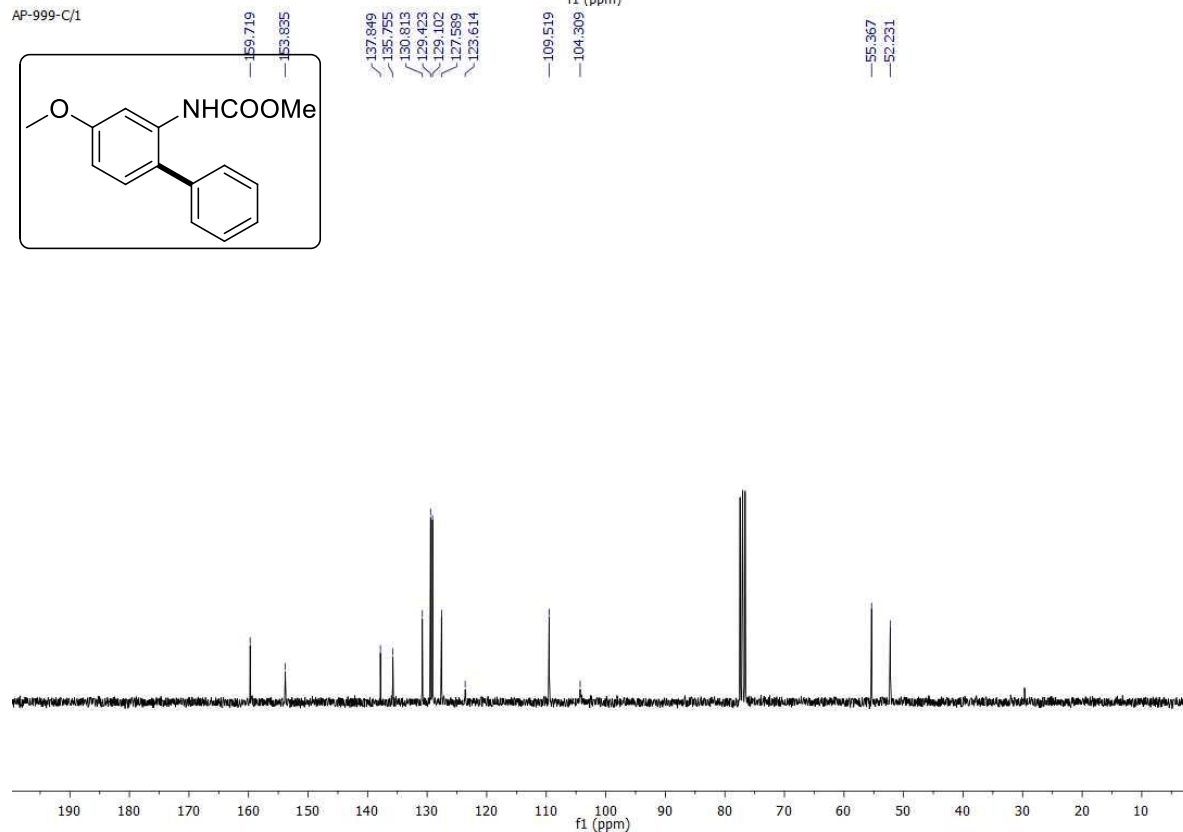


^1H NMR and ^{13}C NMR Spectra of compound 3i

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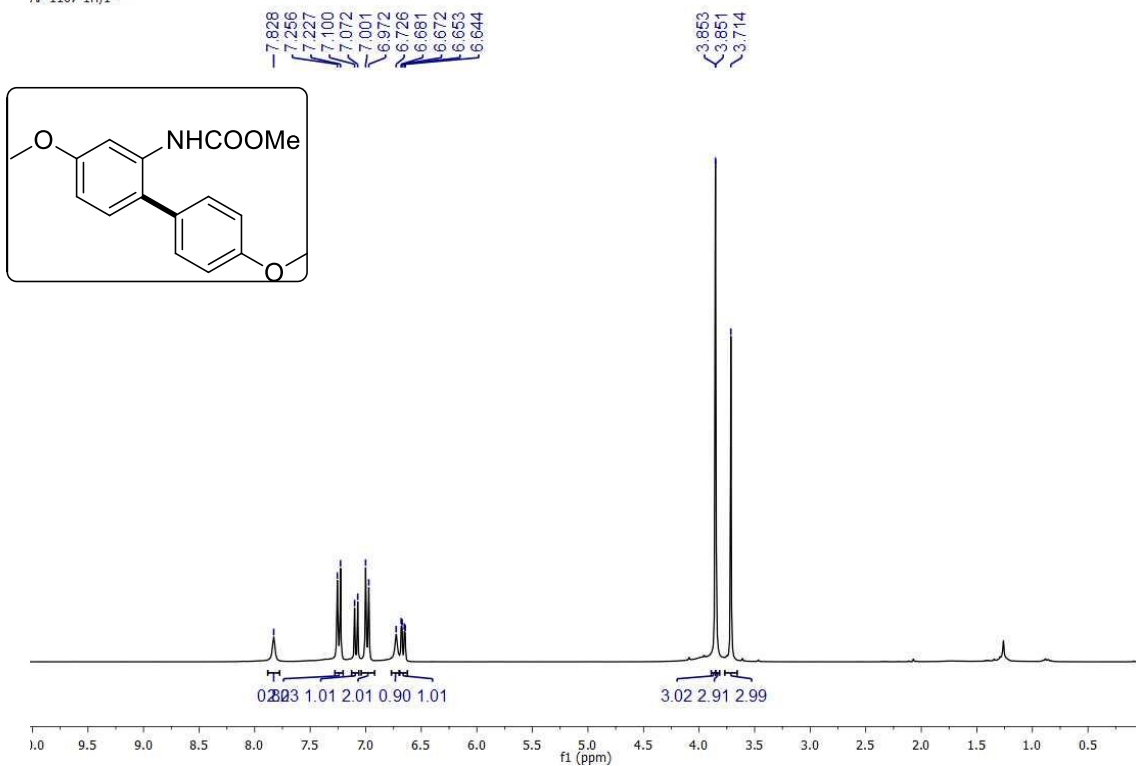


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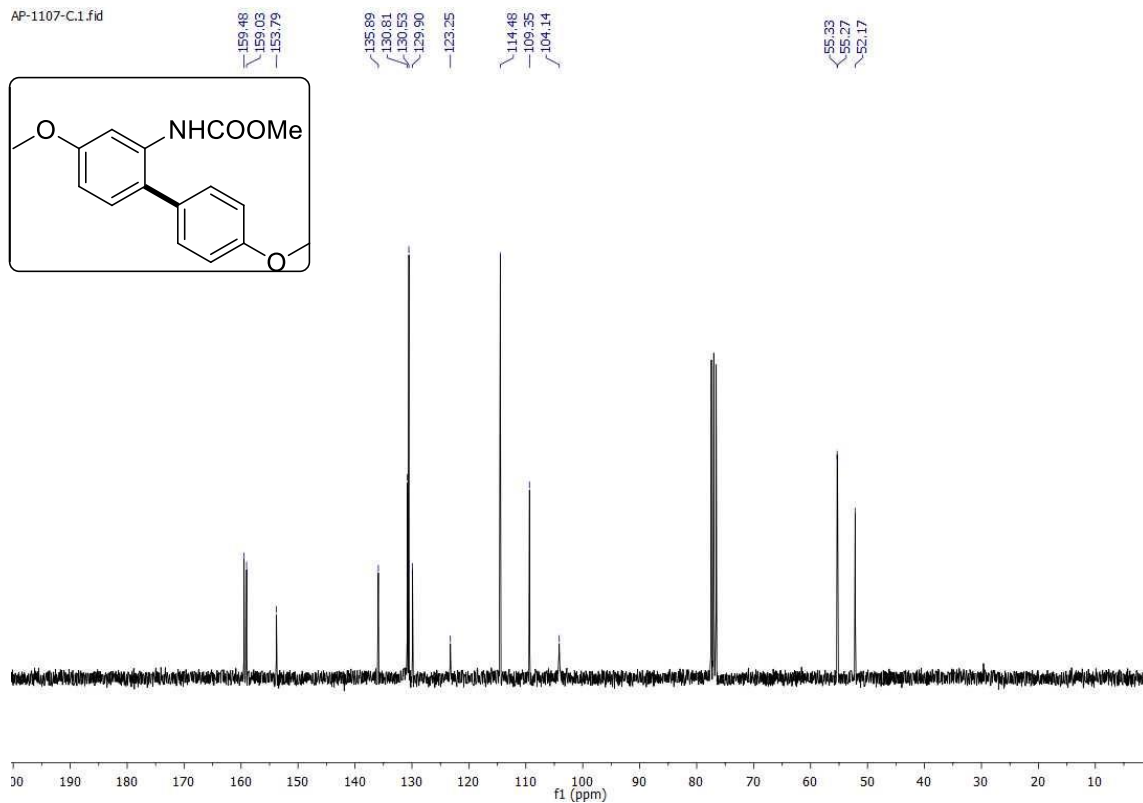


¹H NMR and ¹³C NMR Spectra of compound 3j

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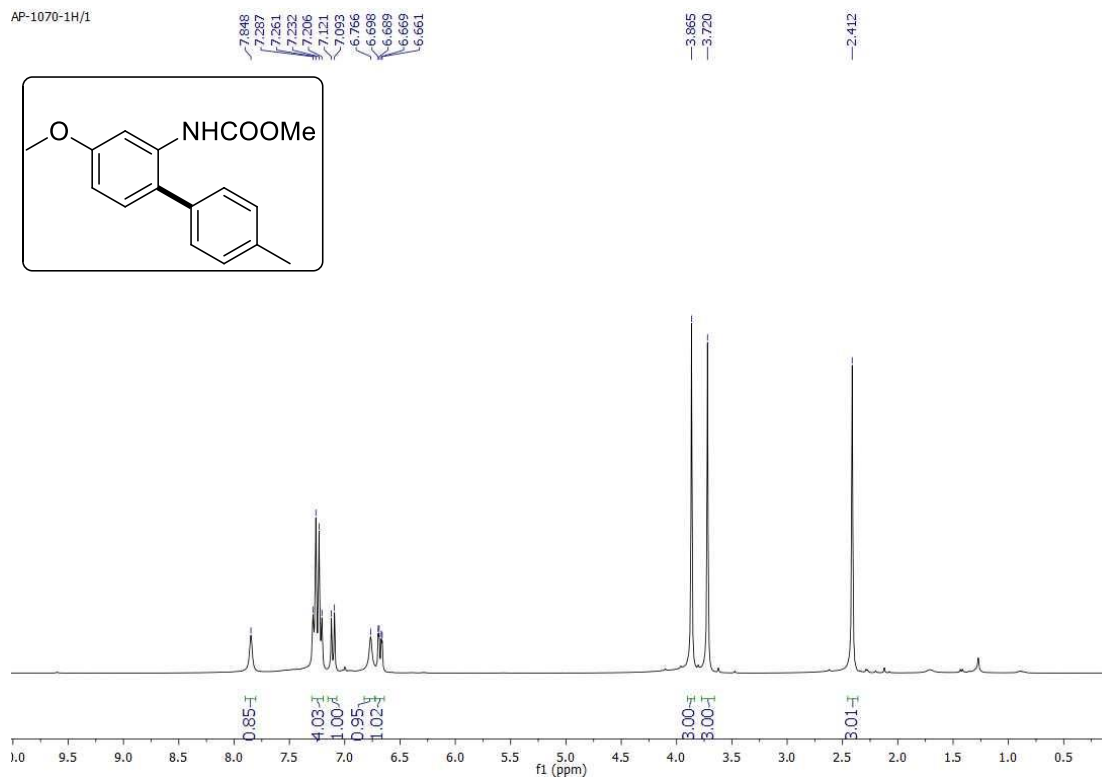


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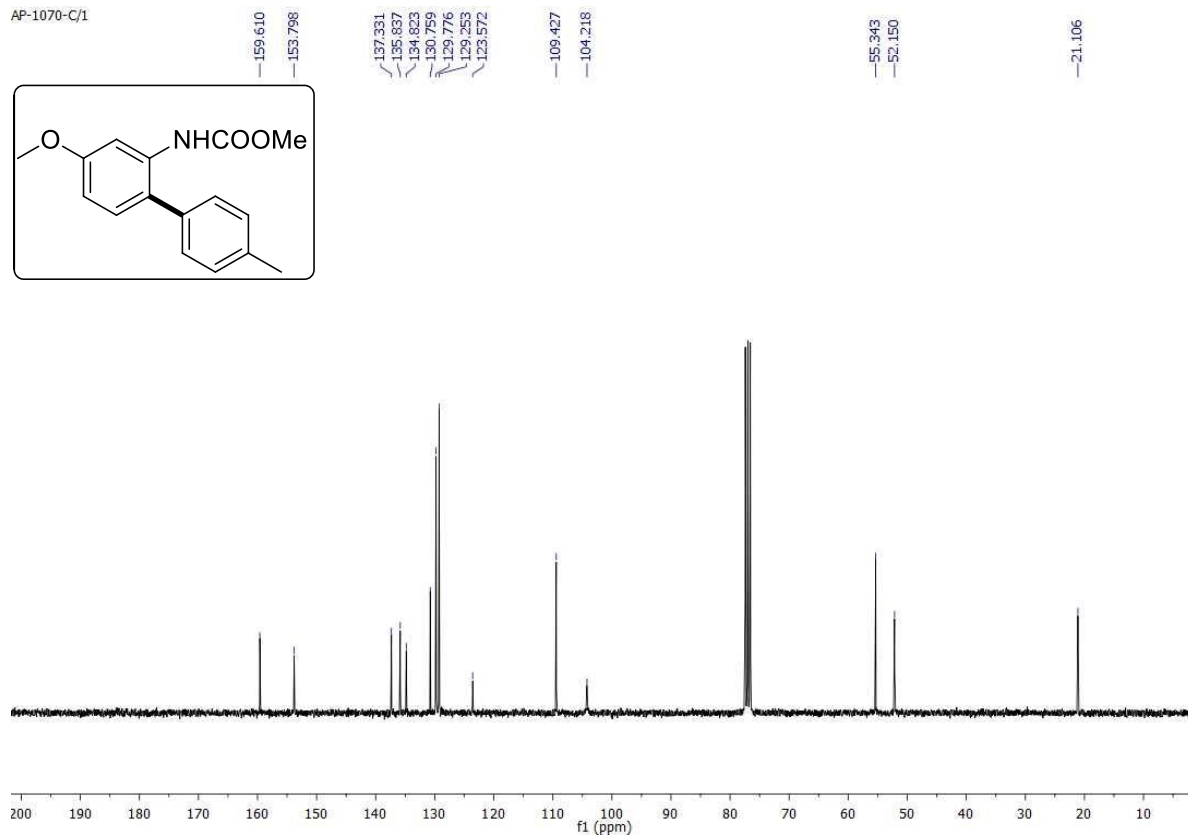


^1H NMR and ^{13}C NMR Spectra of compound 3k

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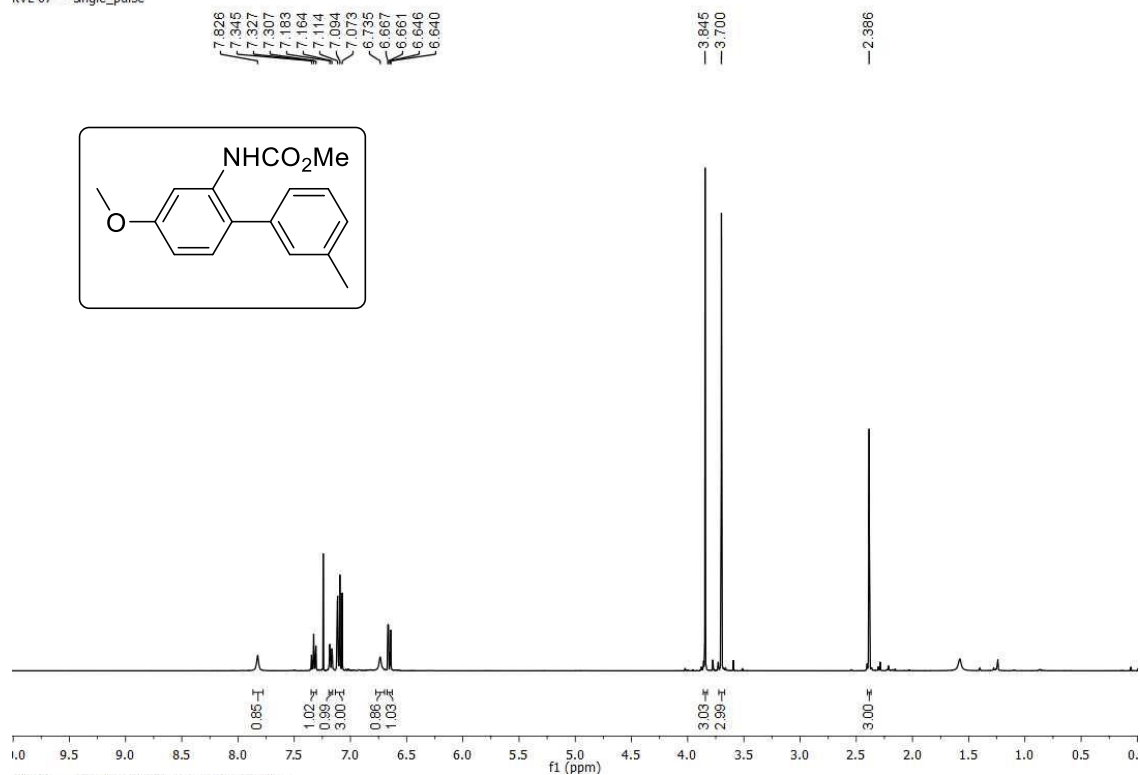


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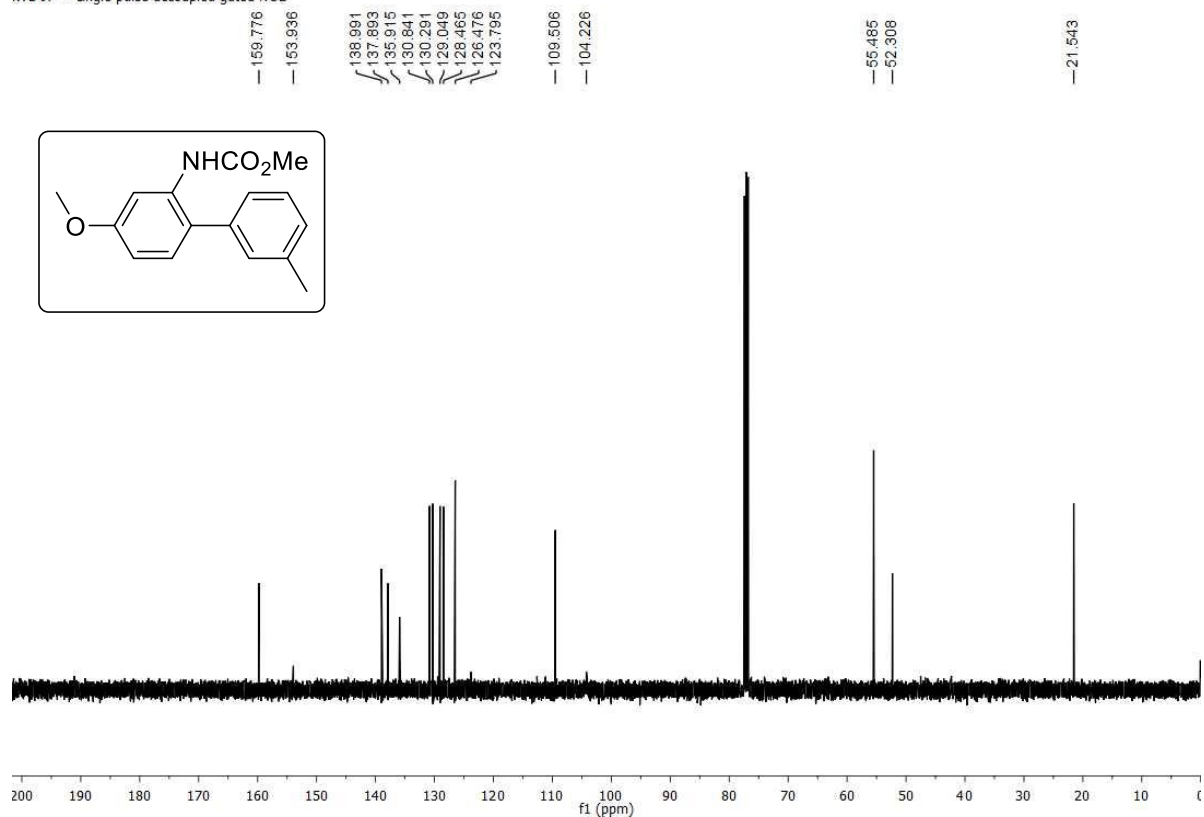


¹H NMR and ¹³C NMR Spectra of compound 31

KVL-07 — single_pulse

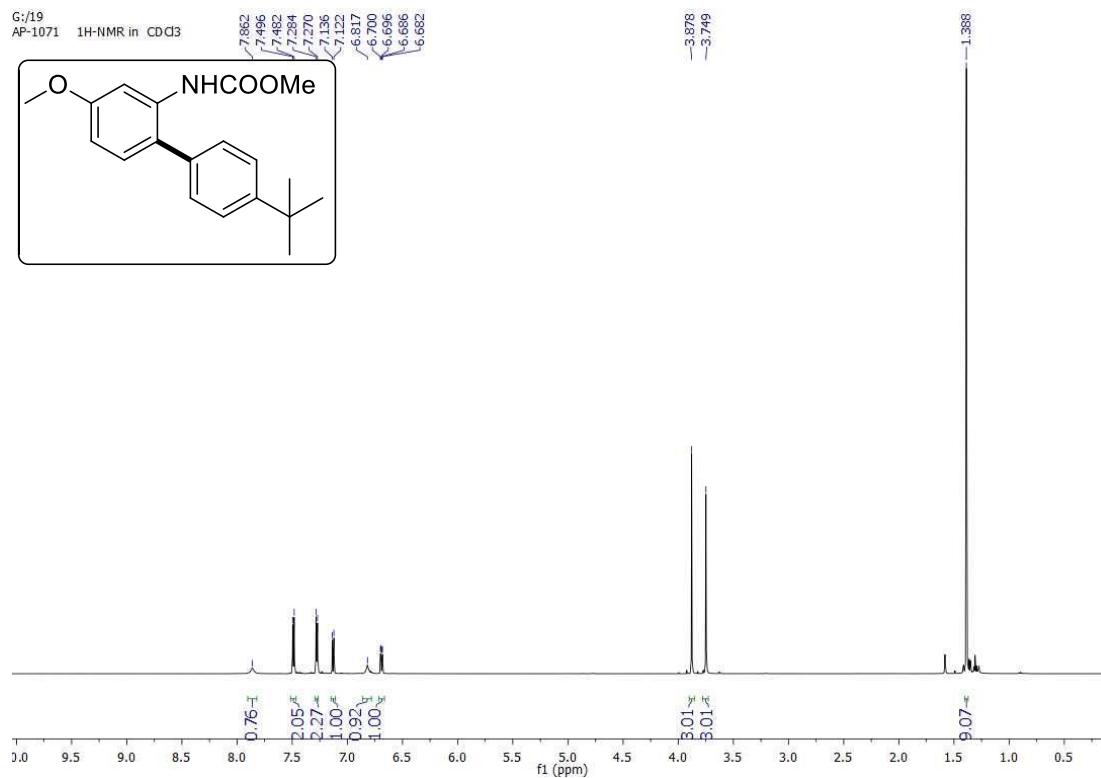
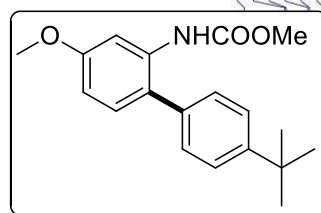


KVL-07 — single pulse decoupled gated NOE

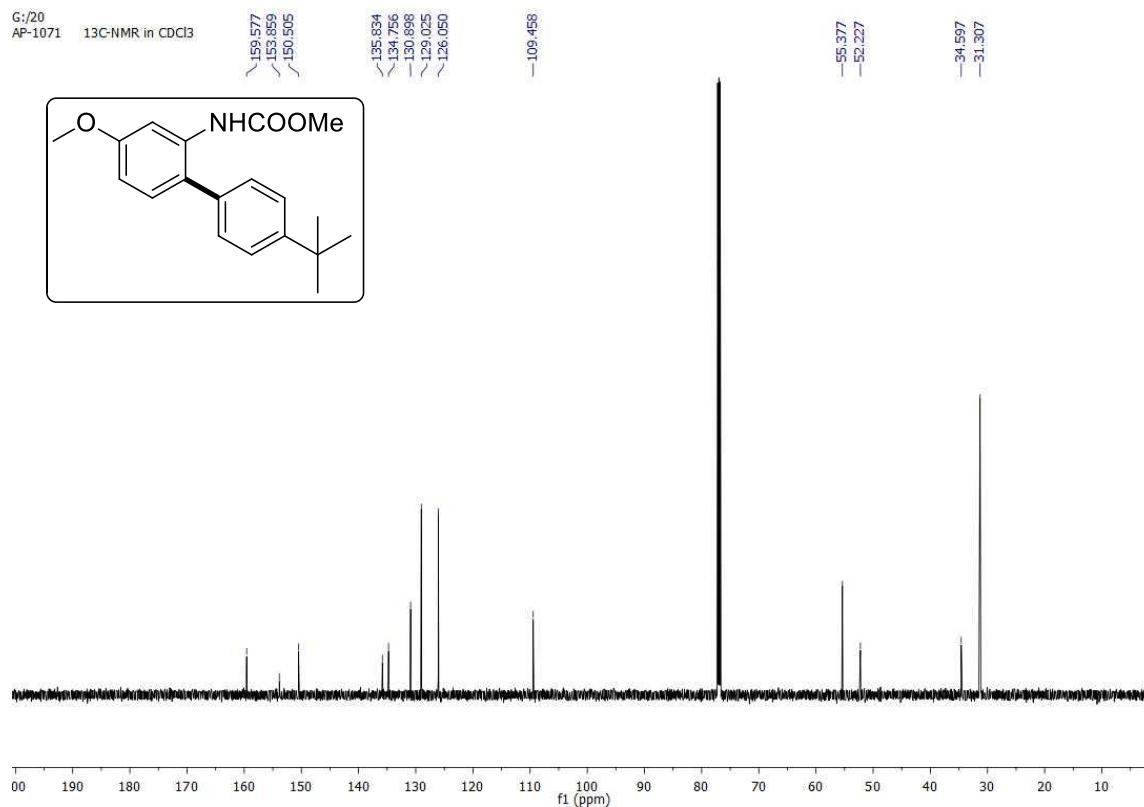
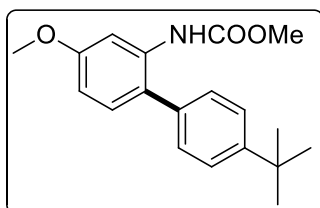


^1H NMR and ^{13}C NMR Spectra of compound 3m

G5/19
AP-1071 ^1H -NMR in CDCl_3

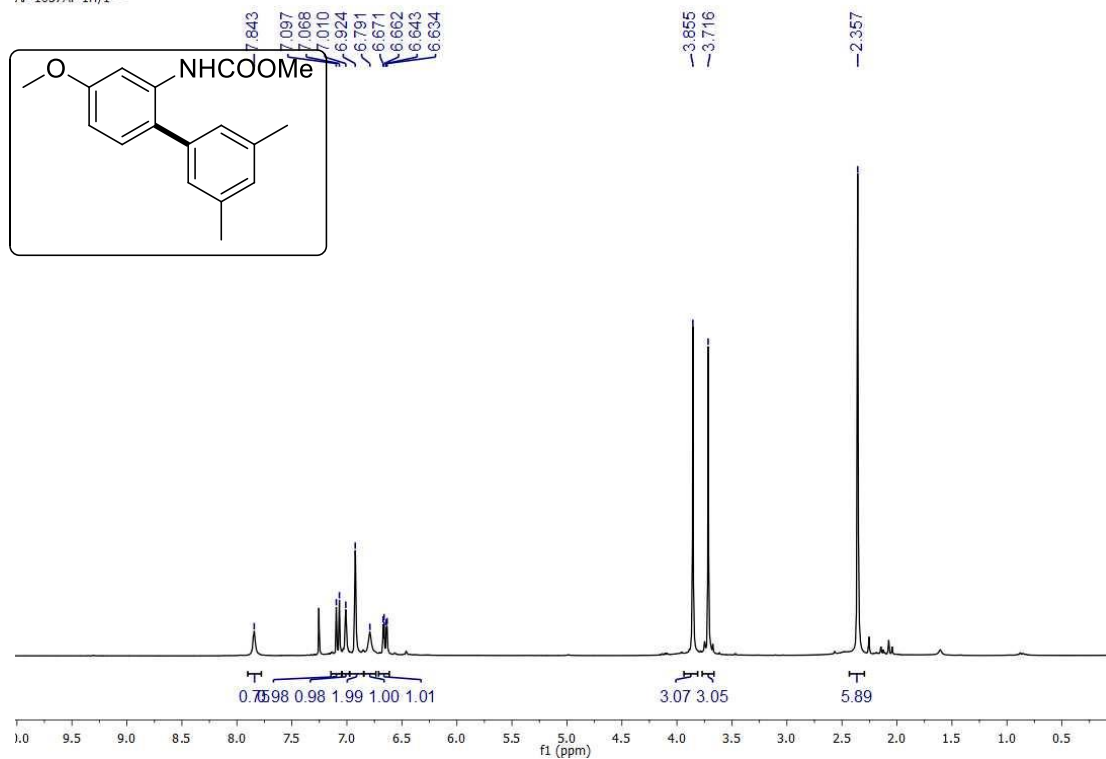


G5/20
AP-1071 ^{13}C -NMR in CDCl_3

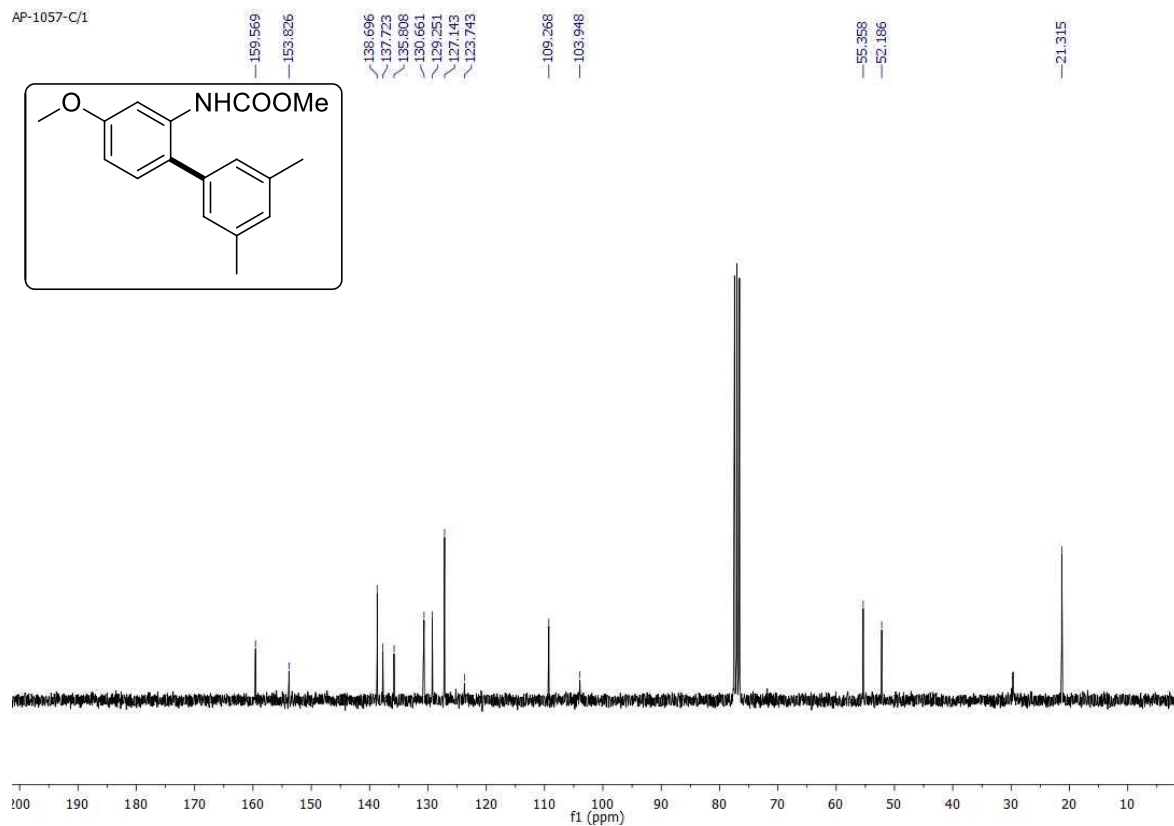


¹H NMR and ¹³C NMR Spectra of compound 3n

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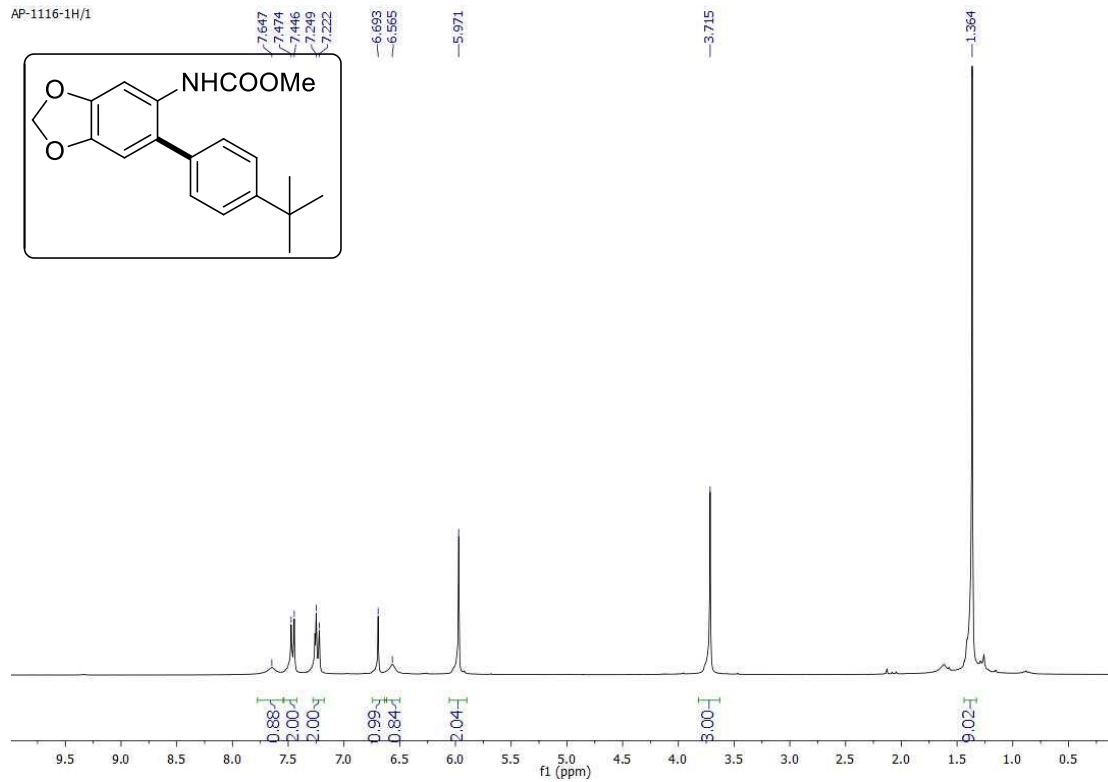


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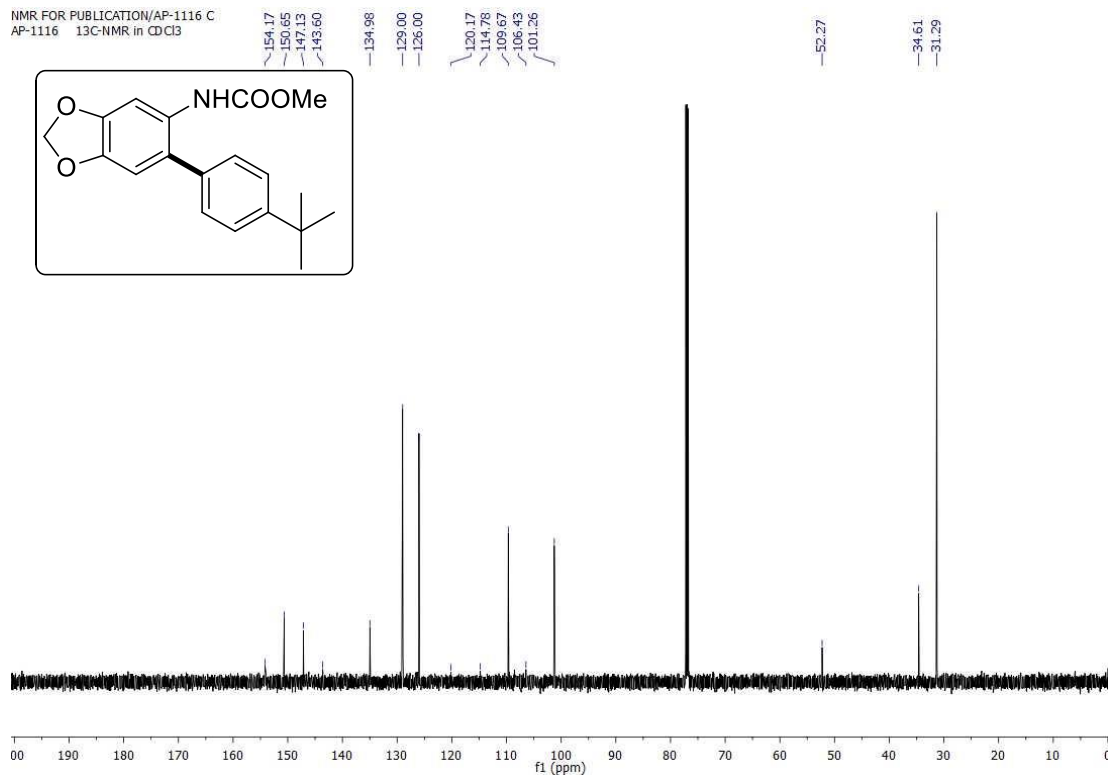


¹H NMR and ¹³C NMR Spectra of compound 3o

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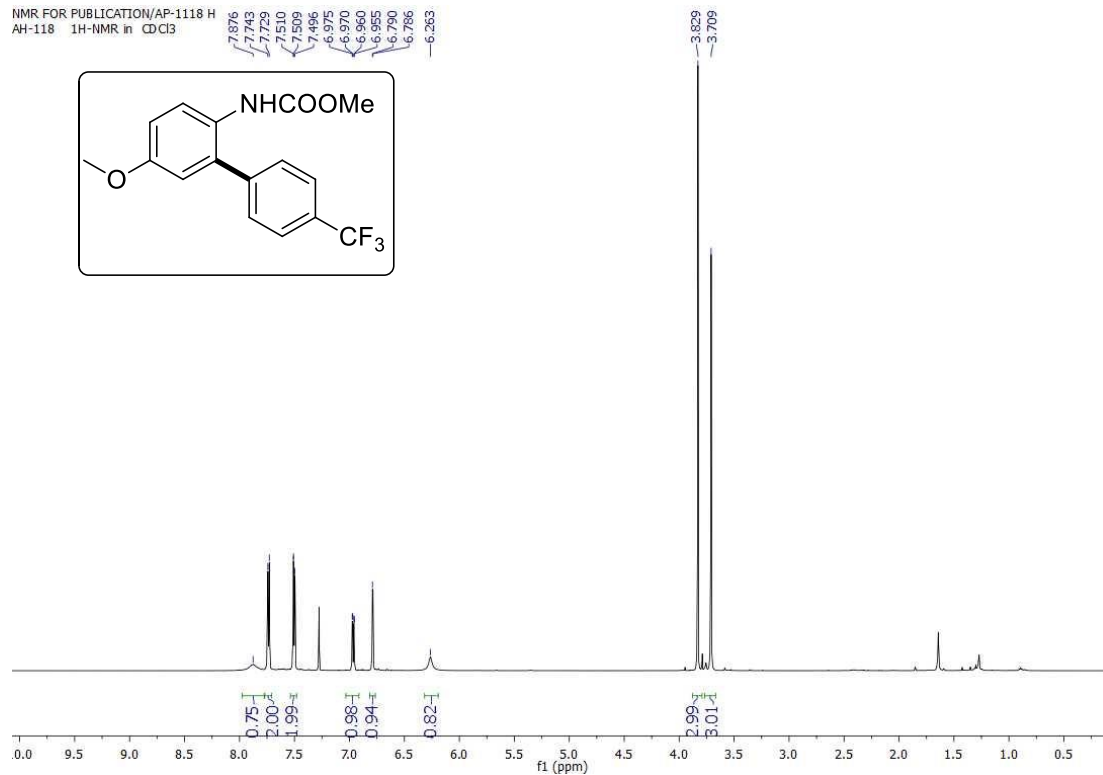


NMR FOR PUBLICATION/AP-1116 C
AP-1116 ¹³C-NMR in CDCl₃

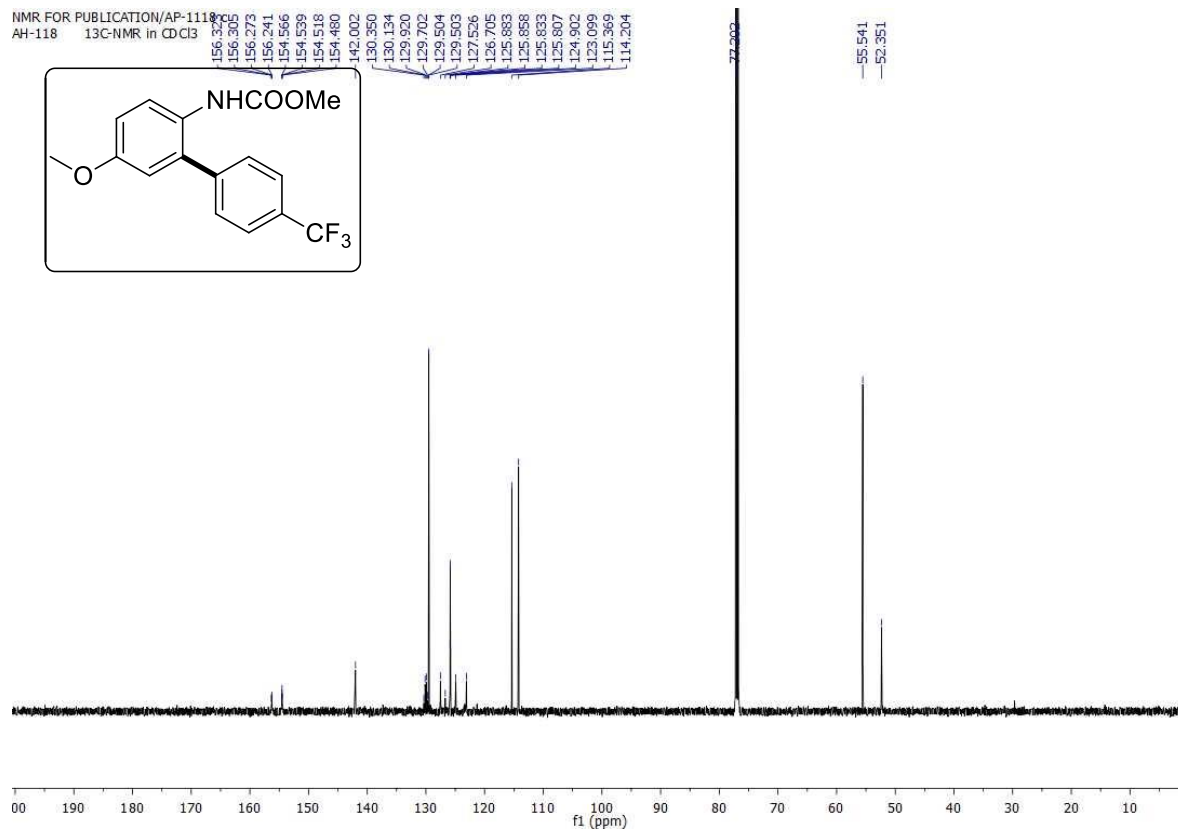


^1H NMR, ^{13}C NMR and ^{19}F NMR Spectra of compound 3p

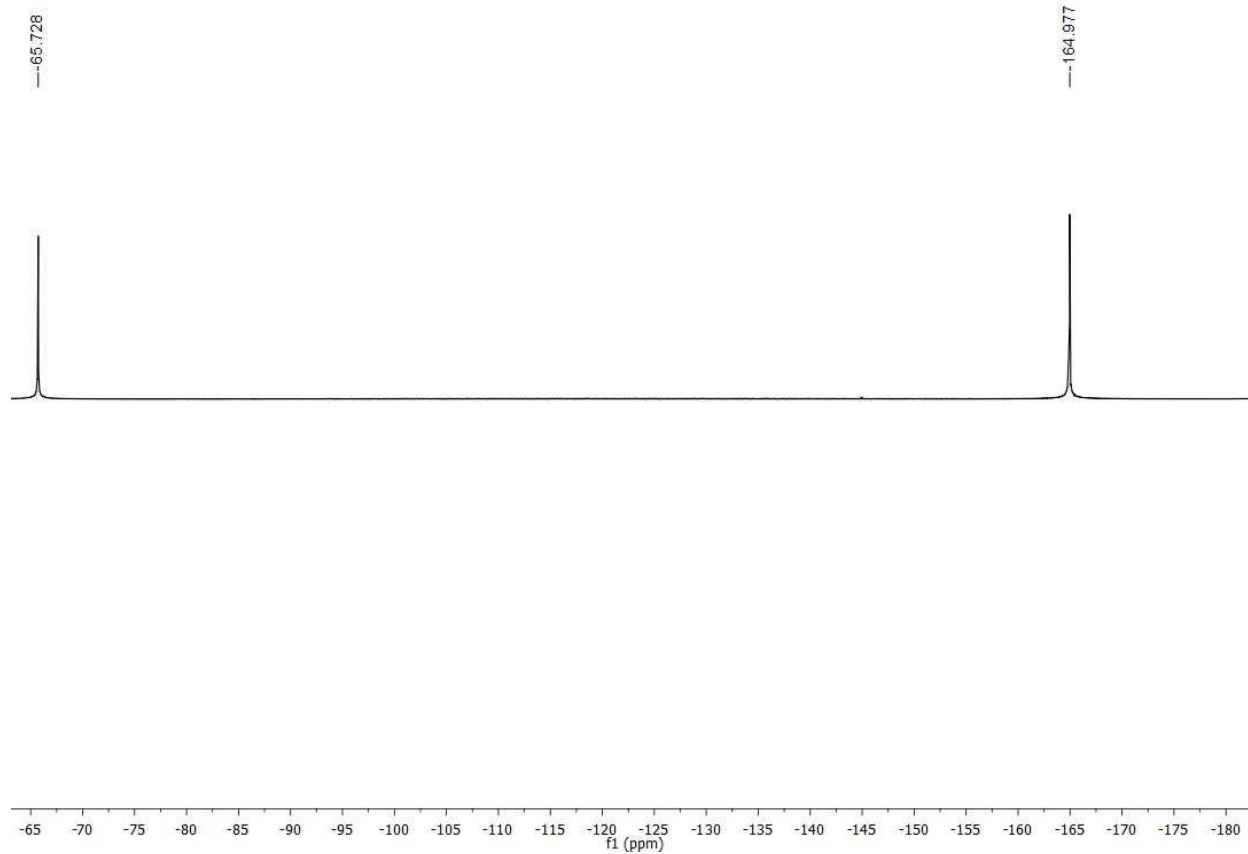
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AH-118 ^1H -NMR in CDCl_3



NMR FOR PUBLICATION/AP-1118
AH-118 ^{13}C -NMR in CDCl_3

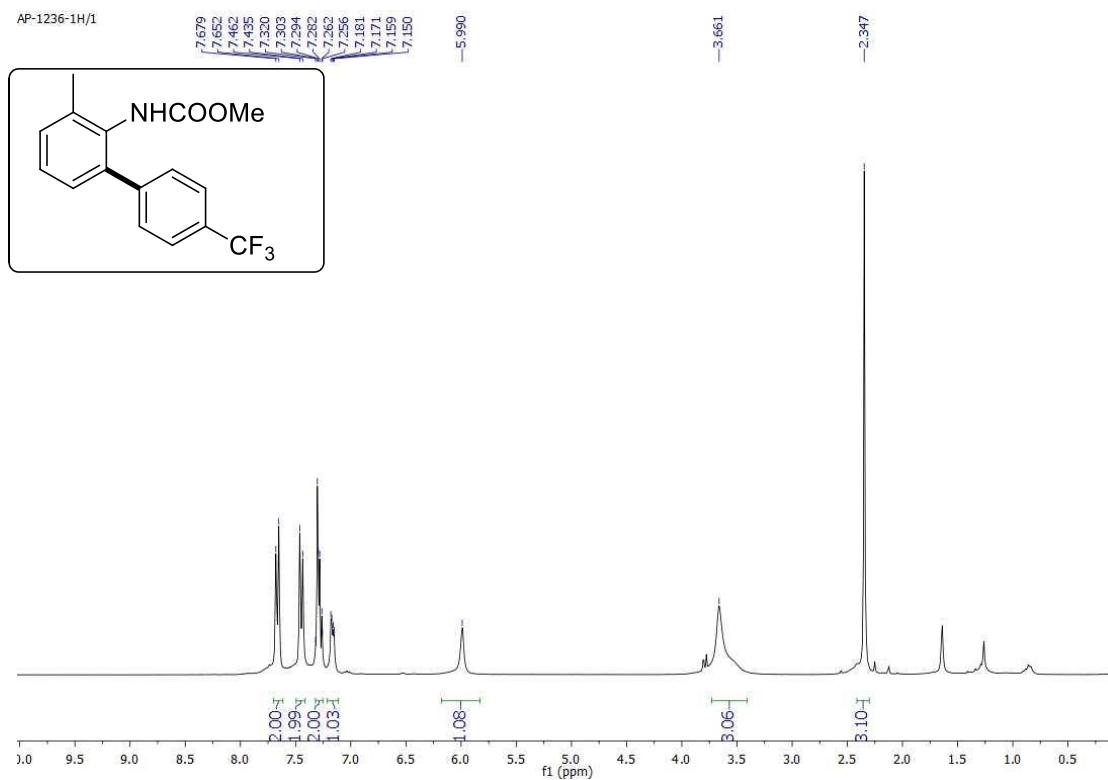


AP-1118 — 1D 19F experiment

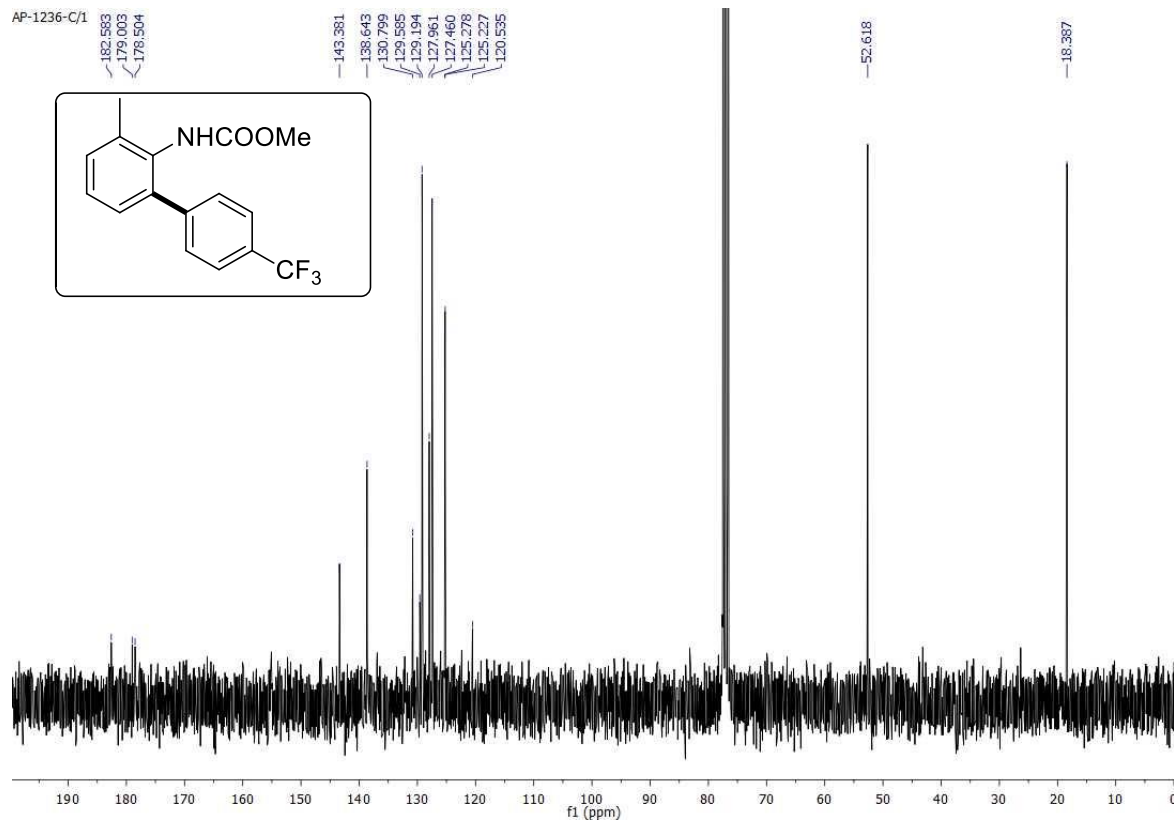


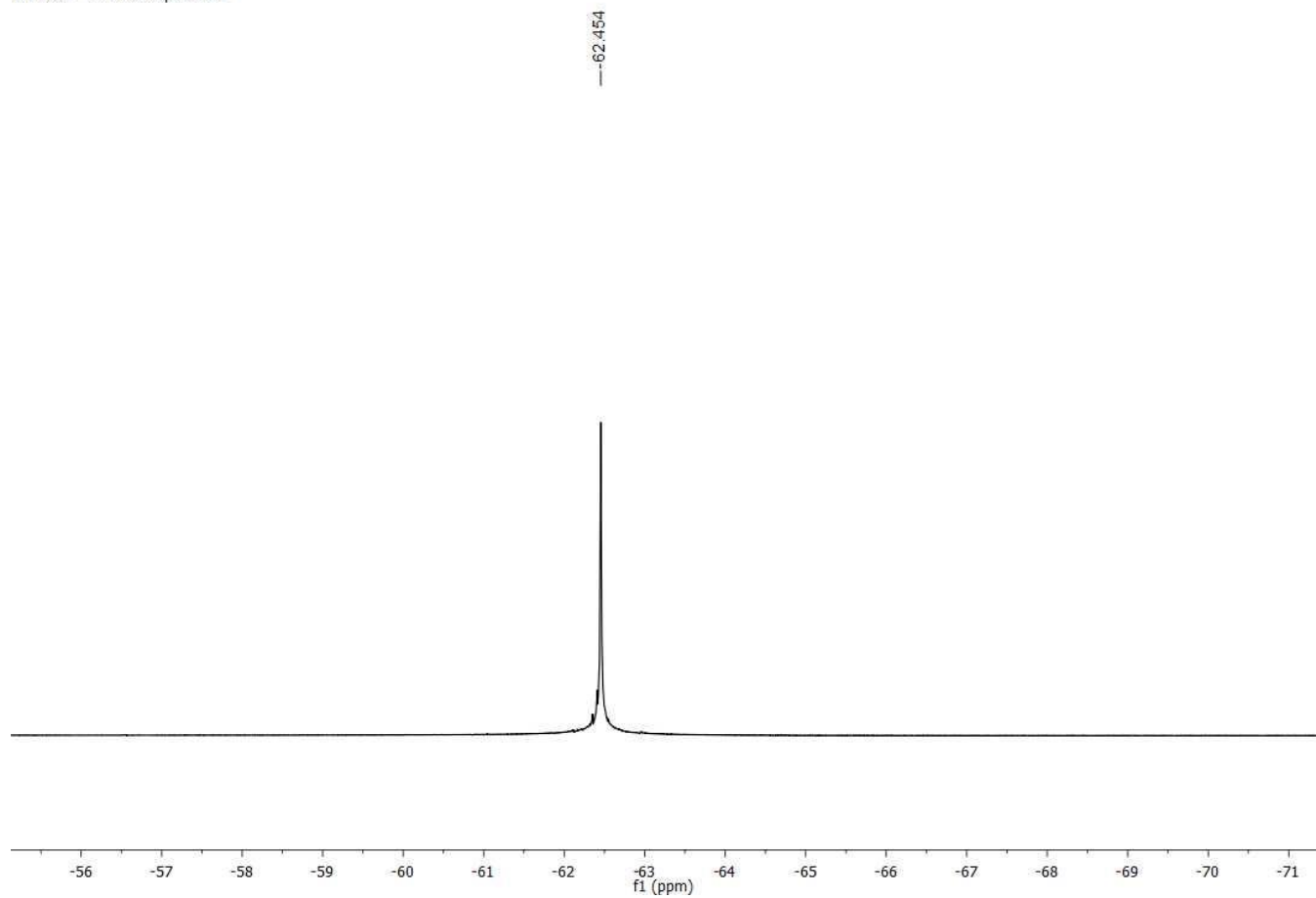
^1H NMR, ^{13}C NMR and ^{19}F NMR Spectra of compound 3q

AP-1236-1H/1

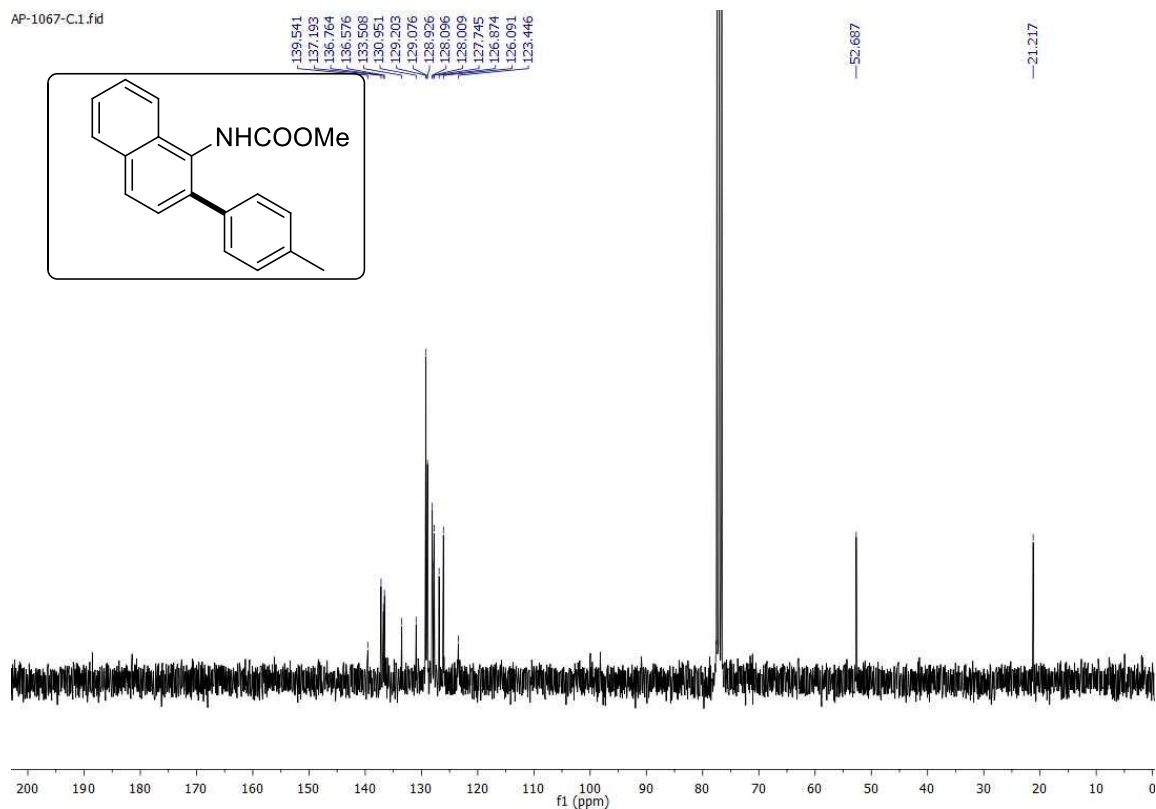
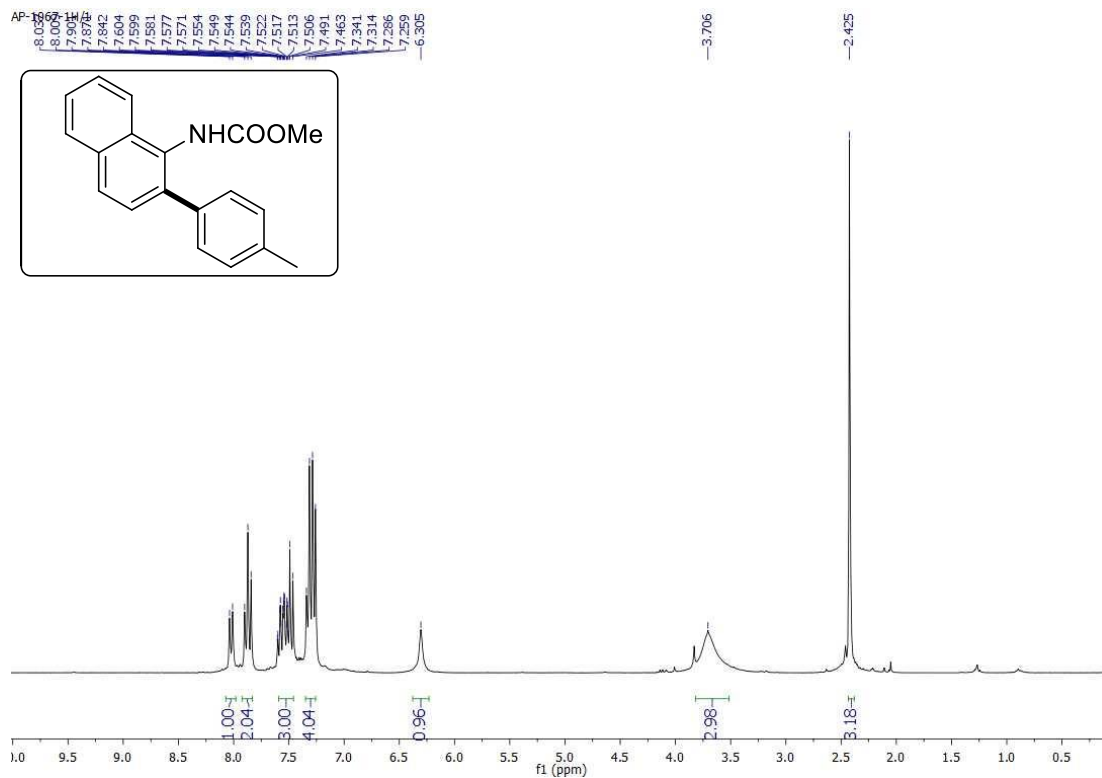


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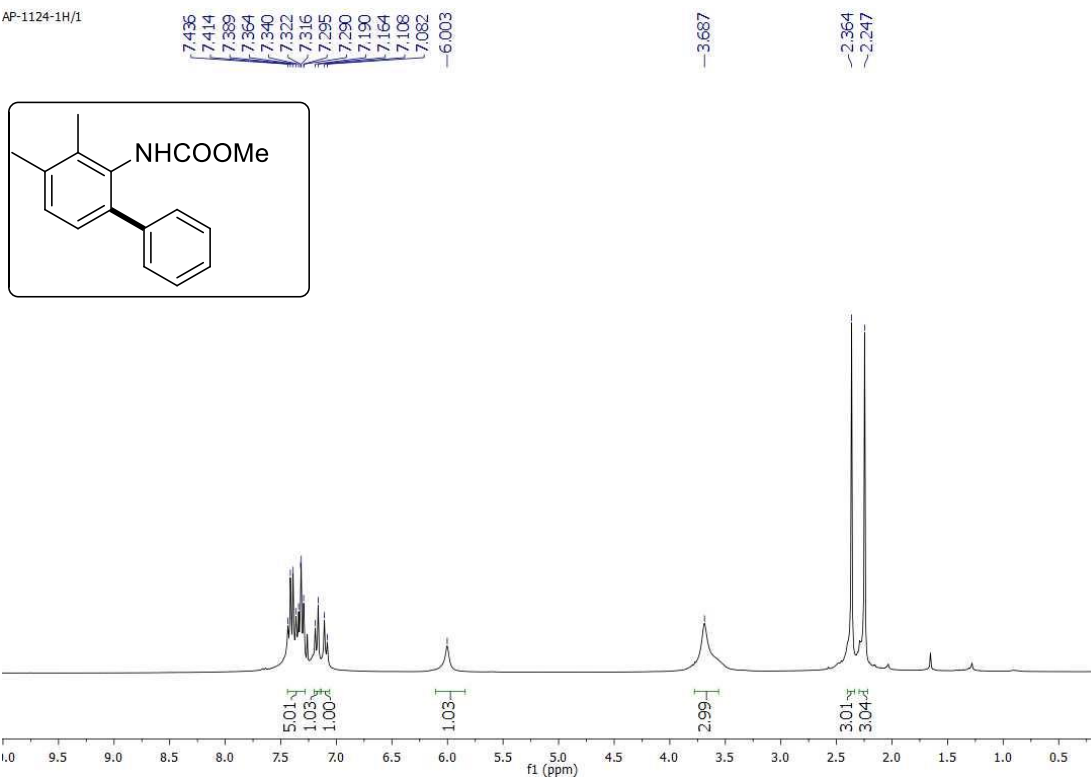


^1H NMR and ^{13}C NMR Spectra of compound 3r

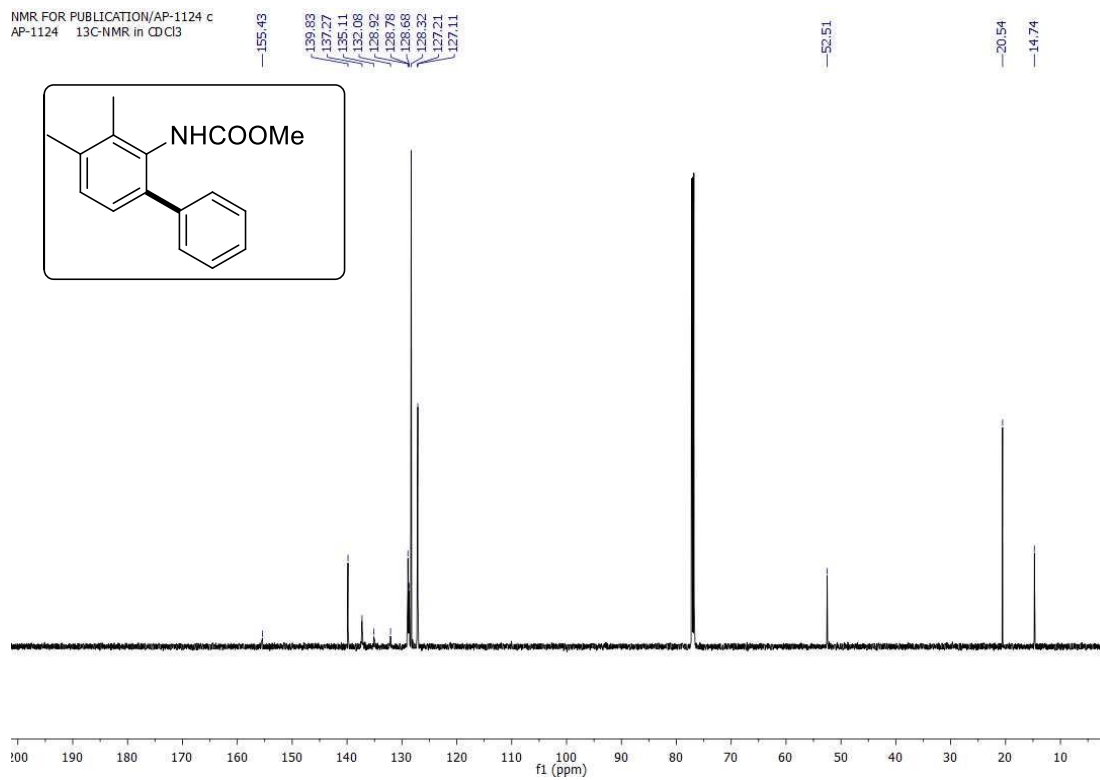


¹H NMR and ¹³C NMR Spectra of compound 3s

AP-1124-1H/1

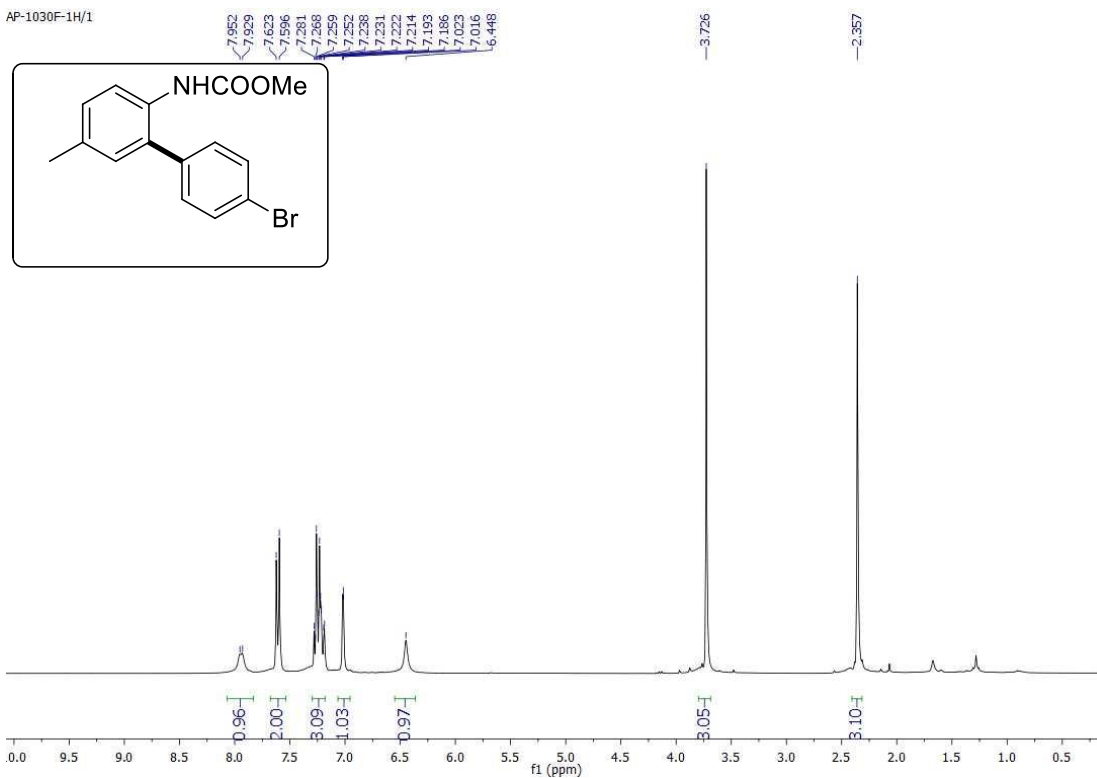


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AP-1124 ¹³C-NMR in CDCl₃

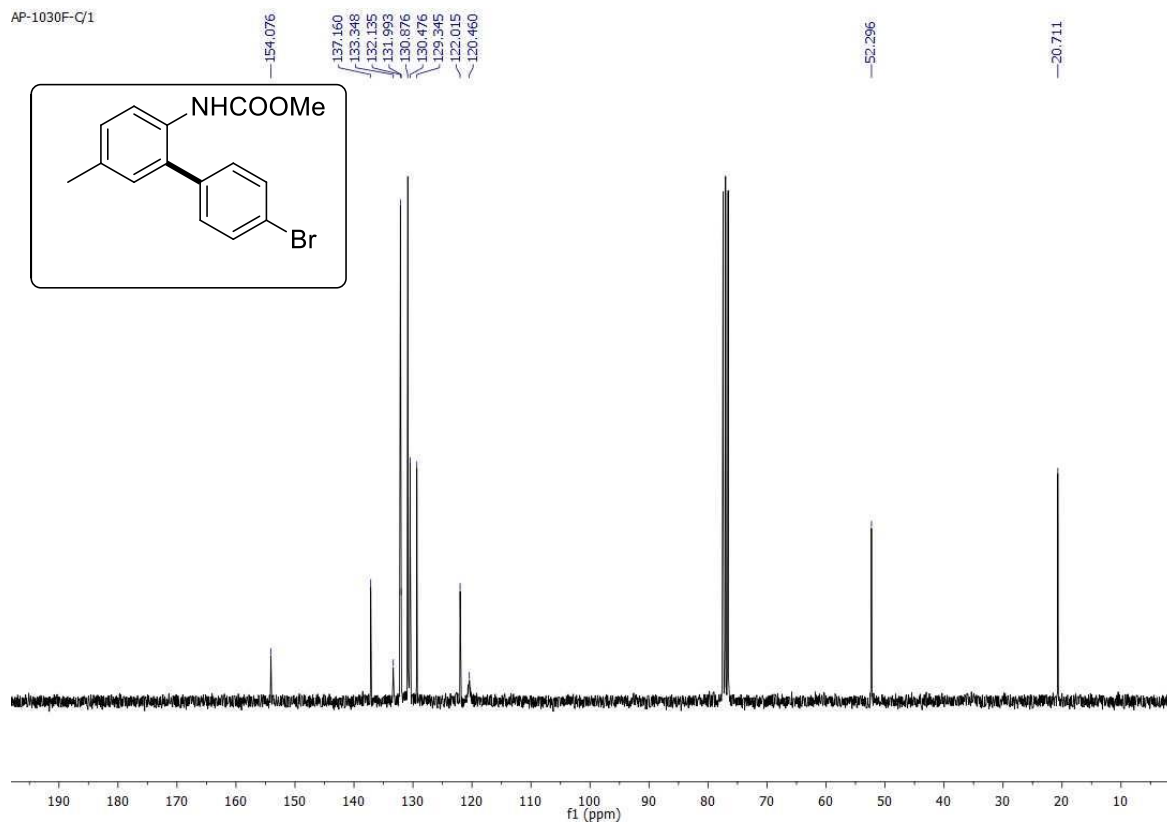


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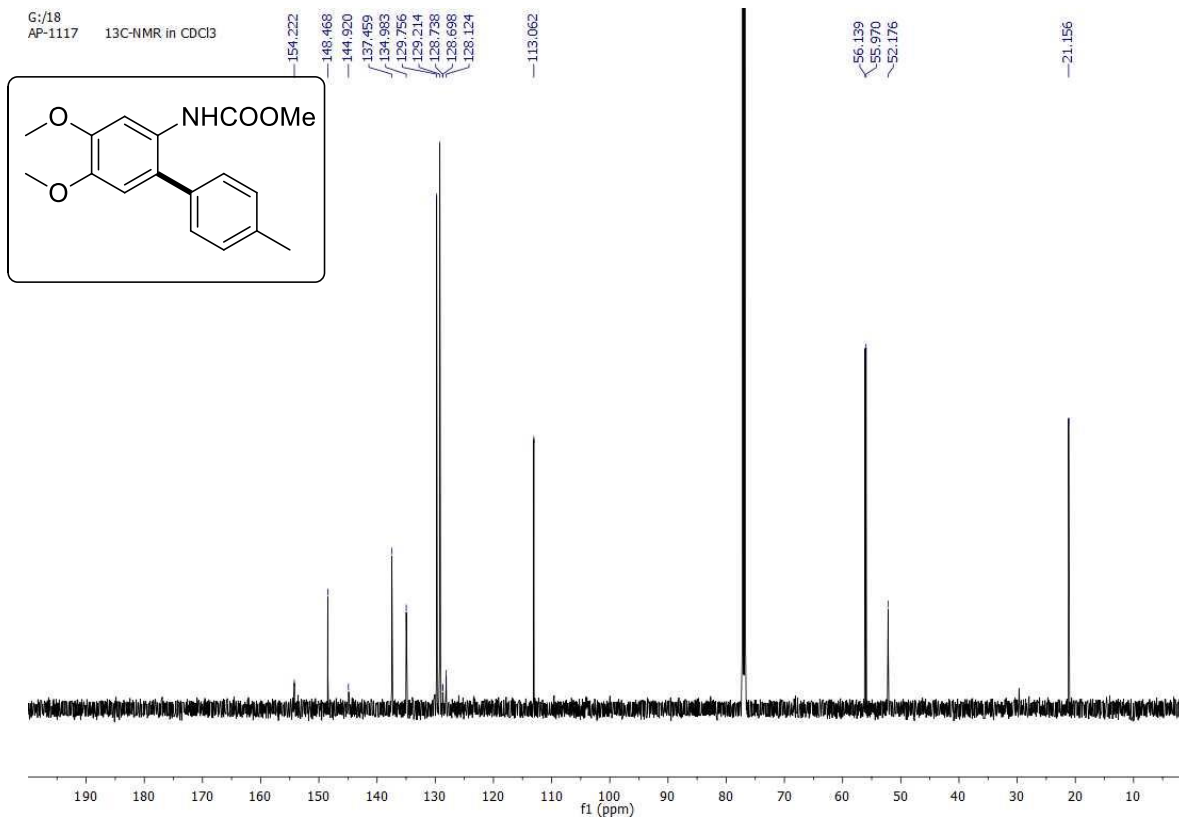
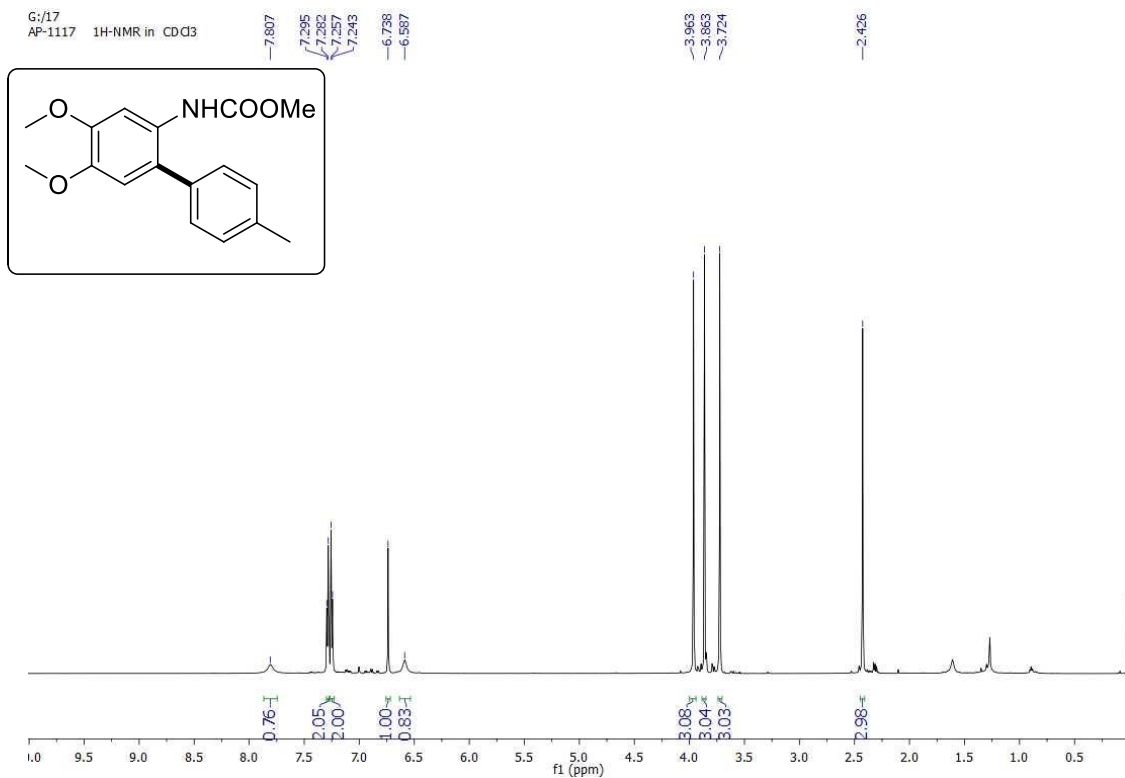
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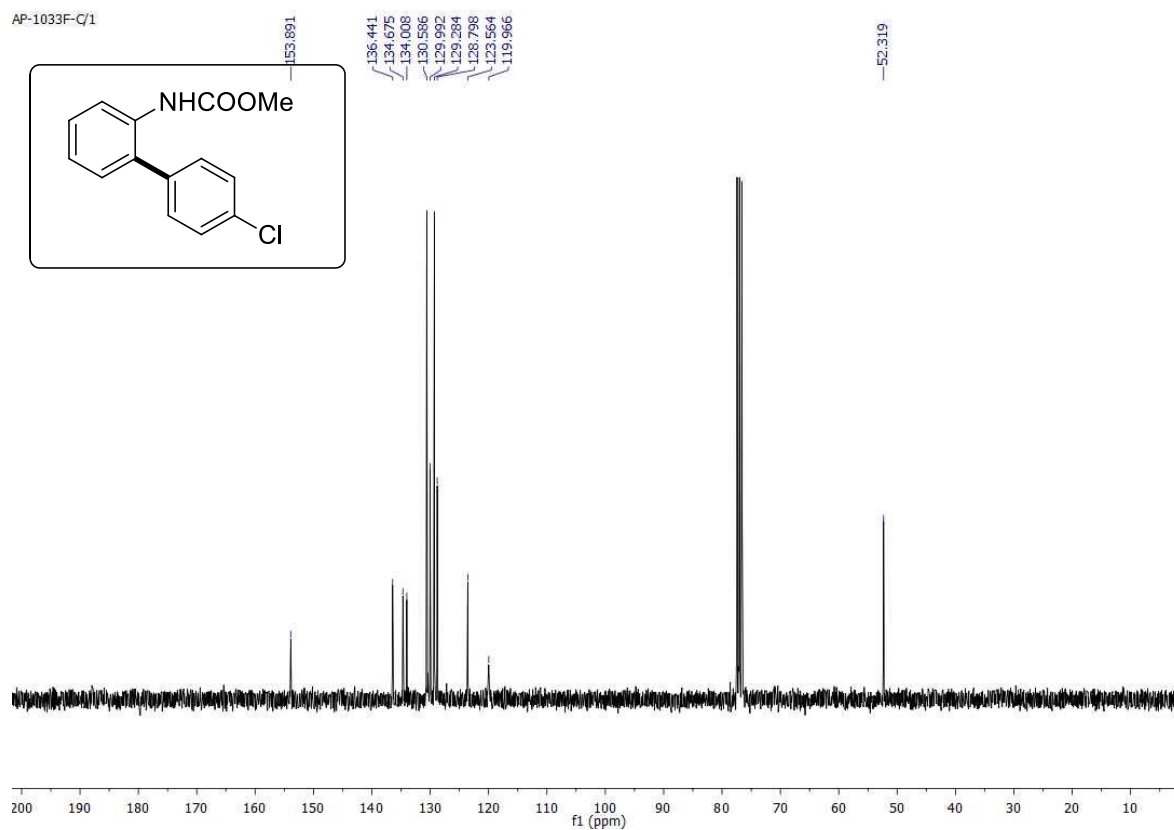
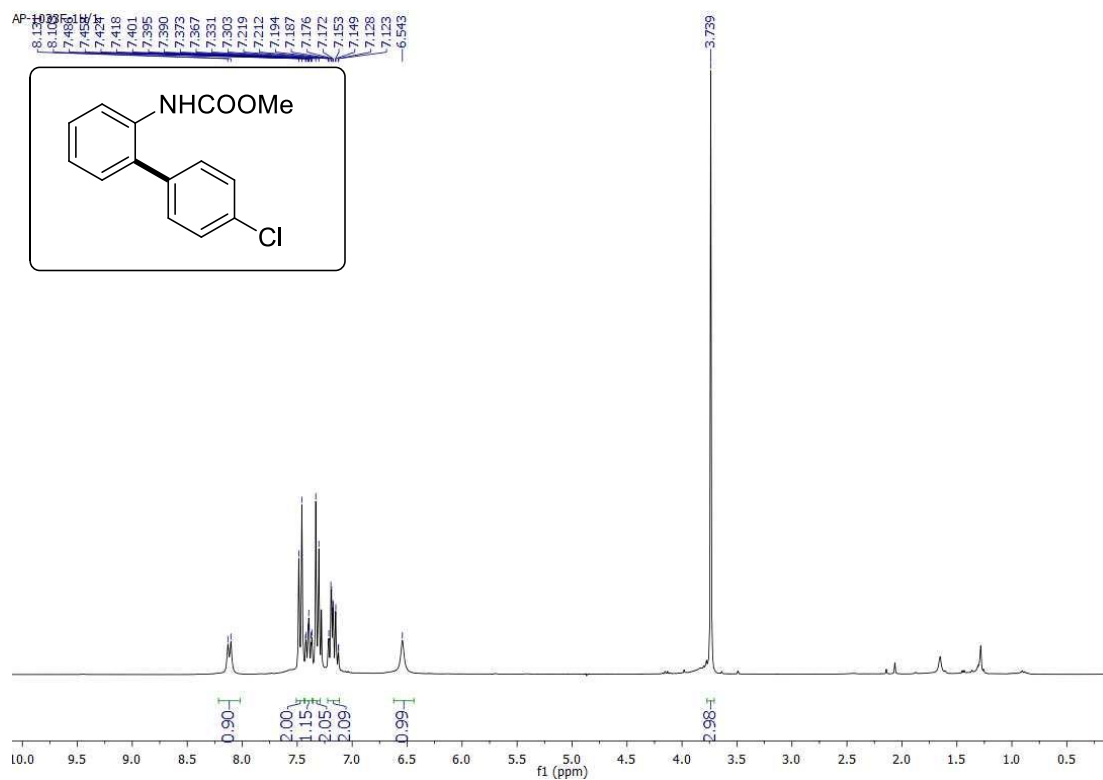
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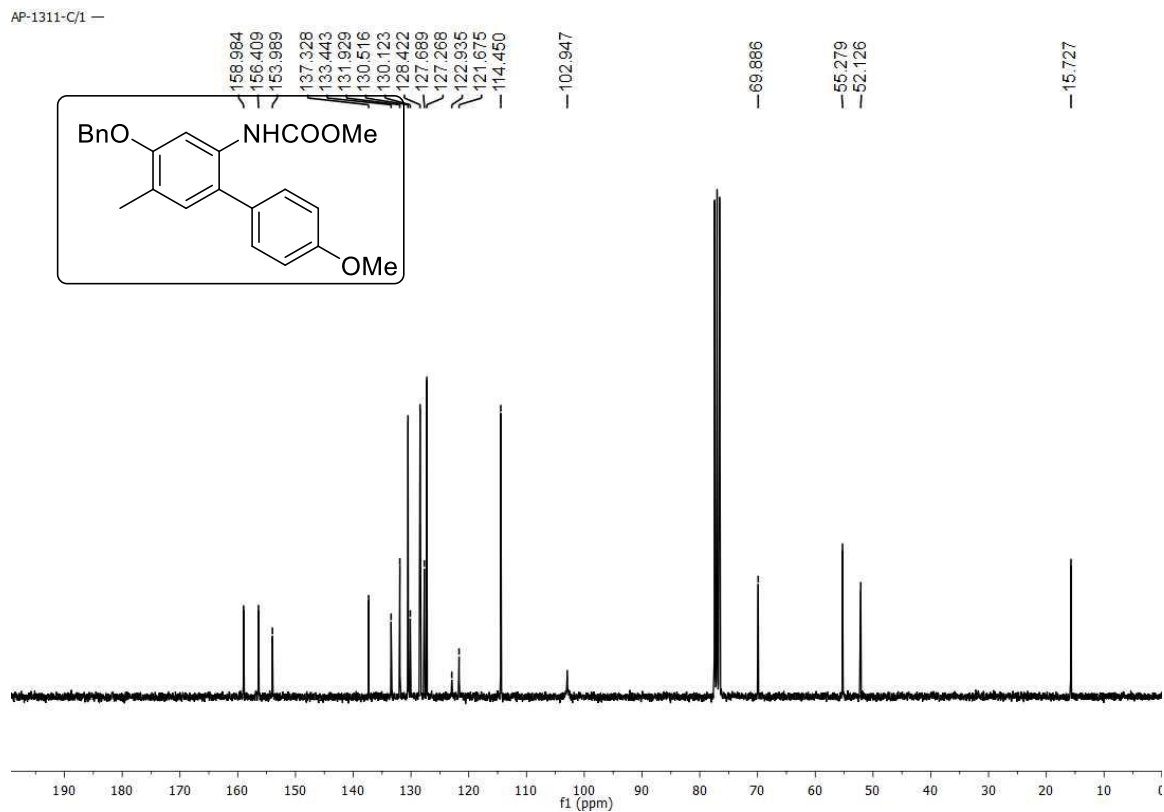
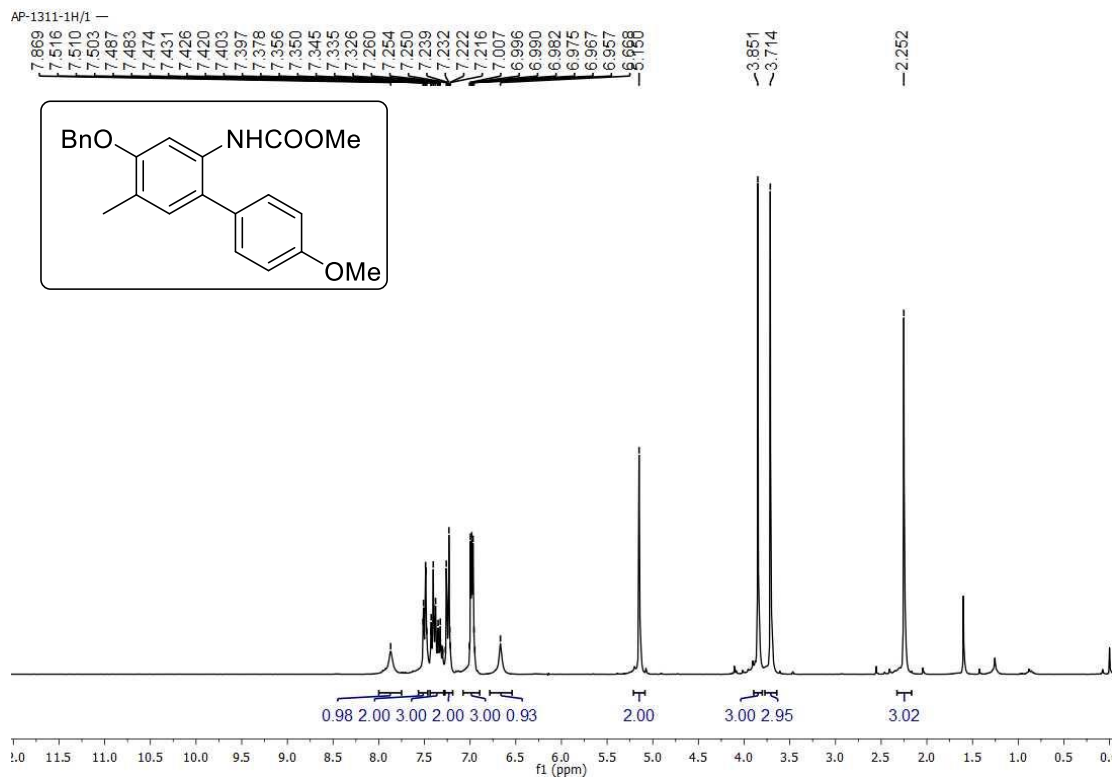
^1H NMR and ^{13}C NMR Spectra of compound 3u



^1H NMR and ^{13}C NMR Spectra of compound 3v

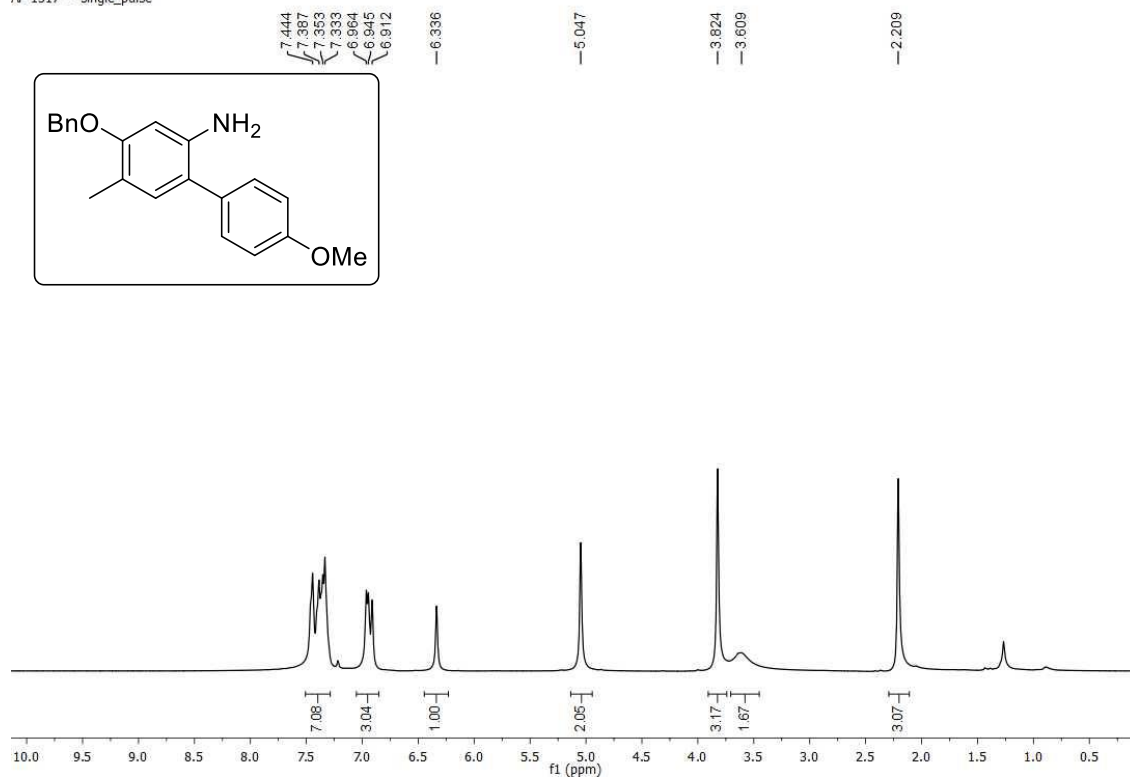


^1H NMR and ^{13}C NMR Spectra of compound 3w

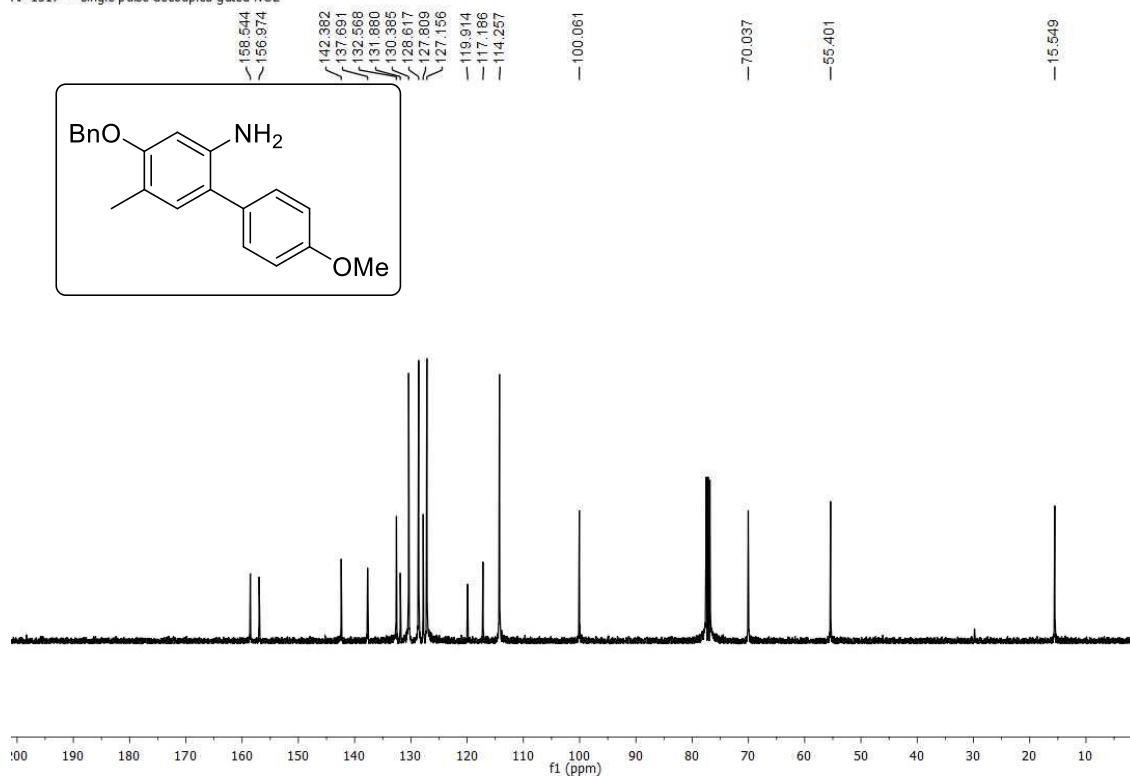


^1H NMR and ^{13}C NMR Spectra of compound 4

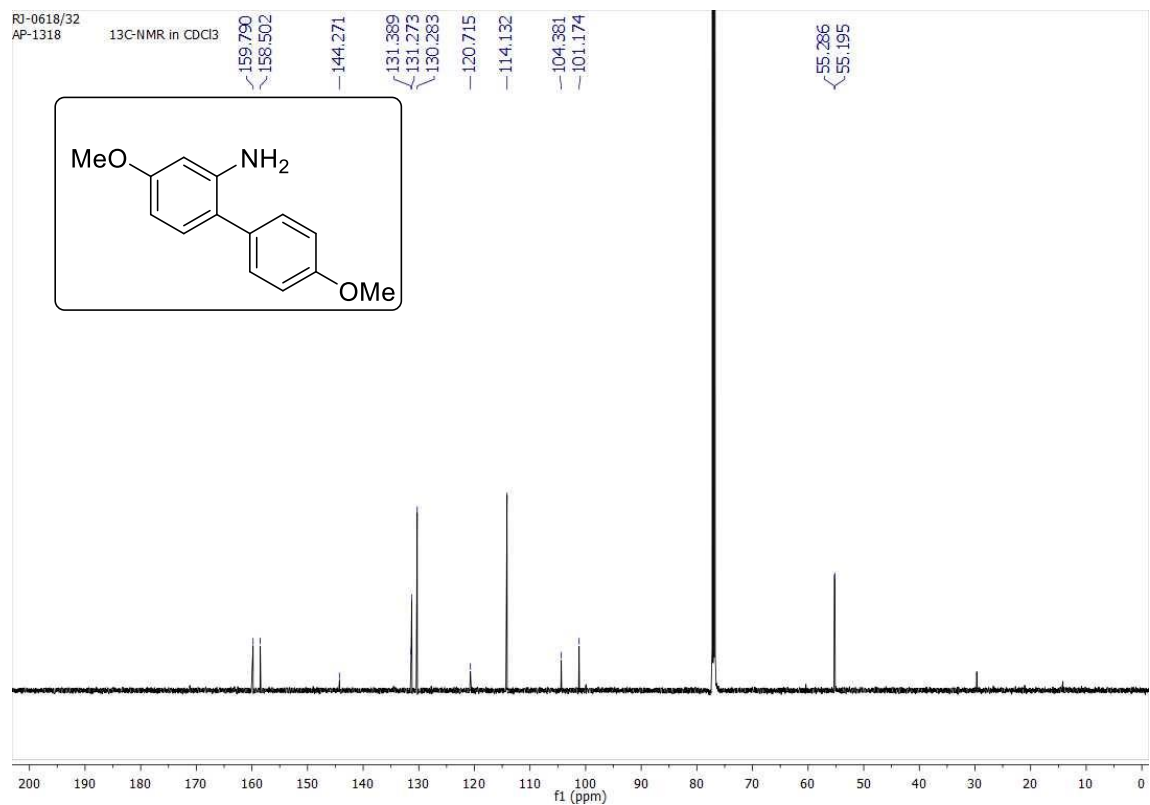
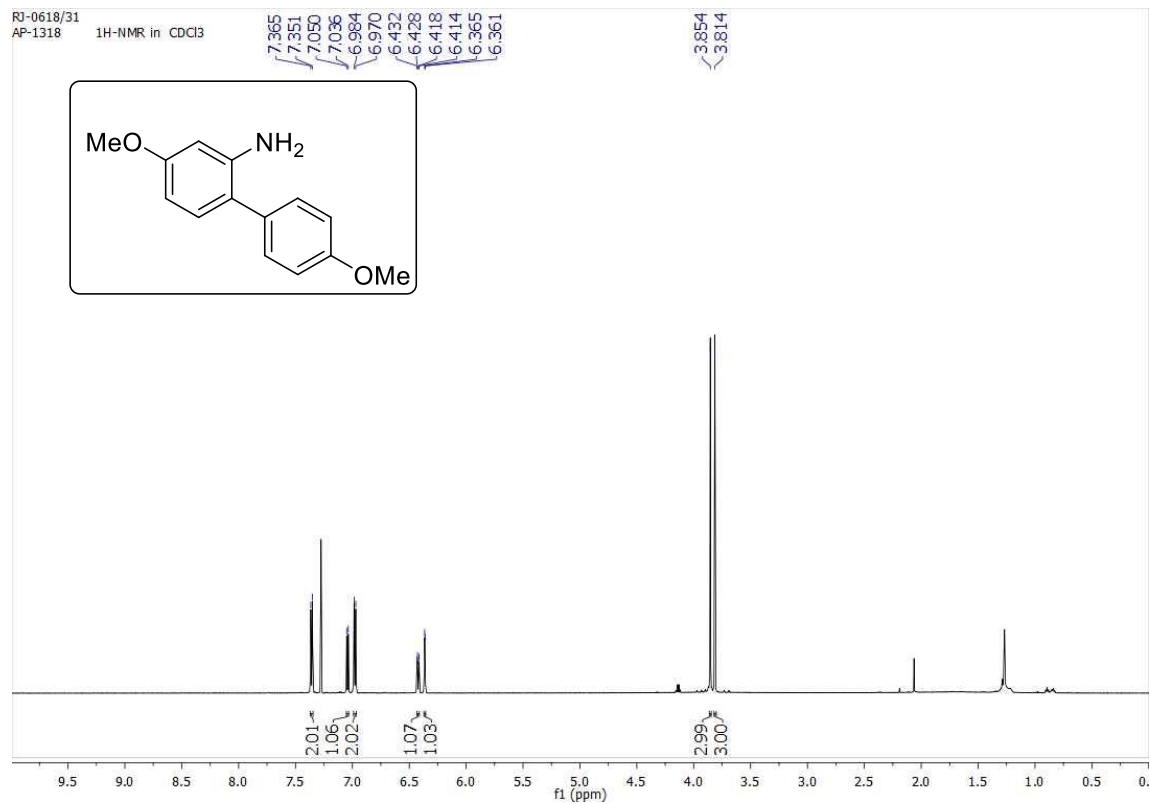
AP-1317 — single_pulse



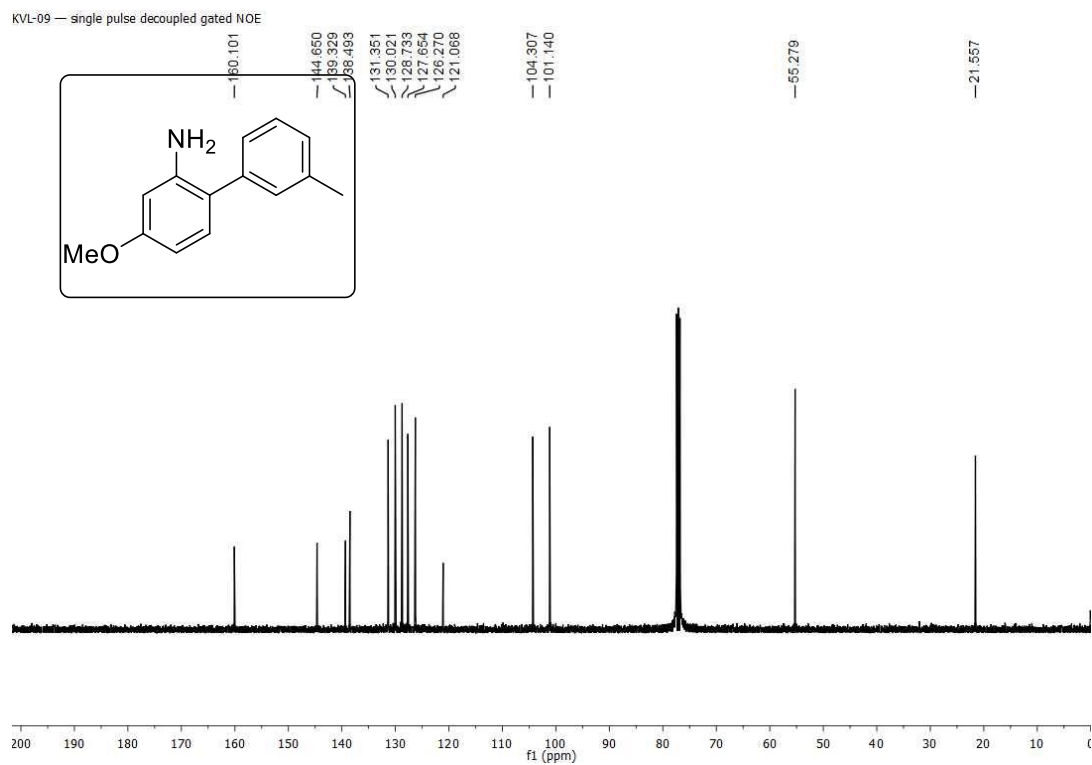
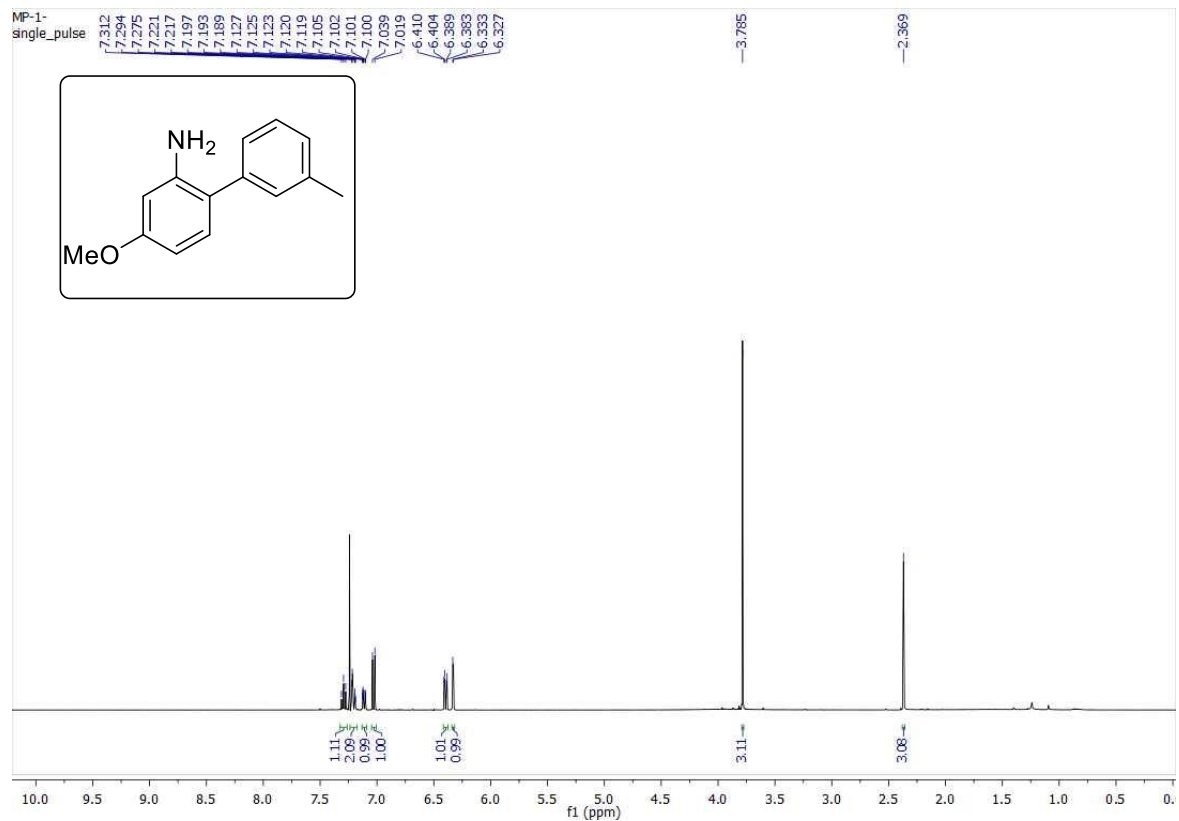
AP-1317 — single pulse decoupled gated NOE



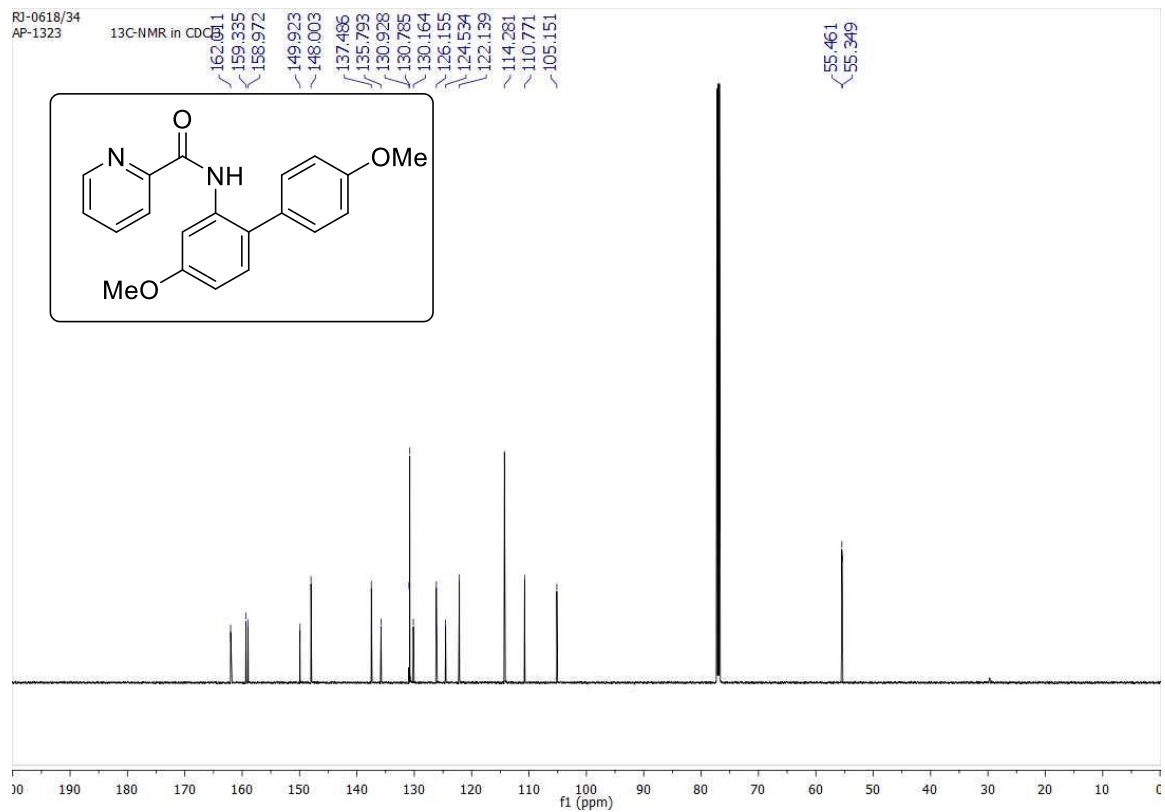
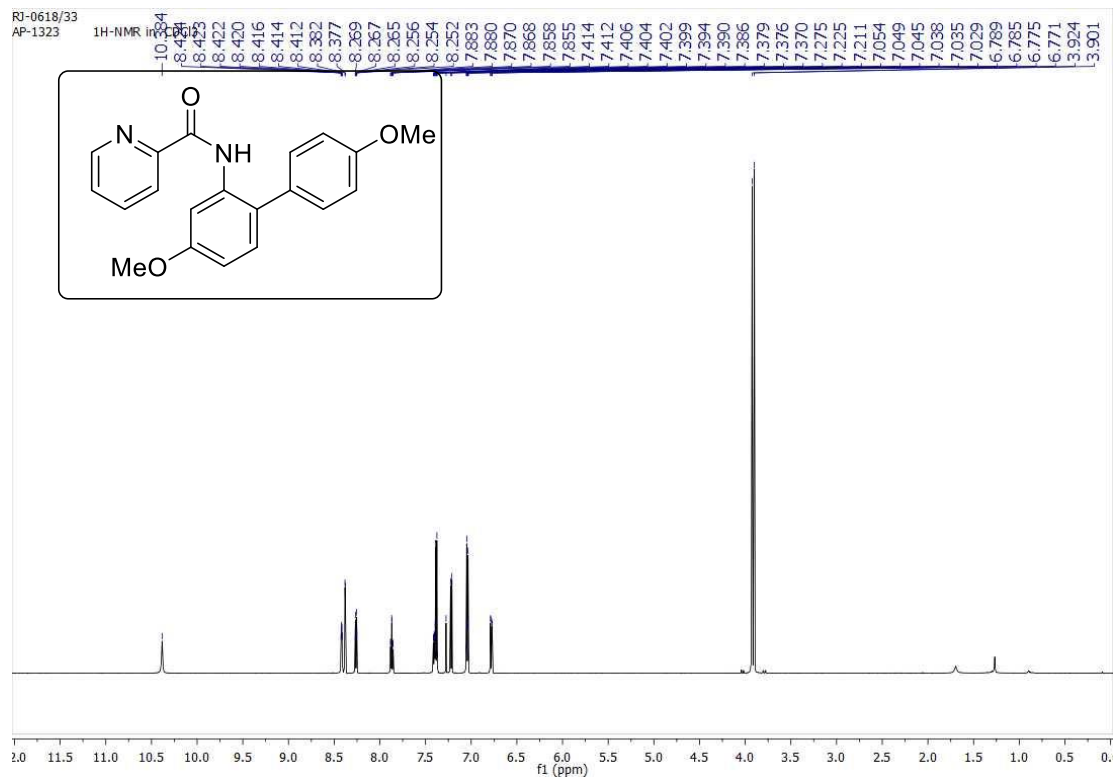
^1H NMR and ^{13}C NMR Spectra of compound 5



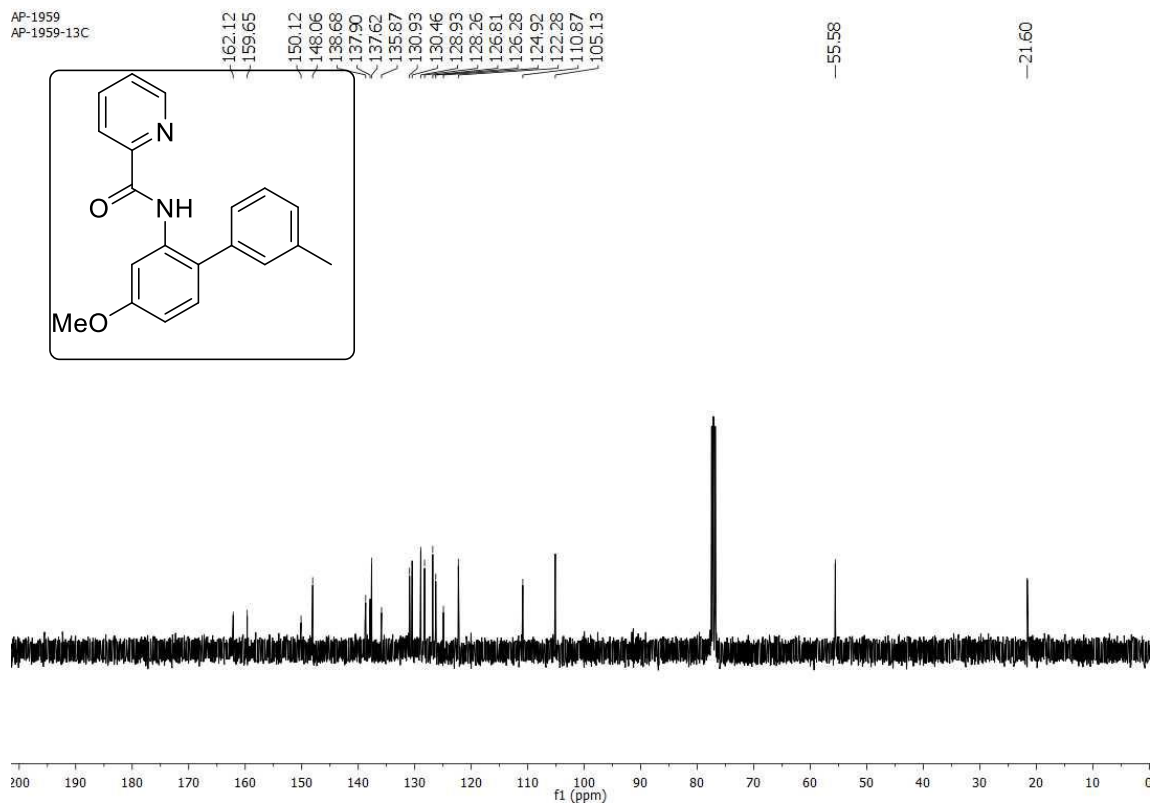
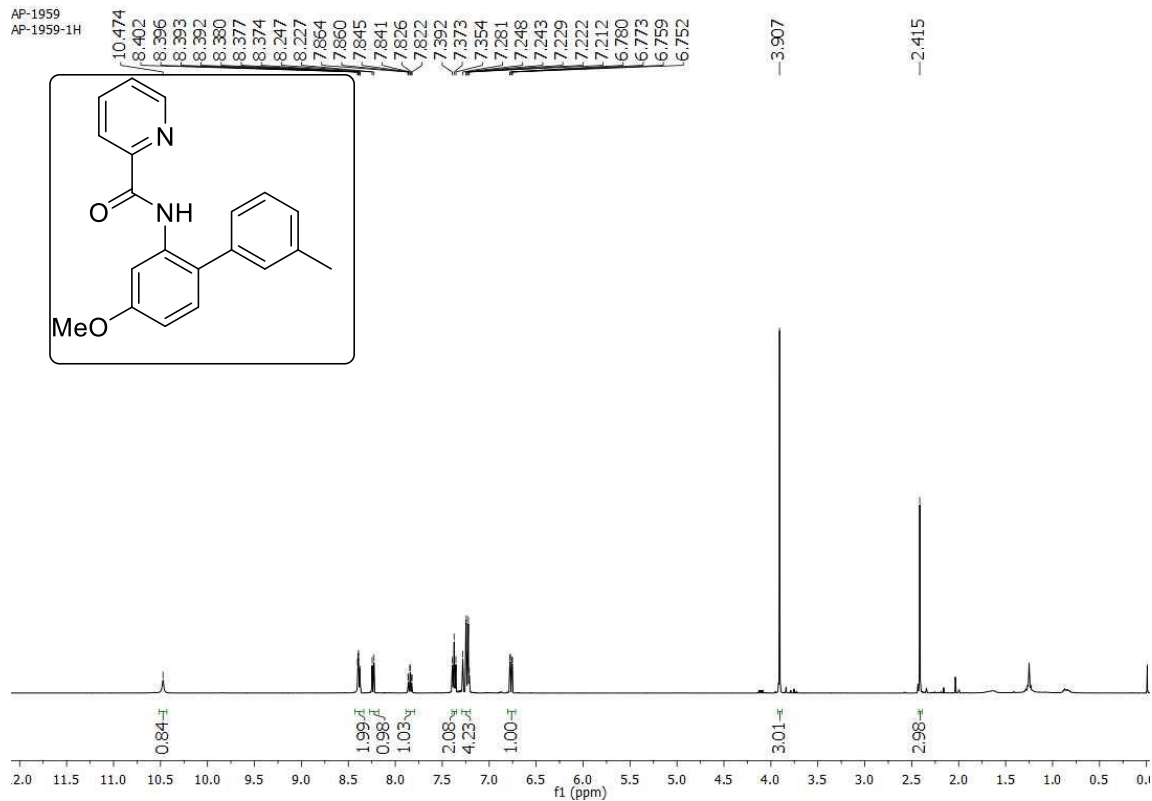
¹H NMR and ¹³C NMR Spectra of compound 6



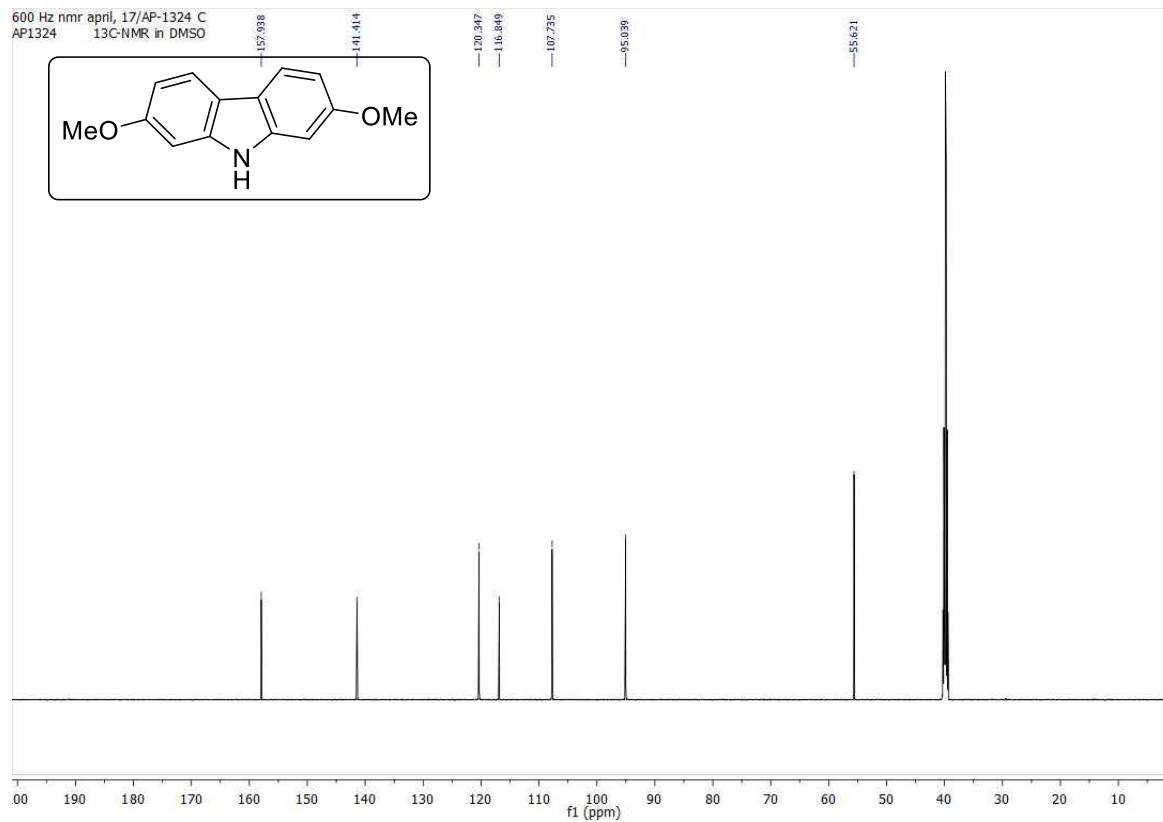
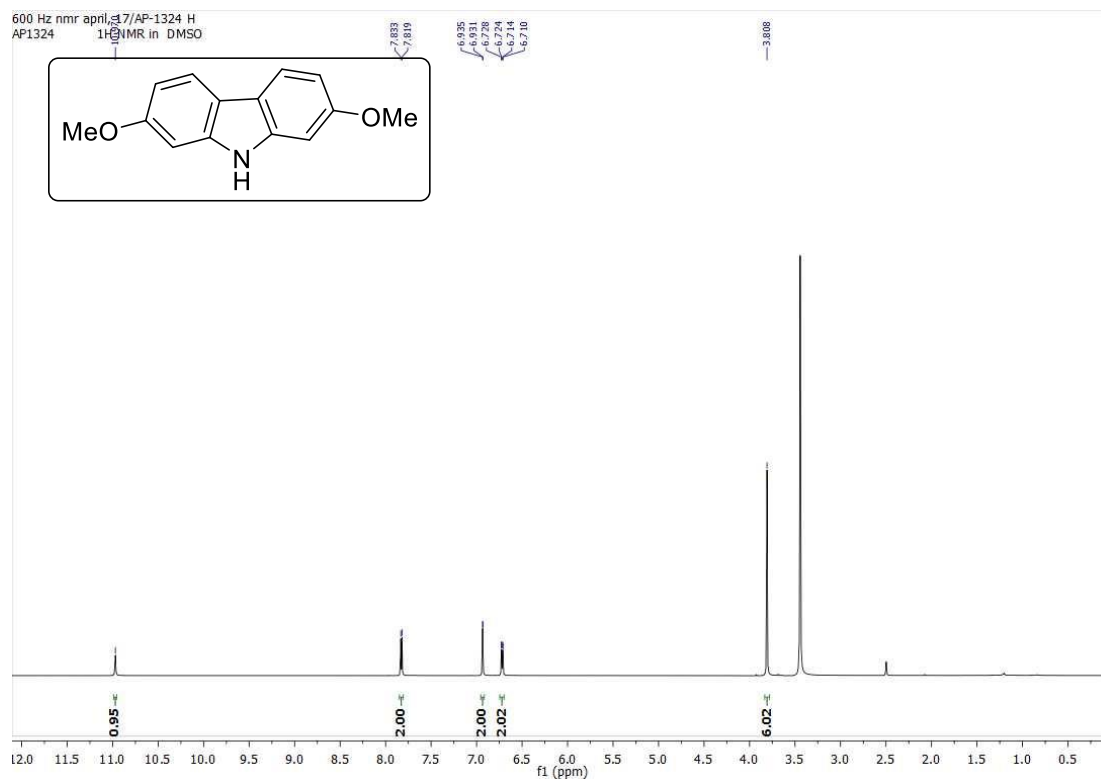
¹H NMR and ¹³C NMR Spectra of compound 7



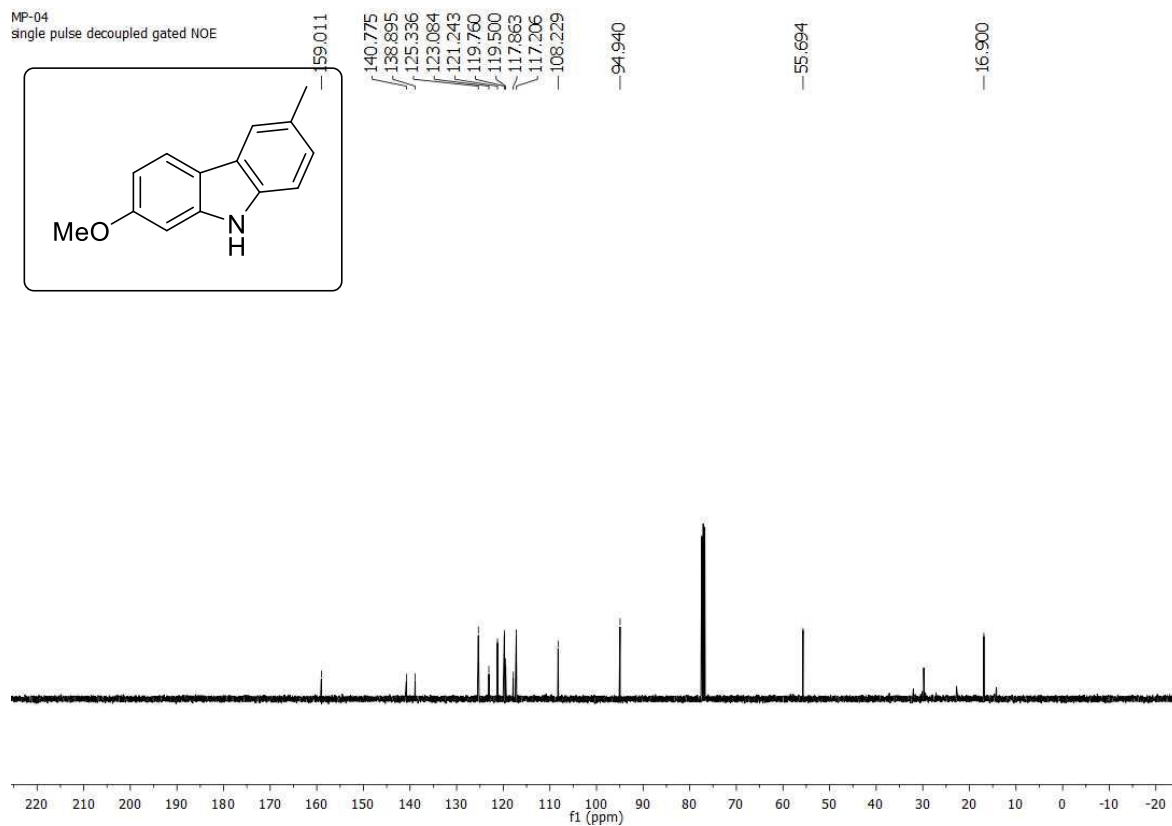
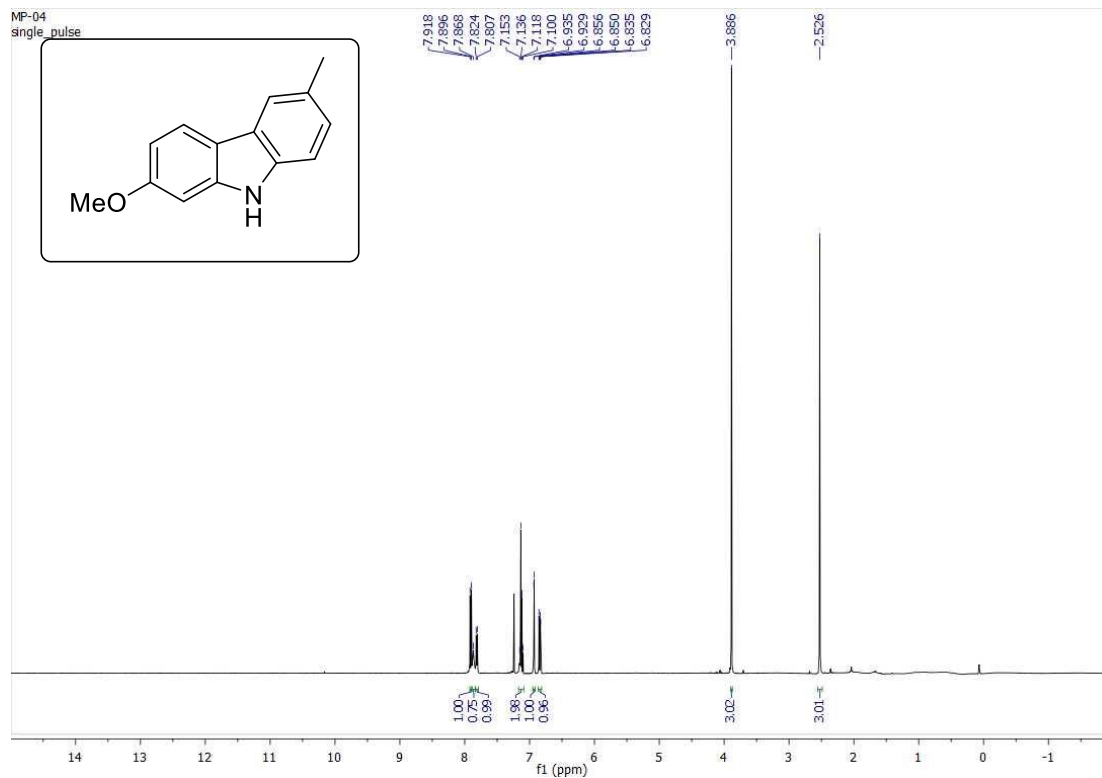
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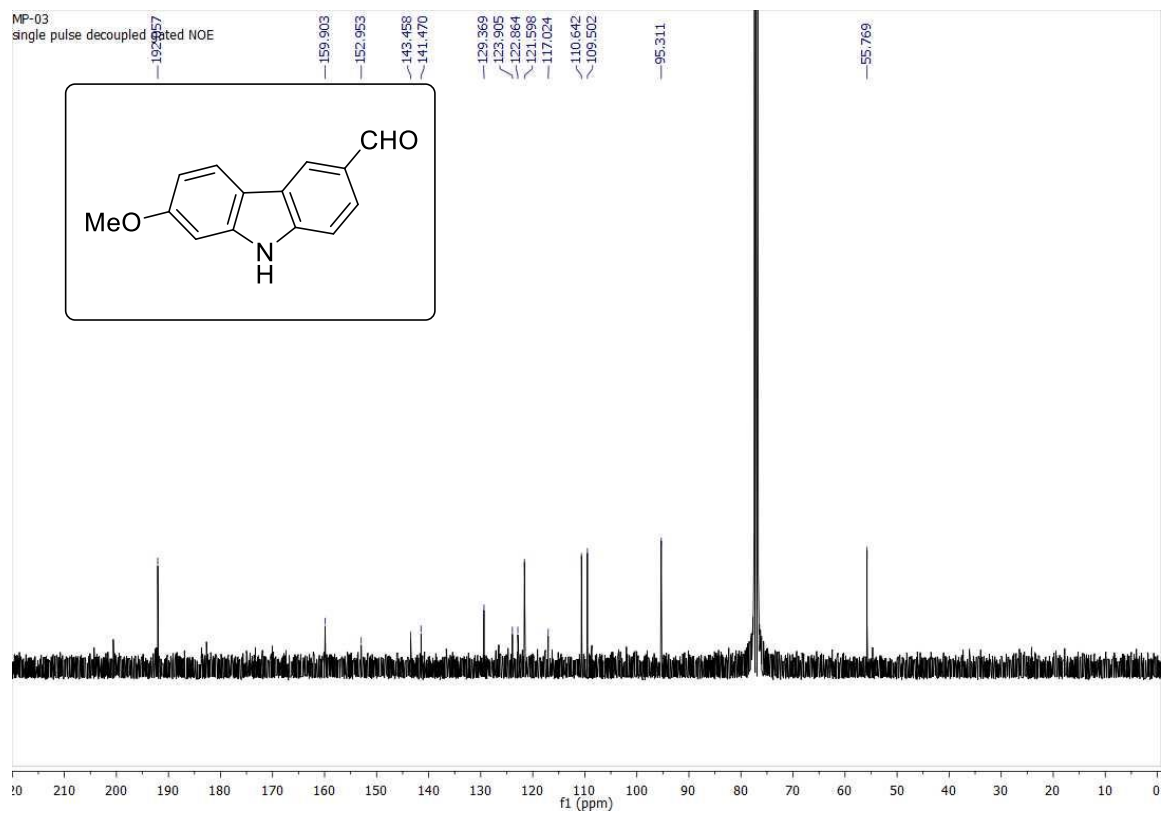
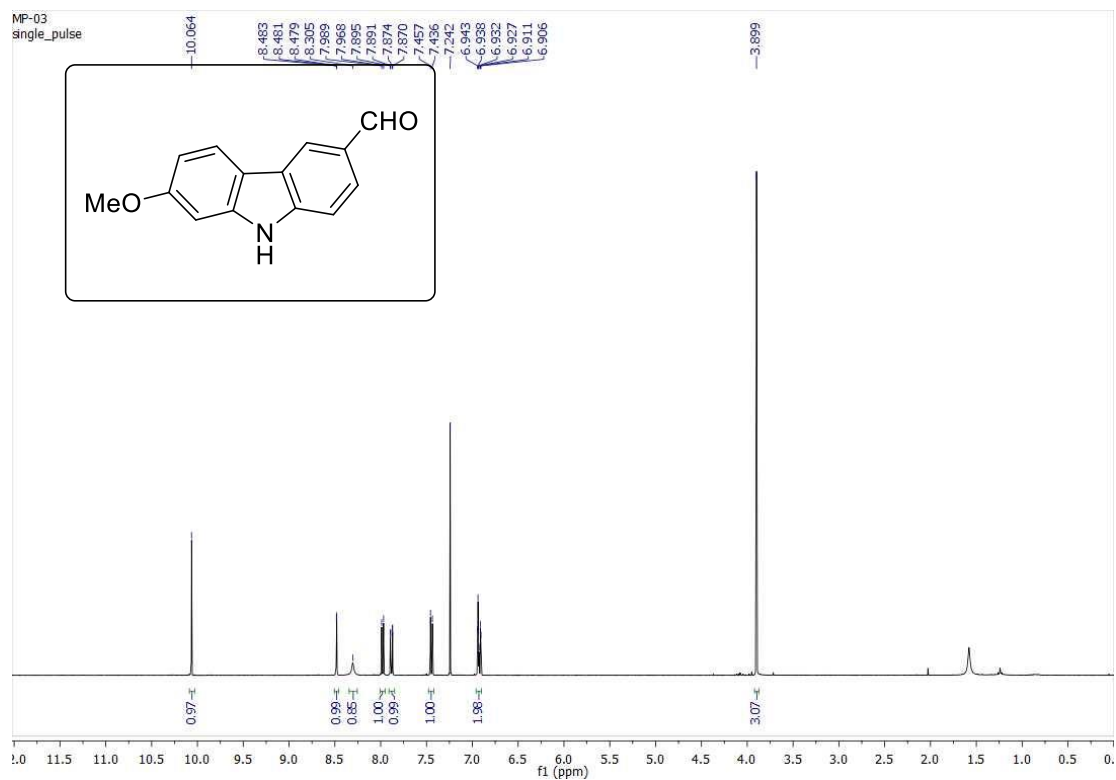
^1H NMR and ^{13}C NMR Spectra of compound 9



¹H NMR and ¹³C NMR Spectra of compound 10

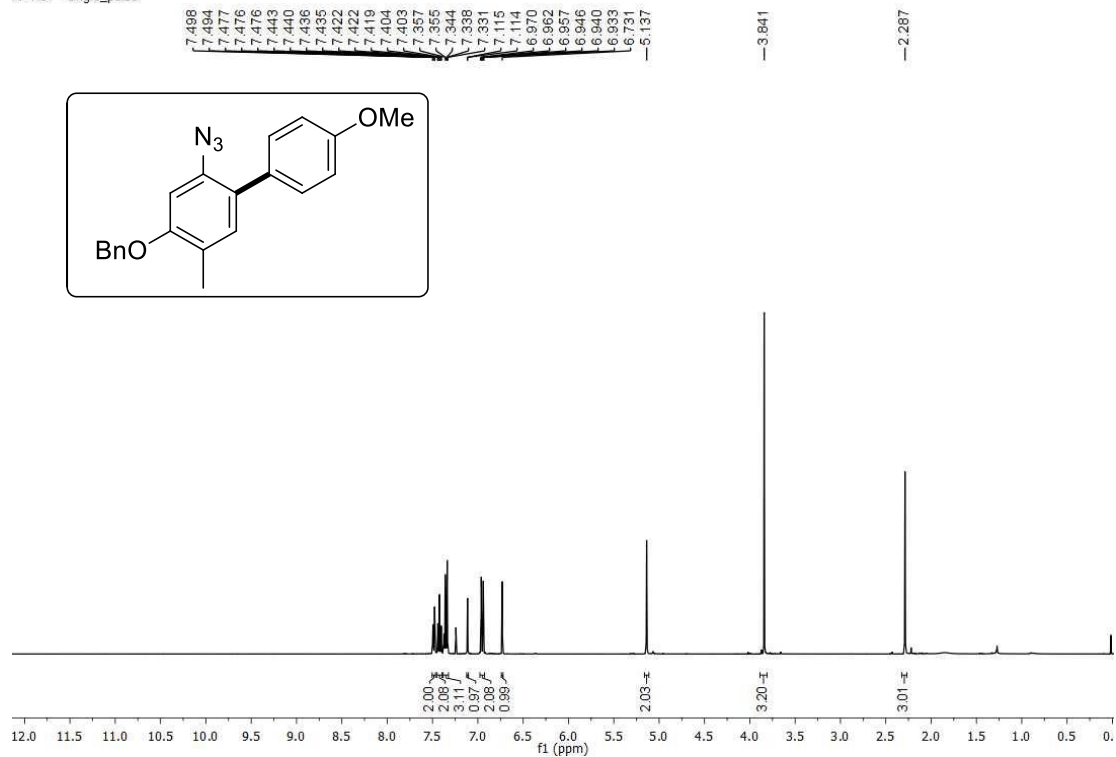


¹H NMR and ¹³C NMR Spectra of compound 11

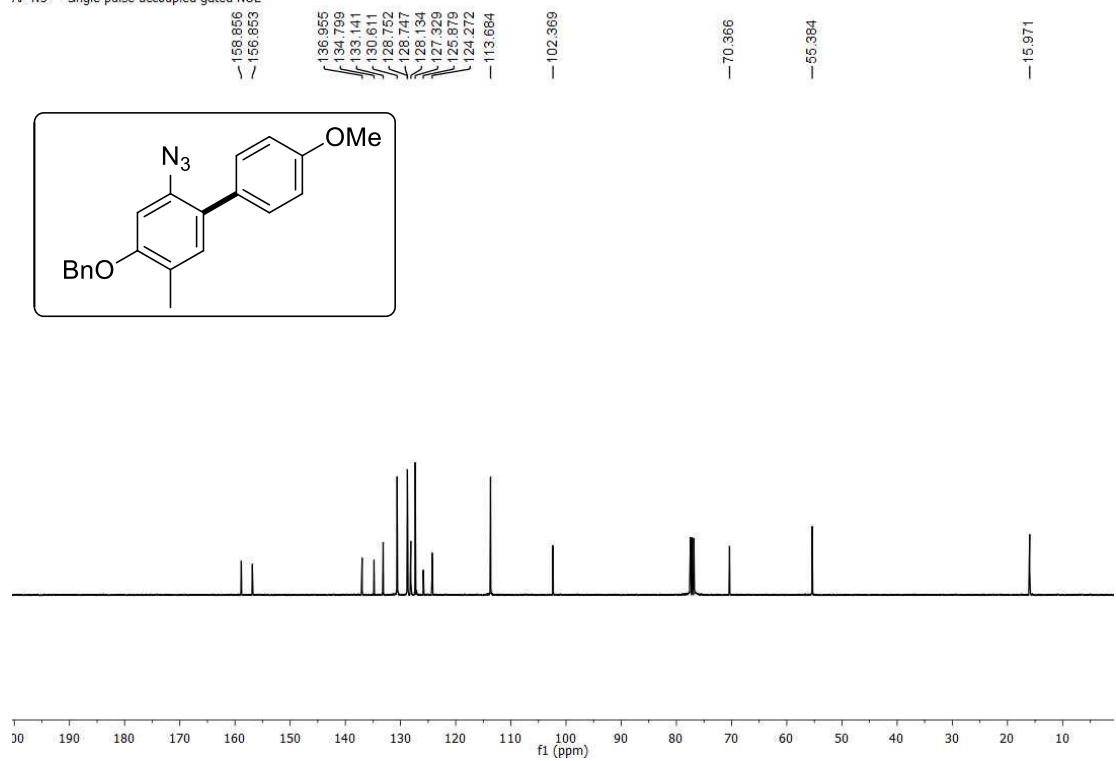


¹H NMR and ¹³C NMR Spectra of compound 12

AP-N3 — single_pulse

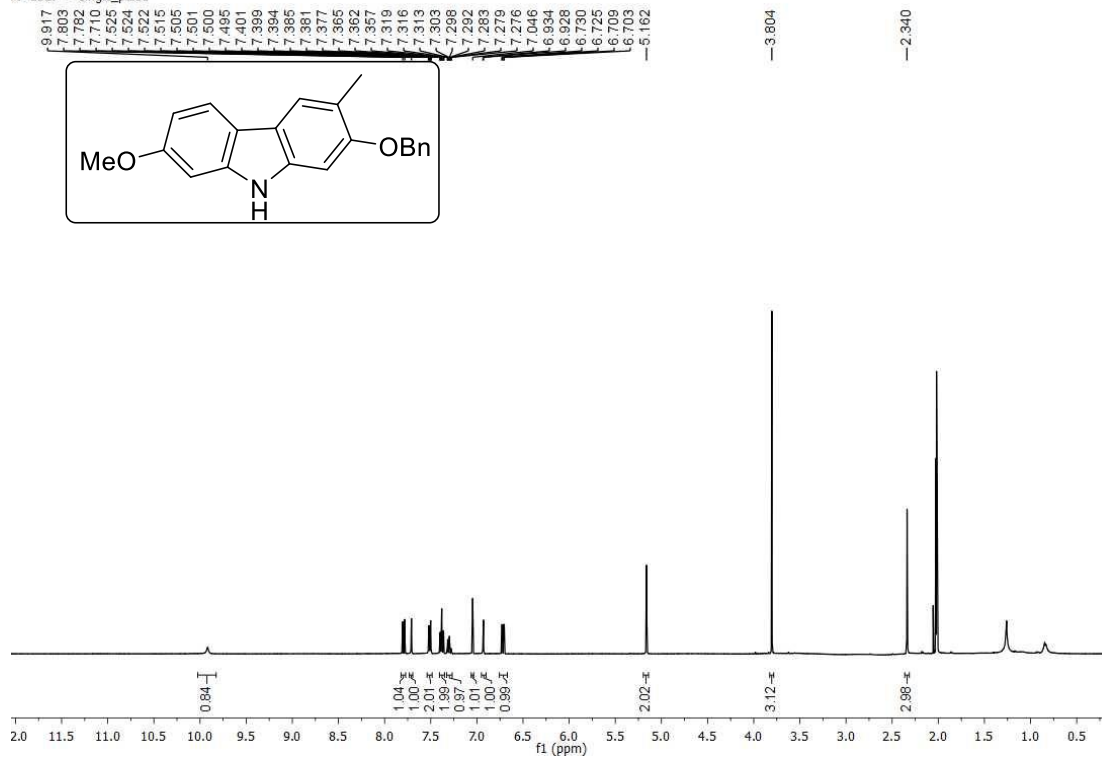


AP-N3 — single pulse decoupled gated NOE



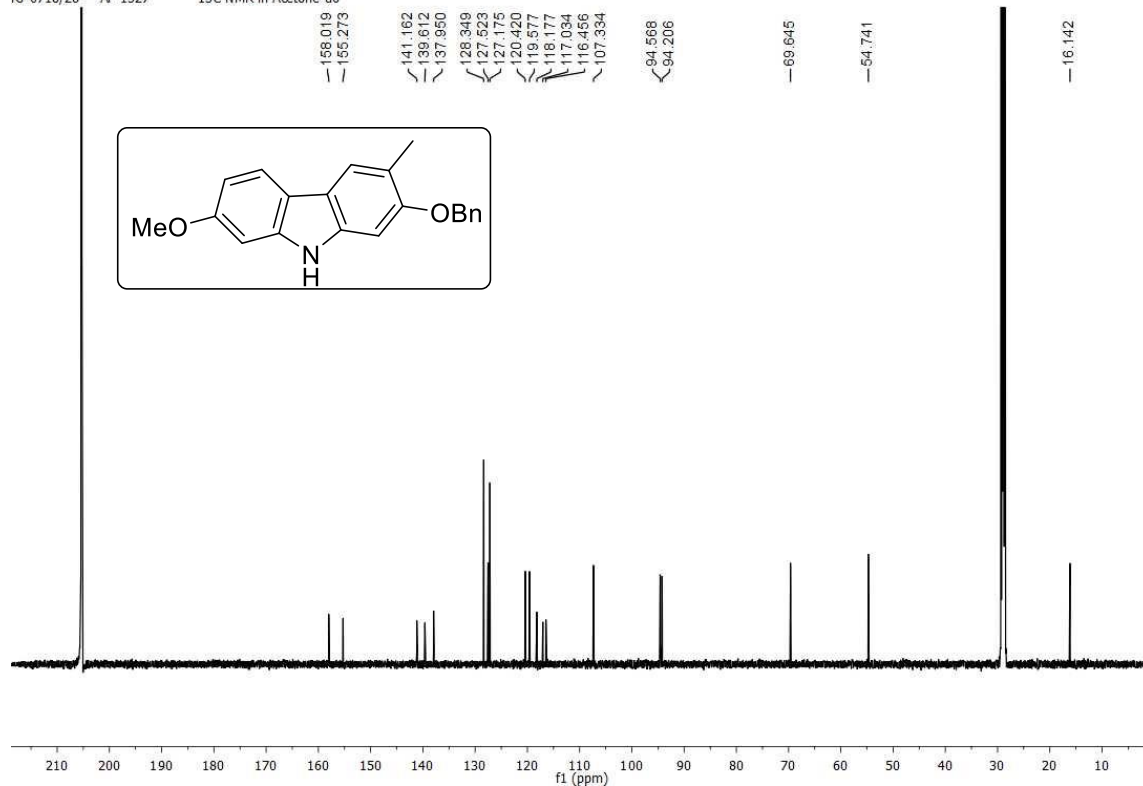
¹H NMR and ¹³C NMR Spectra of compound 13

AP-1327 — single_pulse



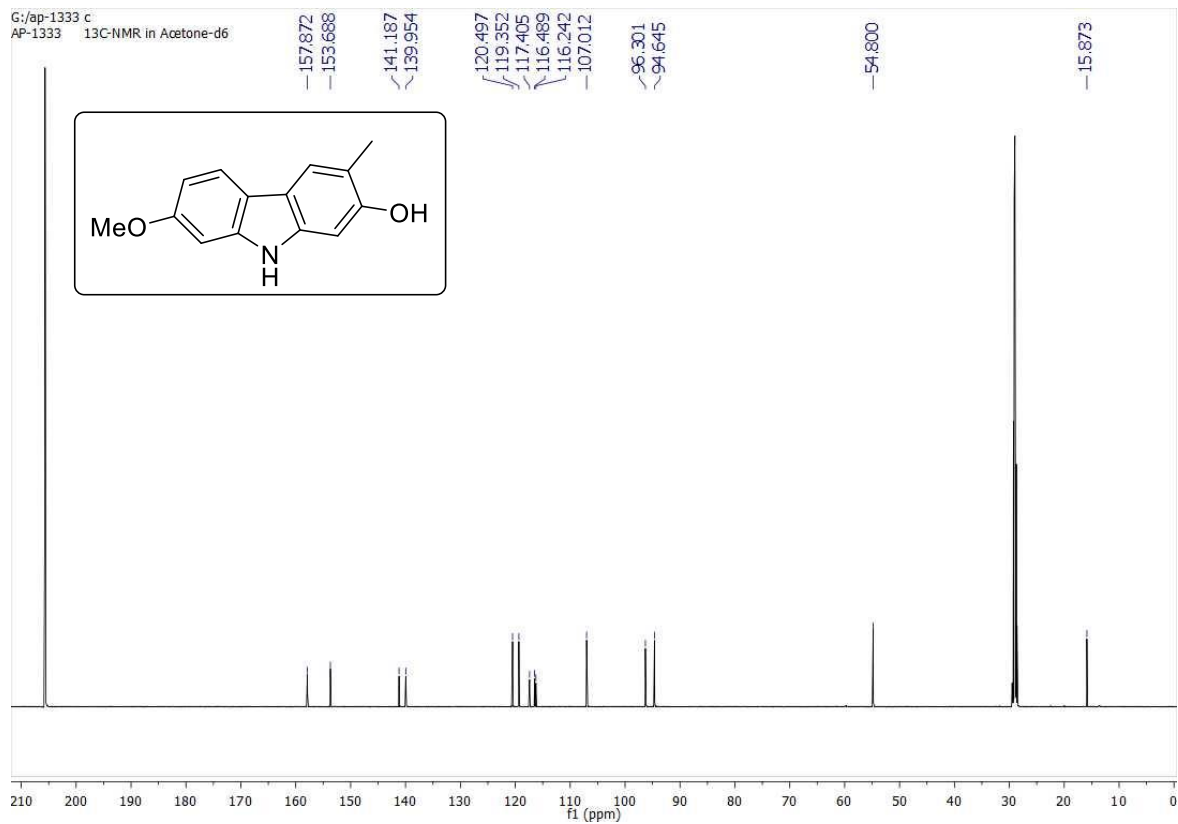
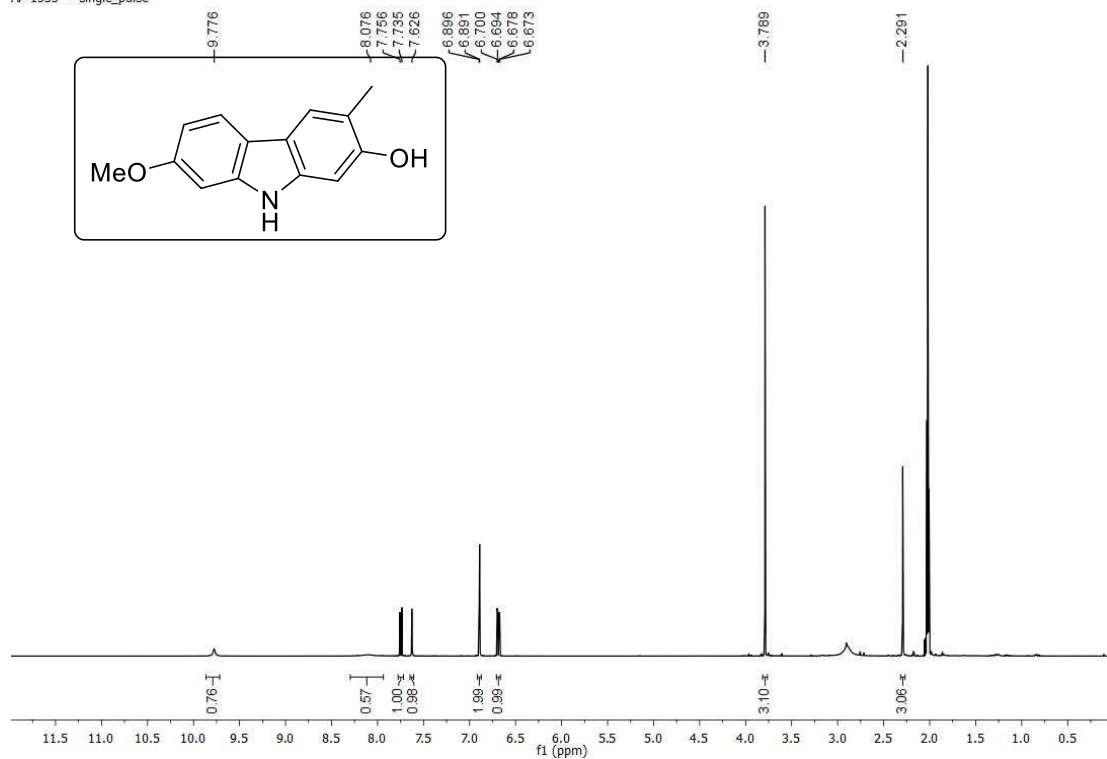
RJ-0718/28 — AP-1327

¹³C-NMR in Acetone-d₆



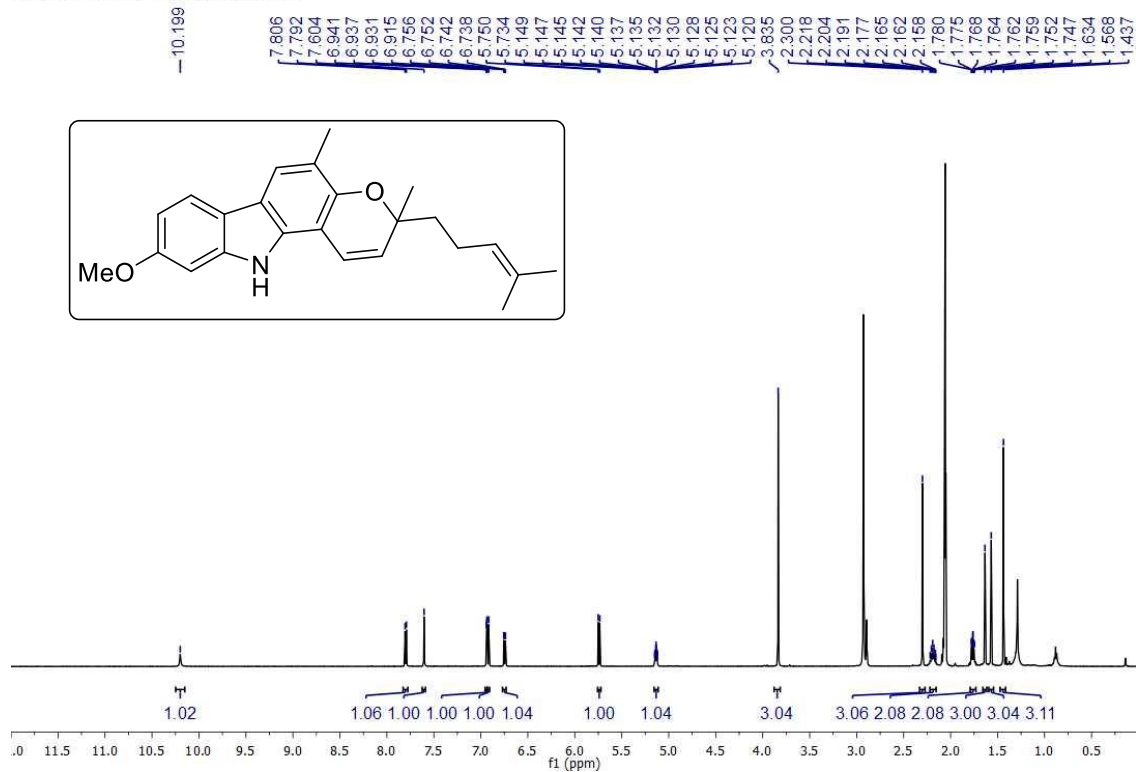
¹H NMR and ¹³C NMR Spectra of compound 14

AP-1333 — single_pulse

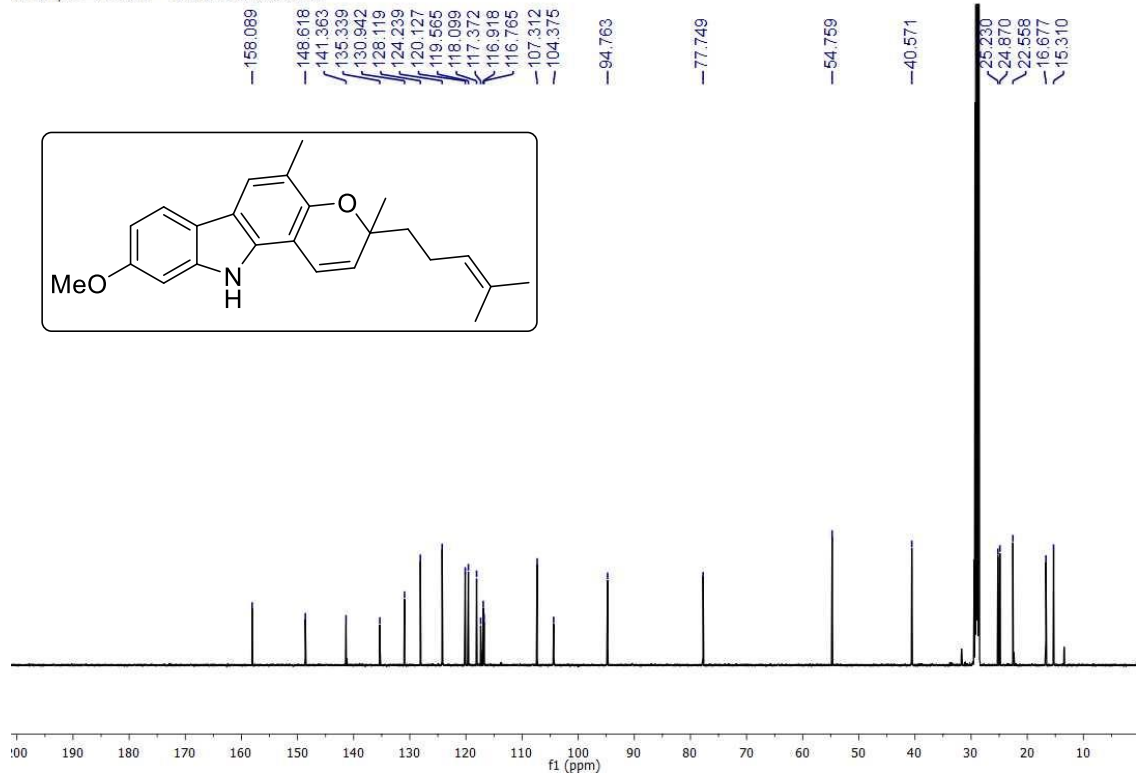


¹H NMR and ¹³C NMR Spectra of compound 15

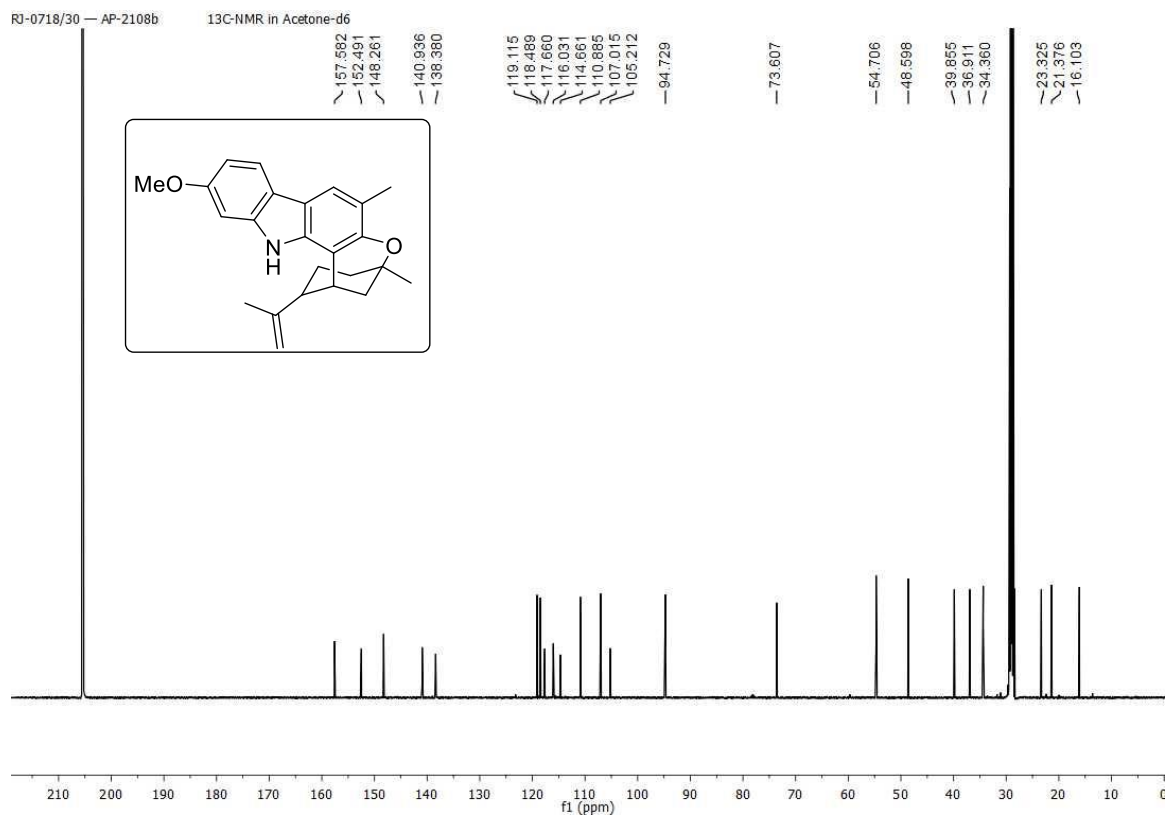
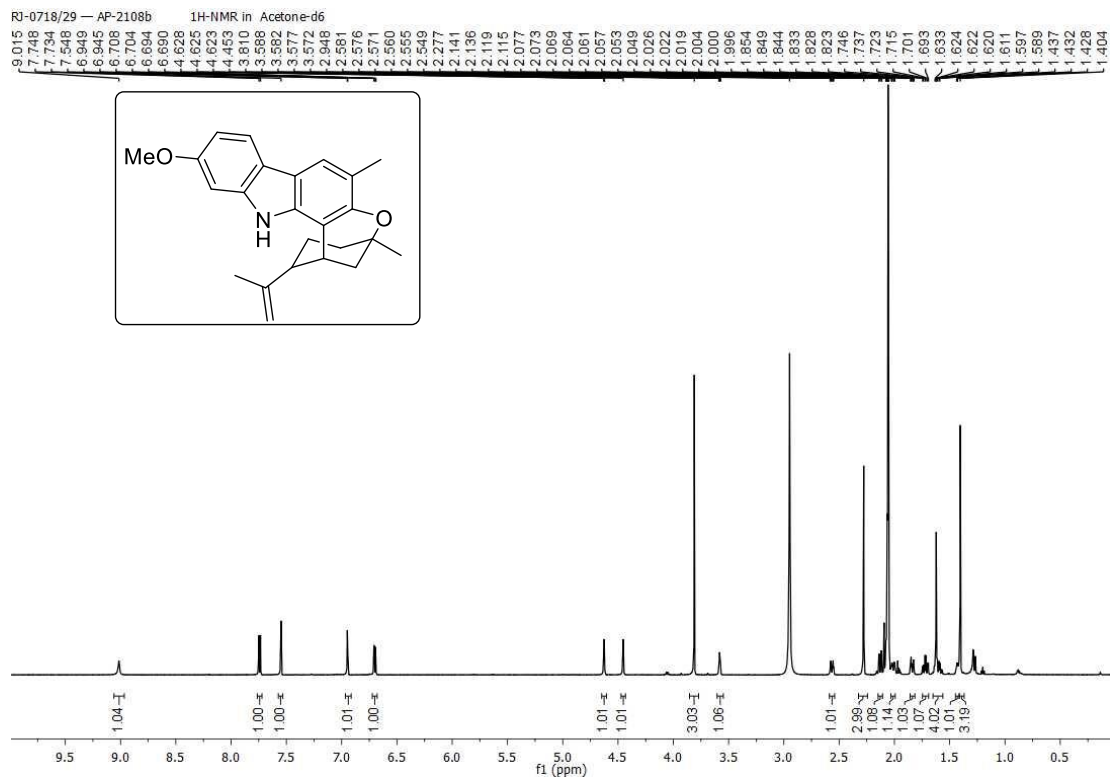
RJ-1216/9 — AP-1341 ¹H-NMR in Acetone-d₆



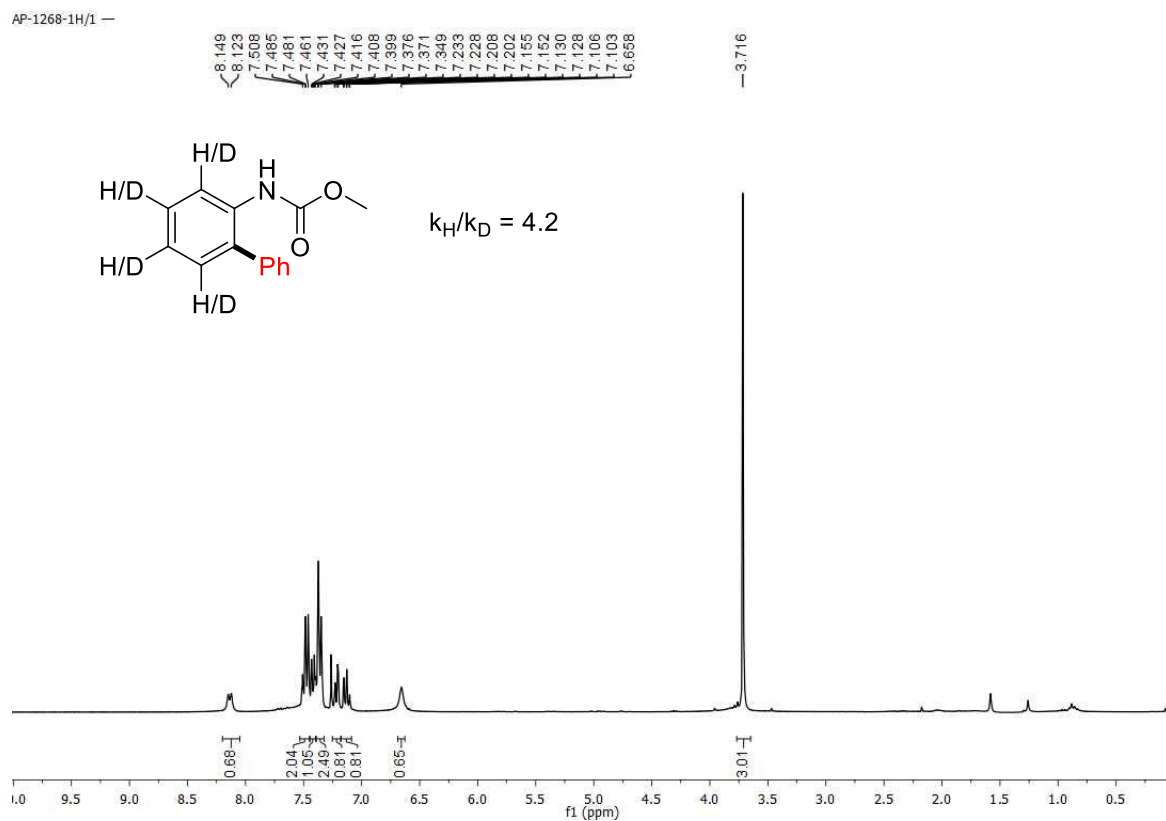
RJ-1216/10 — AP-1341 ¹³C-NMR in Acetone-d₆



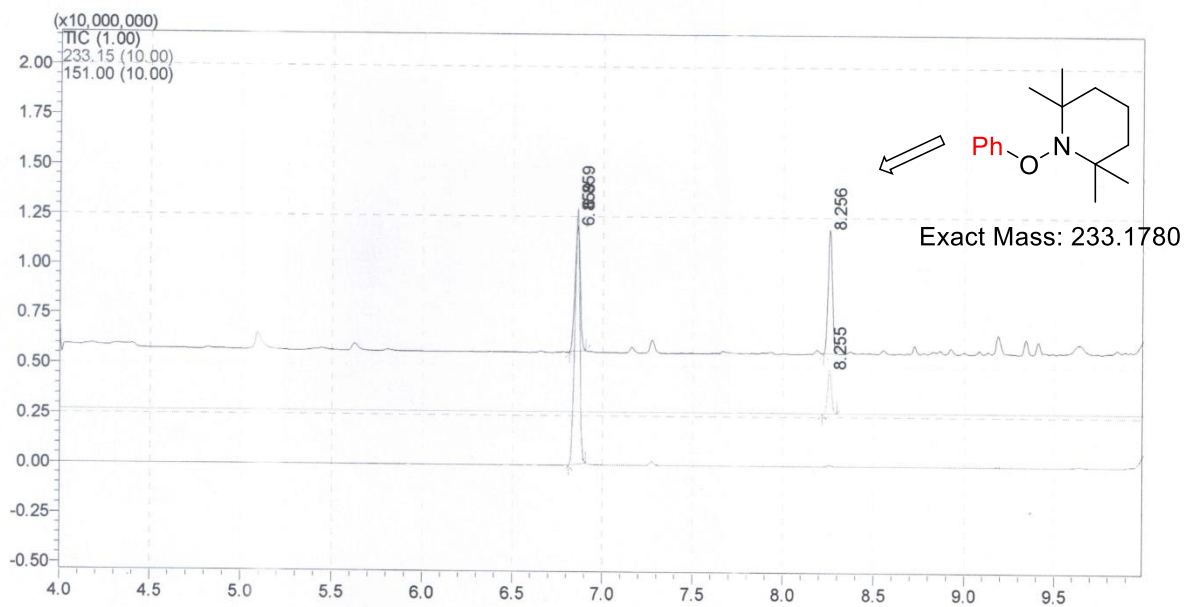
¹H NMR and ¹³C NMR Spectra of compound 16

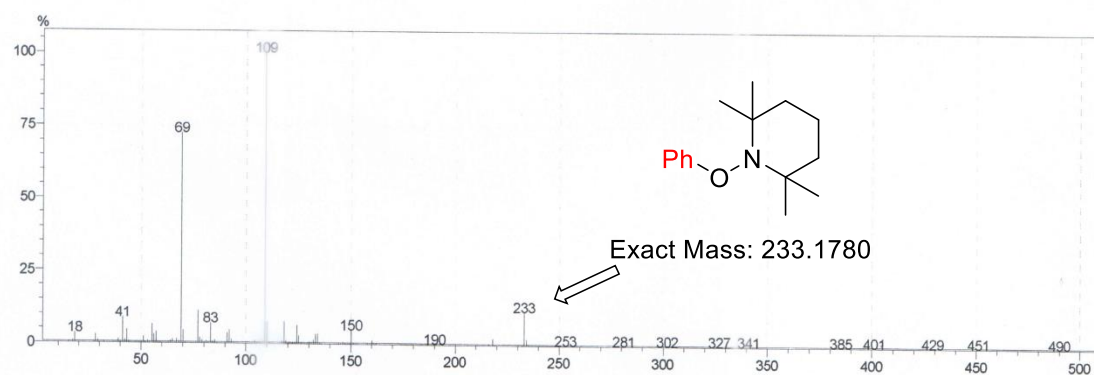


Scheme S2: Intermolecular Molecular Kinetic Isotopic effect



Scheme S3: GC MS spectra of tempo-adduct product





HRMS of TEMPO-adduct product $C_{15}H_{23}NO$ $[M+H]^+$: Exact Mass: 234.1858; found: 234.1852.

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