

Supporting Information:

Directed Metalation – Suzuki-Miyaura Cross-coupling Strategies. Regioselective Synthesis of Hydroxylated 1-Methyl-phenanthrenes

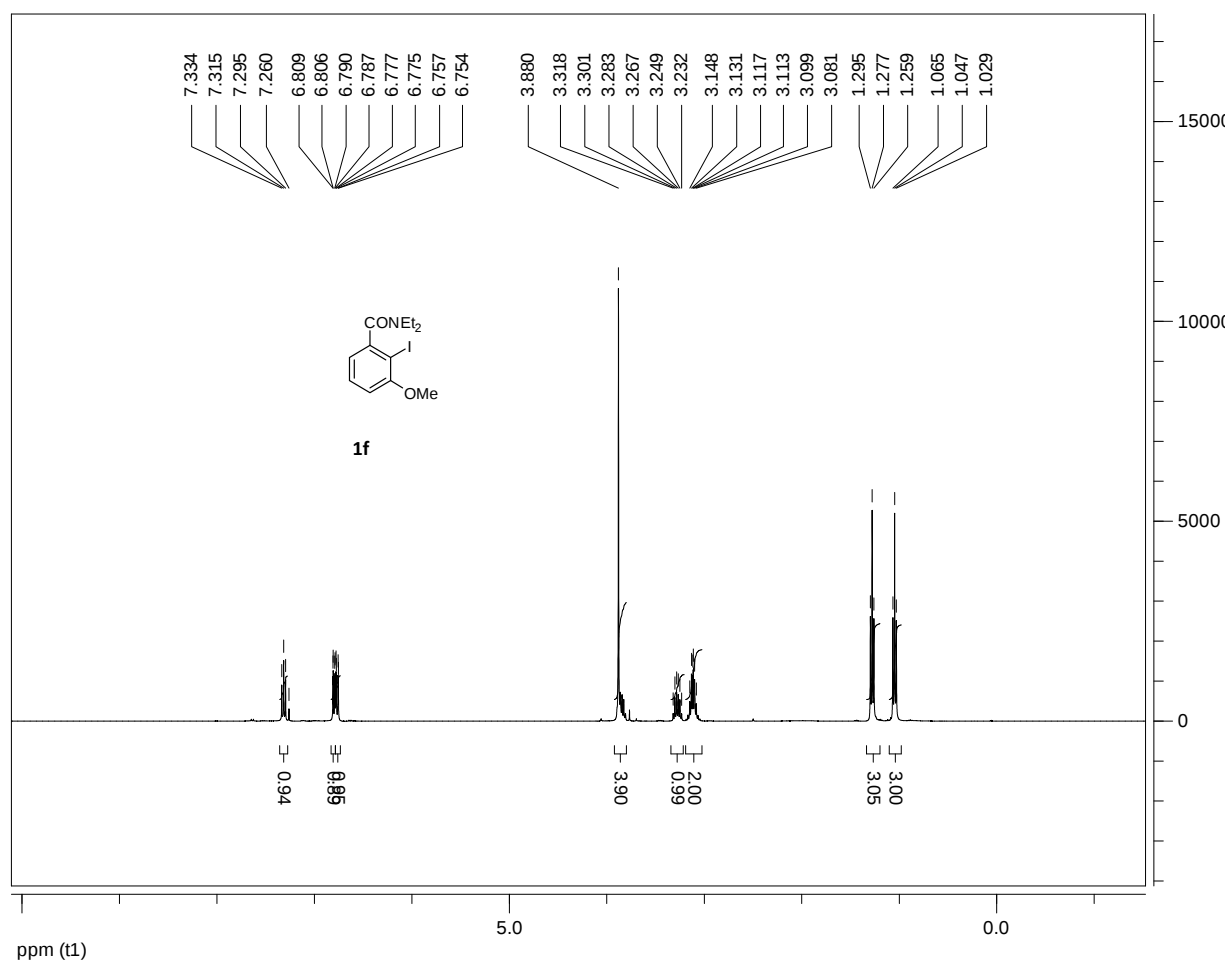
Kåre B. Jørgensen^{†,*} Toni Rantanen,[‡] Thilo Dörfler,[‡] and Victor Snieckus^{‡,*}

[†] *Faculty of Science and Technology, University of Stavanger, N-4036 Stavanger, Norway,* [‡]
*Snieckus Innovations and Department of Chemistry, Queen's University, Kingston, ON, Canada
K7L 3N6*

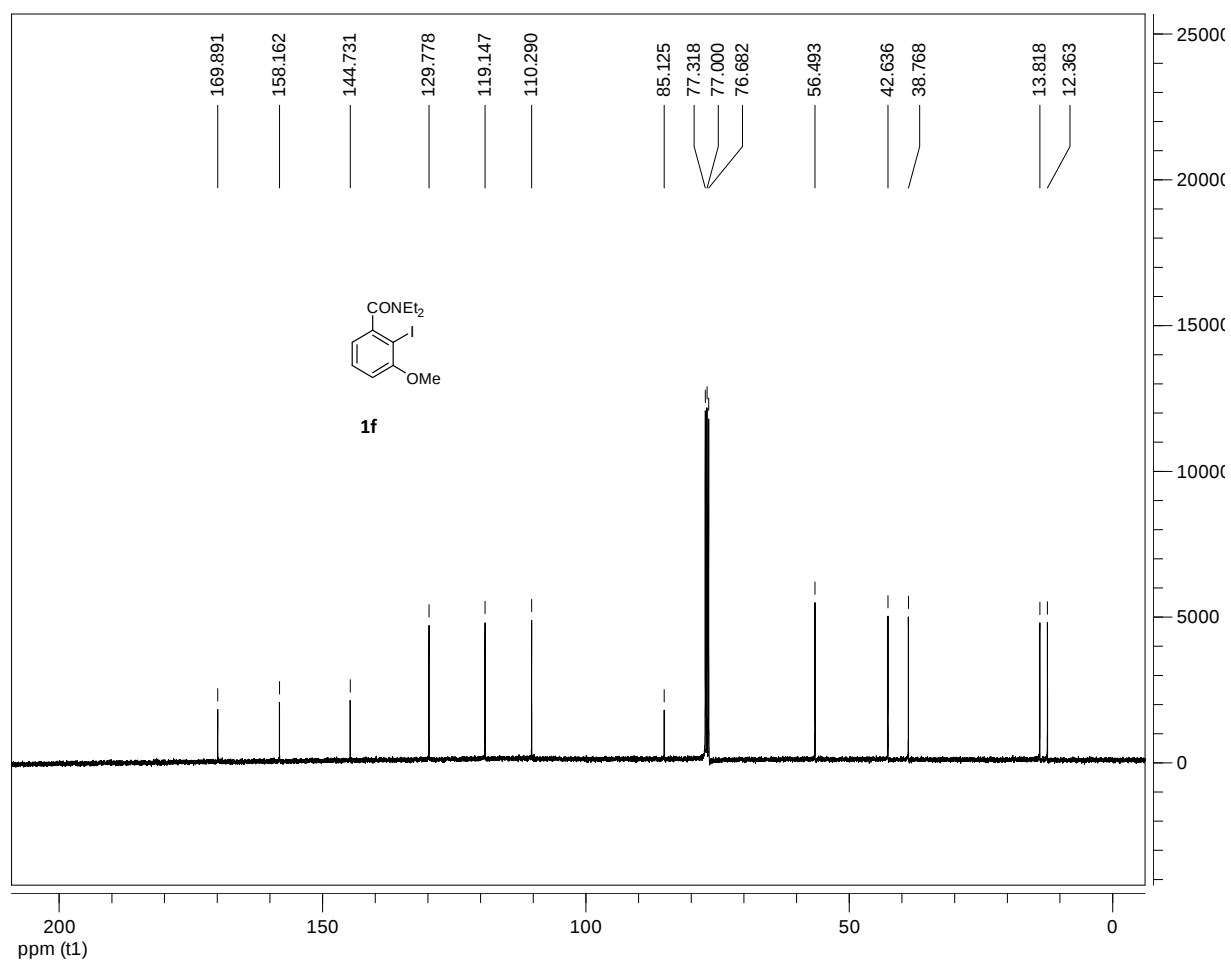
* corresponding authors, E-mail: kare.b.jorgensen@uis.no; snieckus@chem.queensu.ca;

This file contains ¹H and ¹³C NMR spectra of all new compounds numbered and in the same order as in the experimental section.

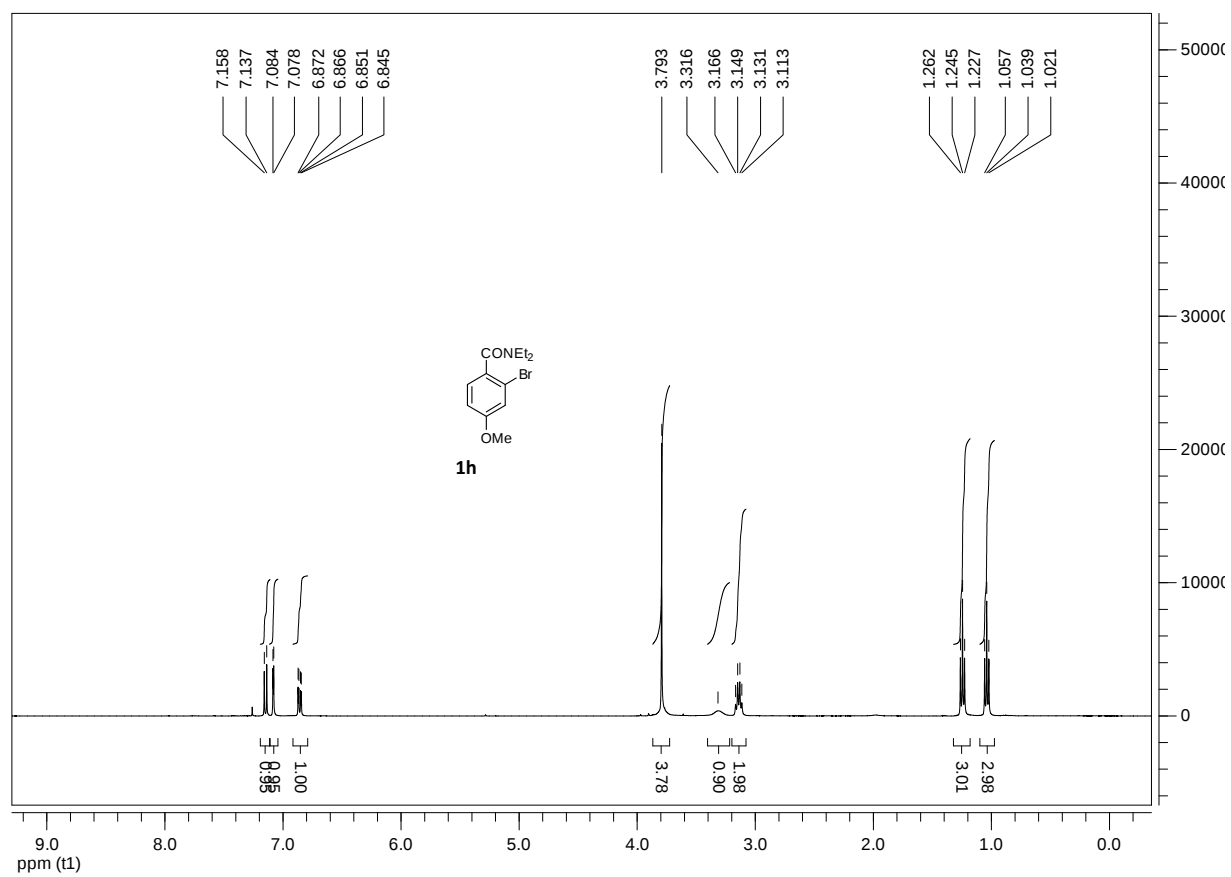
¹H-NMR, 400 MHz, CDCl₃



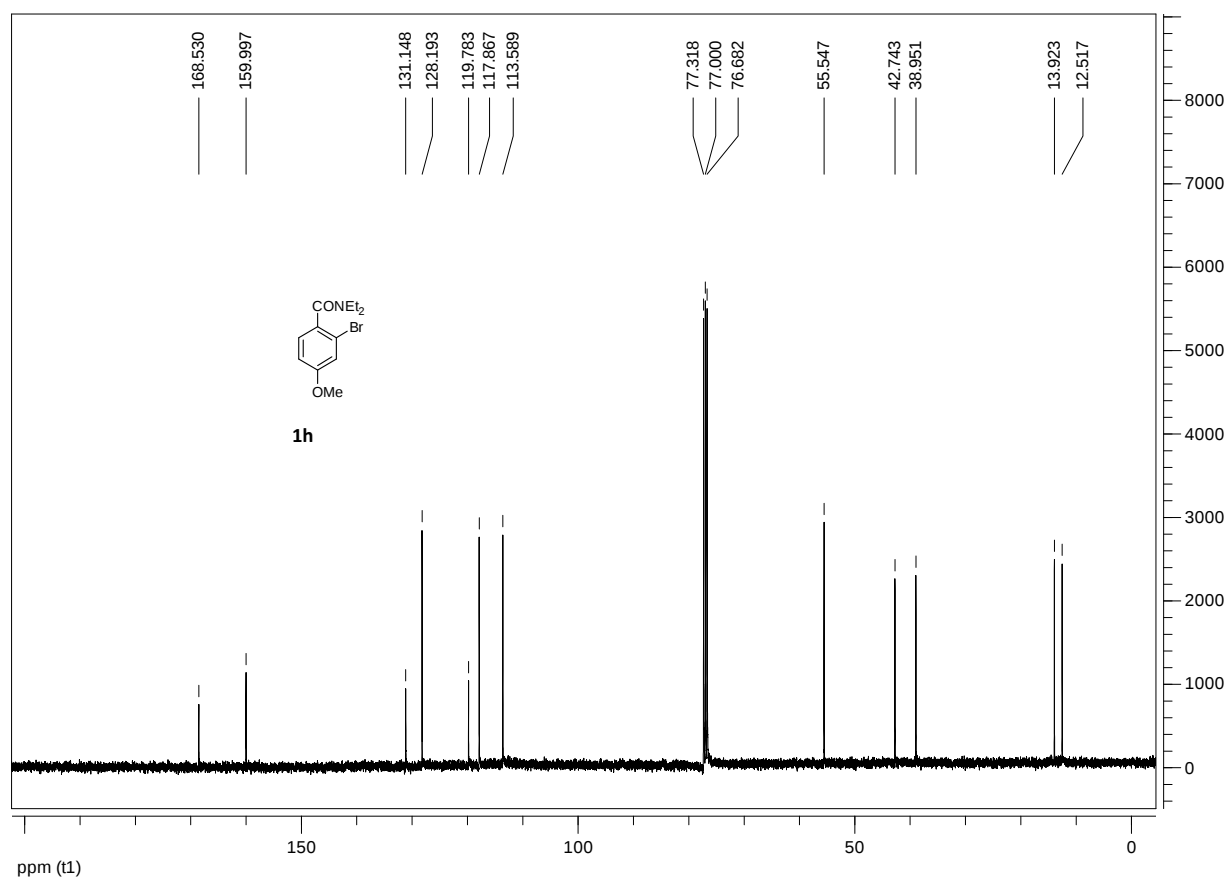
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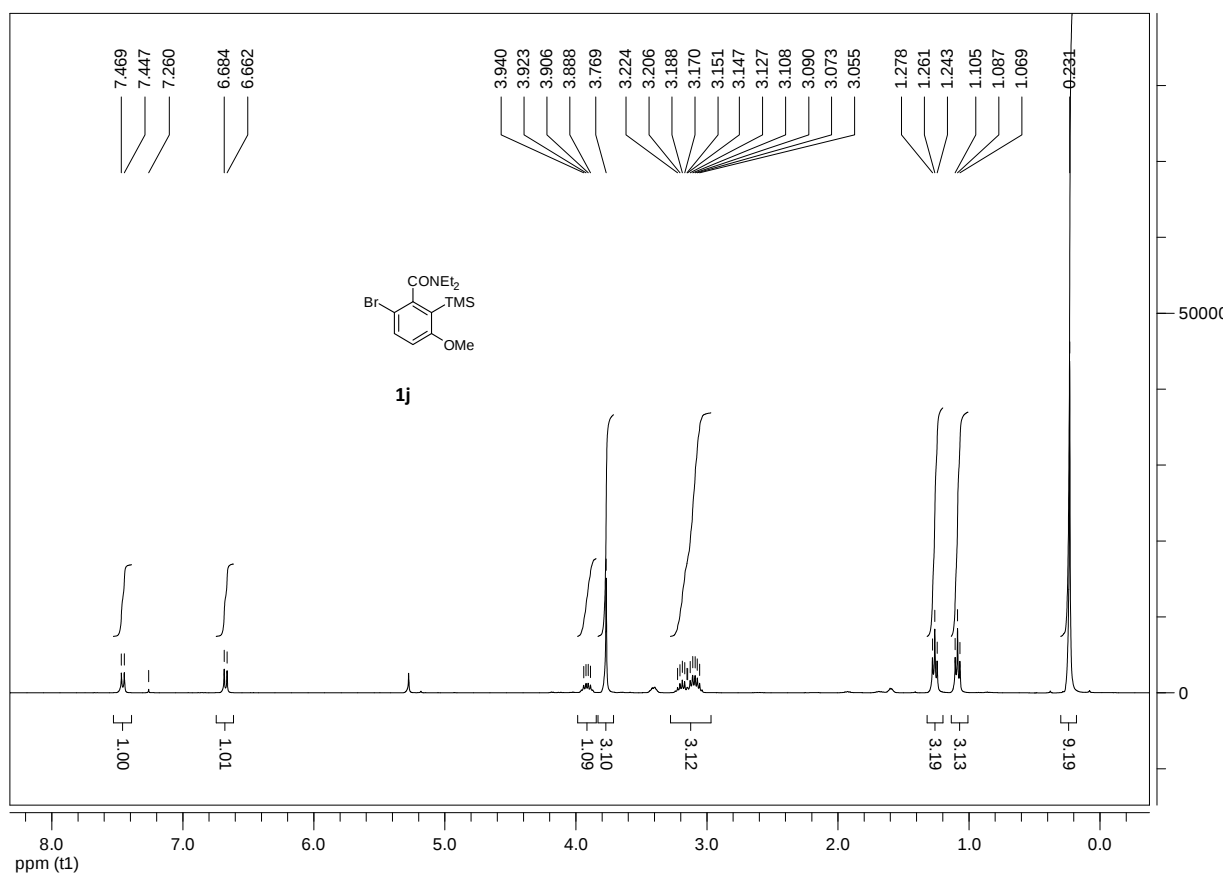
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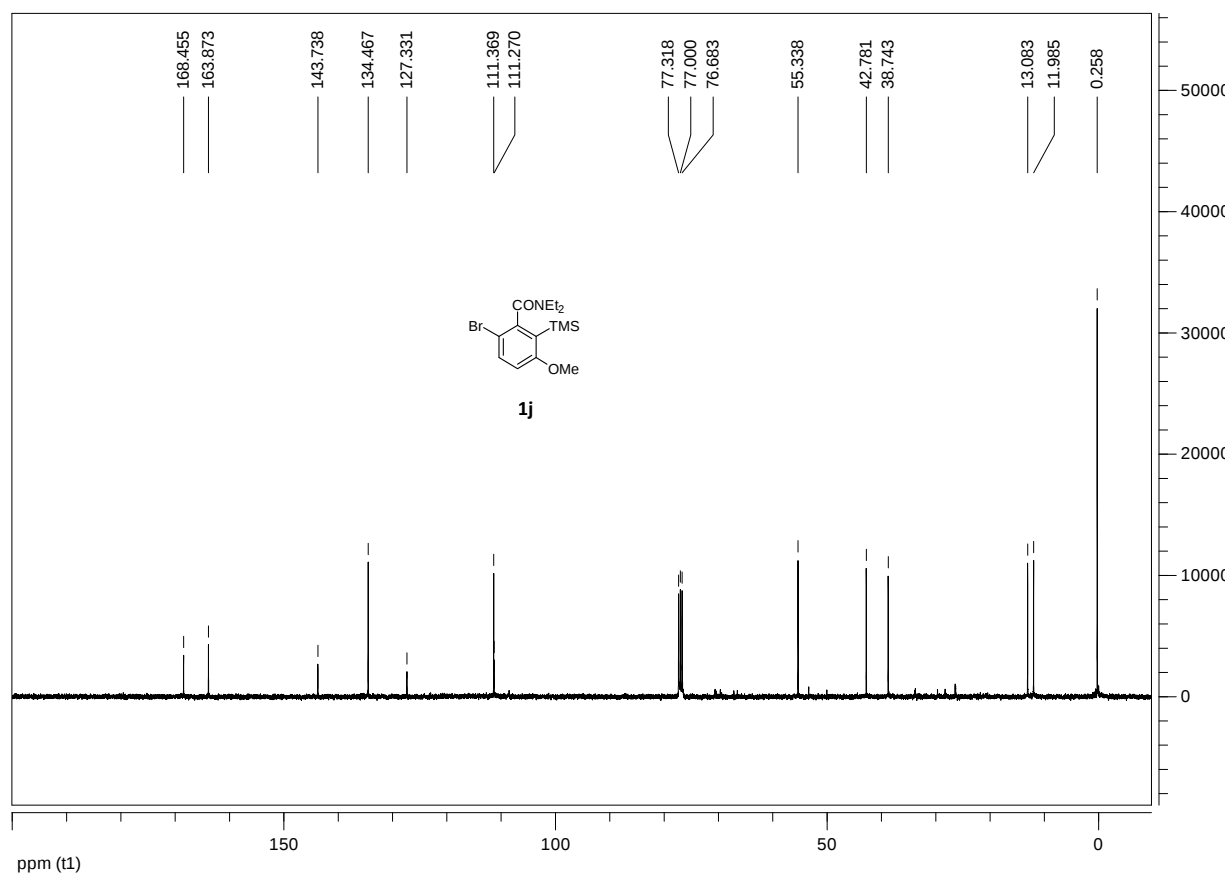
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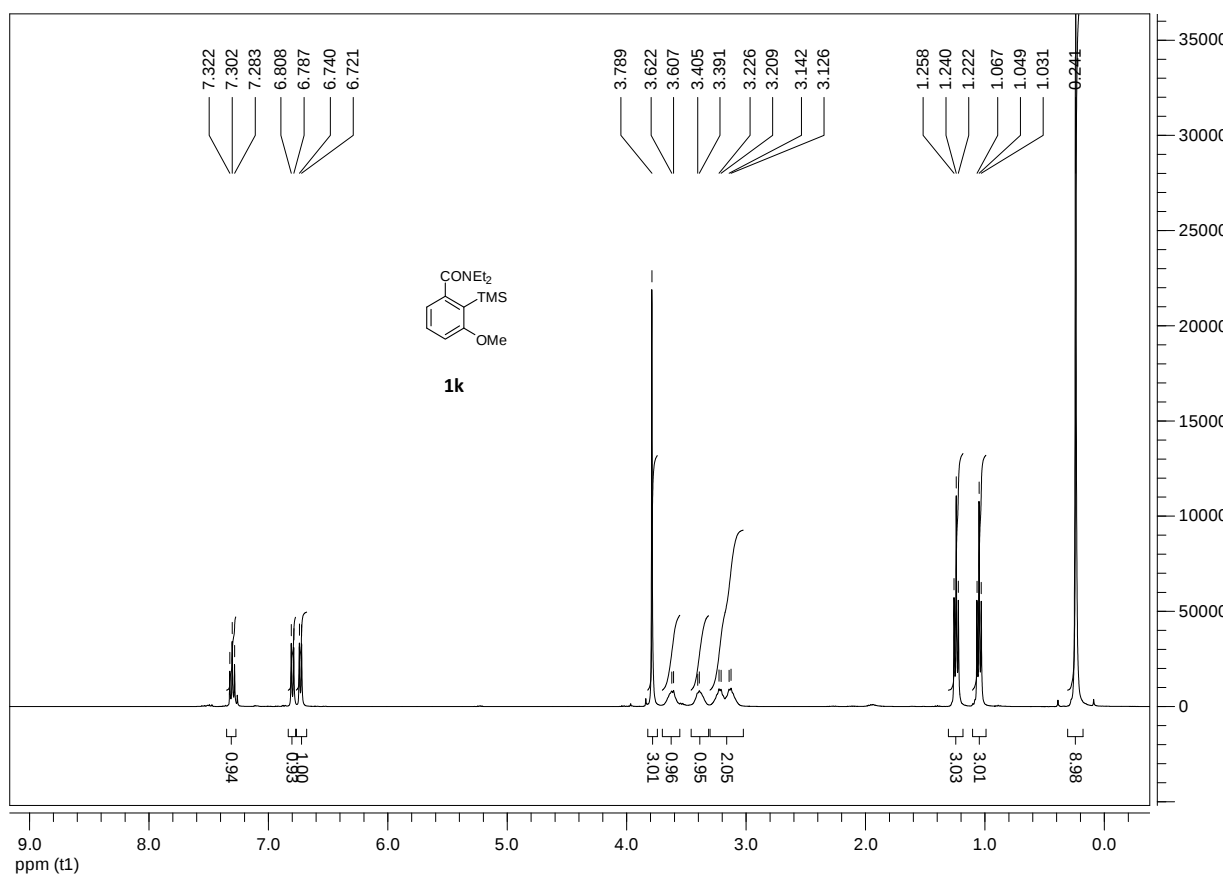
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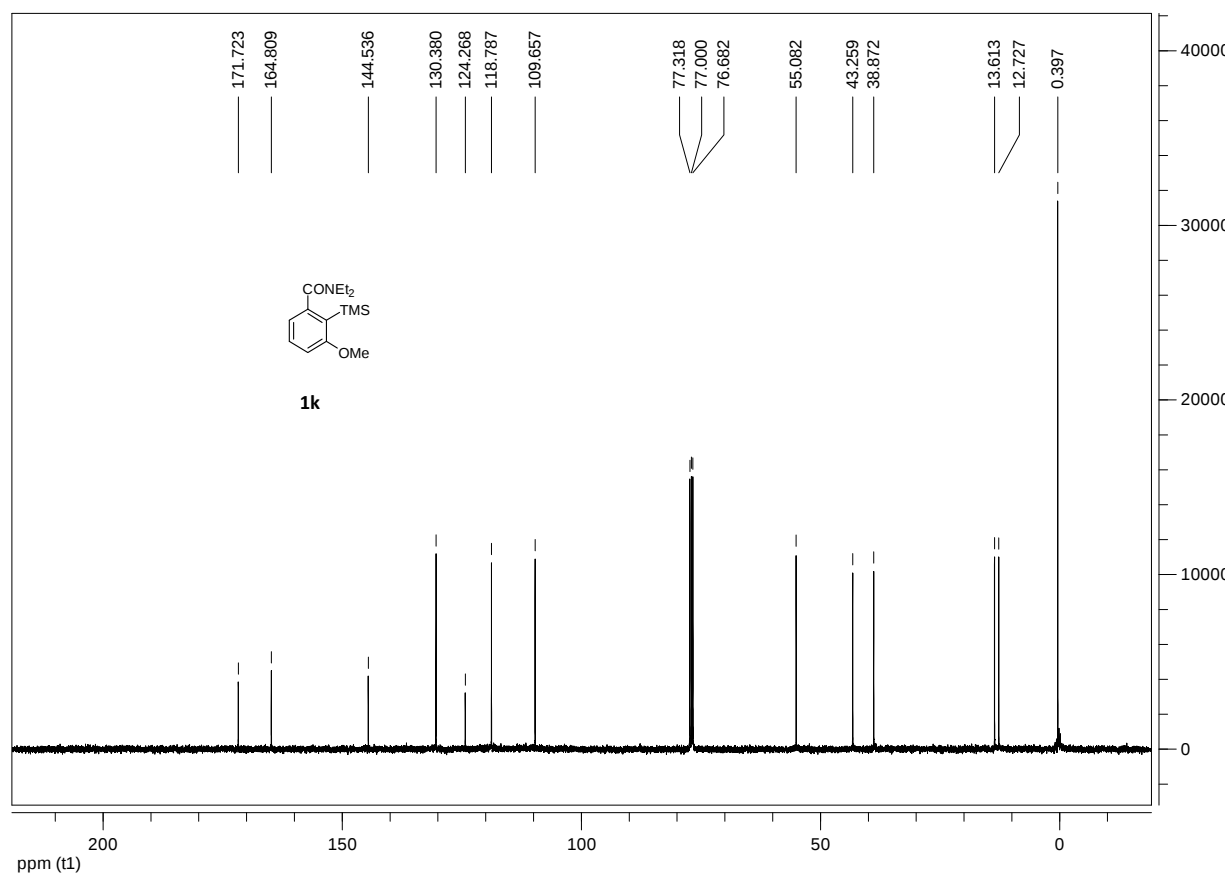
^{13}C -NMR, 100 MHz, CDCl_3



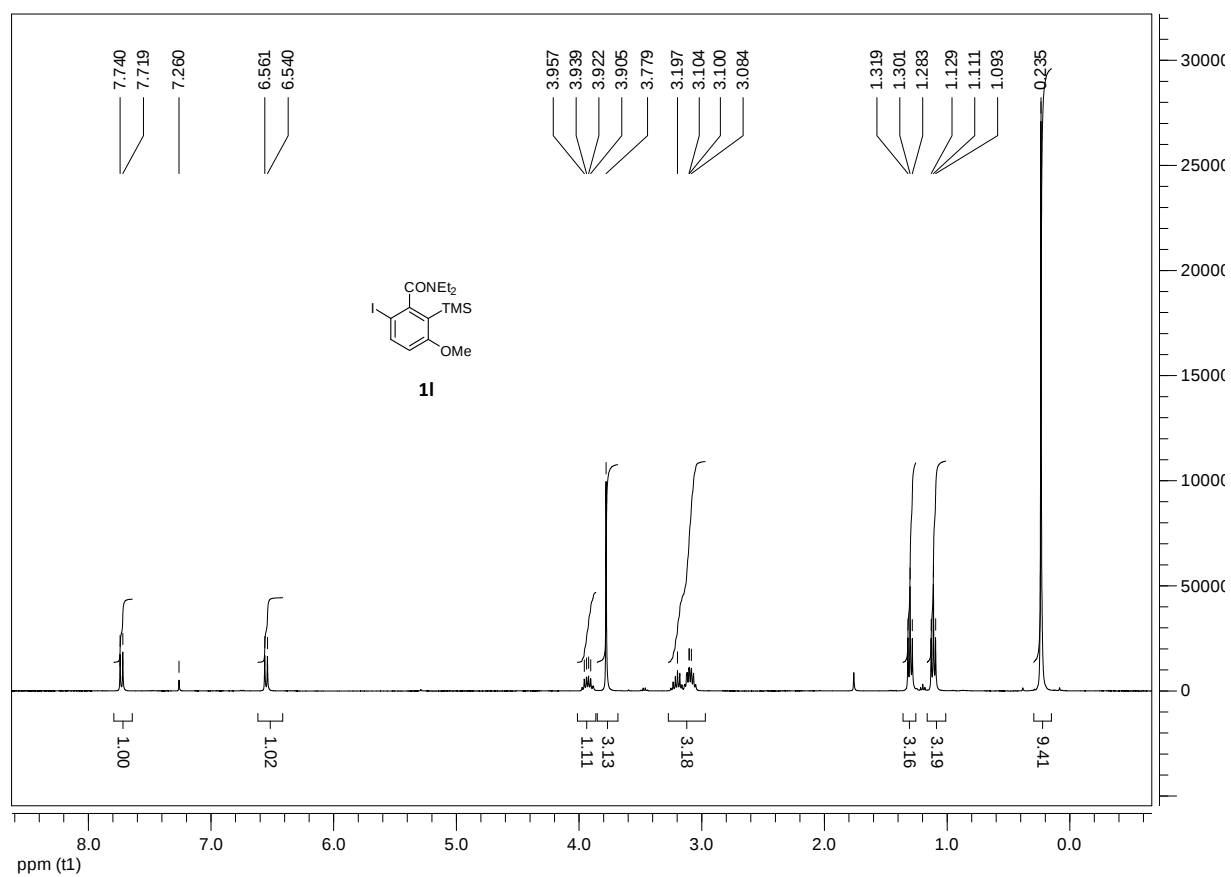
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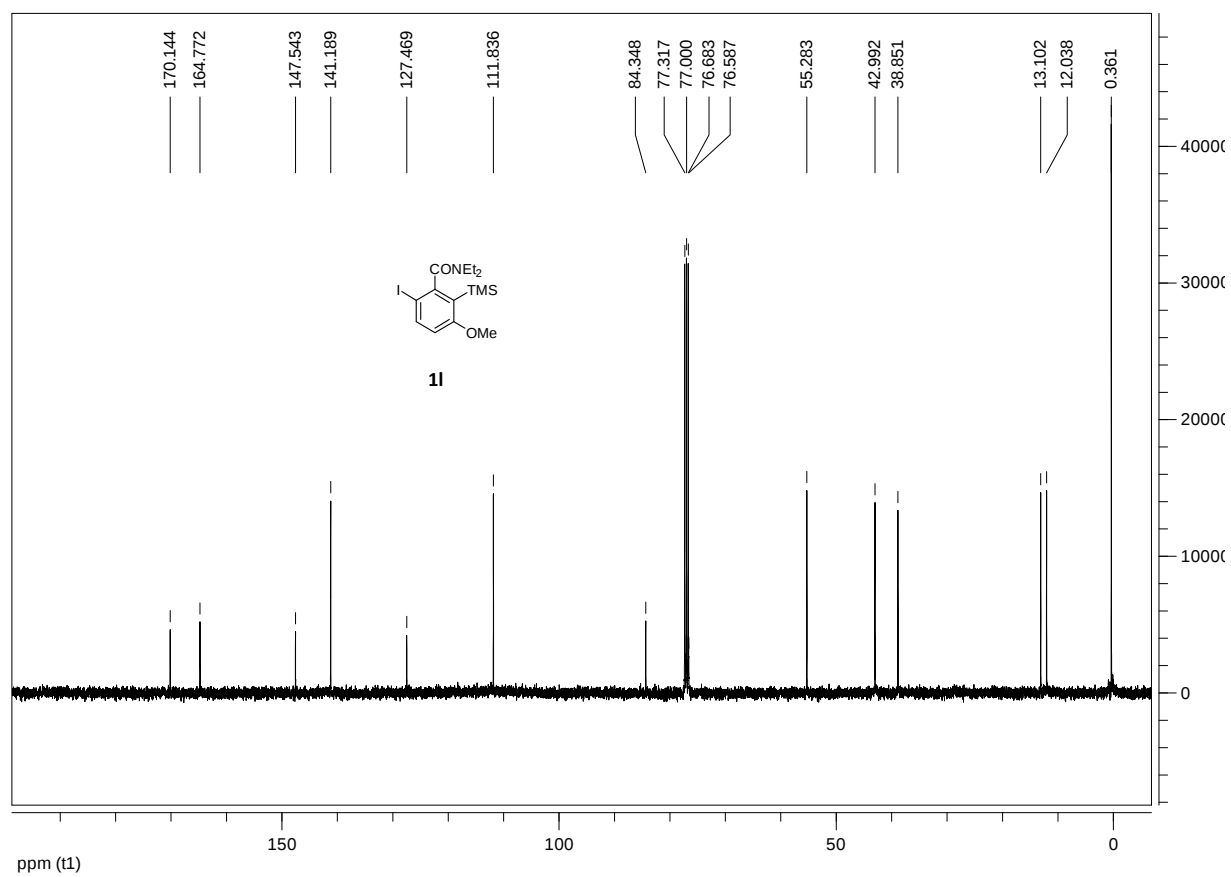
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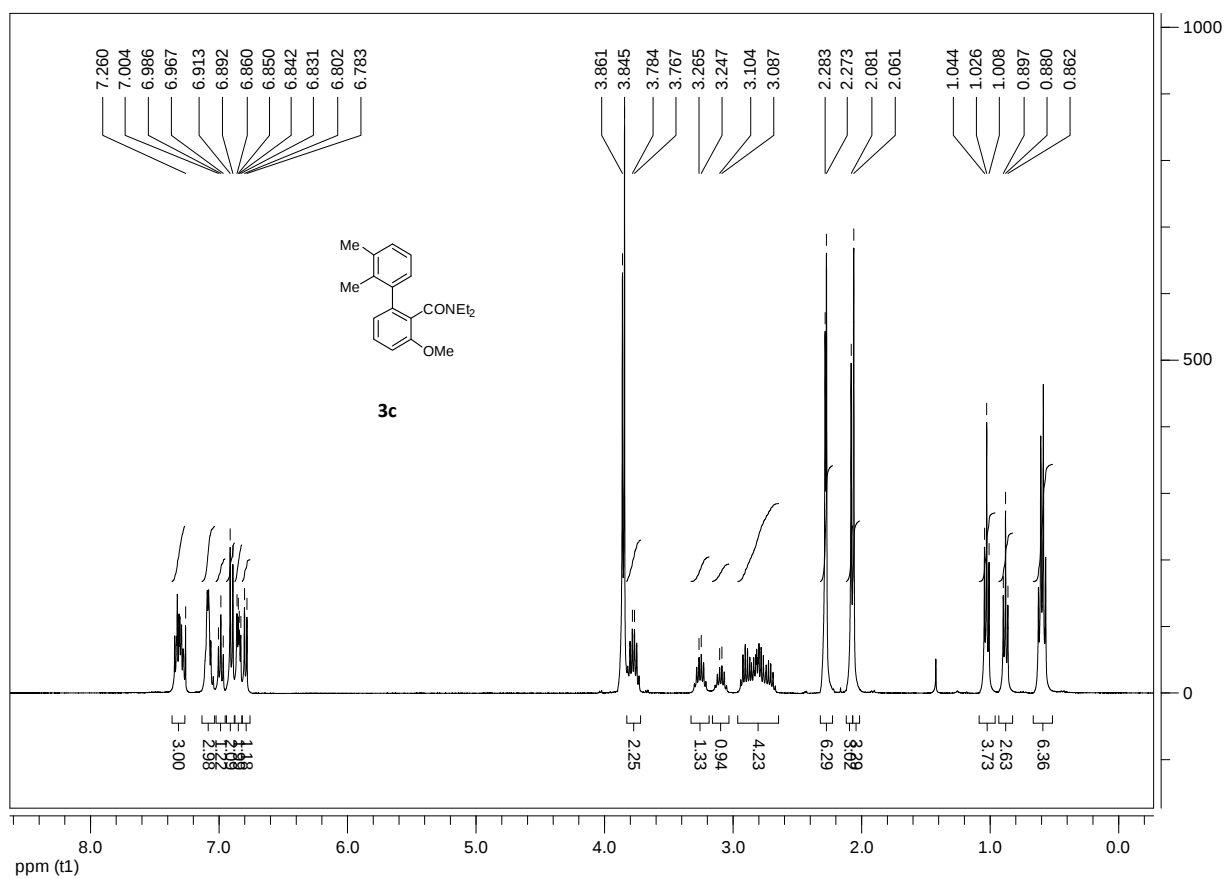
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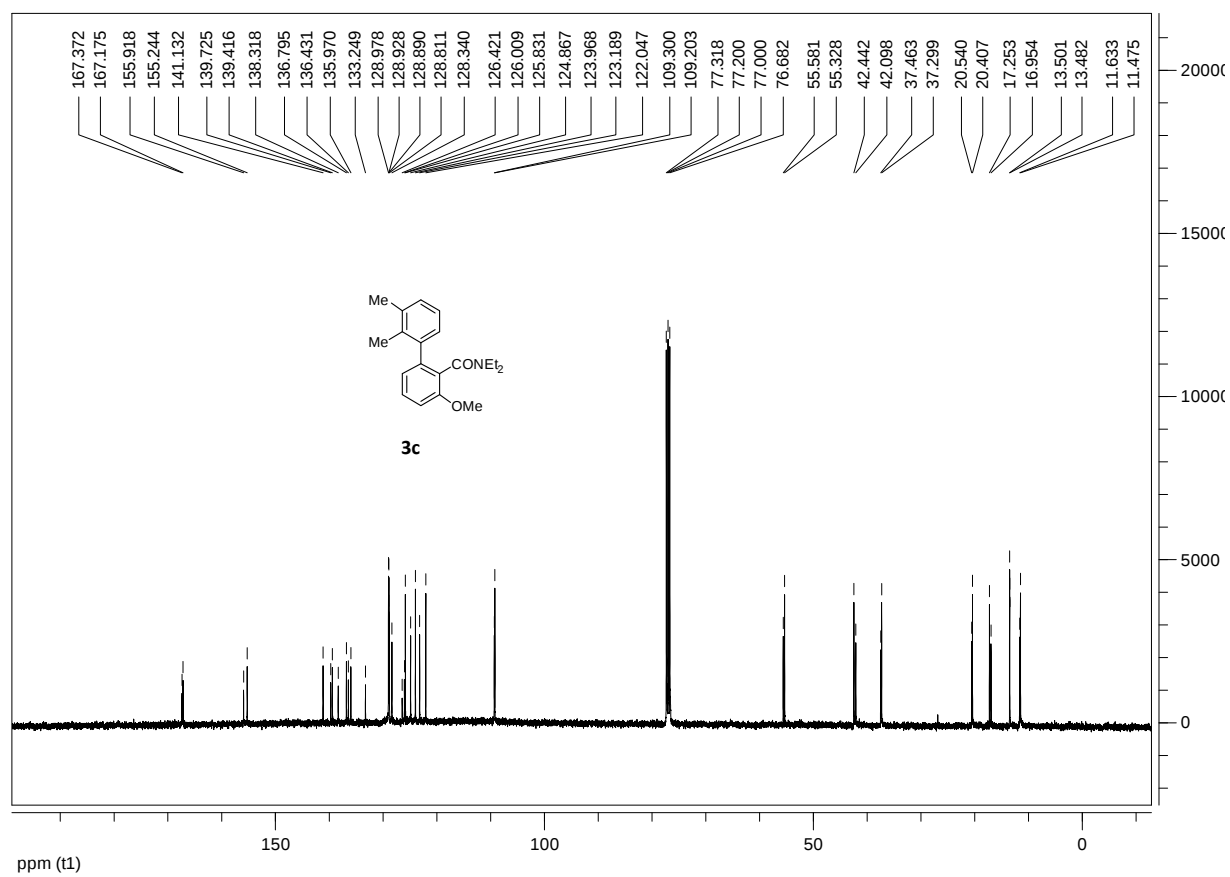
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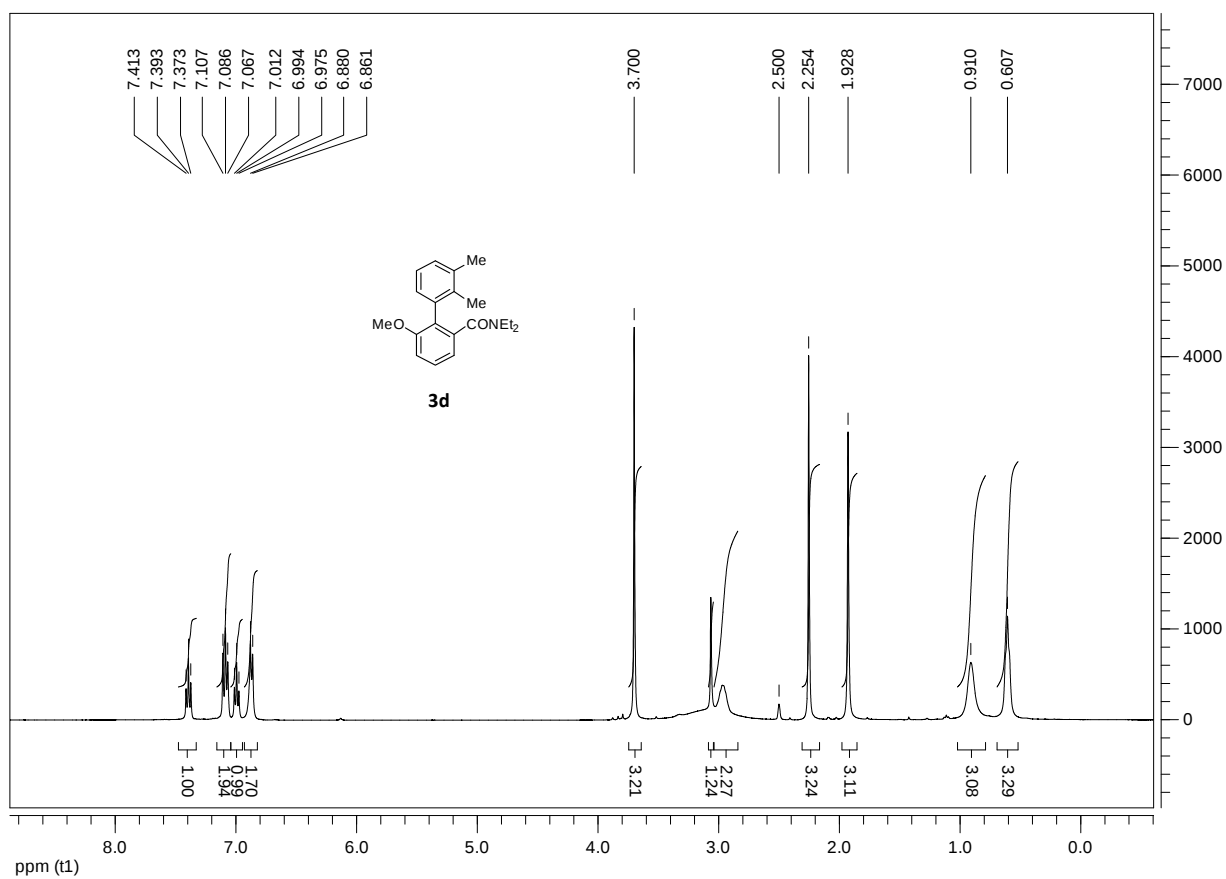
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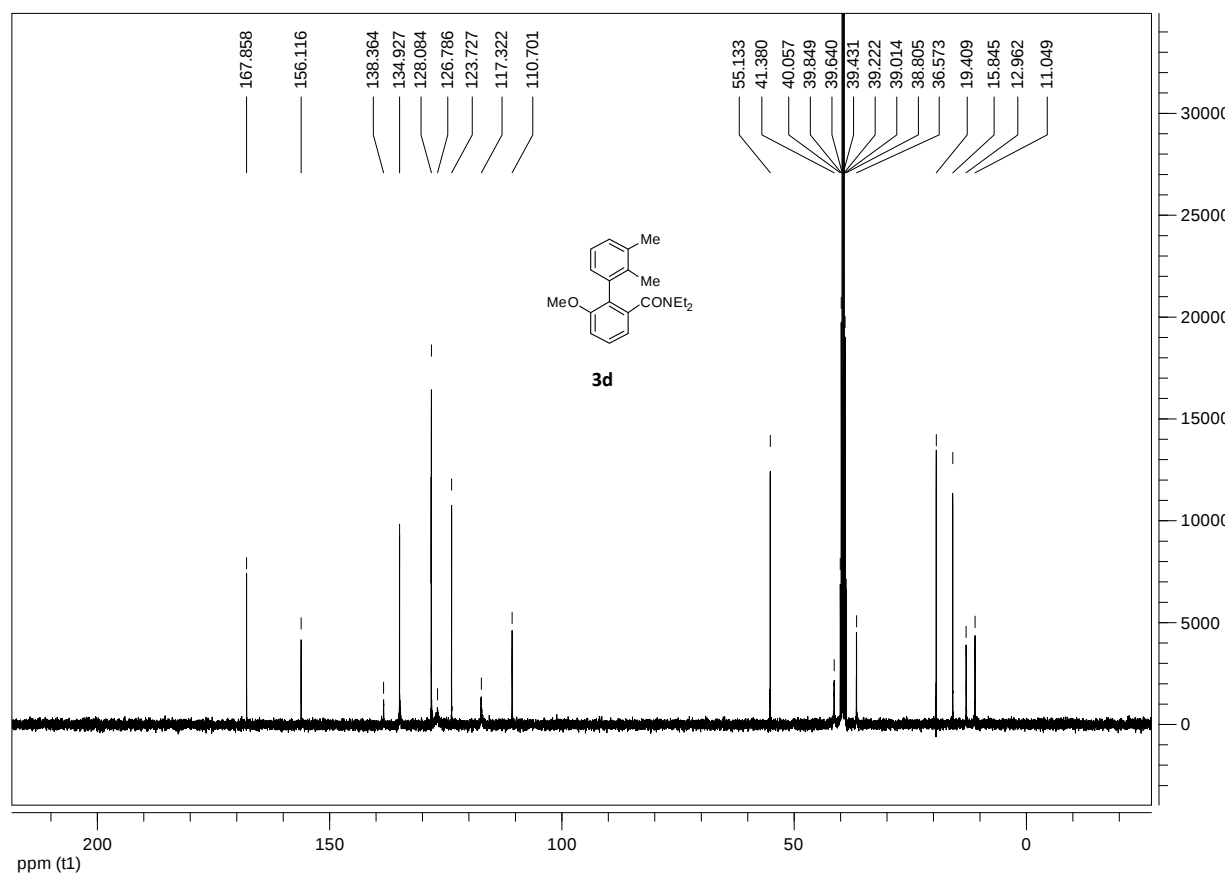
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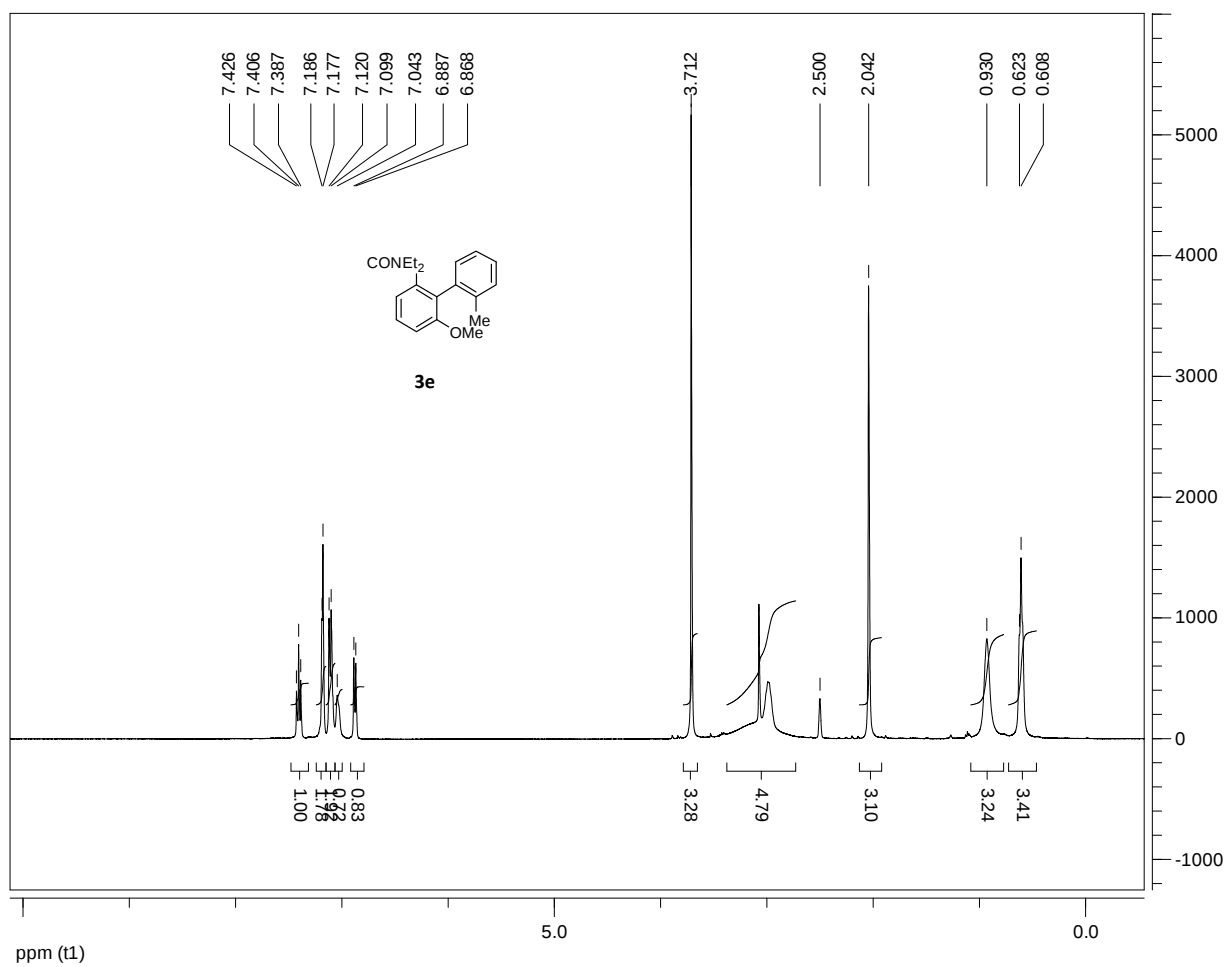
¹H-NMR, 400 MHz, DMSO-d₆, 70 °C



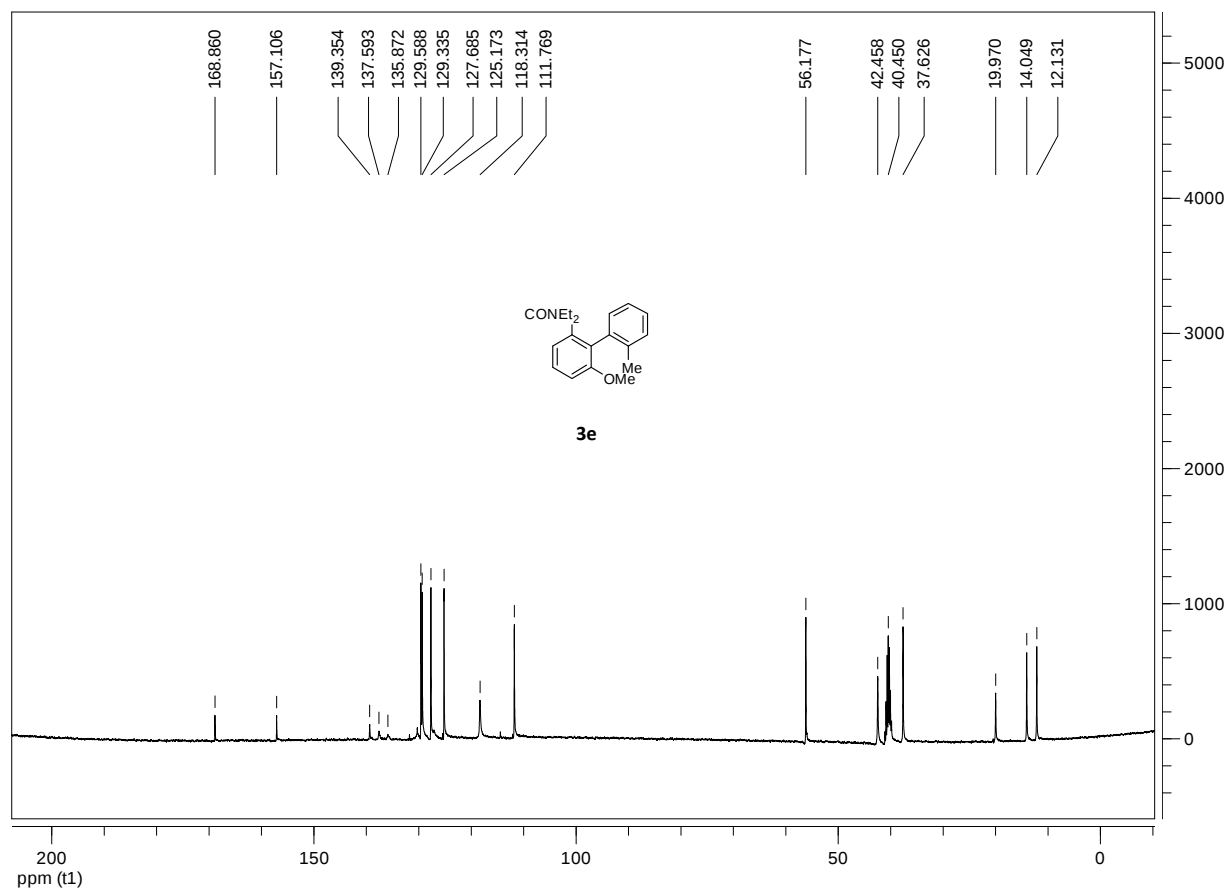
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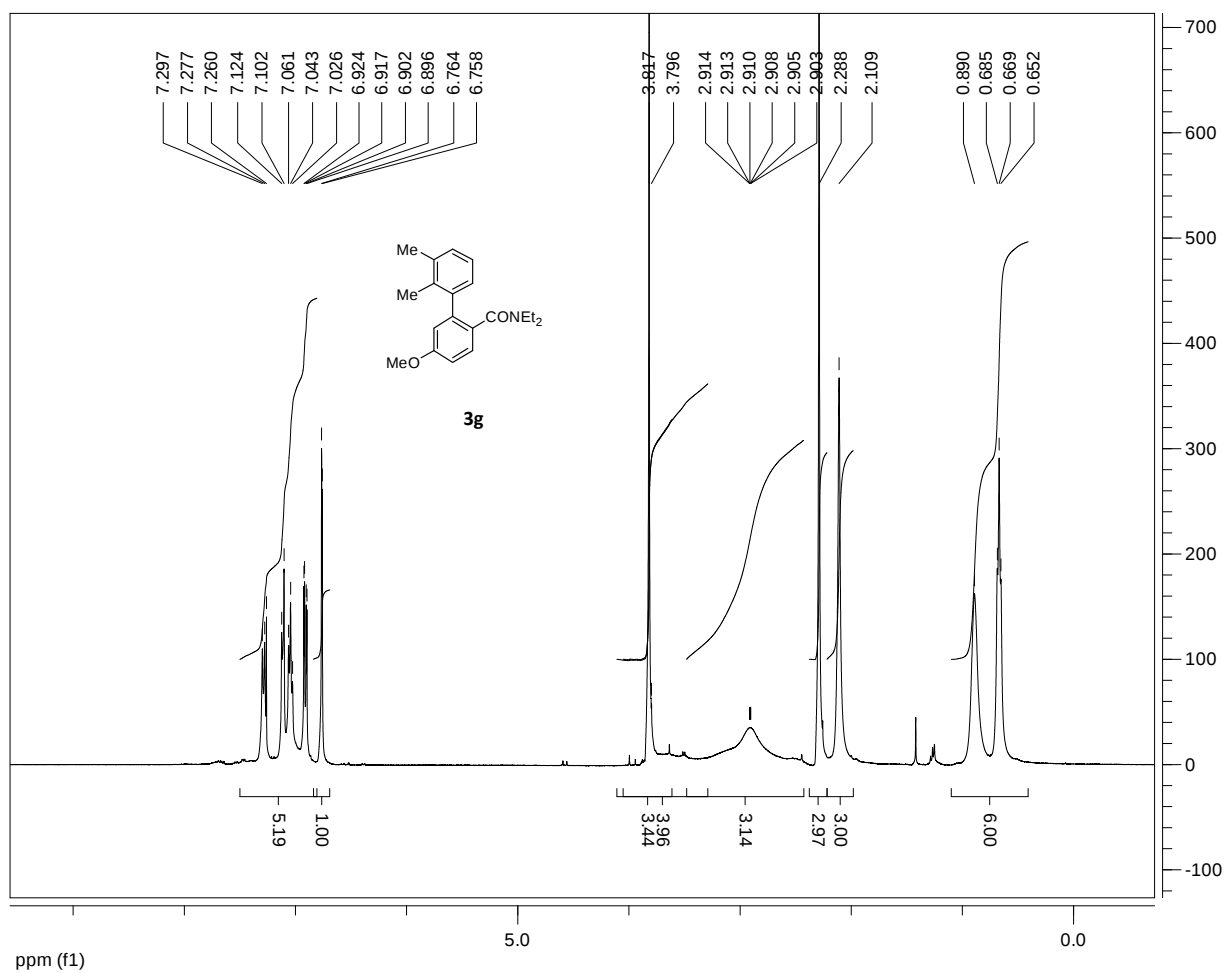
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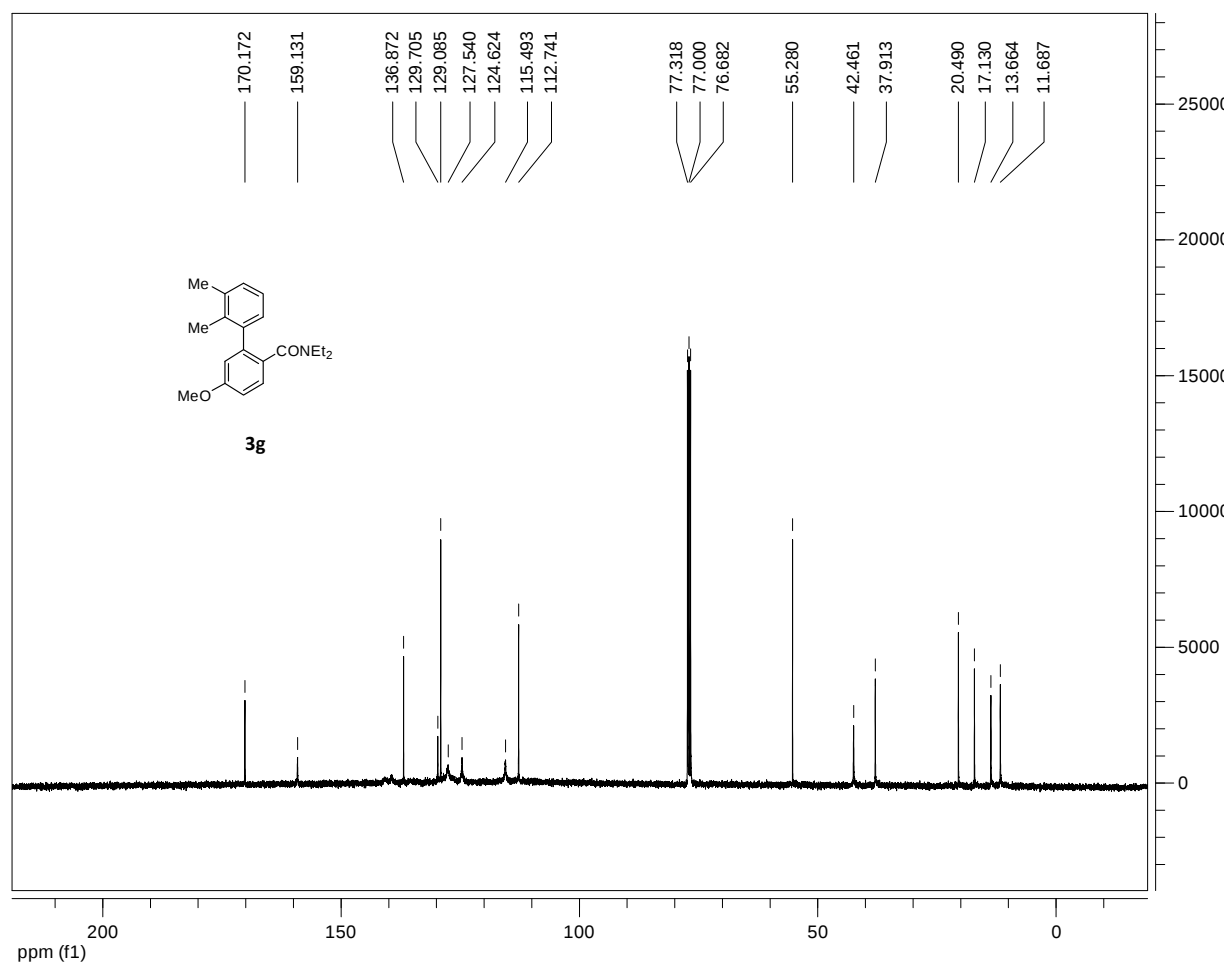
^{13}C -NMR, 100 MHz, DMSO- d_6 , 70 °C



¹H-NMR, 400 MHz, CDCl₃



¹³C-NMR, 100 MHz, CDCl₃



3h

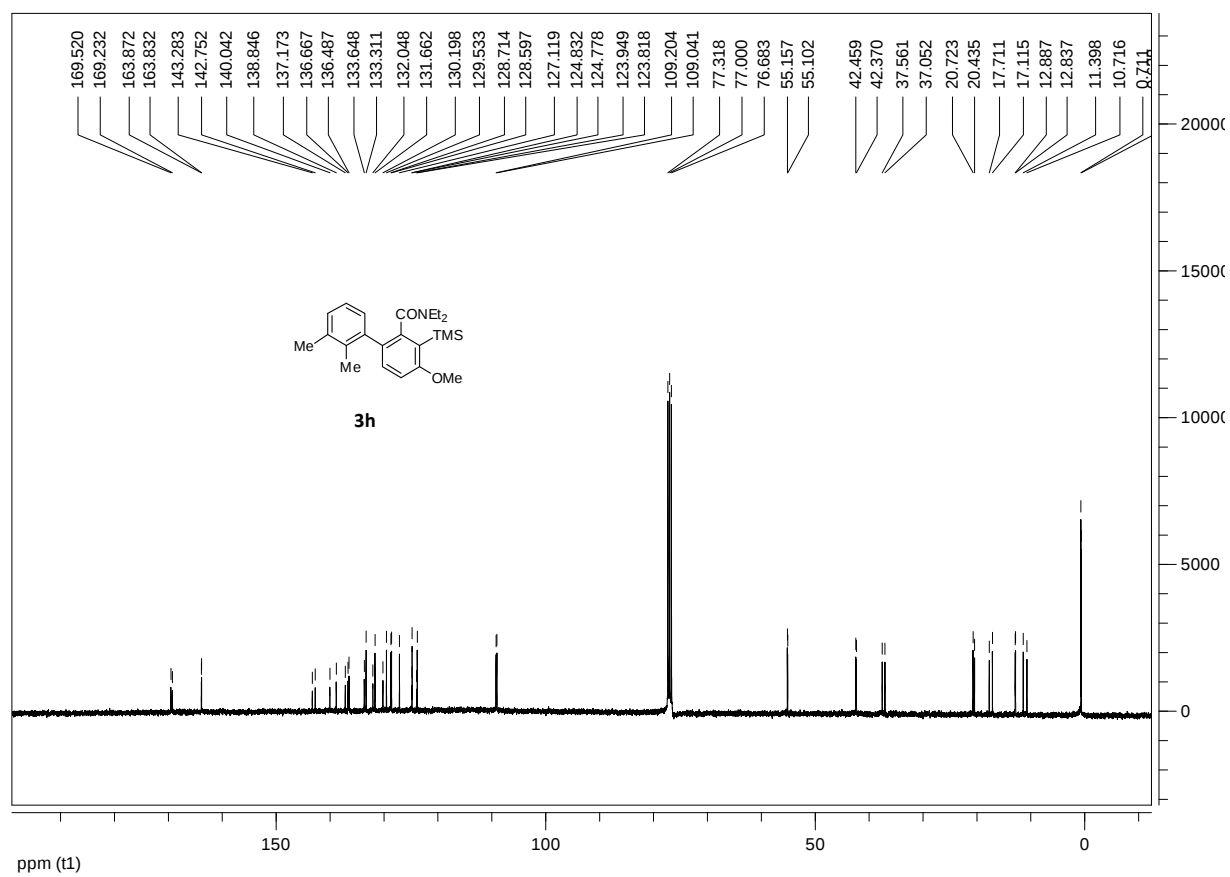
Chemical structure of **3h**: CC1=CC=C(C=C1C(=O)N(C)C)C2=CC(OC)=C(C(C)(C)Si(C)(C)C)C2

¹H NMR spectrum (CDCl₃) of compound **3h**. The x-axis represents the chemical shift in ppm (δ), ranging from 0.0 to 8.0. The y-axis represents the intensity. The spectrum shows several peaks, with integration values provided below the baseline.

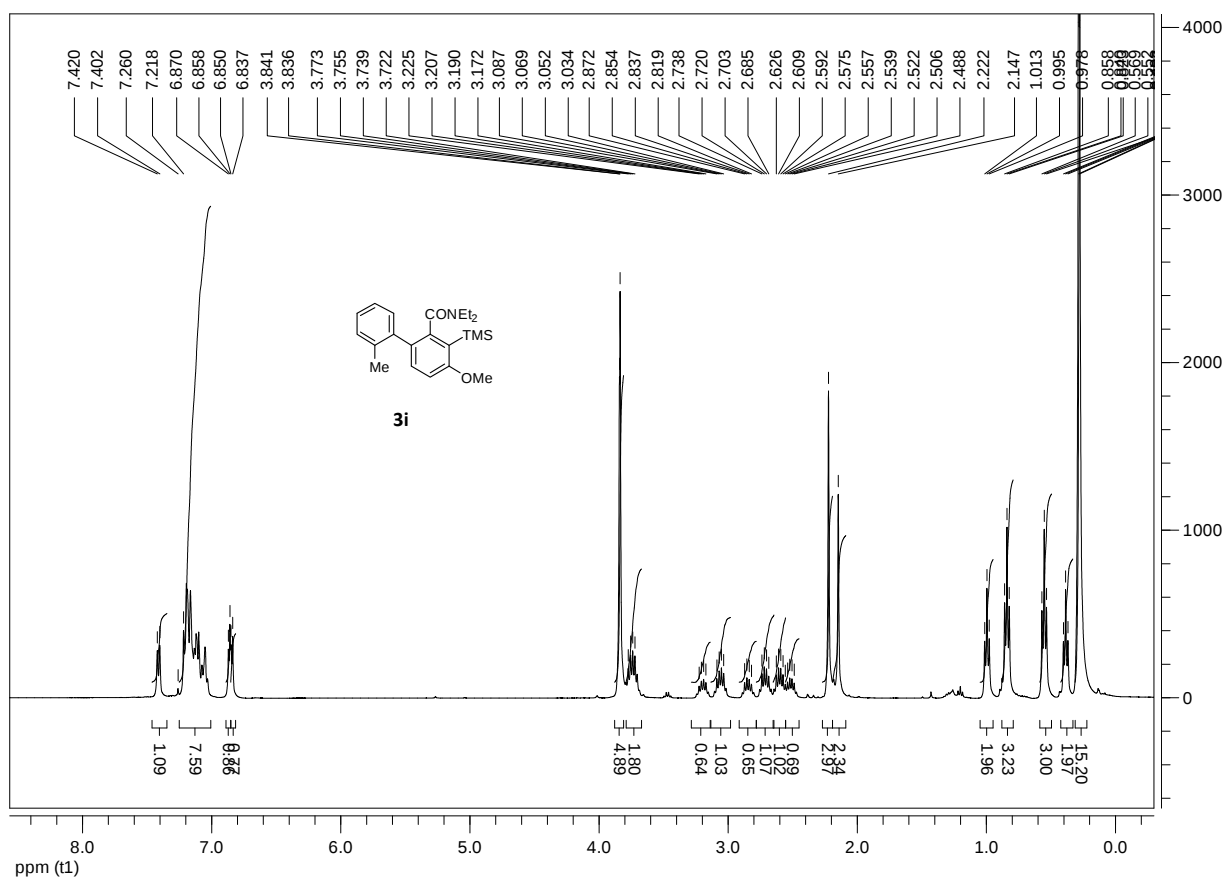
Chemical structure of **3h** is shown above the spectrum.

Integration values (from left to right): 0.99, 1.94, 1.99, 1.06, 0.90, 0.90, 0.87, 2.51, 2.95, 2.86, 2.51, 3.00, 2.89, 2.50, 1.96, 1.86, 0.84, 0.82, 0.81, 0.70, 0.68.

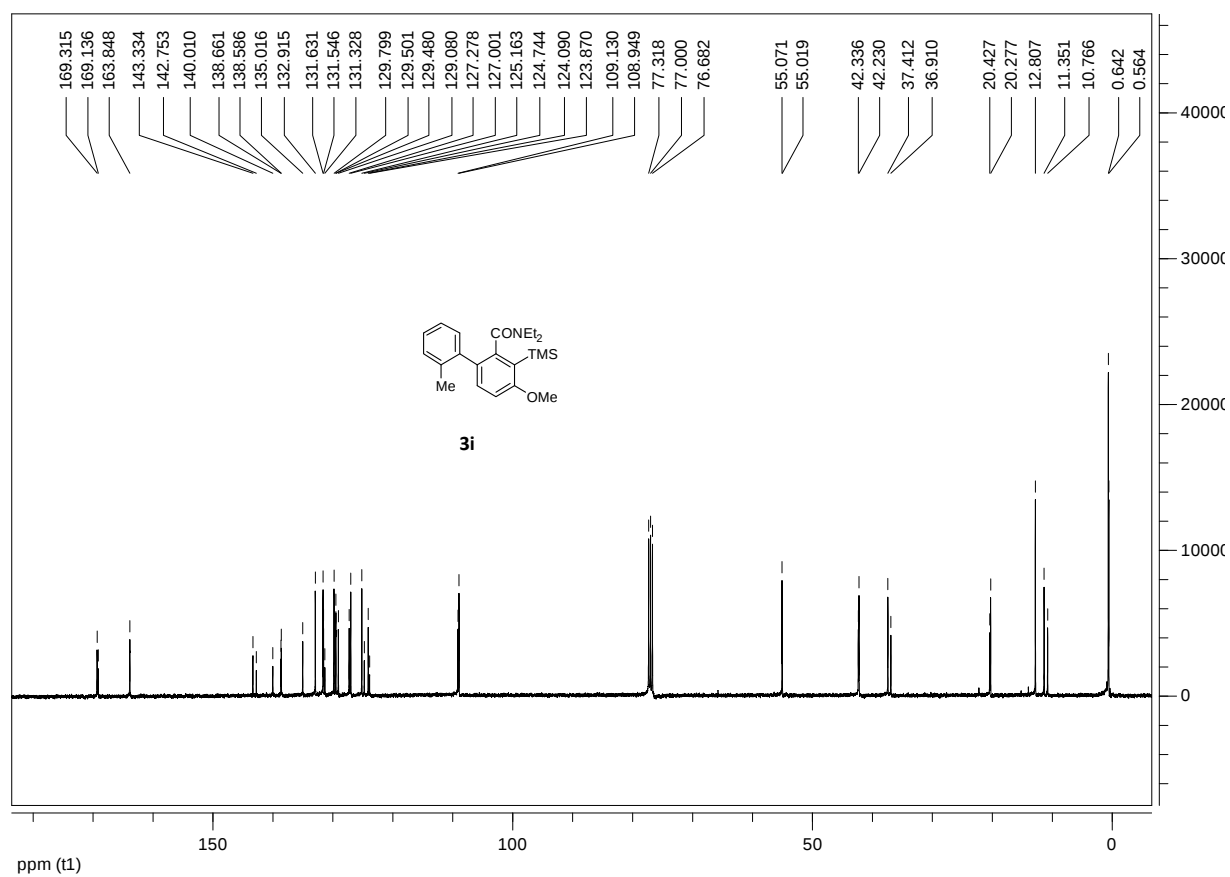
^{13}C -NMR, 100 MHz, CDCl_3



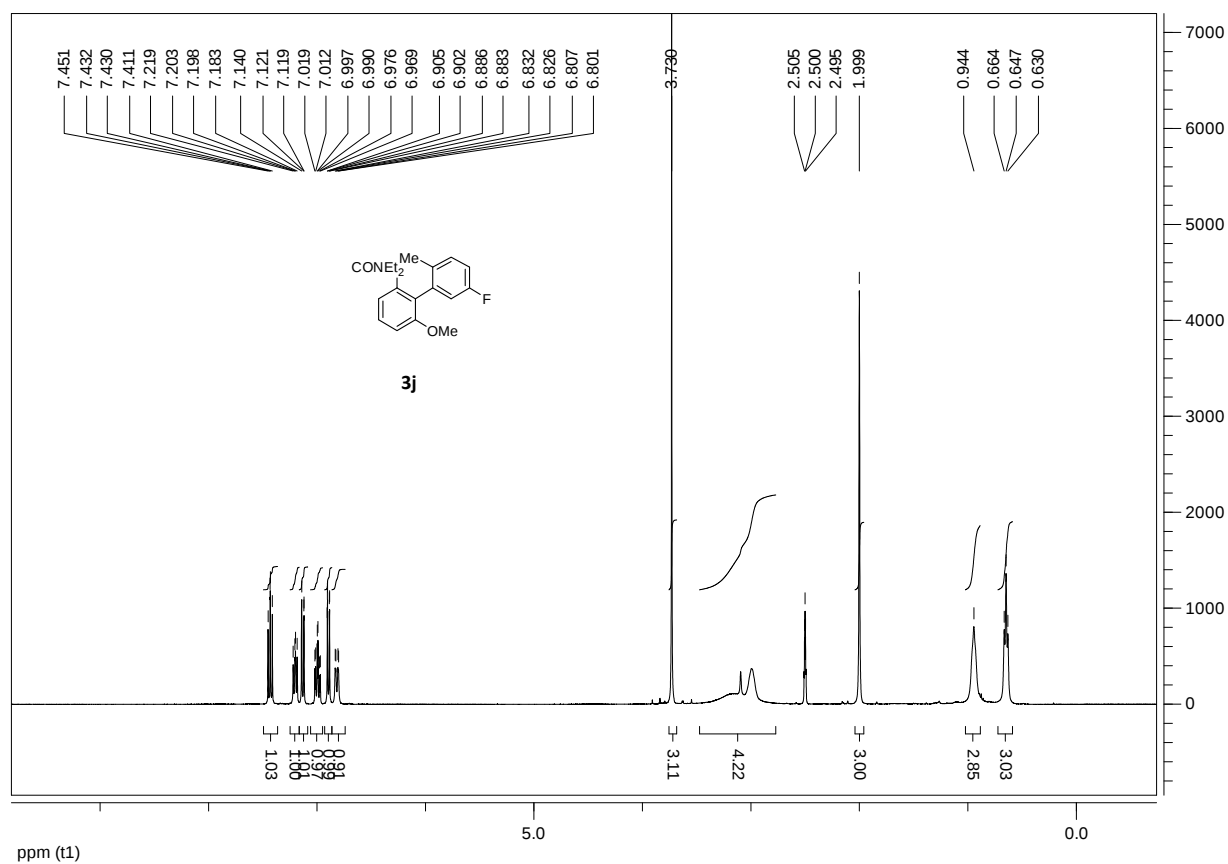
¹H-NMR, 400 MHz, CDCl₃



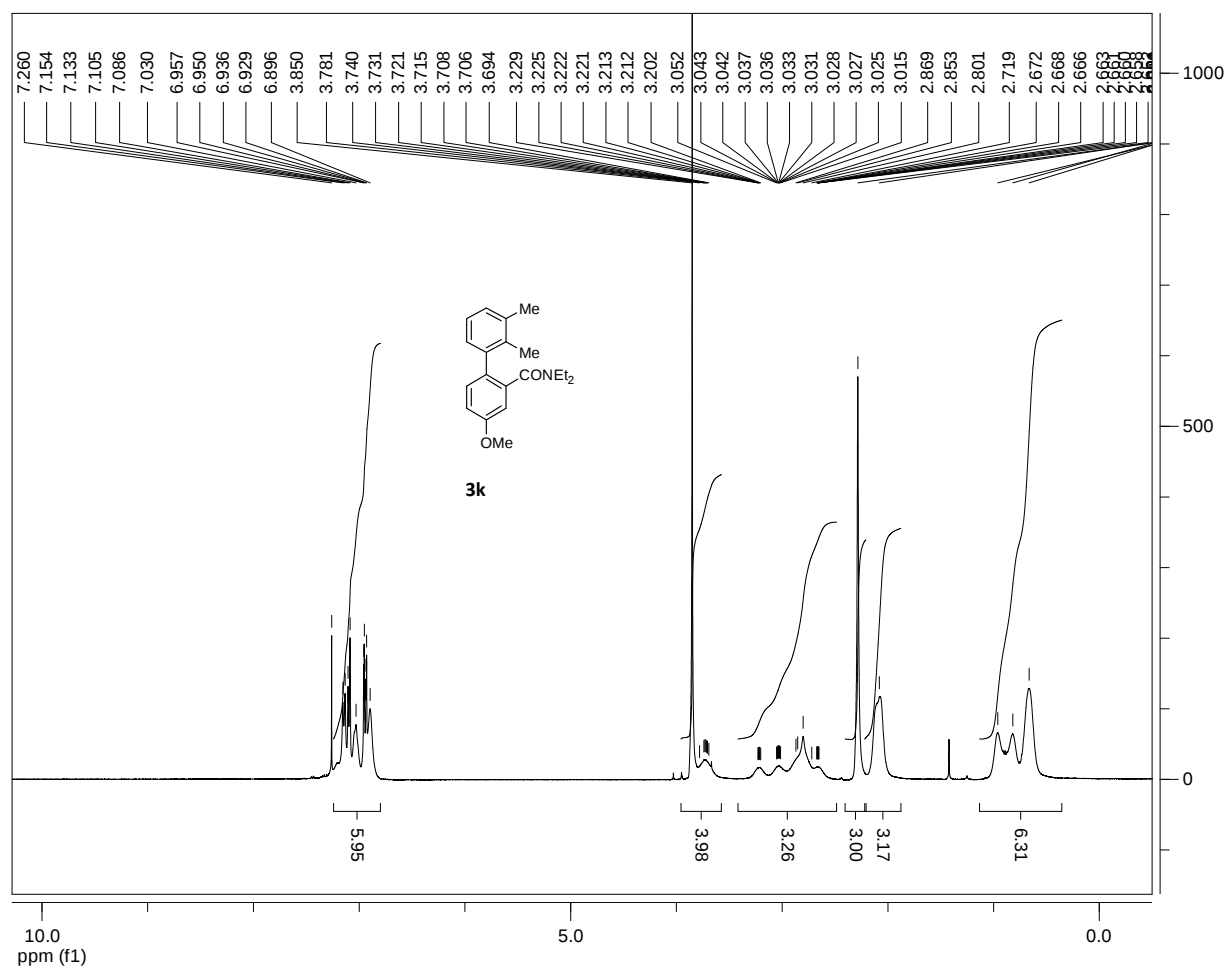
^{13}C -NMR, 100 MHz, CDCl_3



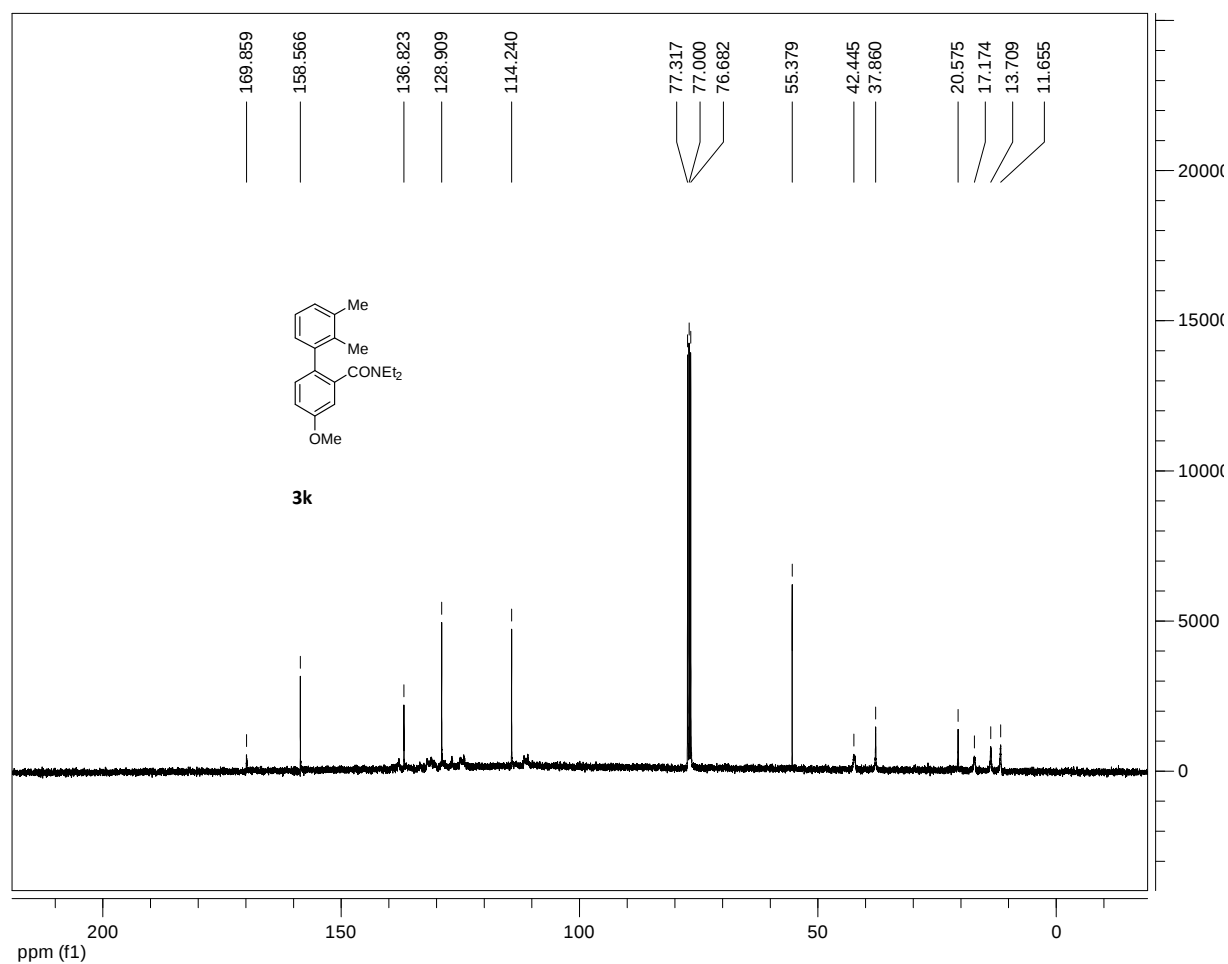
¹H-NMR, DMSO, 400 MHz, 70 °C



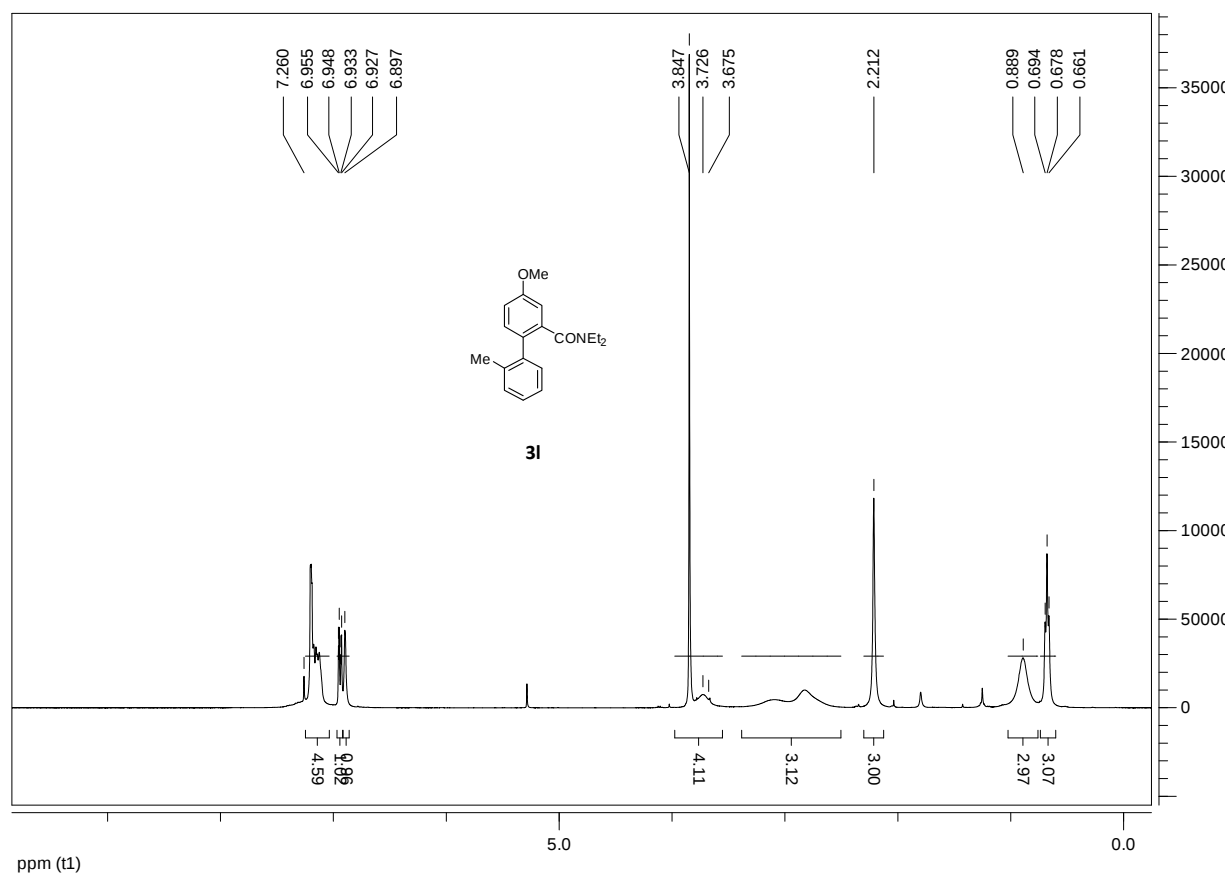
¹H-NMR, 400 MHz, CDCl₃



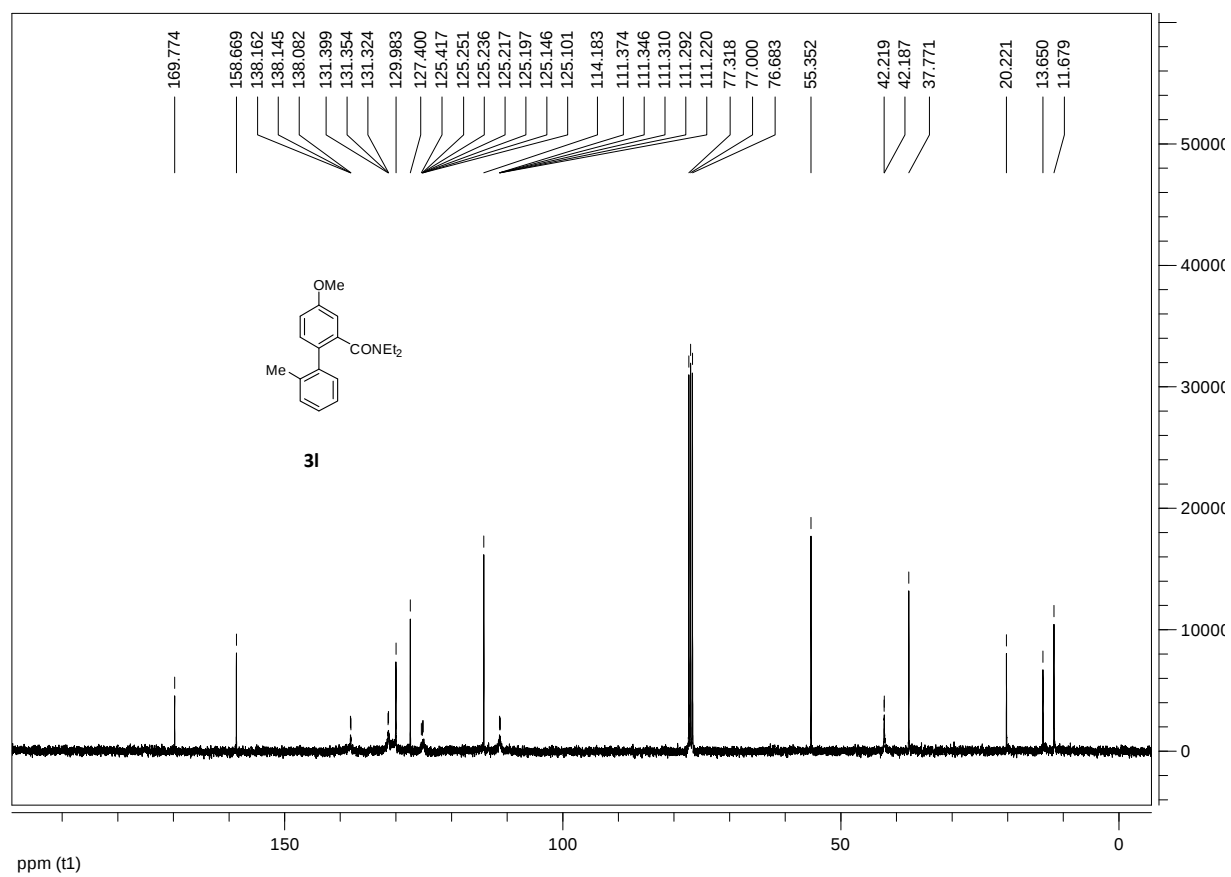
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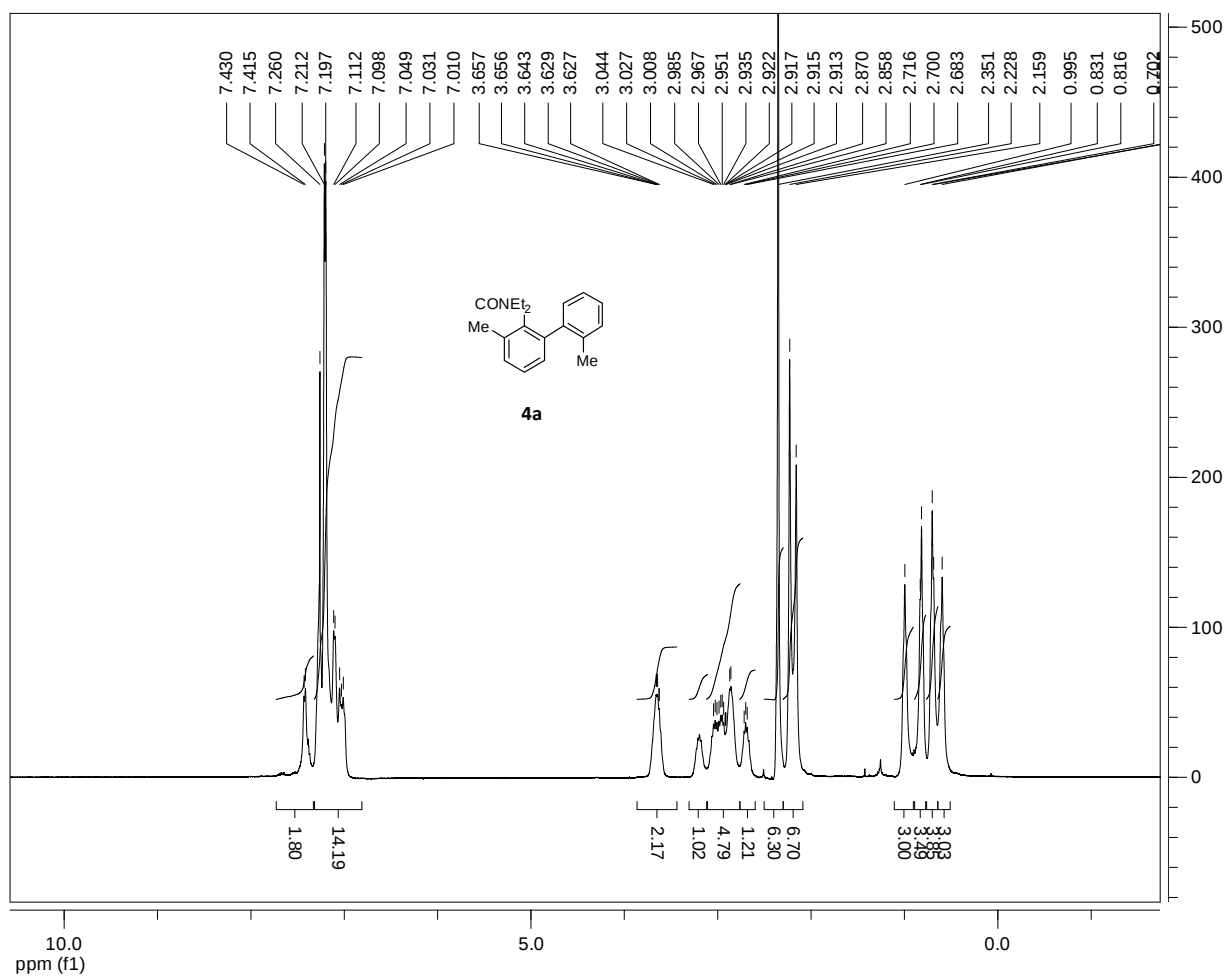
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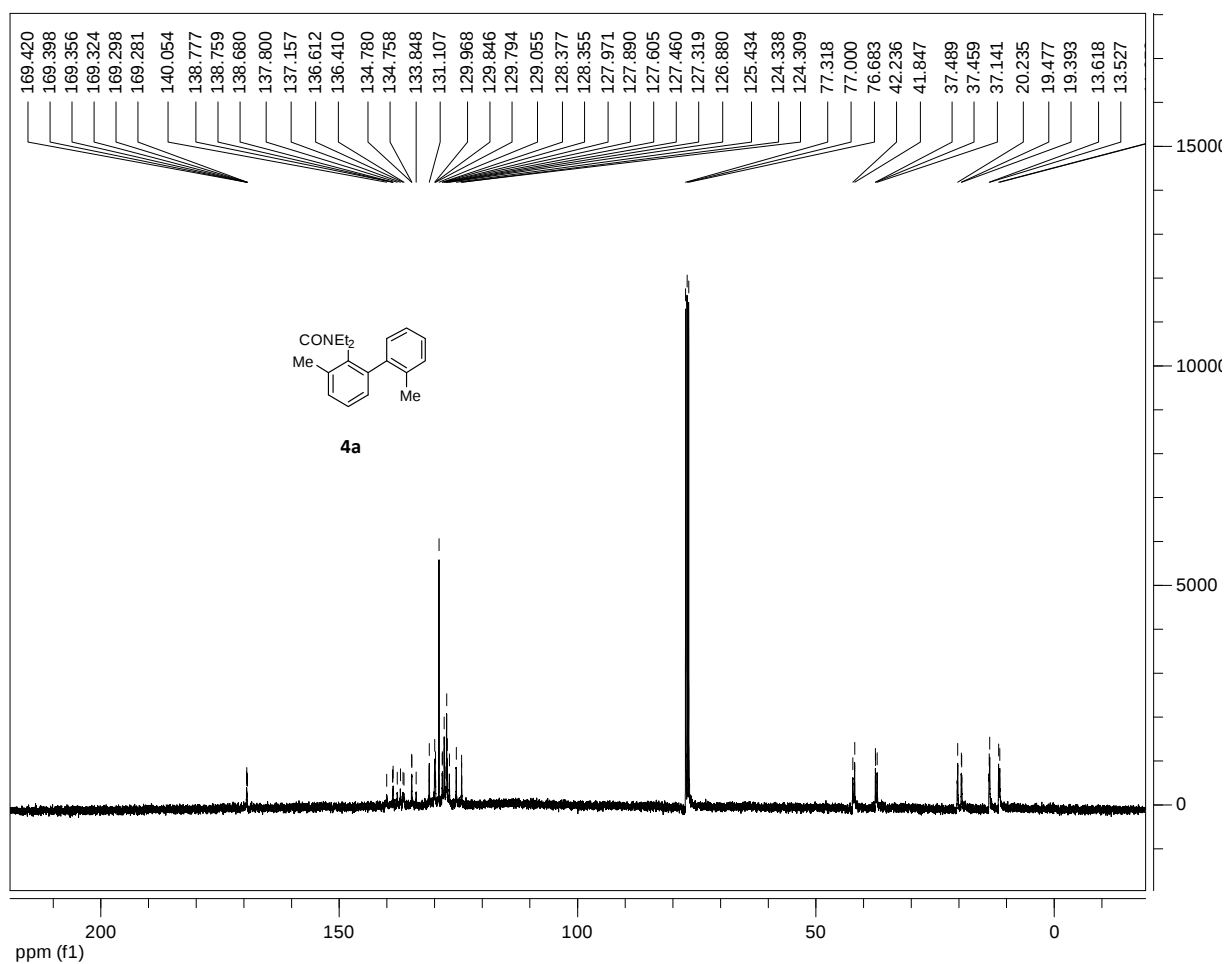
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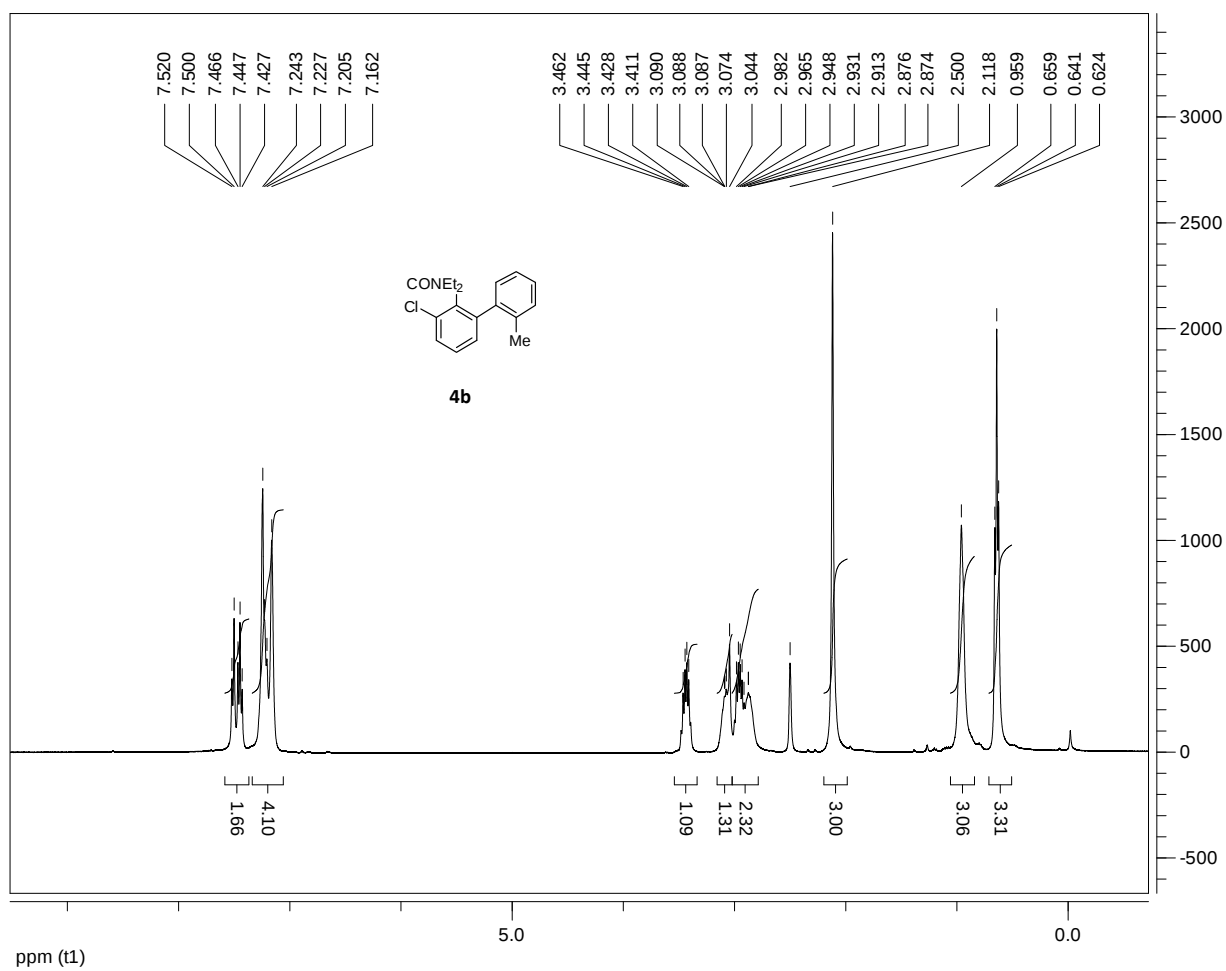
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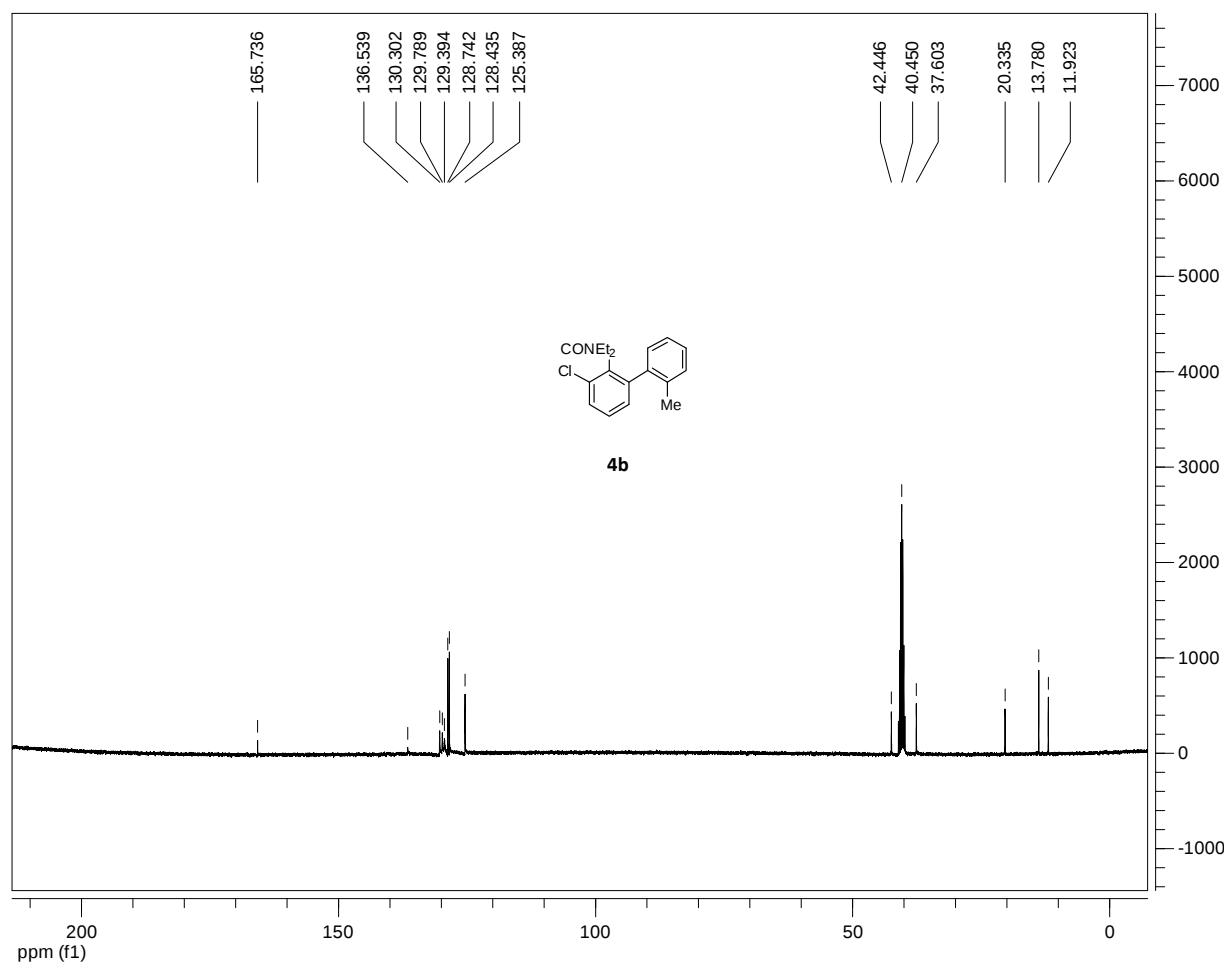
^{13}C -NMR, 100 MHz, CDCl_3



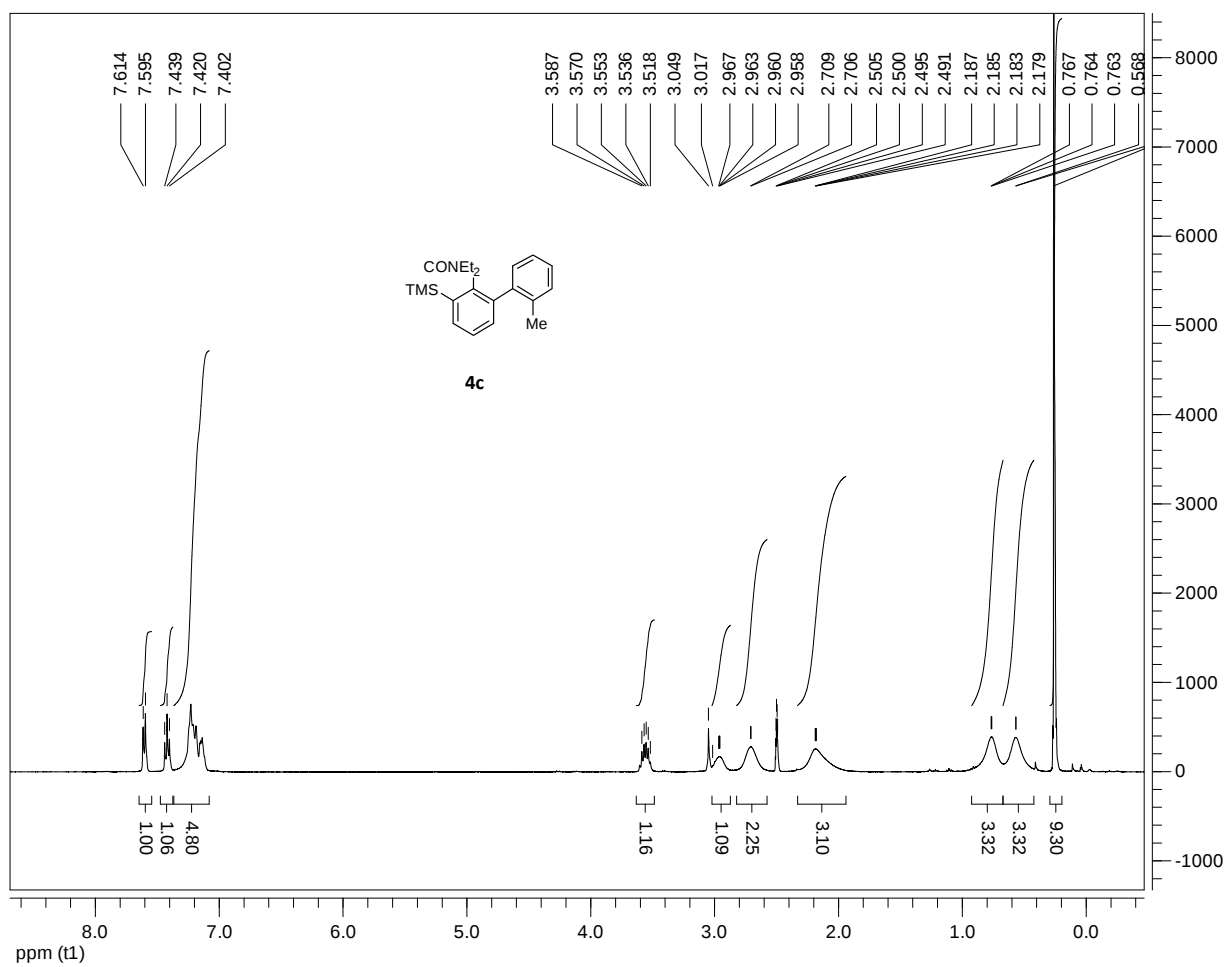
¹H-NMR, DMSO, 400 MHz, 70 °C

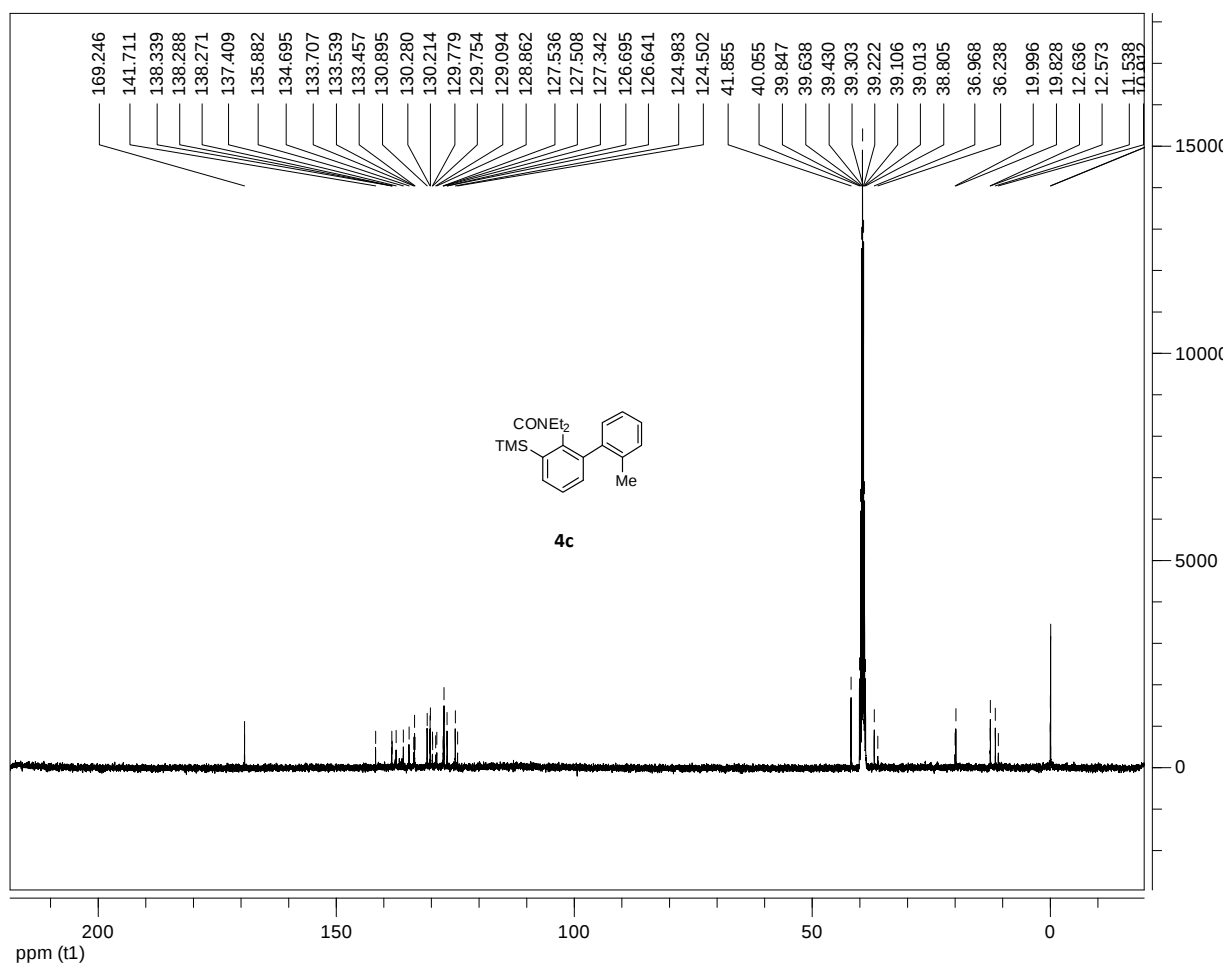


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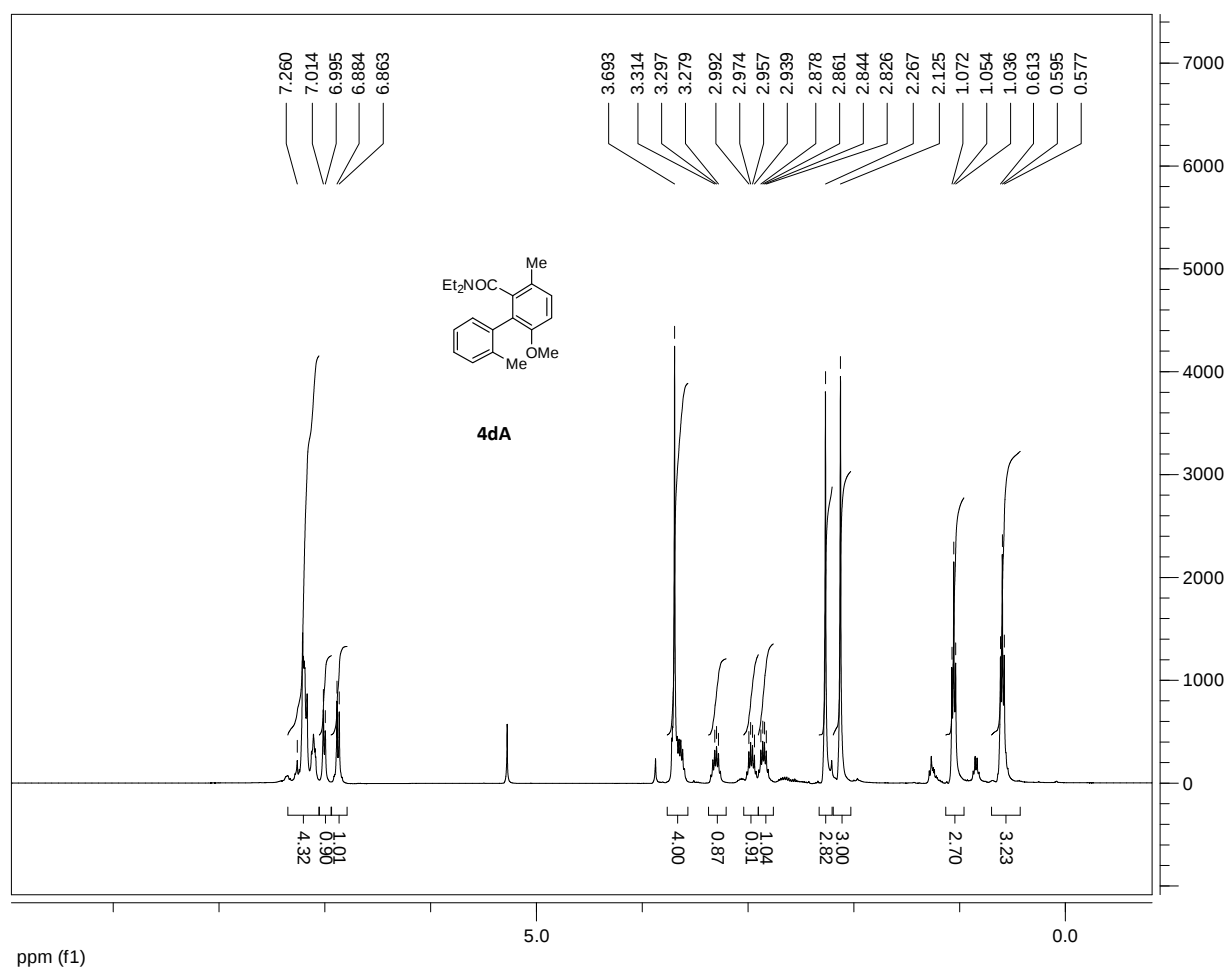


¹H-NMR, DMSO, 400 MHz, 70 °C

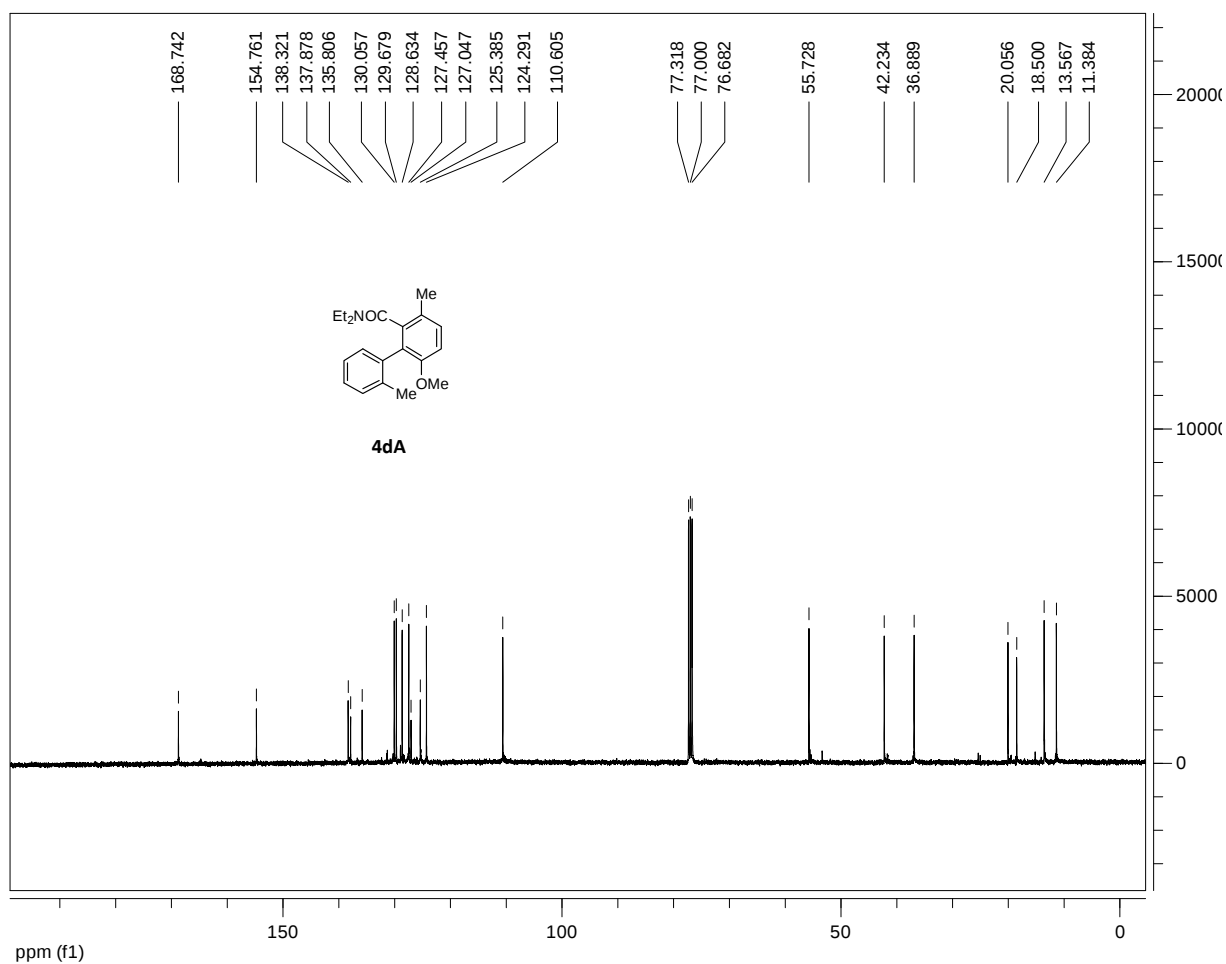


¹³C-NMR, DMSO, 100 MHz, 70 °C

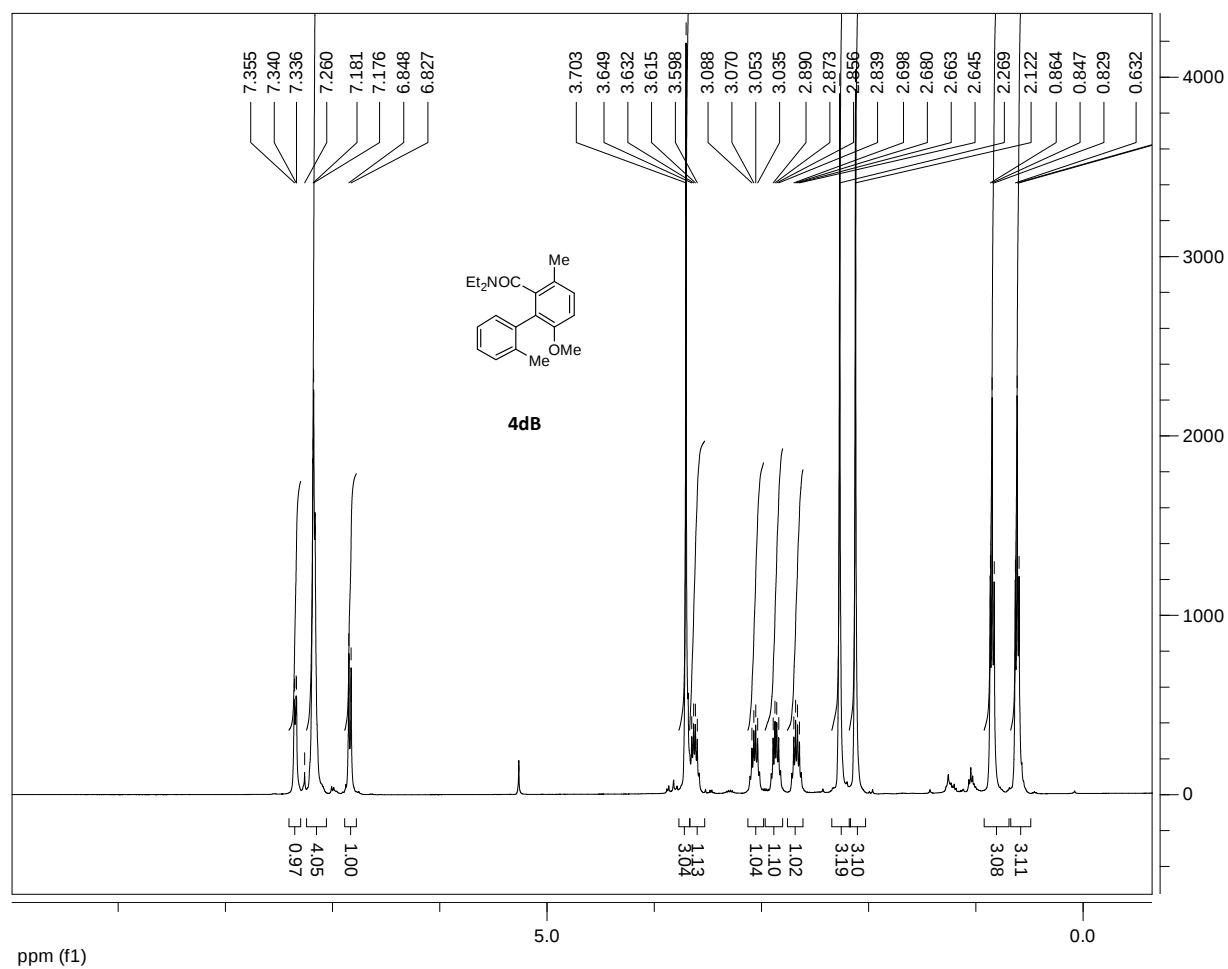
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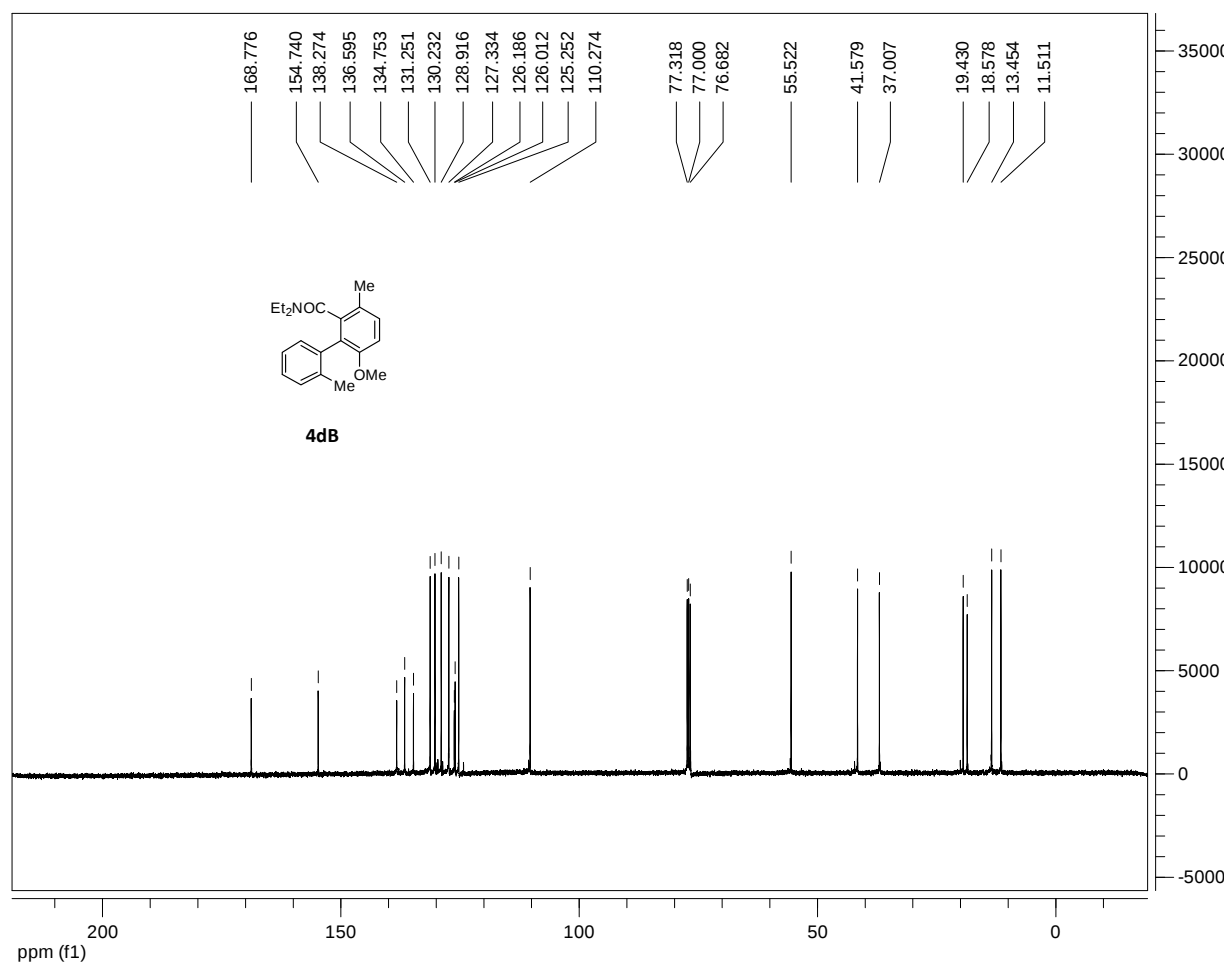
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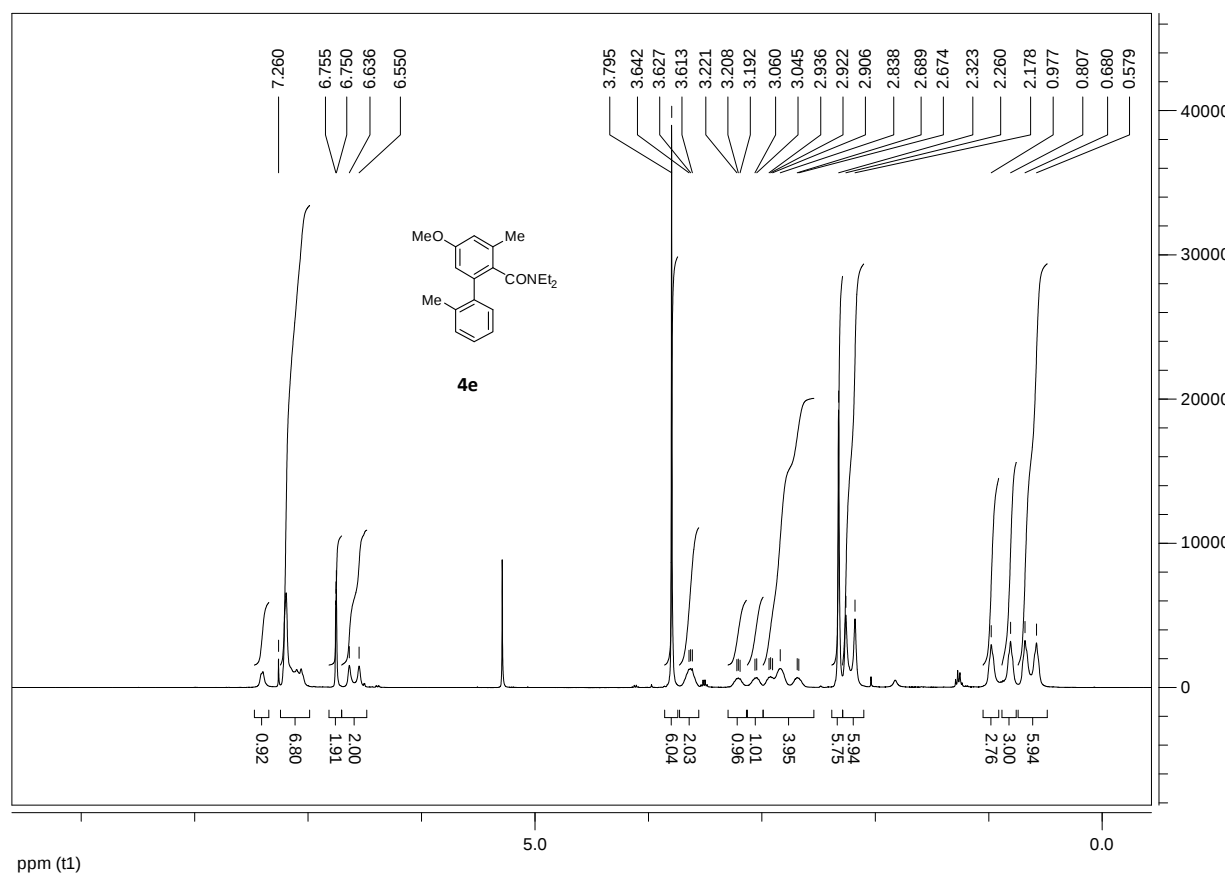
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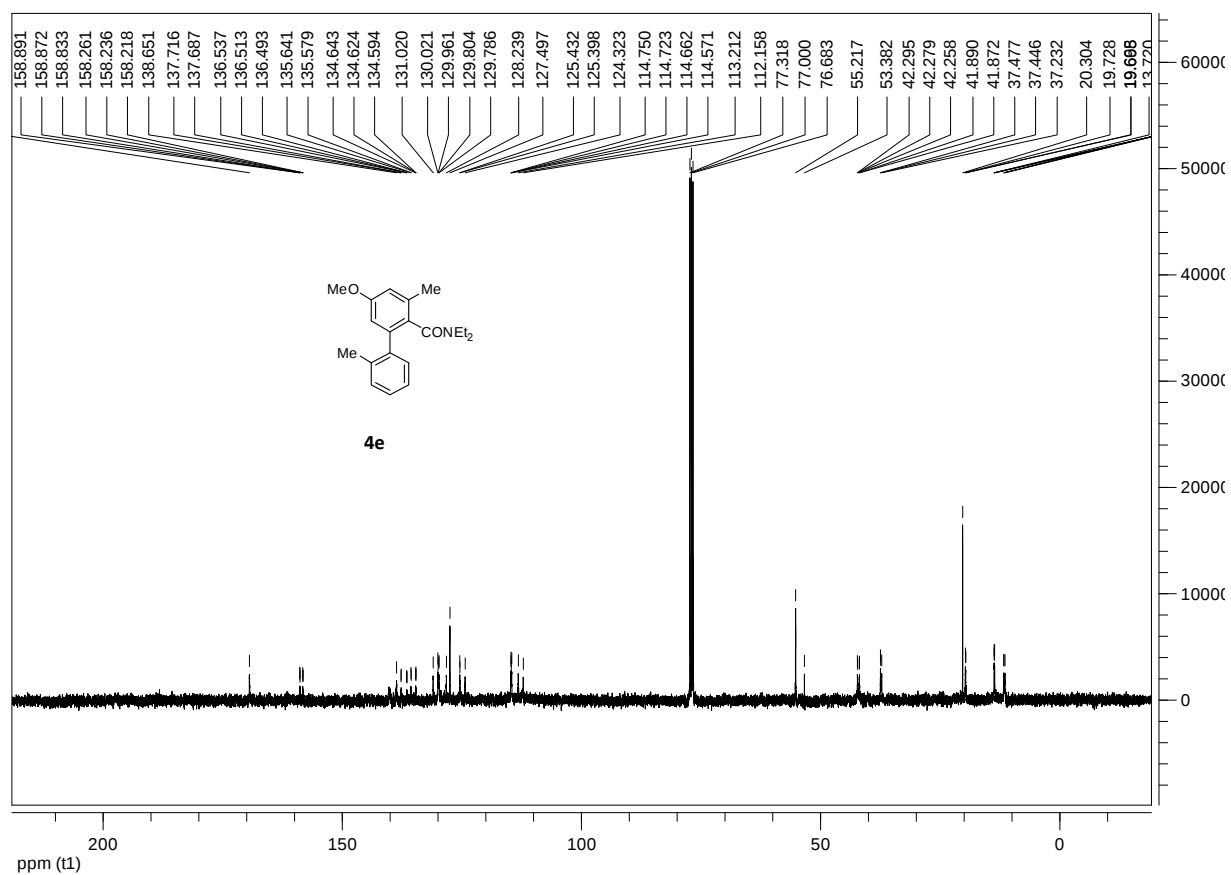
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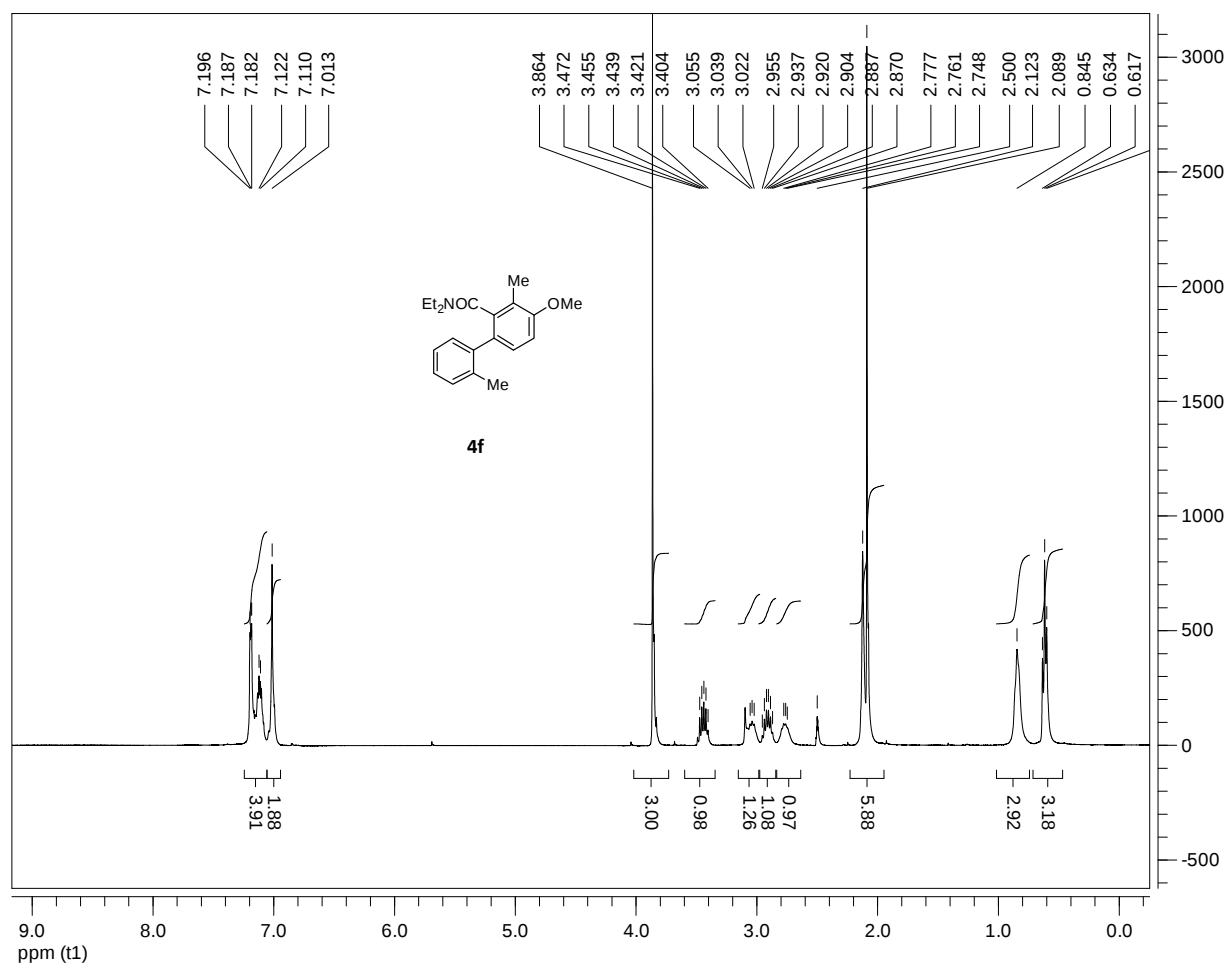
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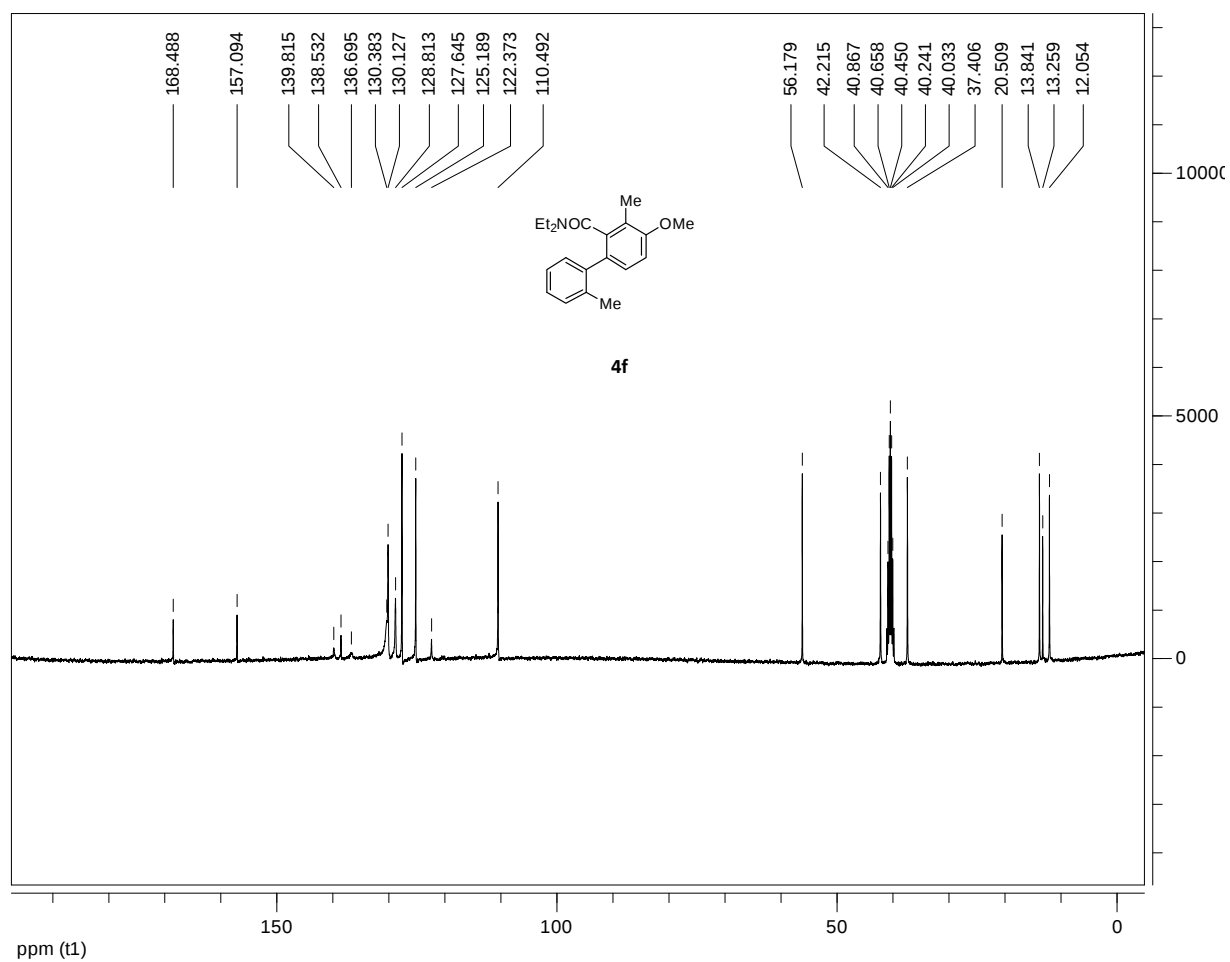
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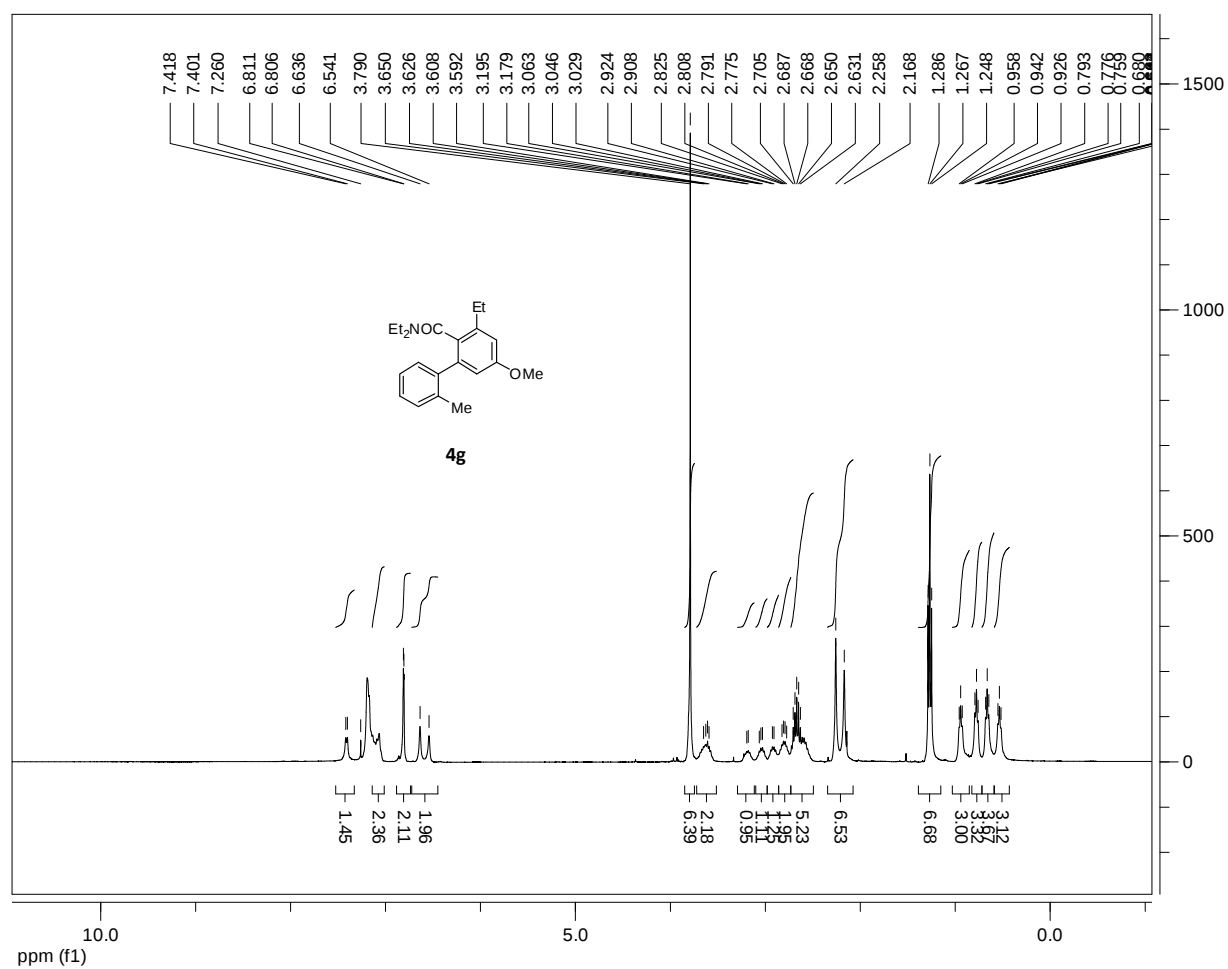
¹H-NMR, DMSO, 400 MHz, 70 °C



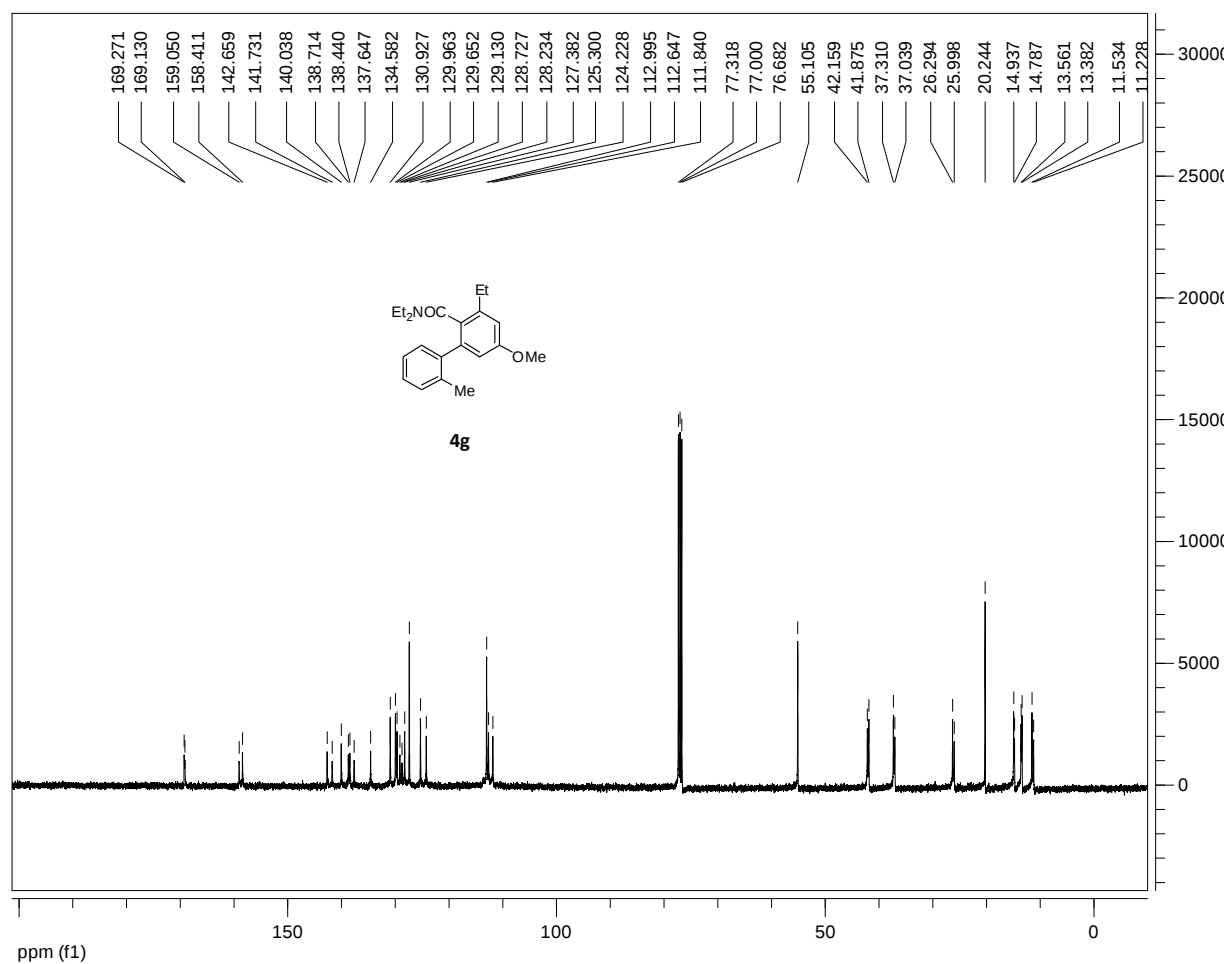
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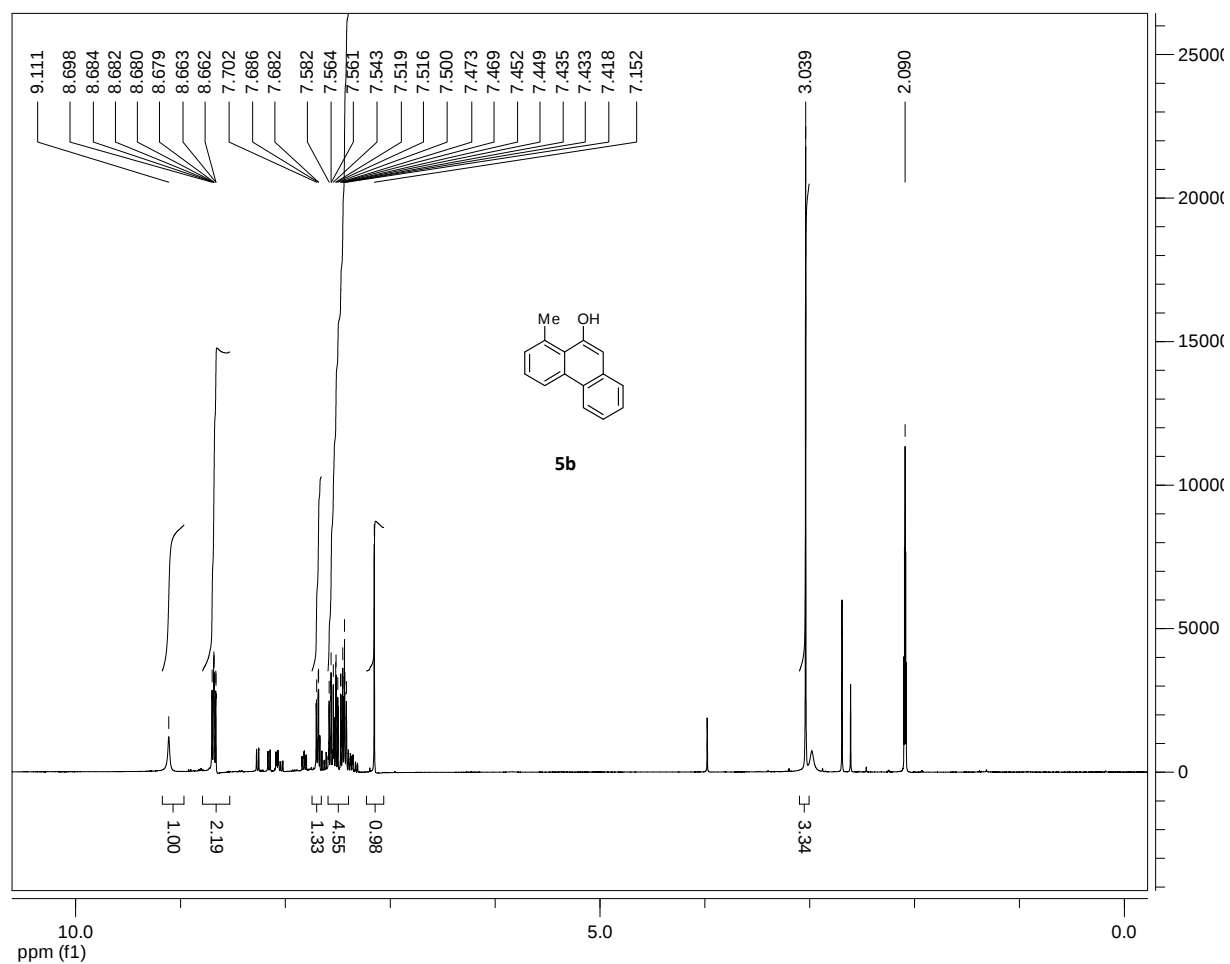
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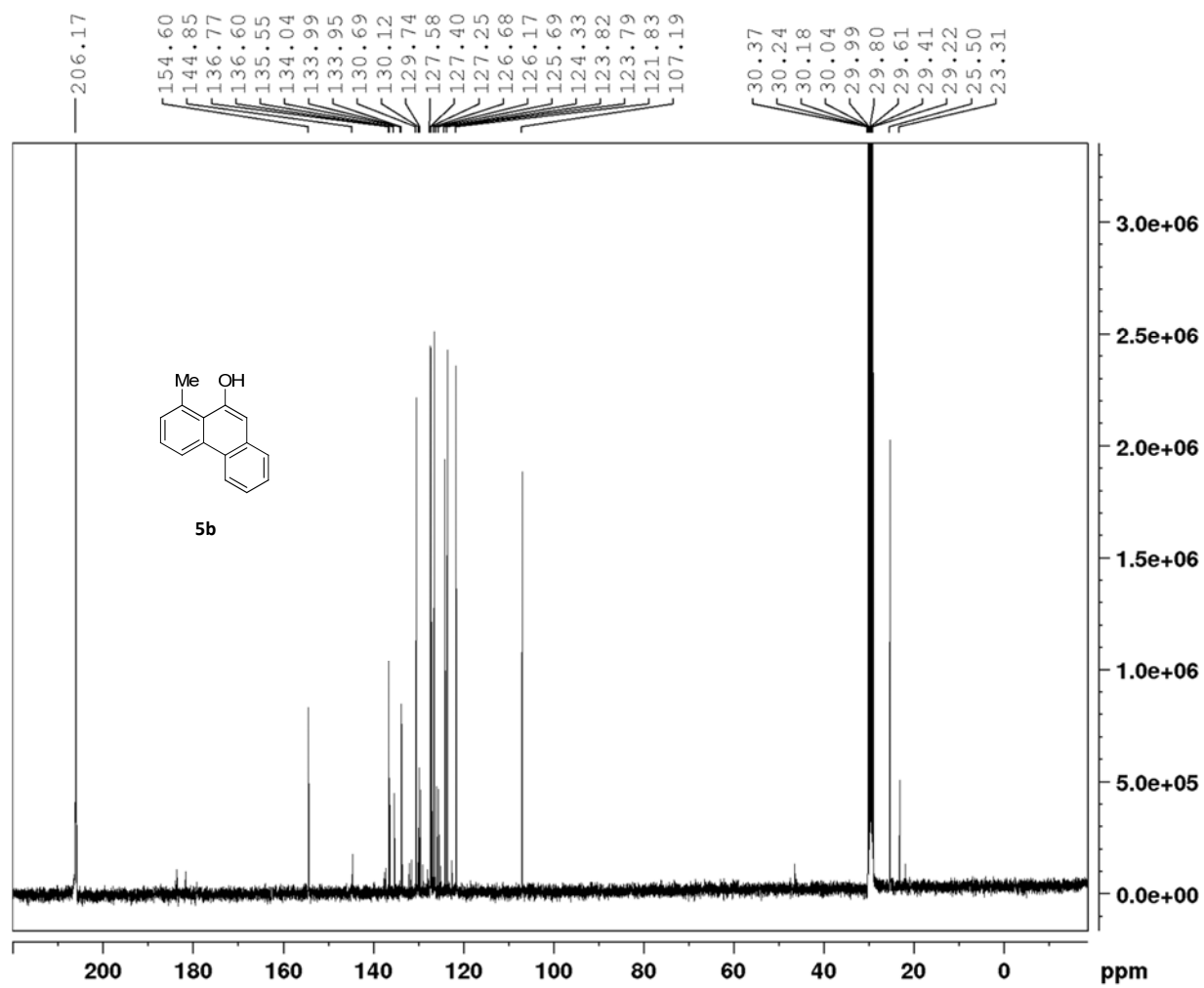
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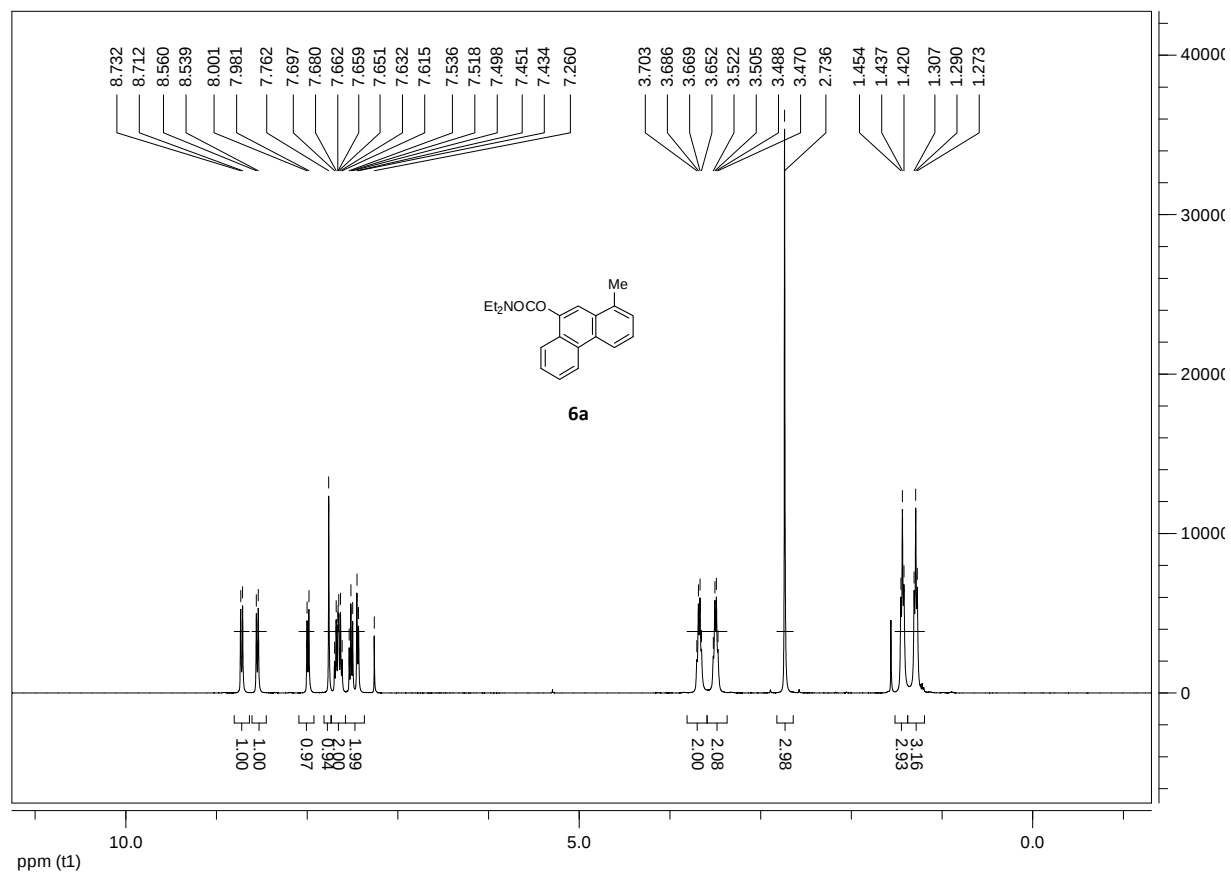
¹H-NMR, 400 MHz, acetone-d₆



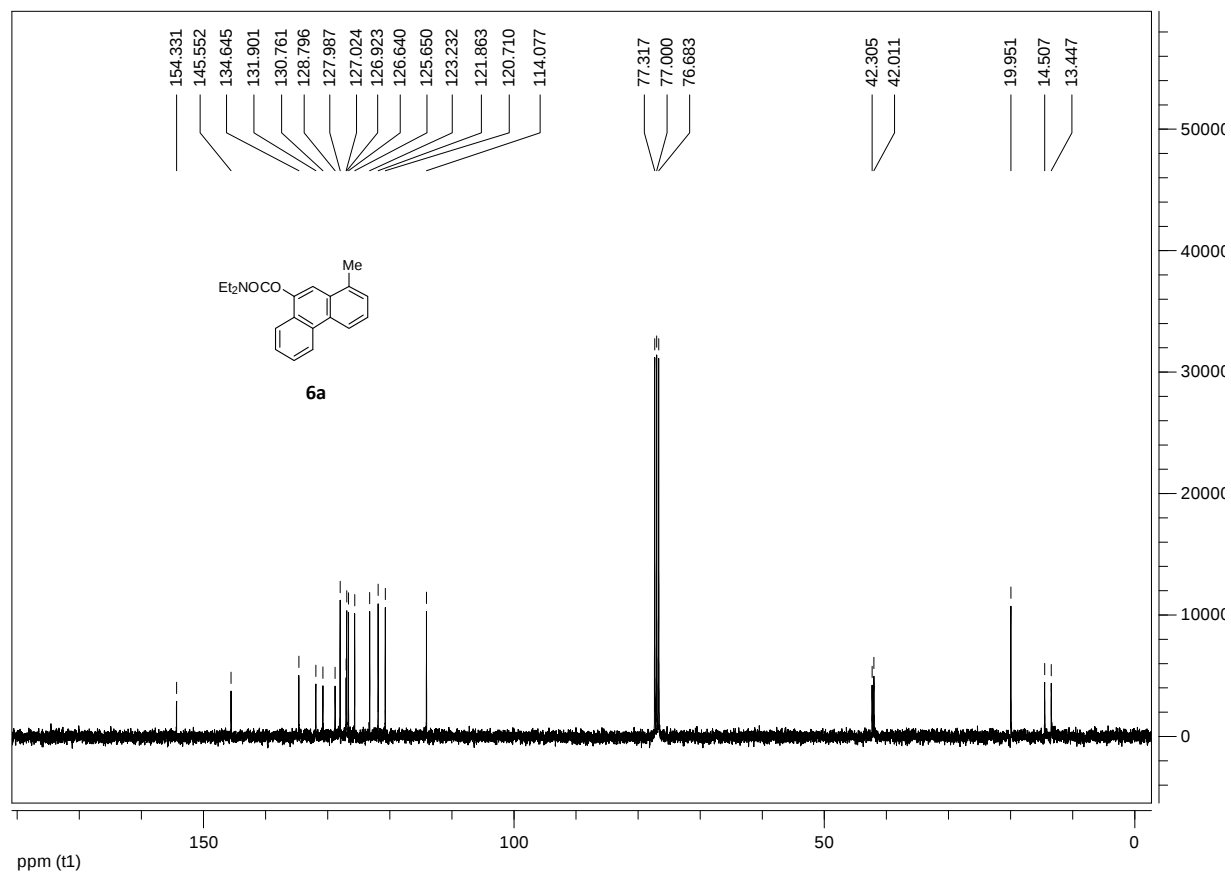
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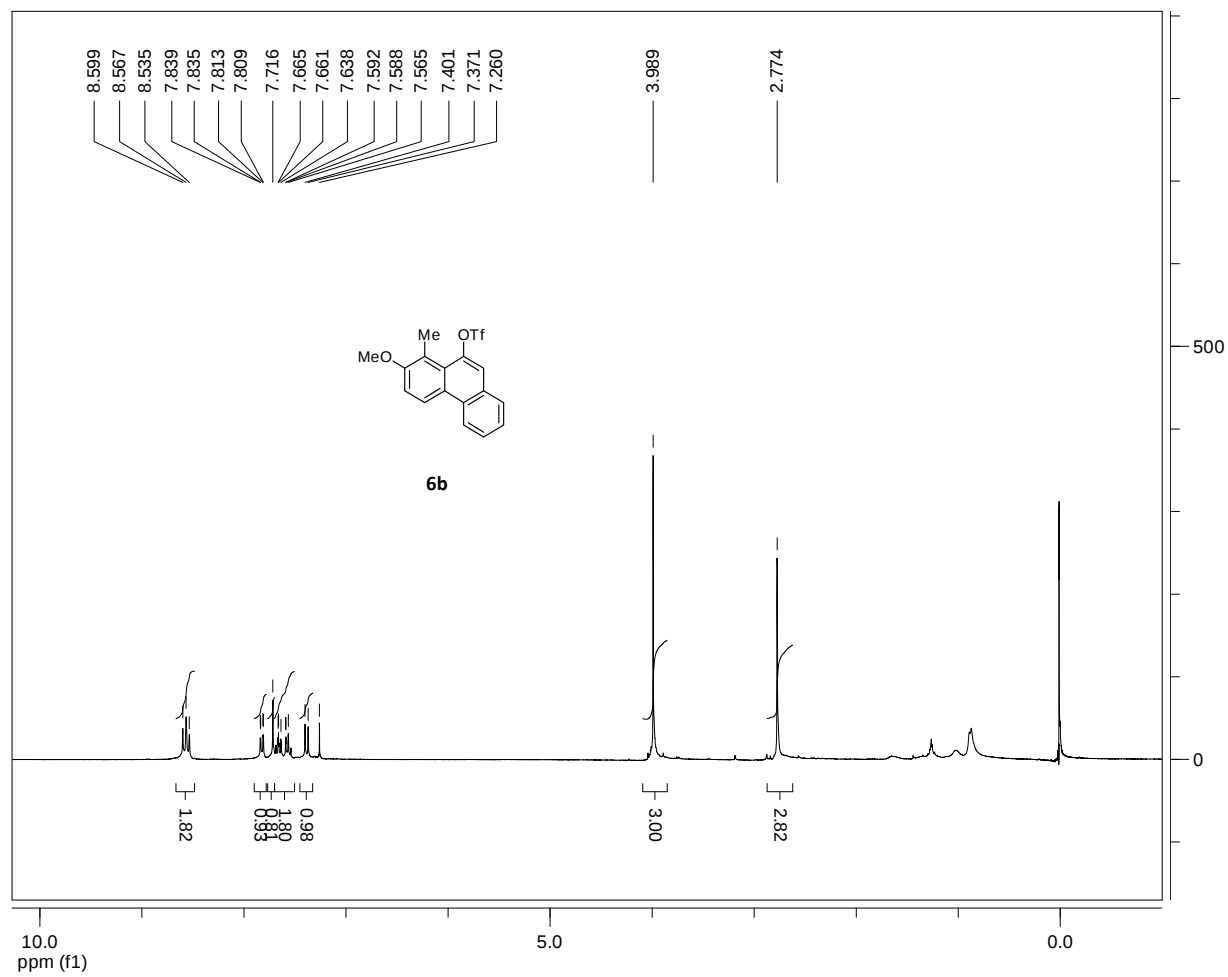
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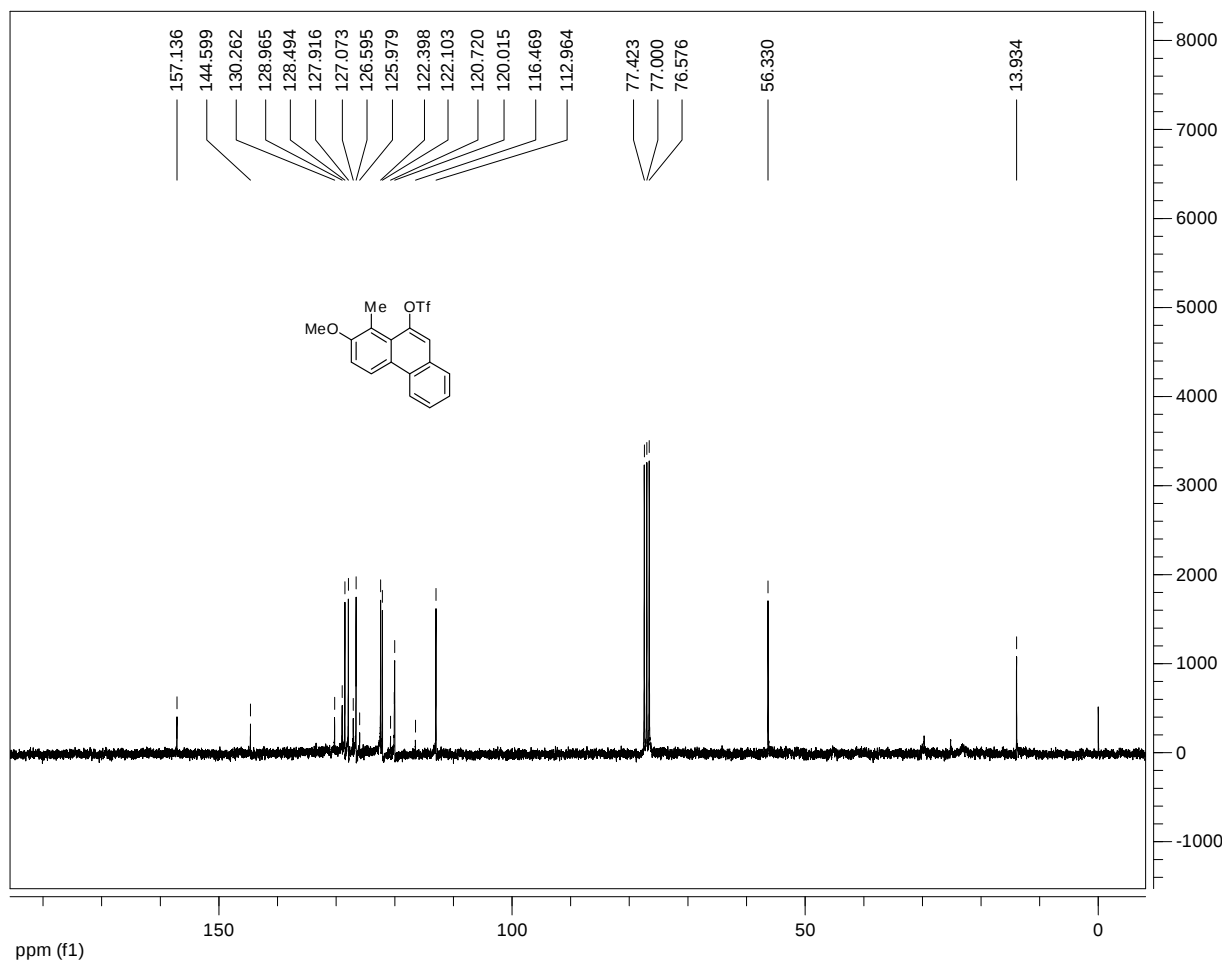
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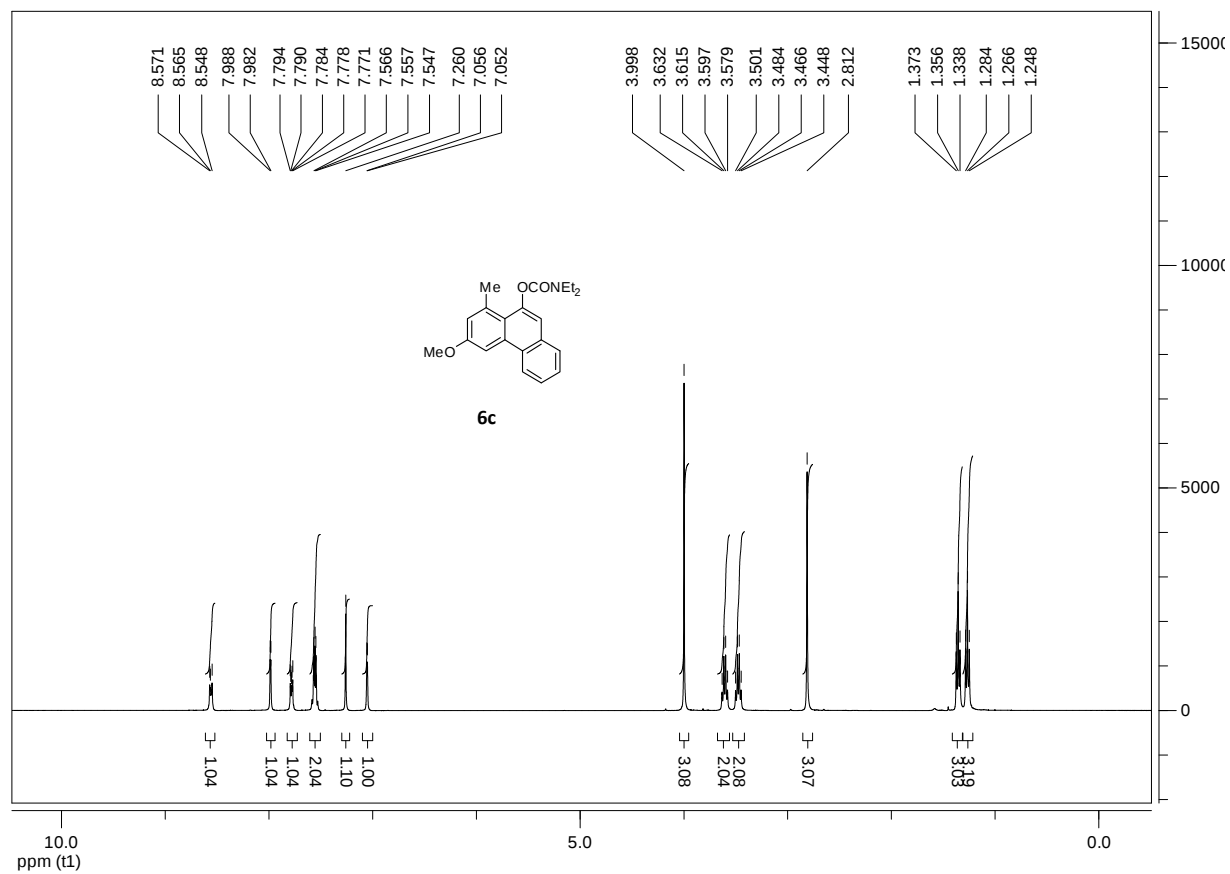
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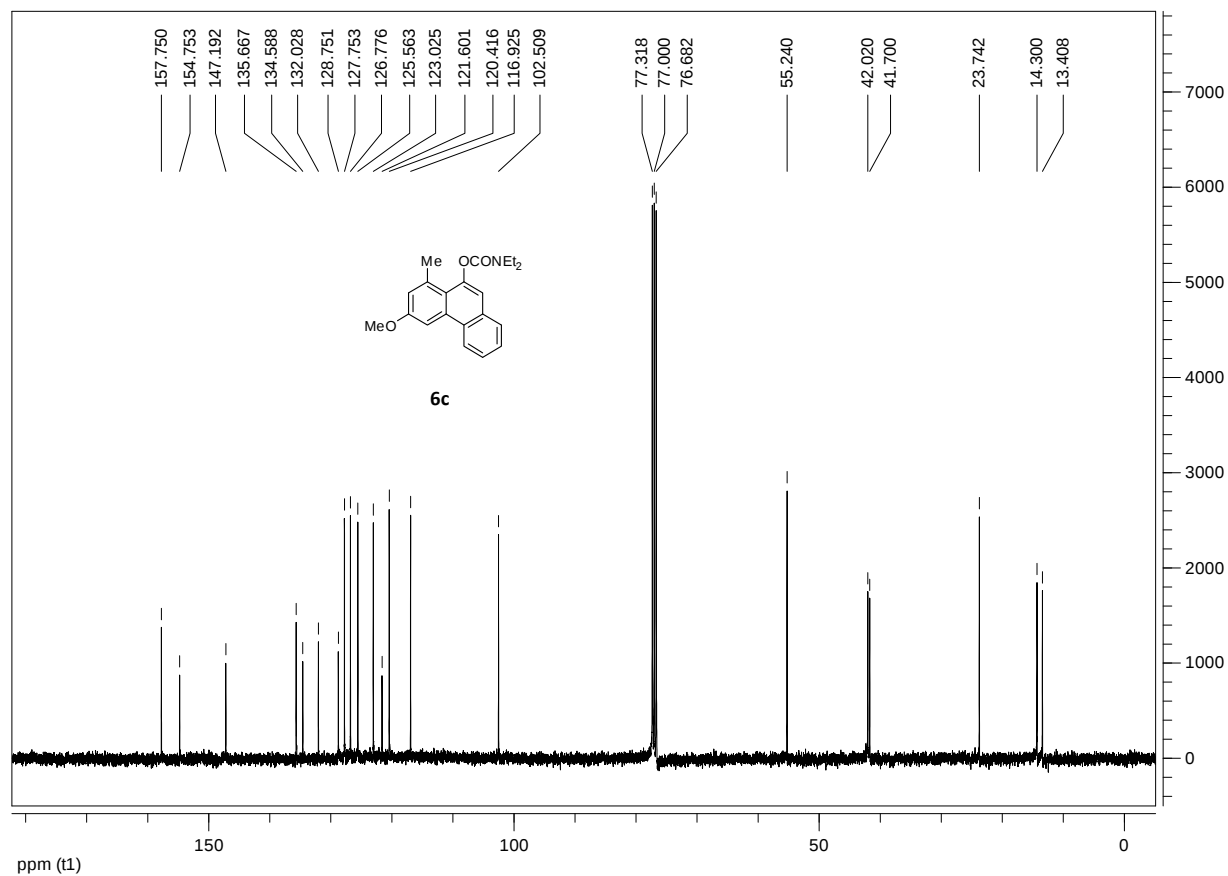
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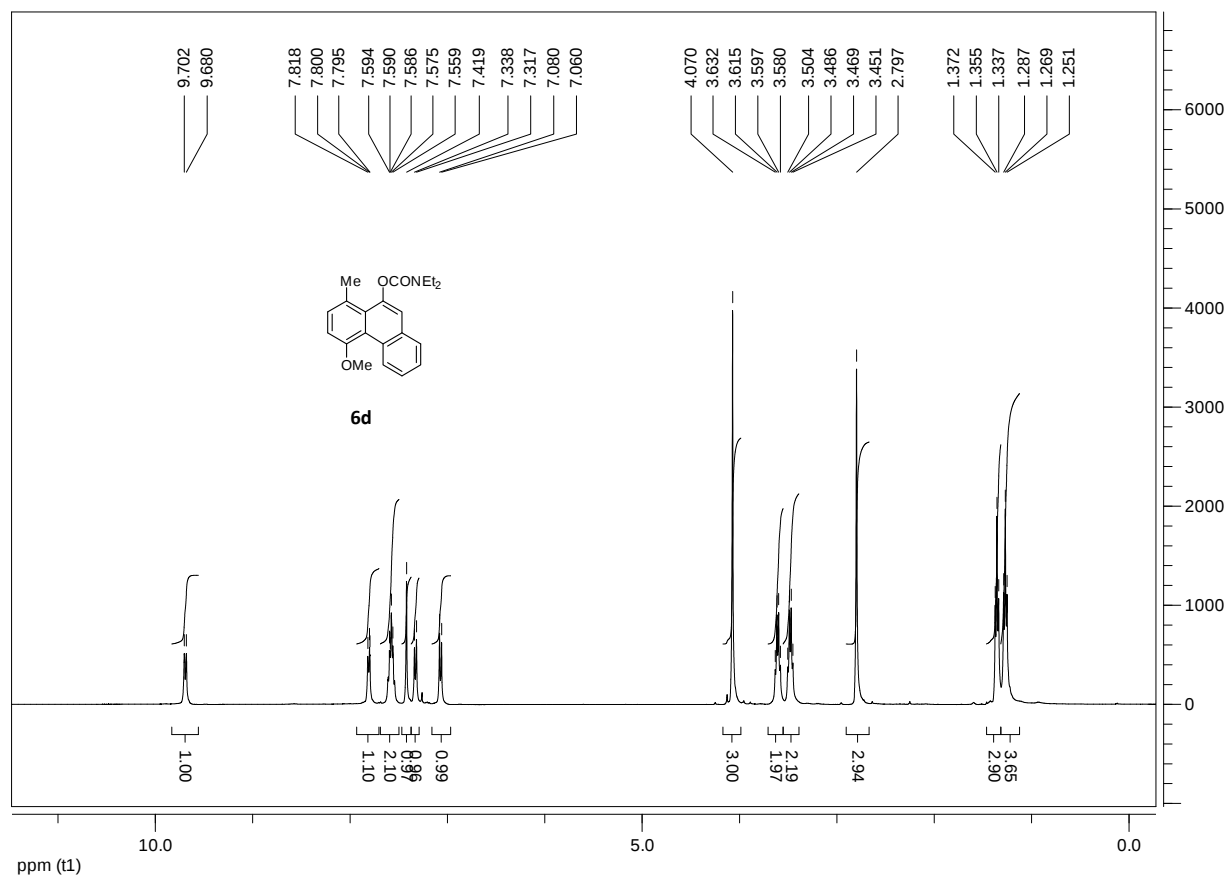
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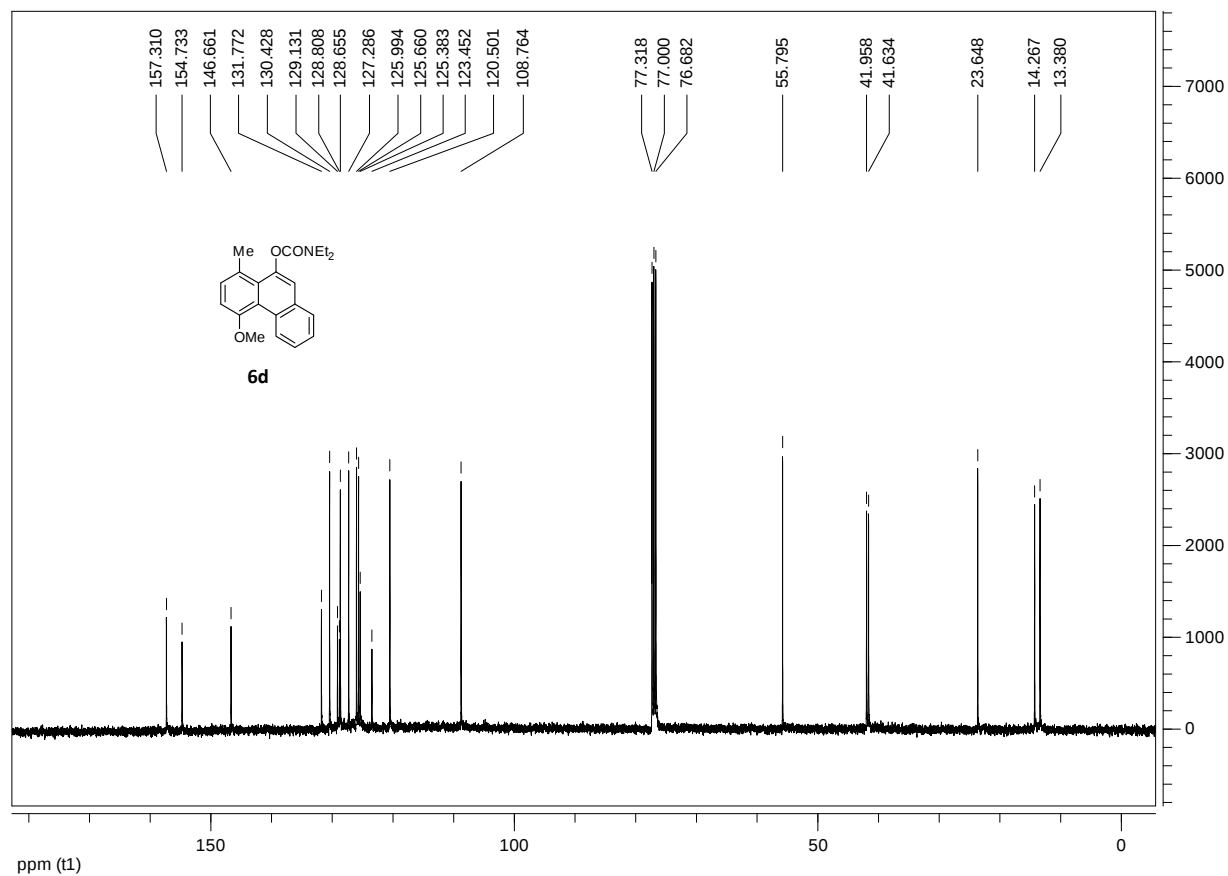
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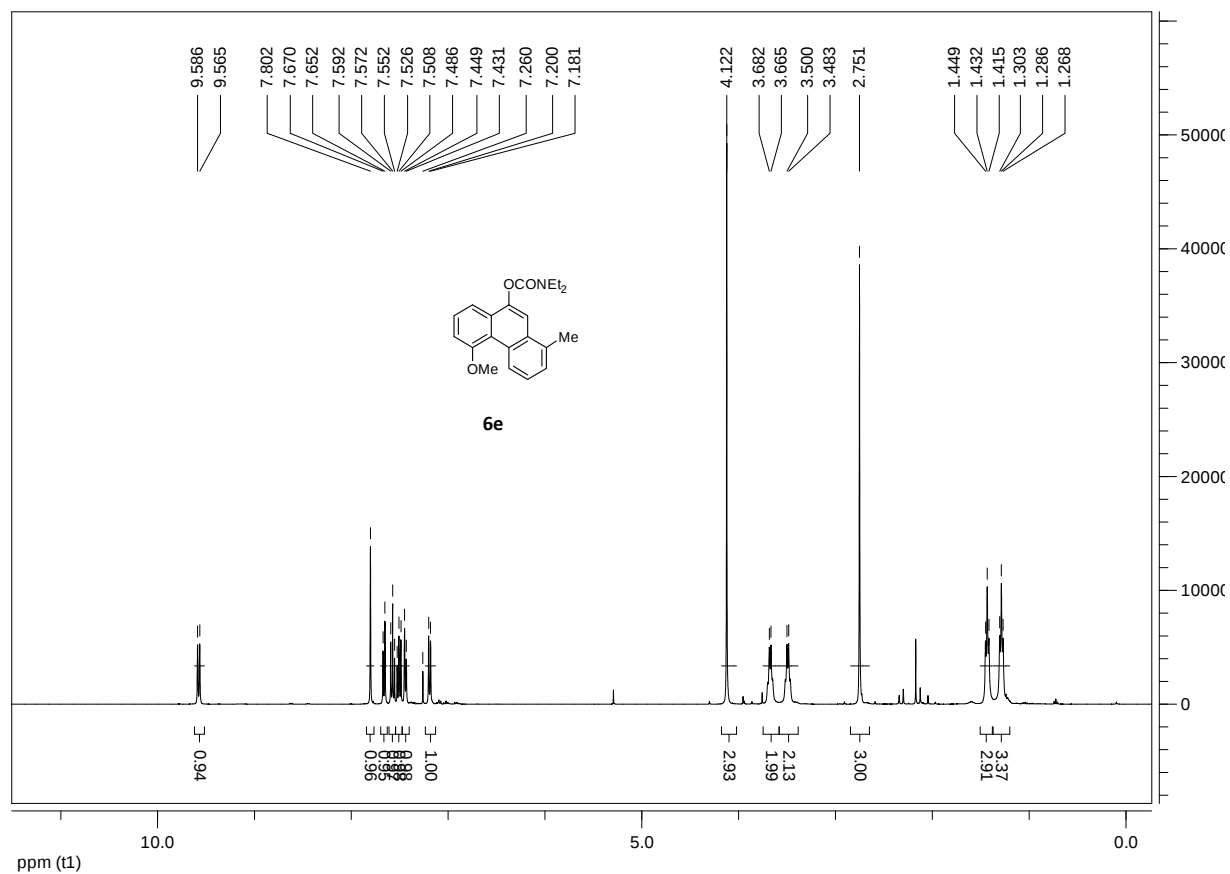
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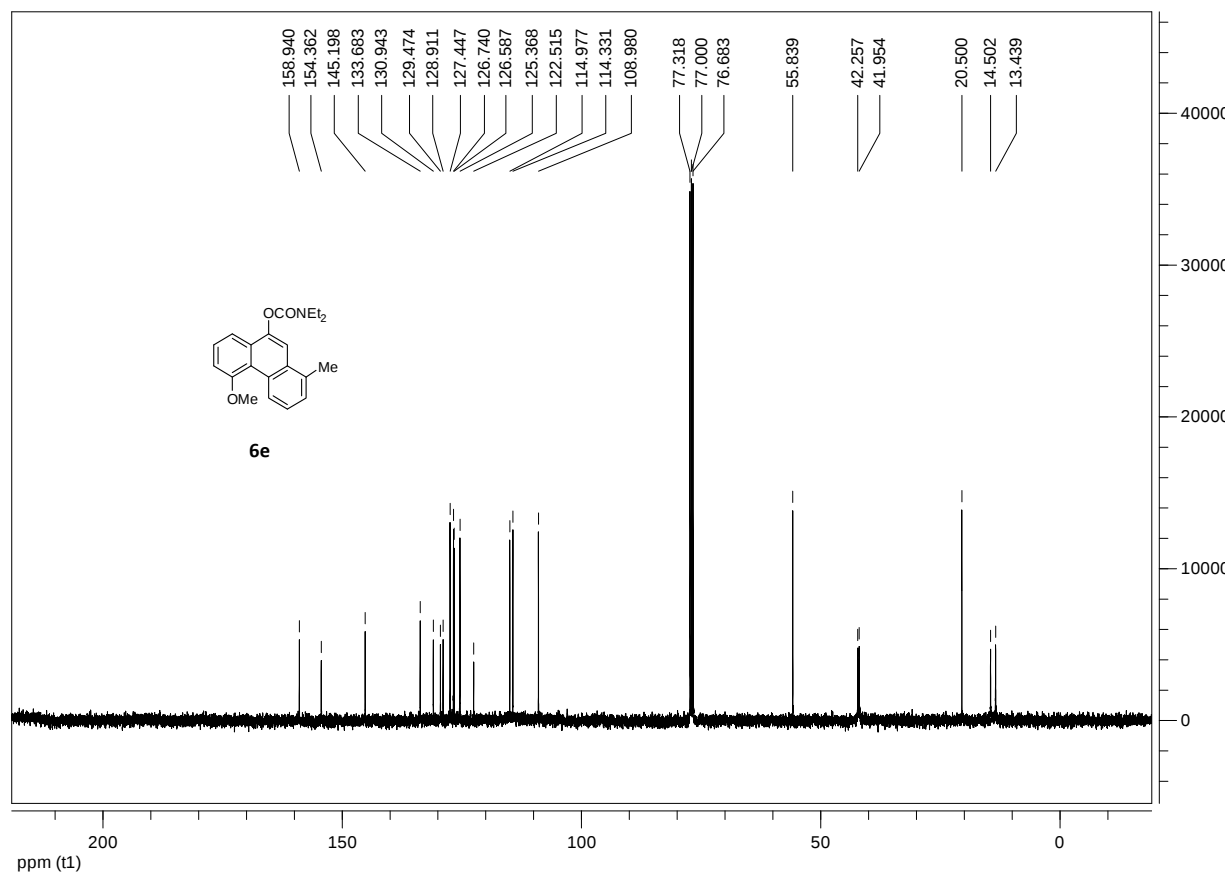
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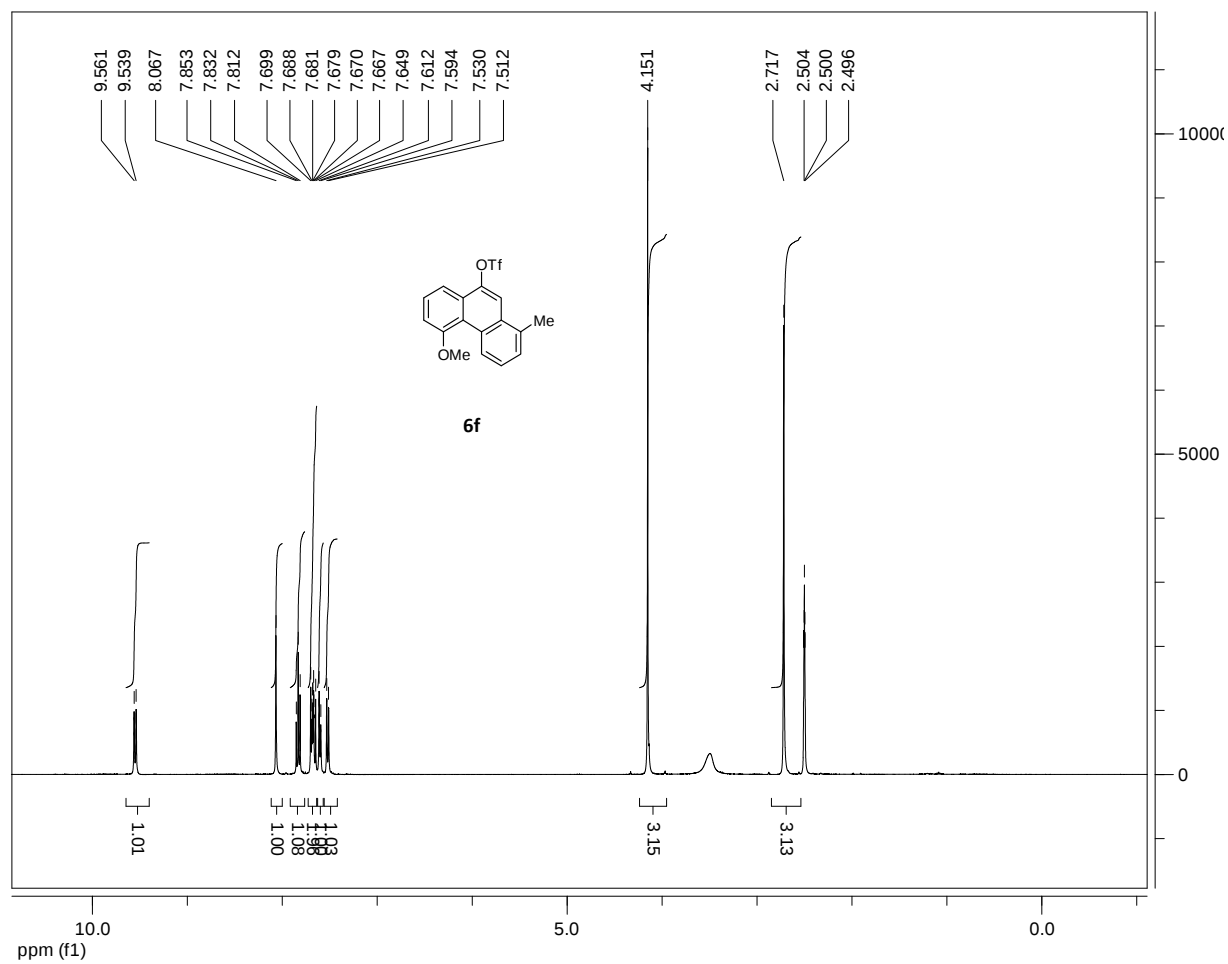
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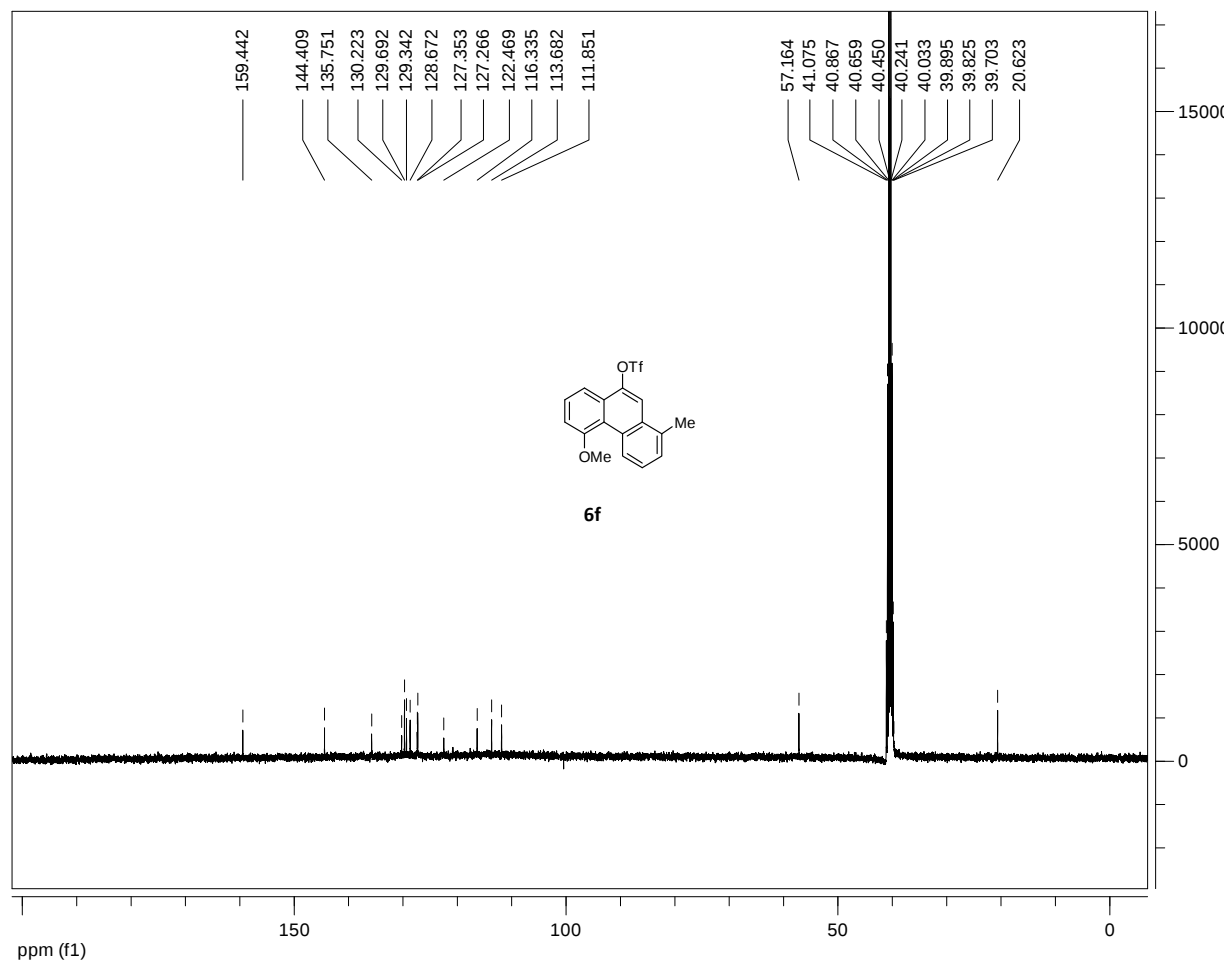
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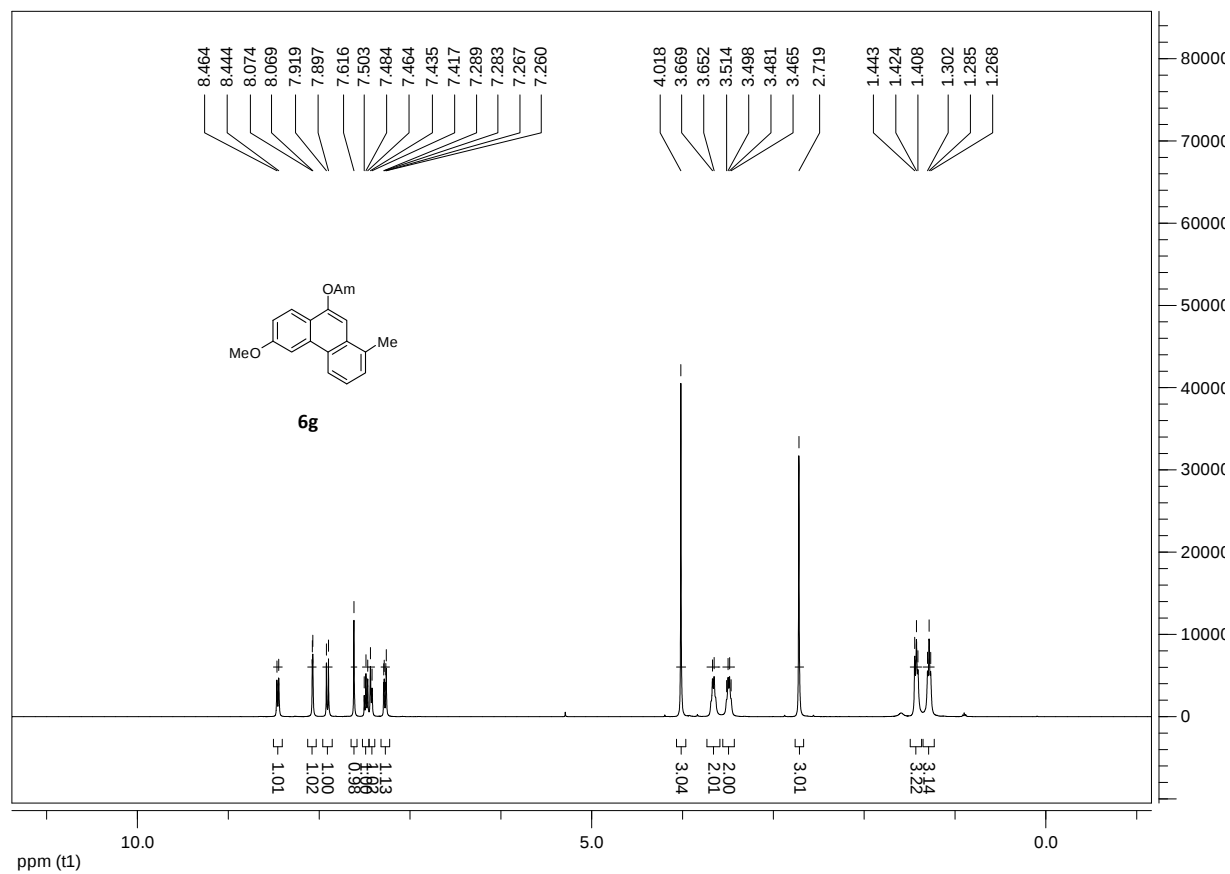
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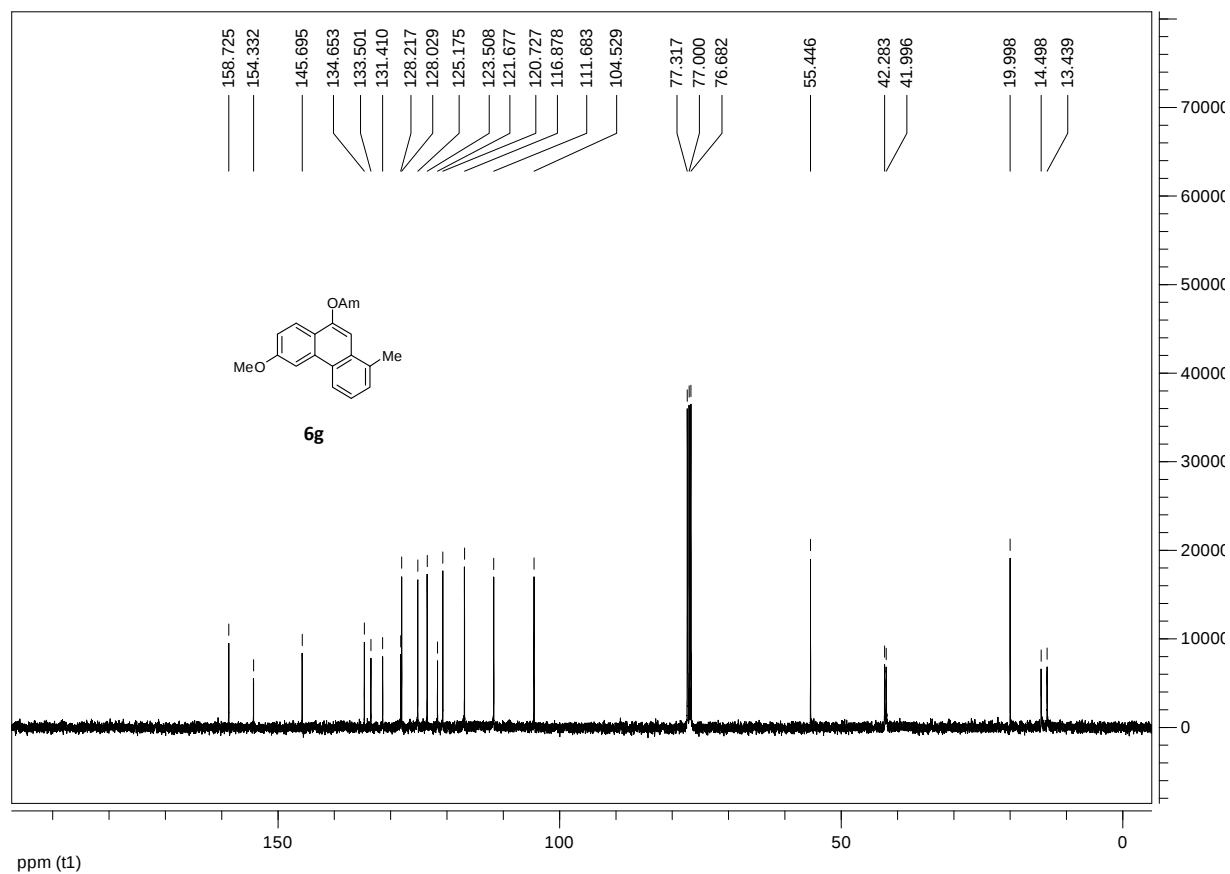
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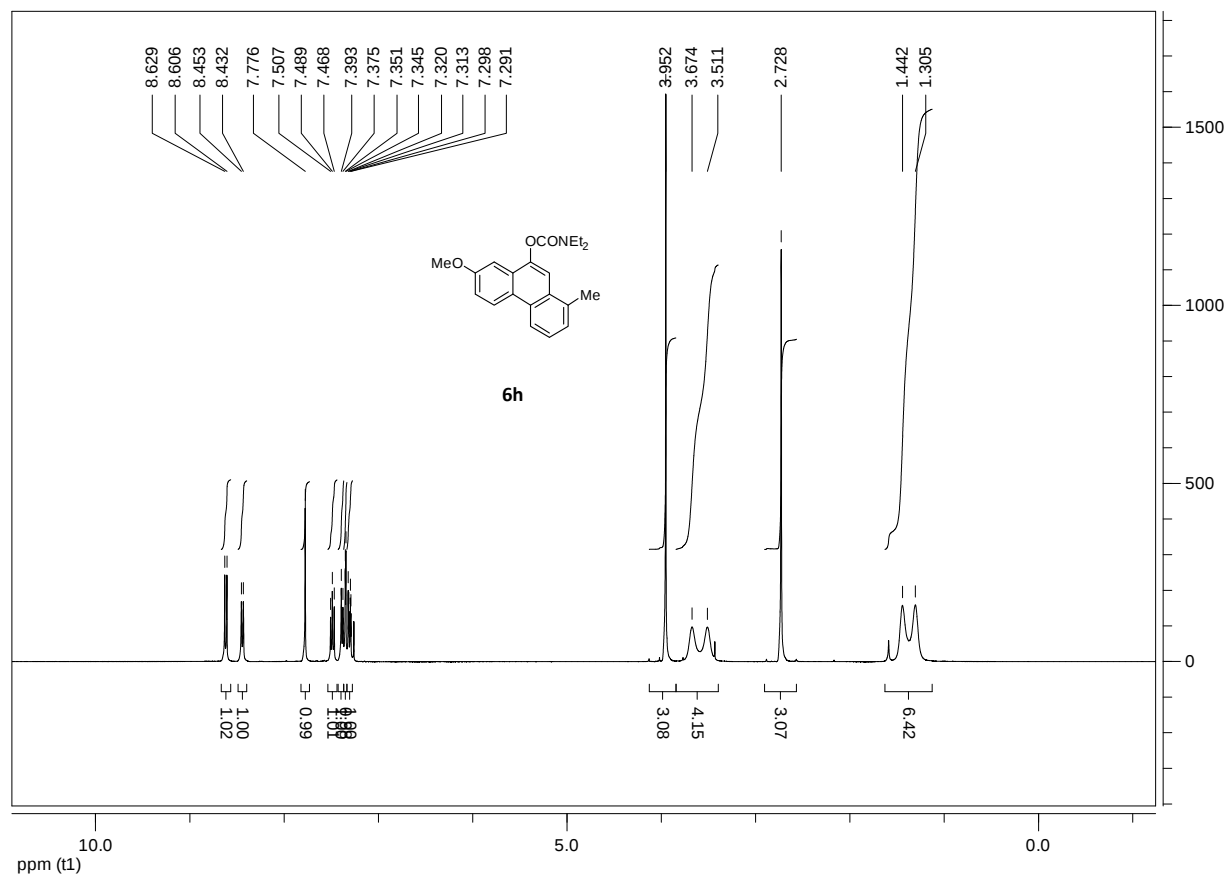
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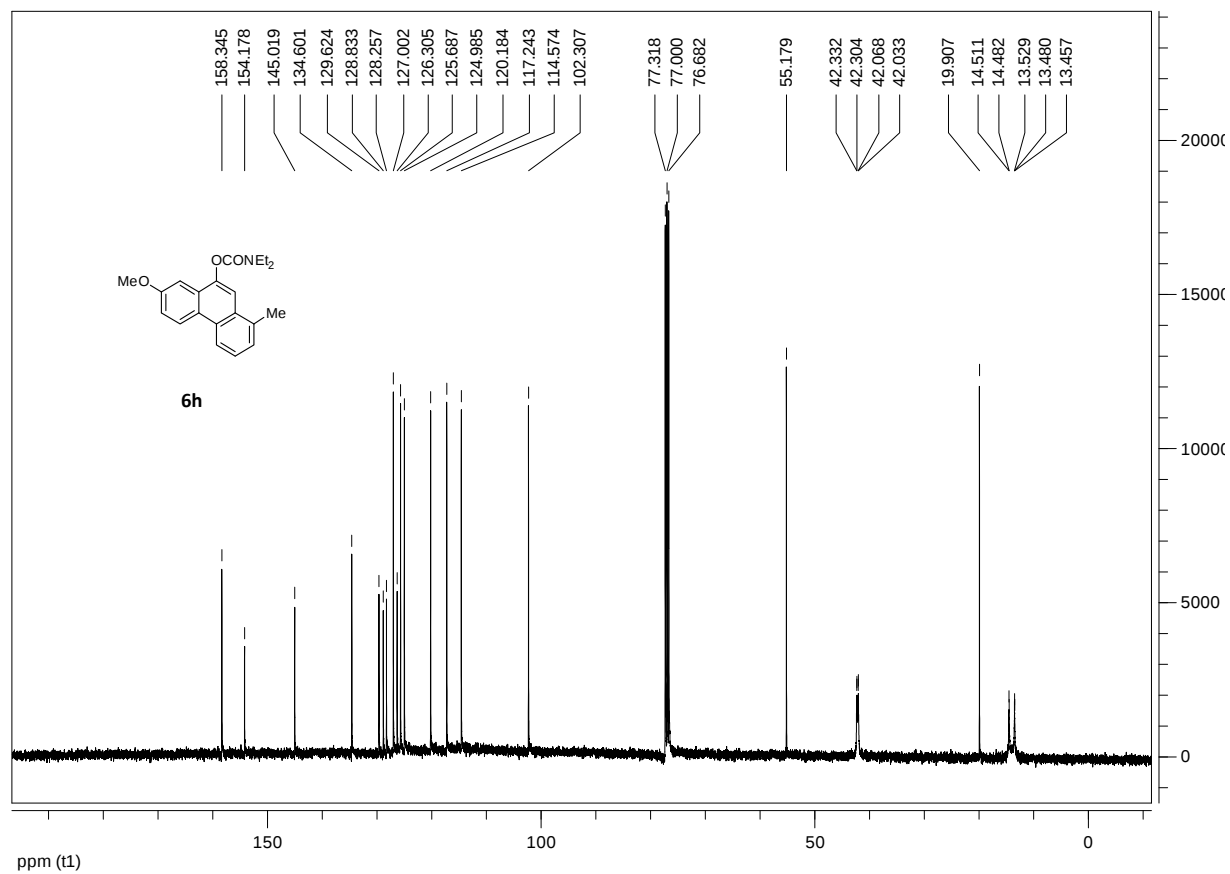
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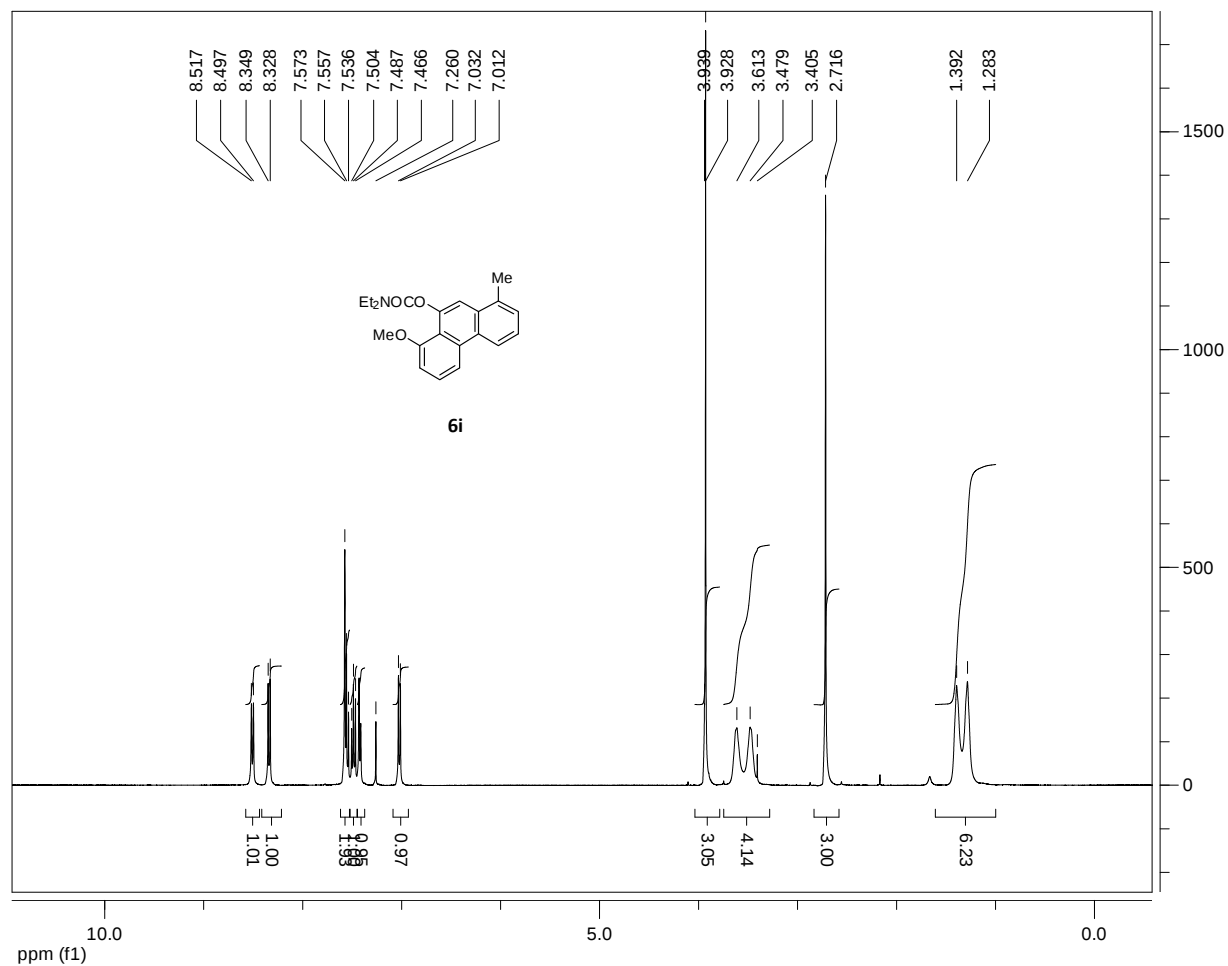
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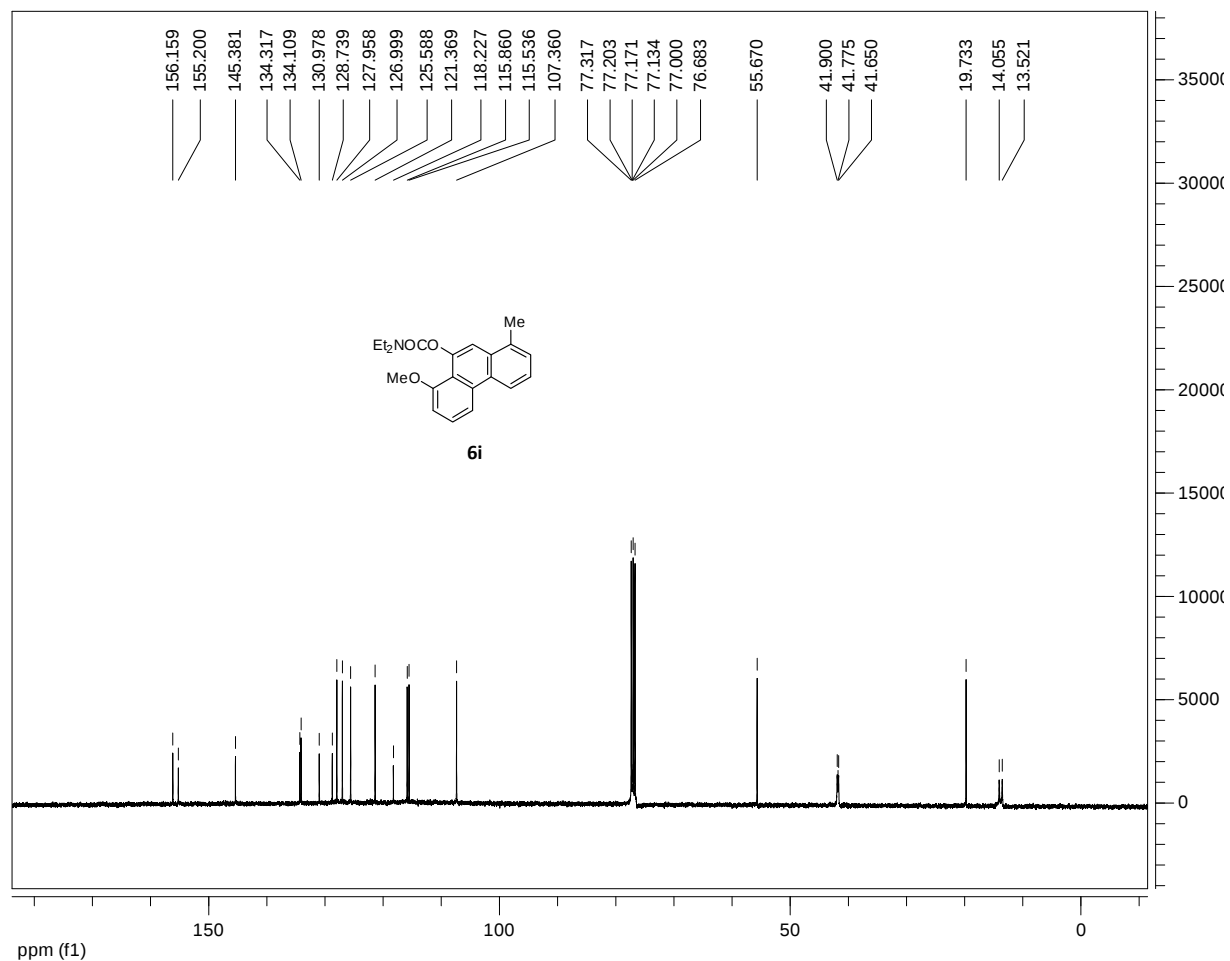
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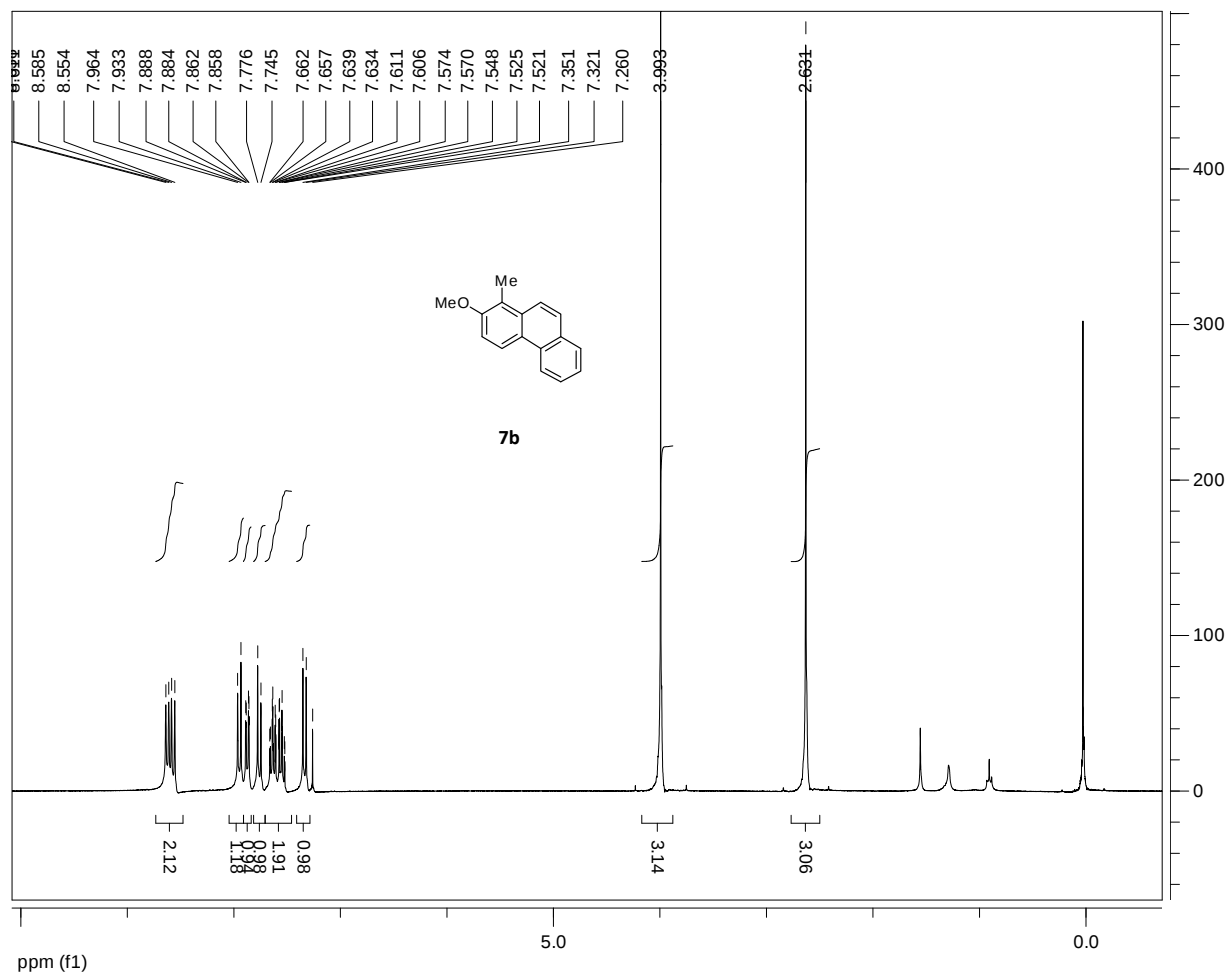
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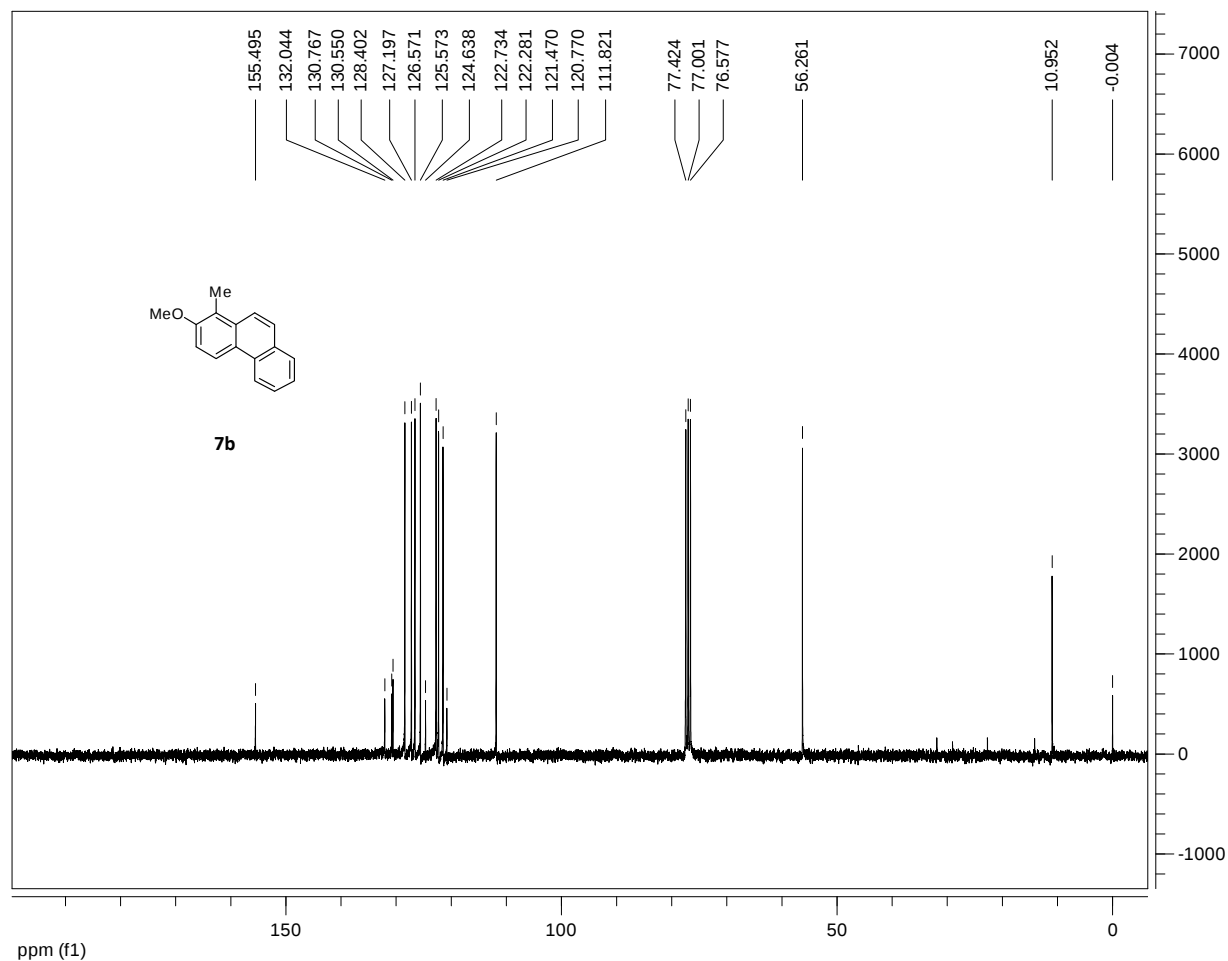
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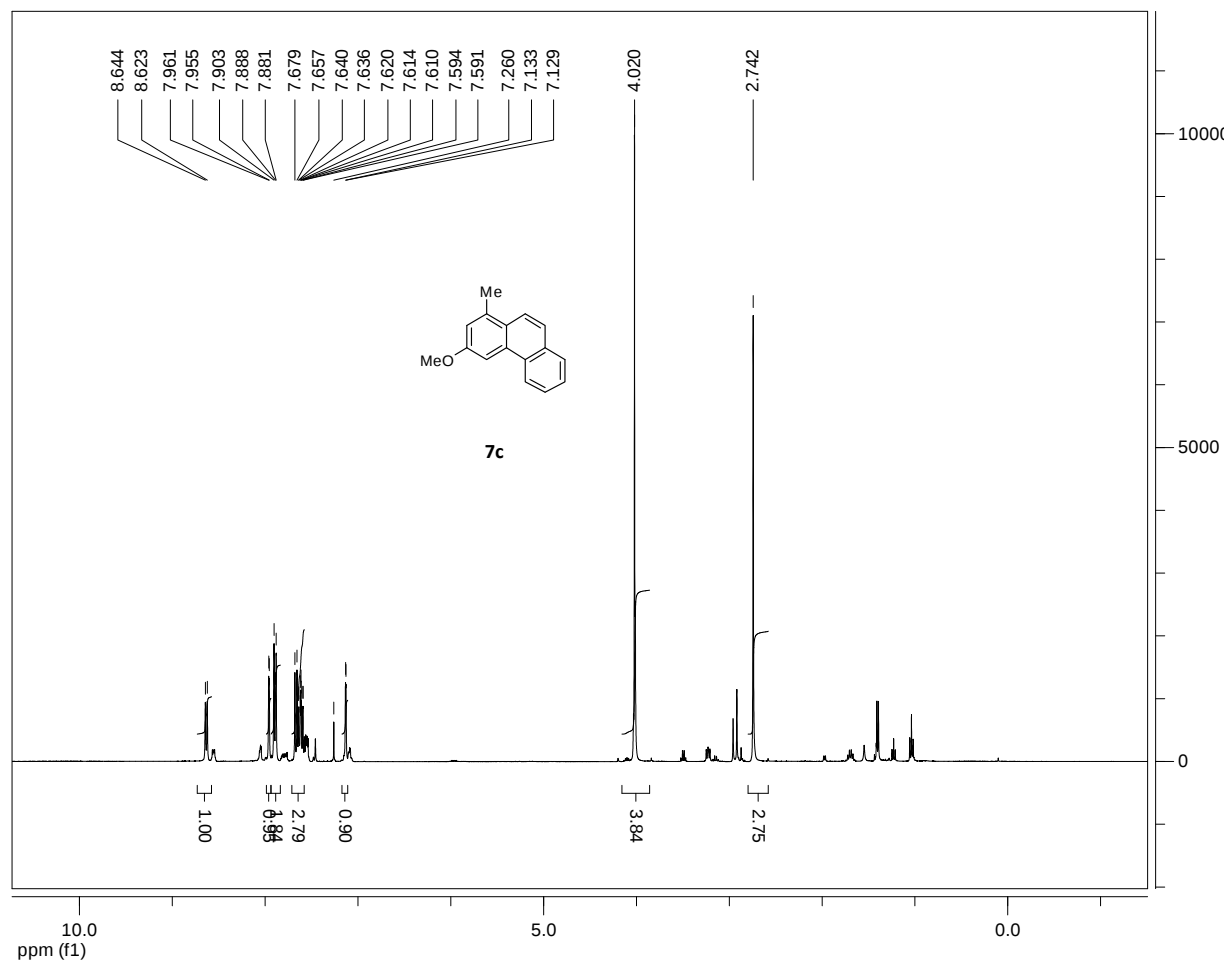
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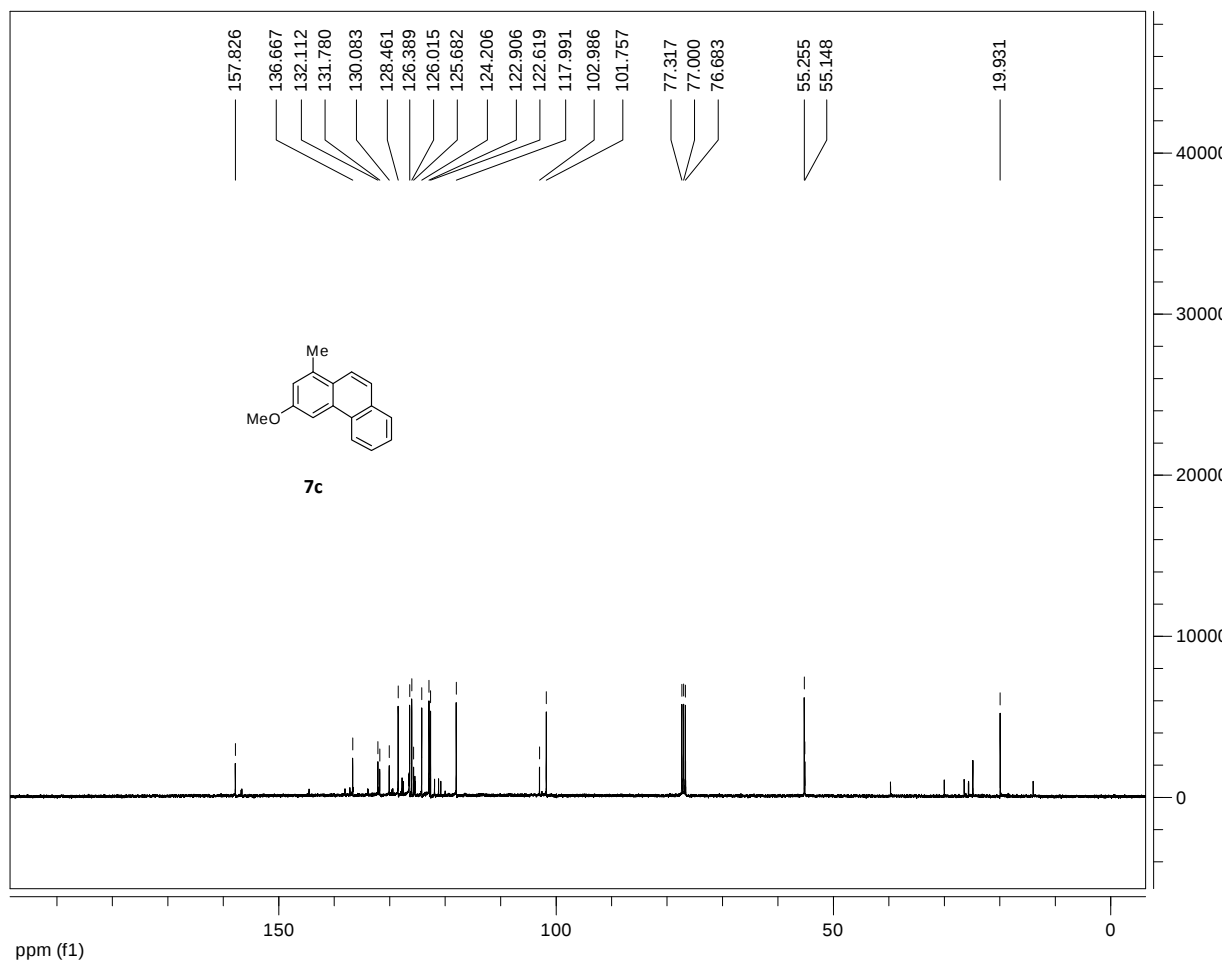
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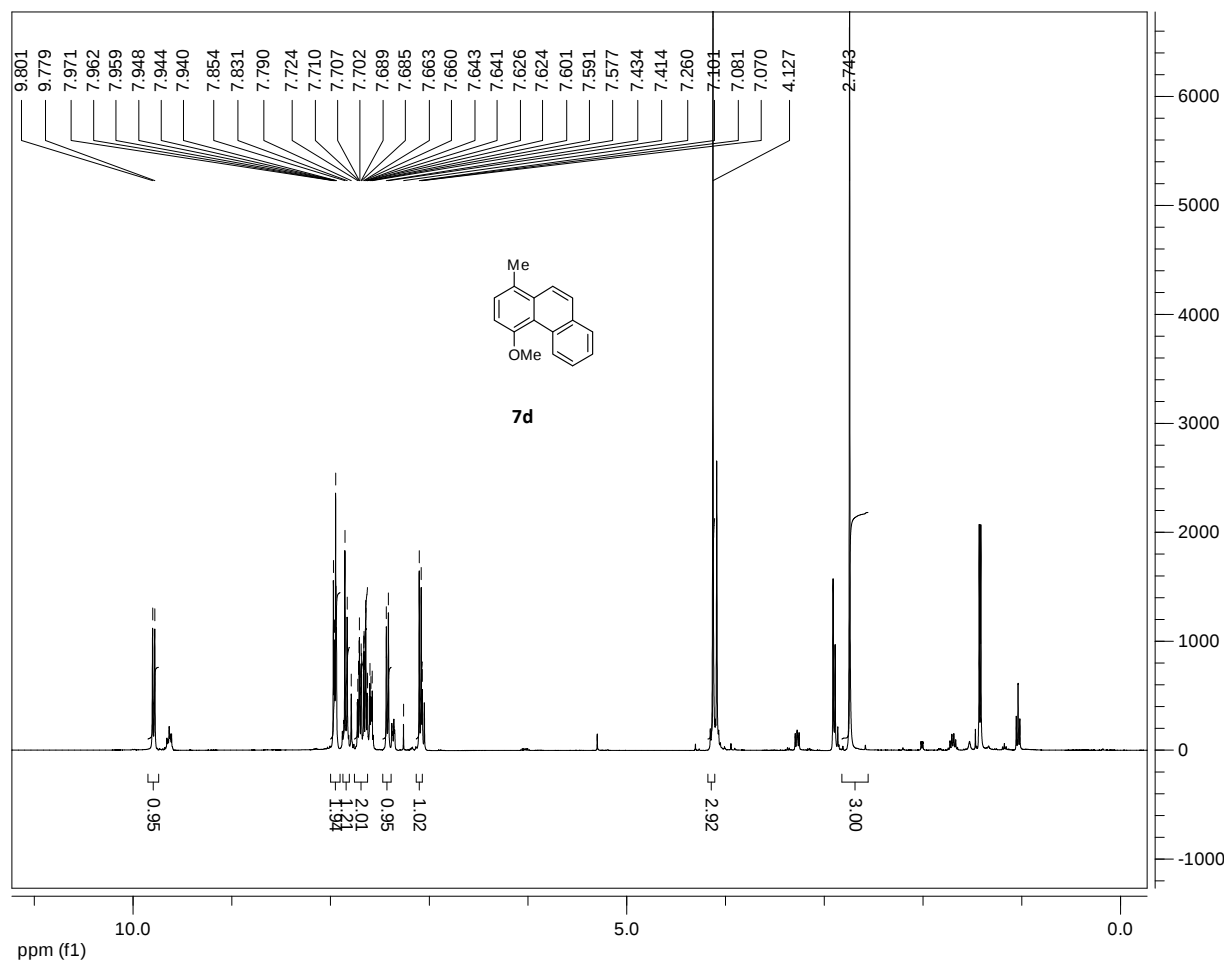
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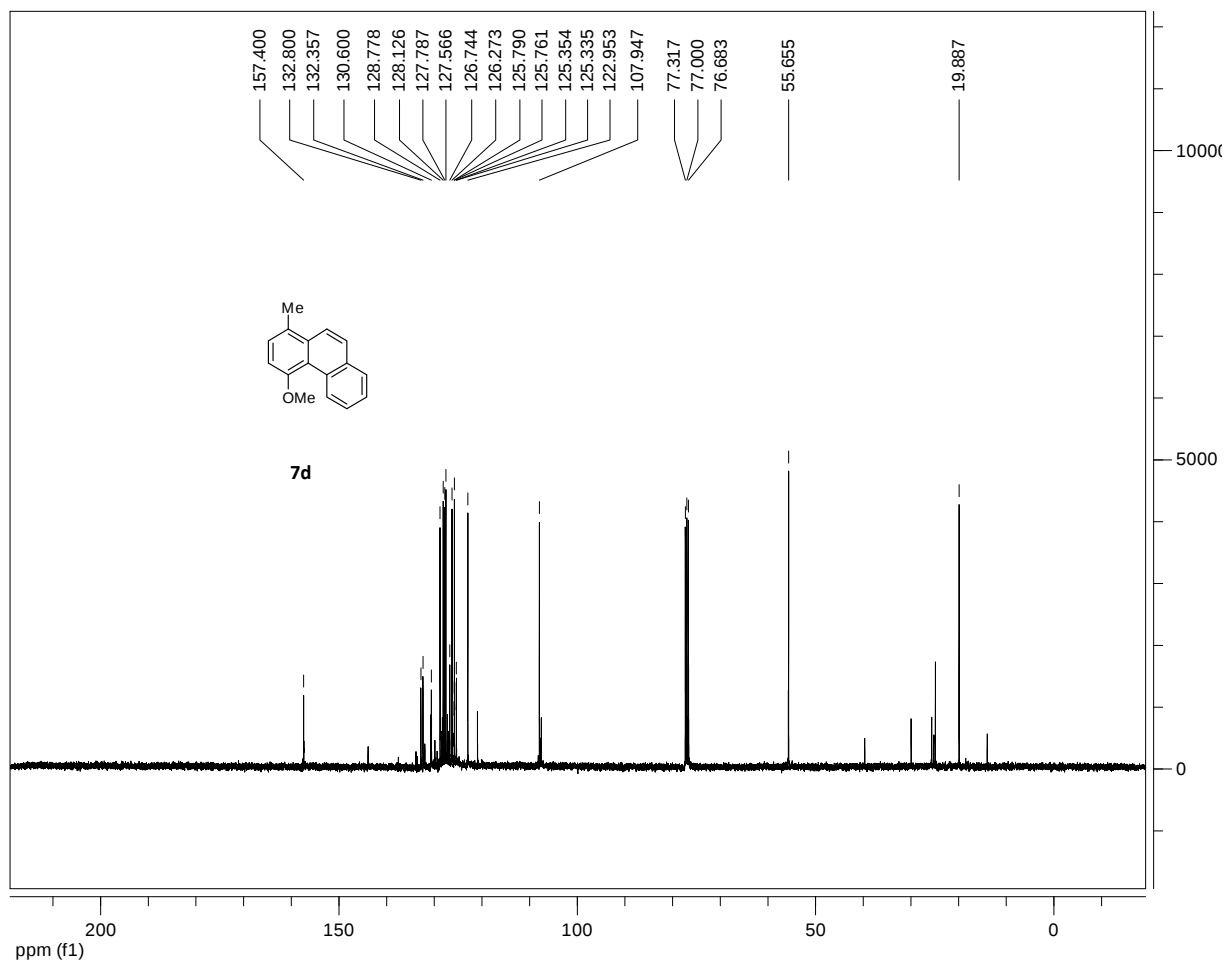
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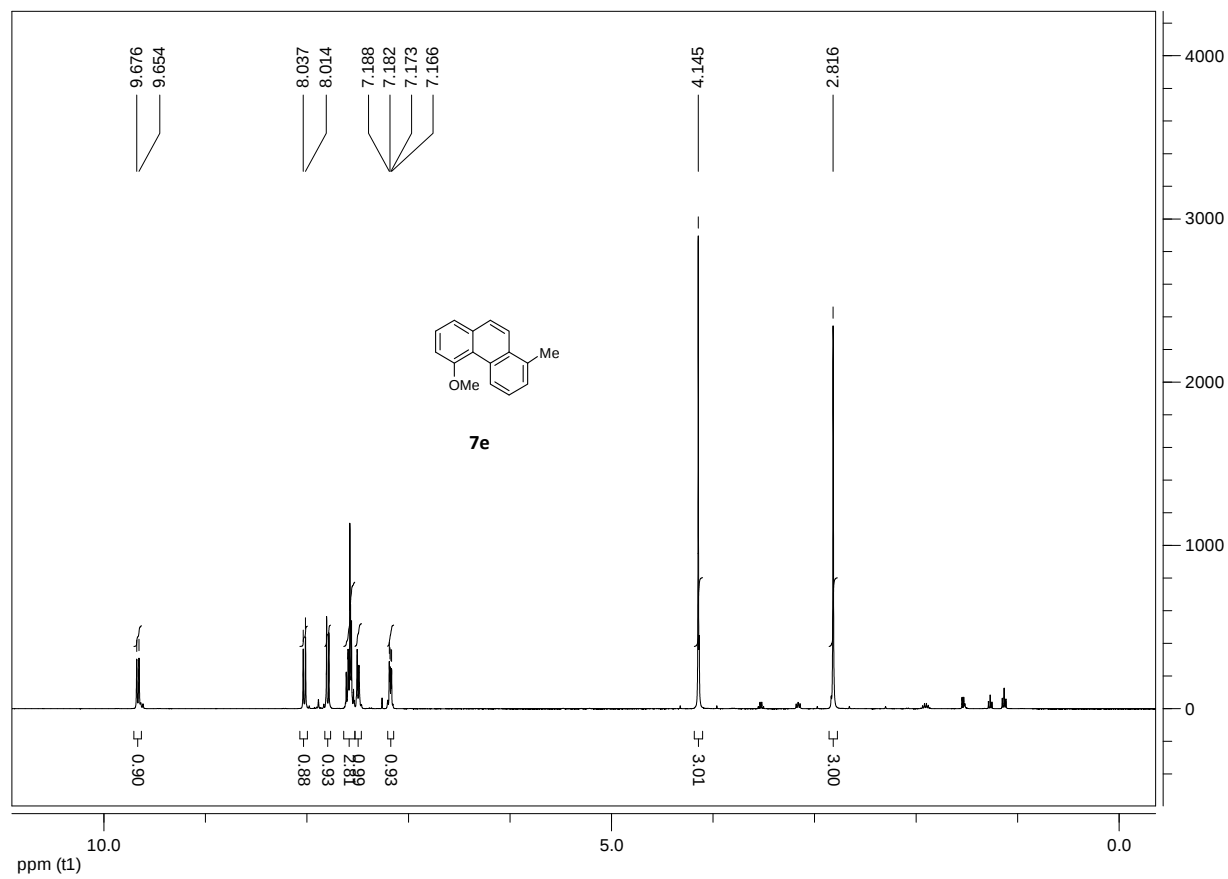
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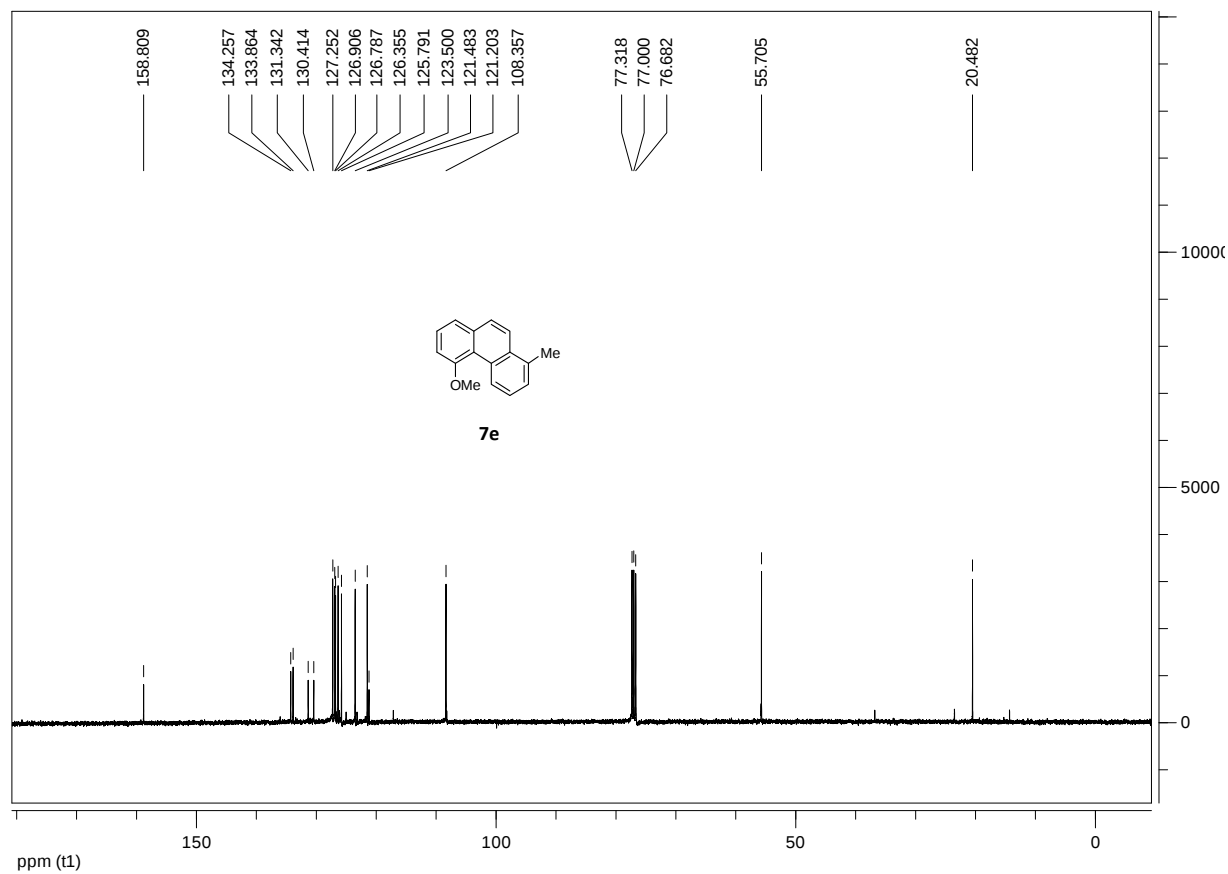
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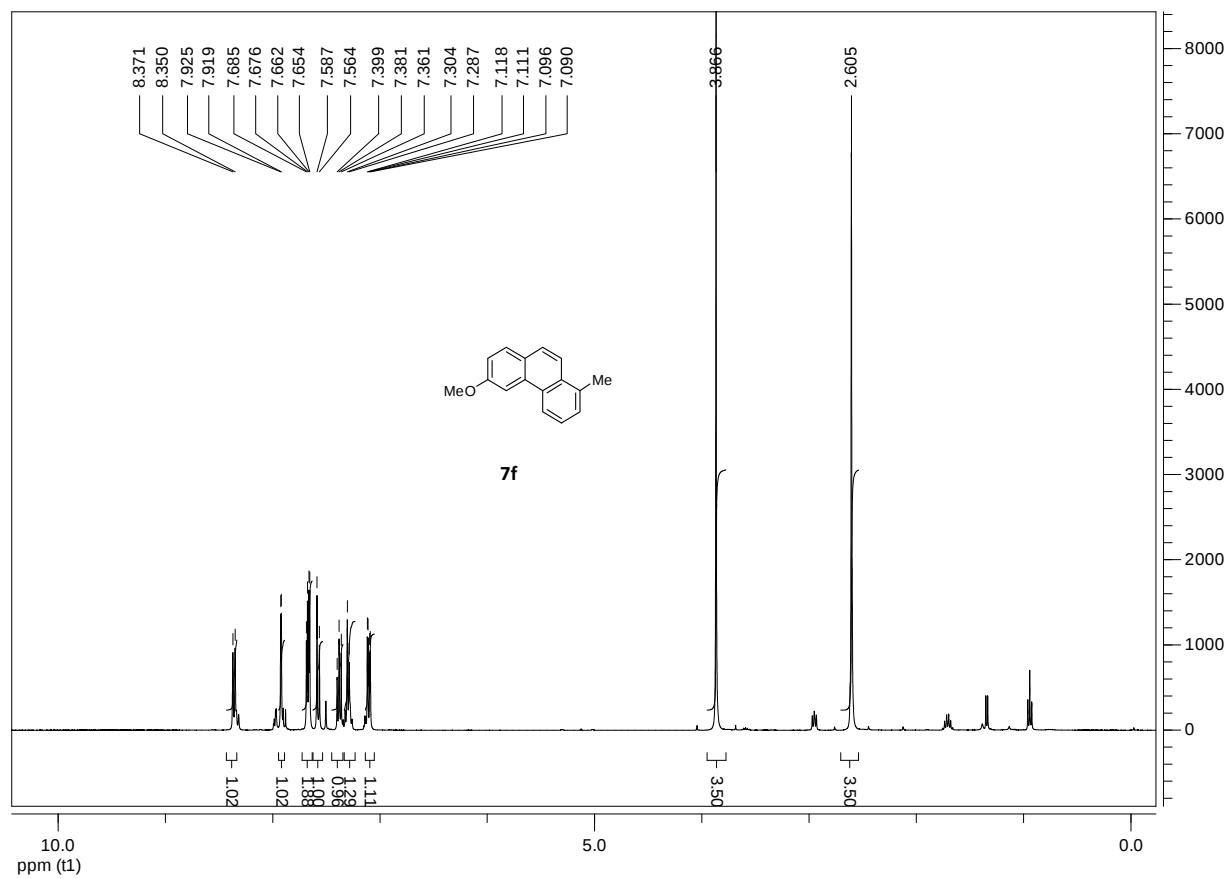
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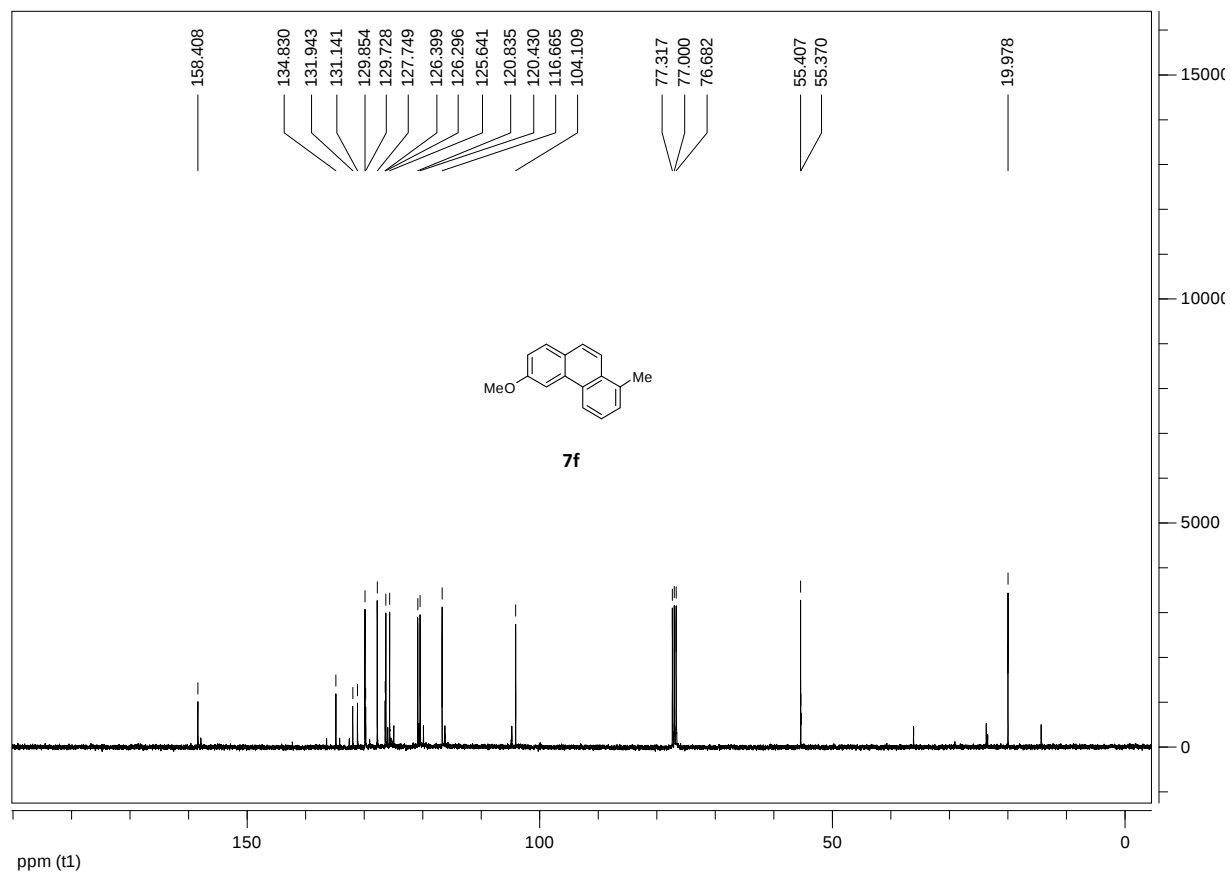
^{13}C -NMR, 100 MHz, CDCl_3



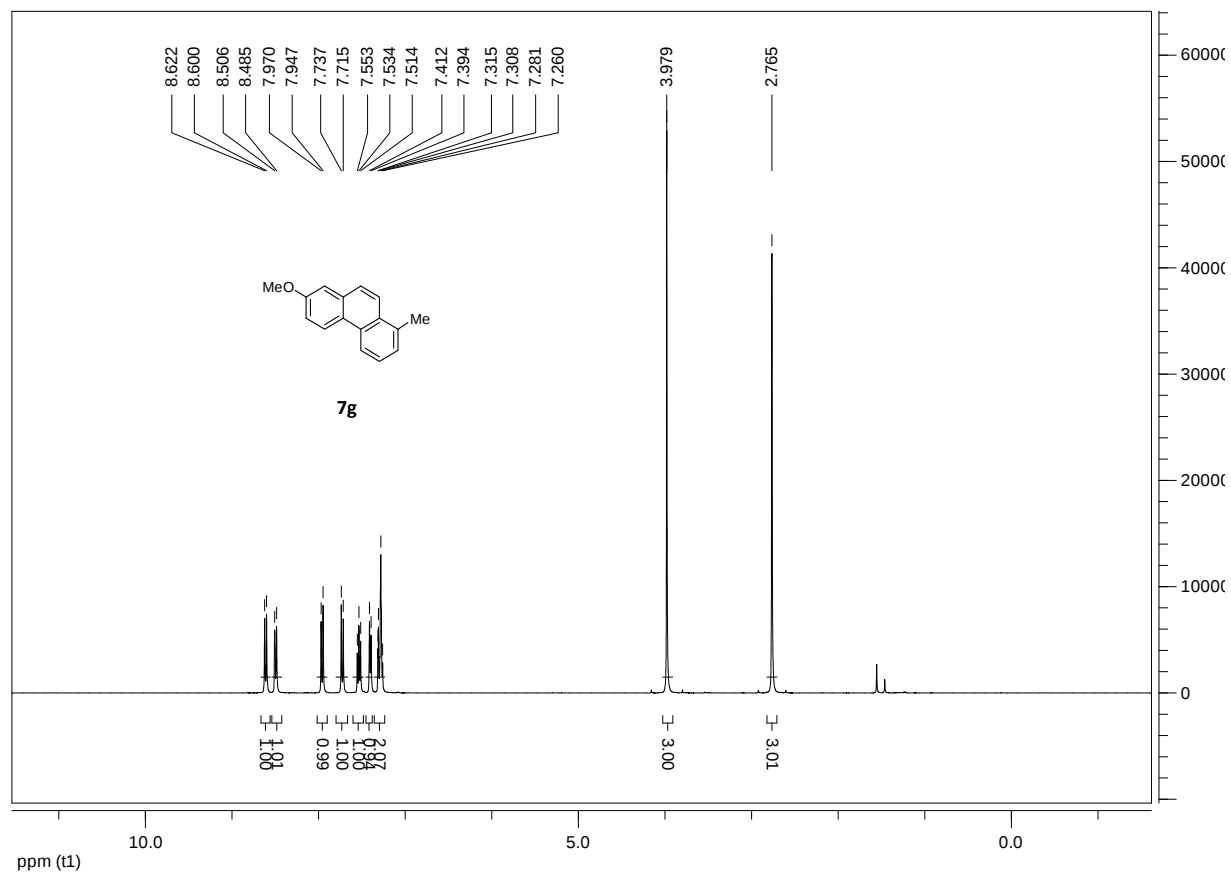
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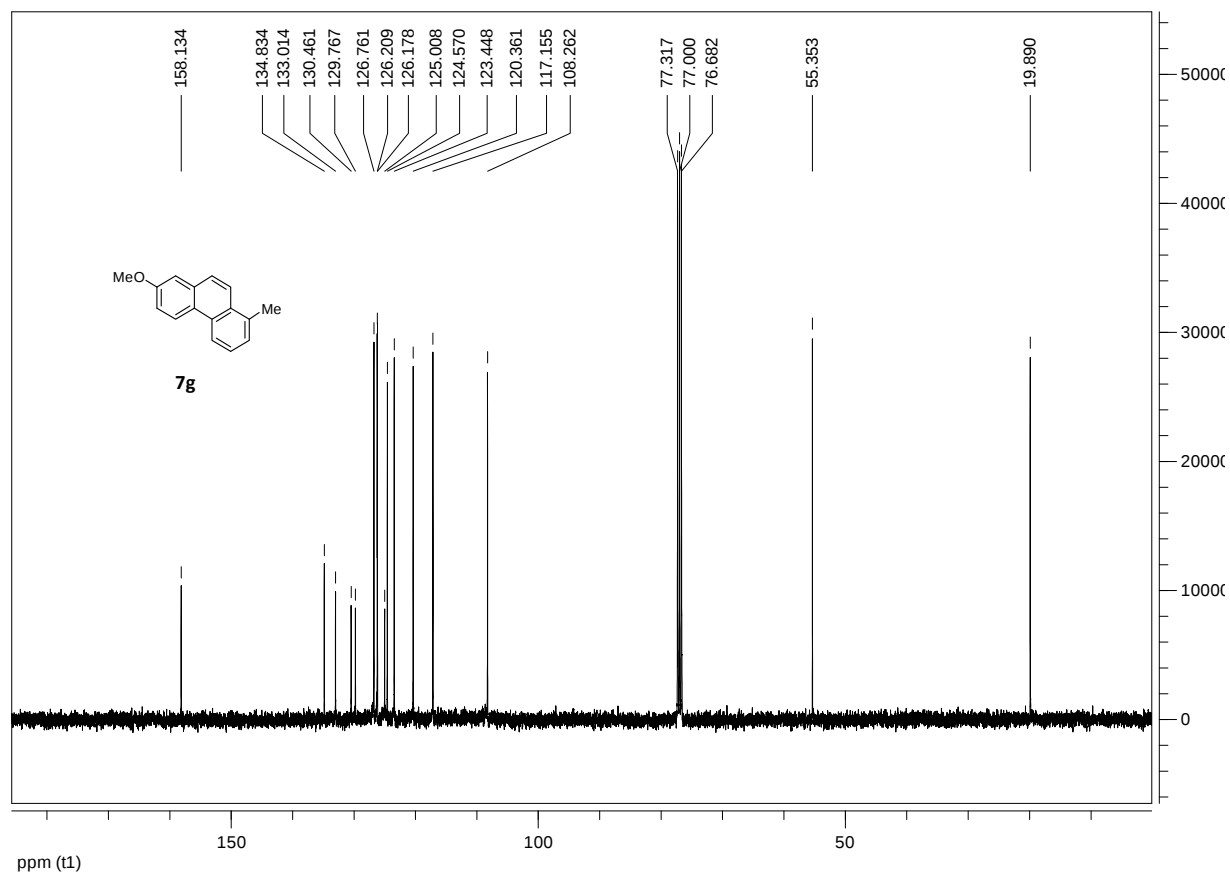
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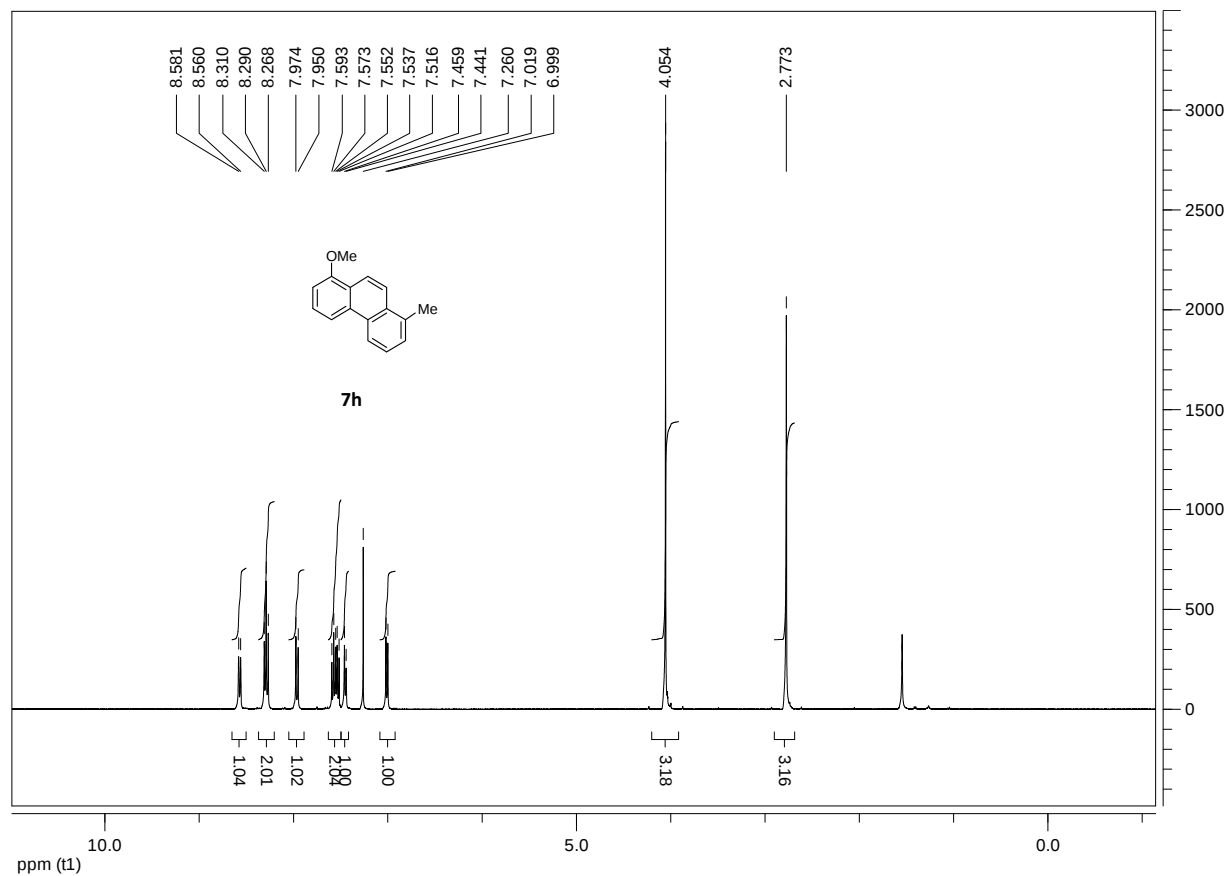
¹H-NMR, 400 MHz, CDCl₃



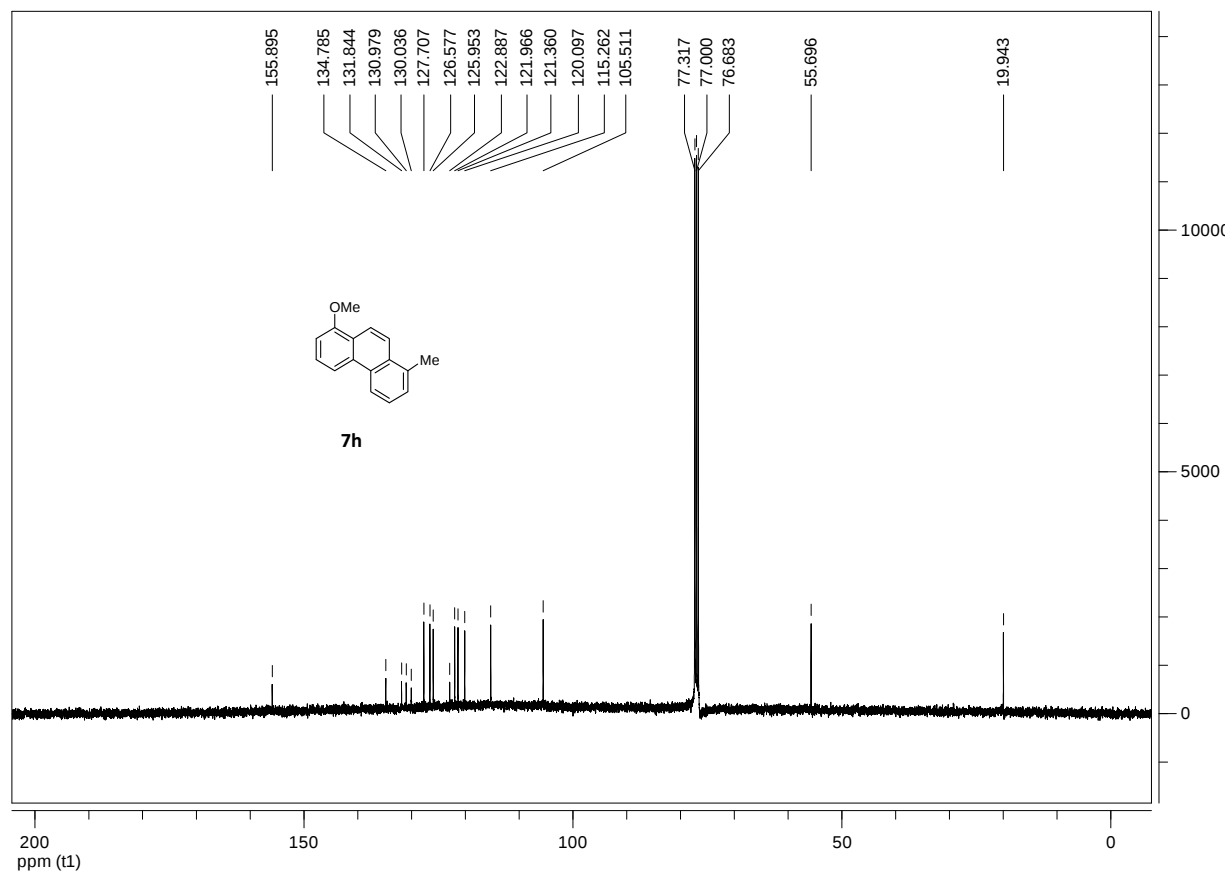
¹³C-NMR, 100 MHz, CDCl₃



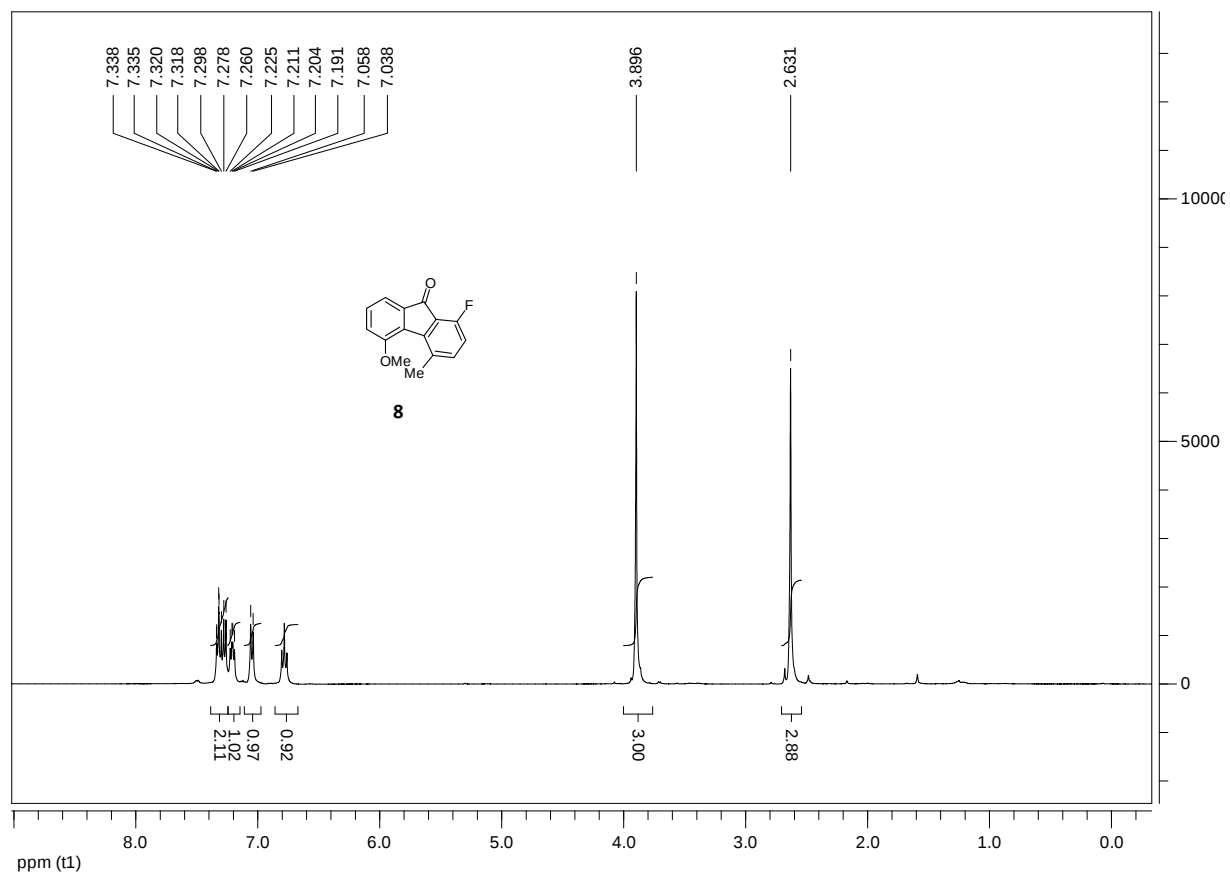
¹H-NMR, 400 MHz, CDCl₃



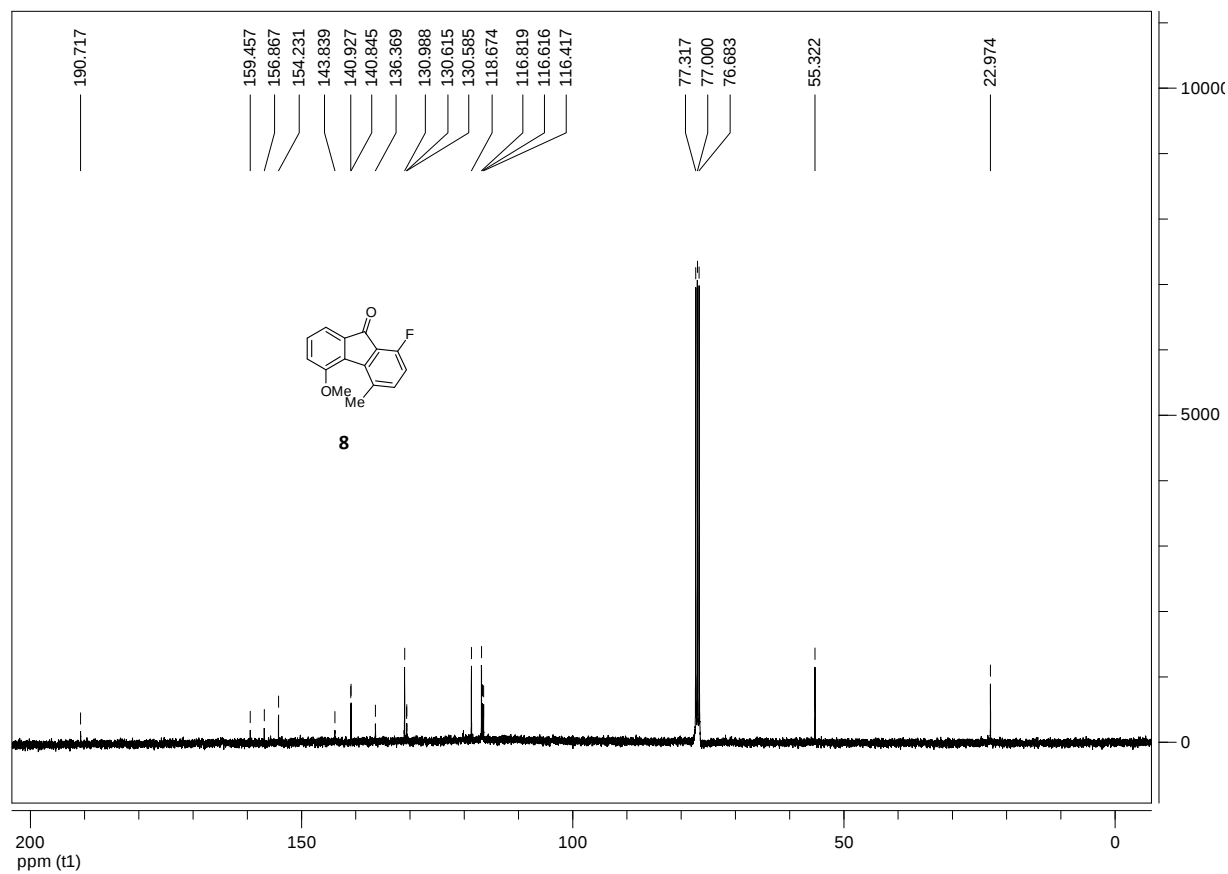
¹³C-NMR, 100 MHz, CDCl₃



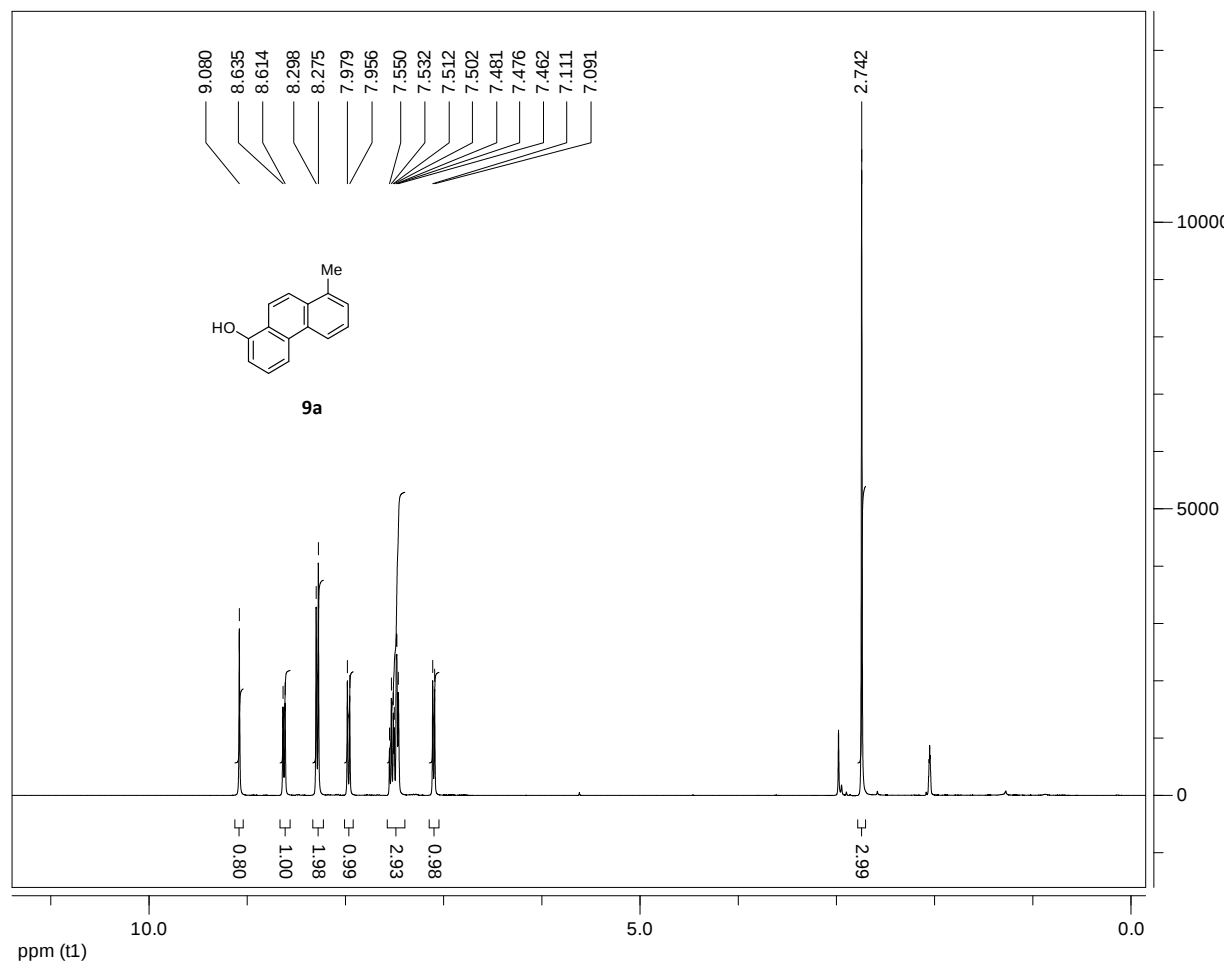
¹H-NMR, 400 MHz, CDCl₃



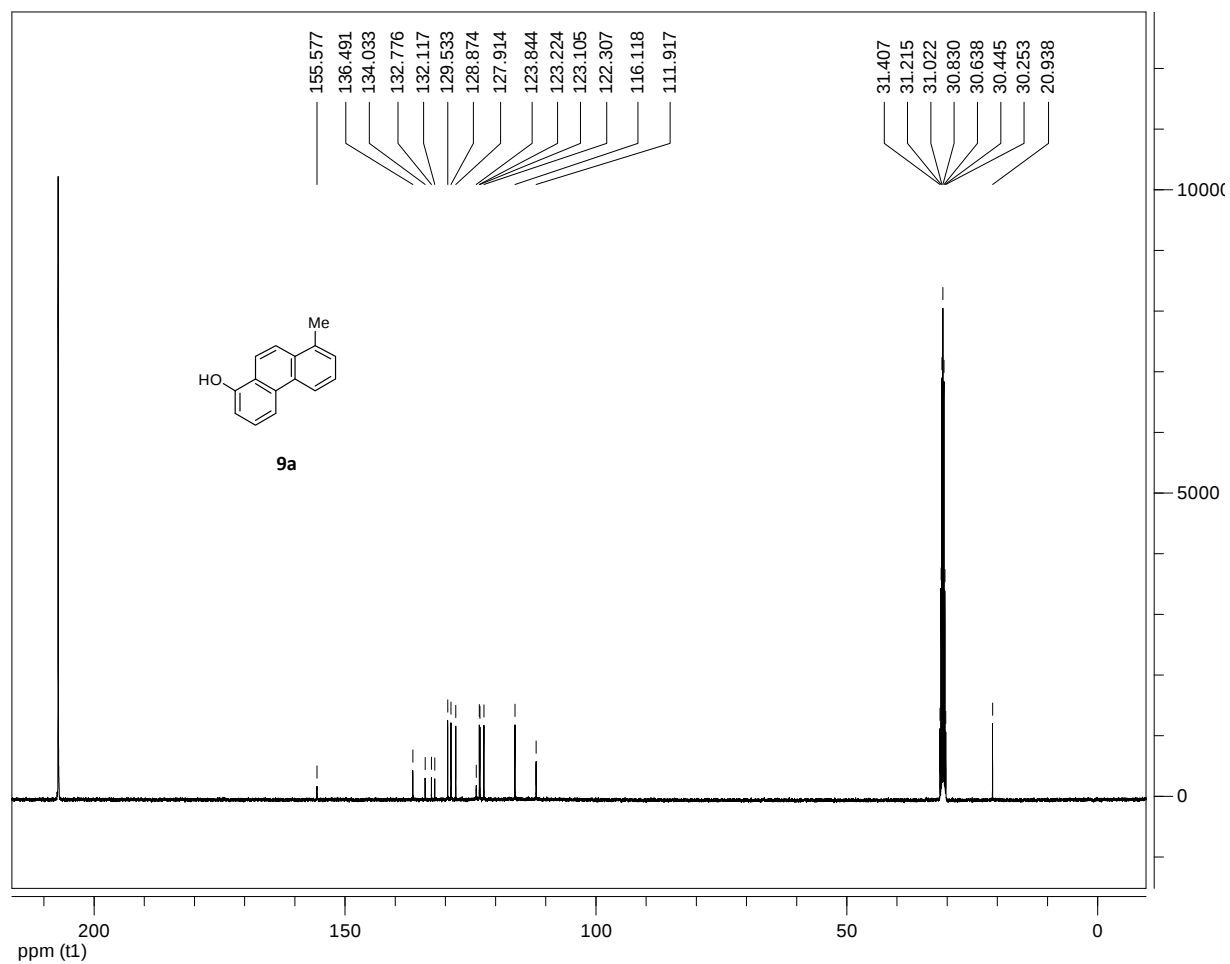
¹³C-NMR, 100 MHz, CDCl₃



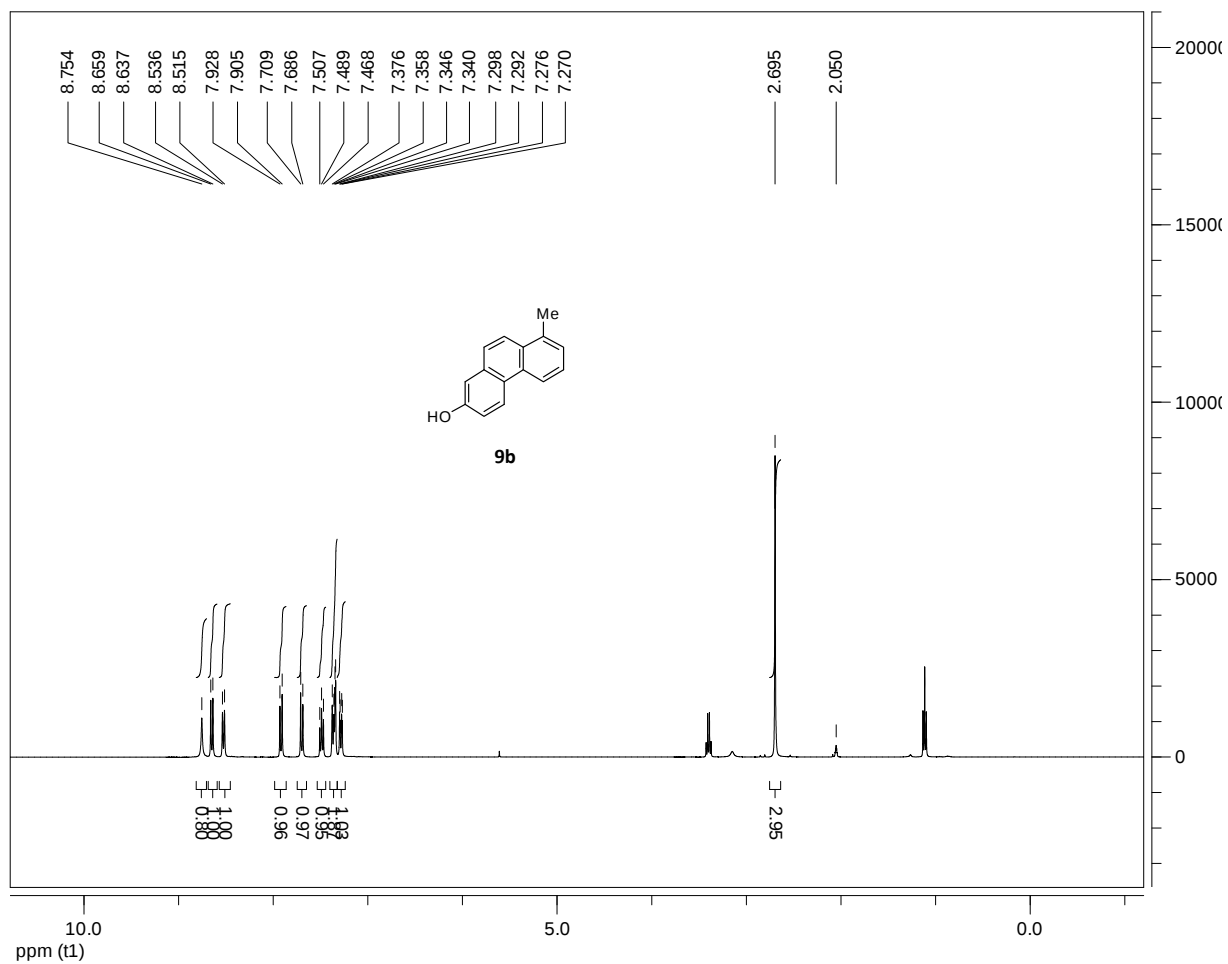
¹H-NMR, 400 MHz, acetone-d₆



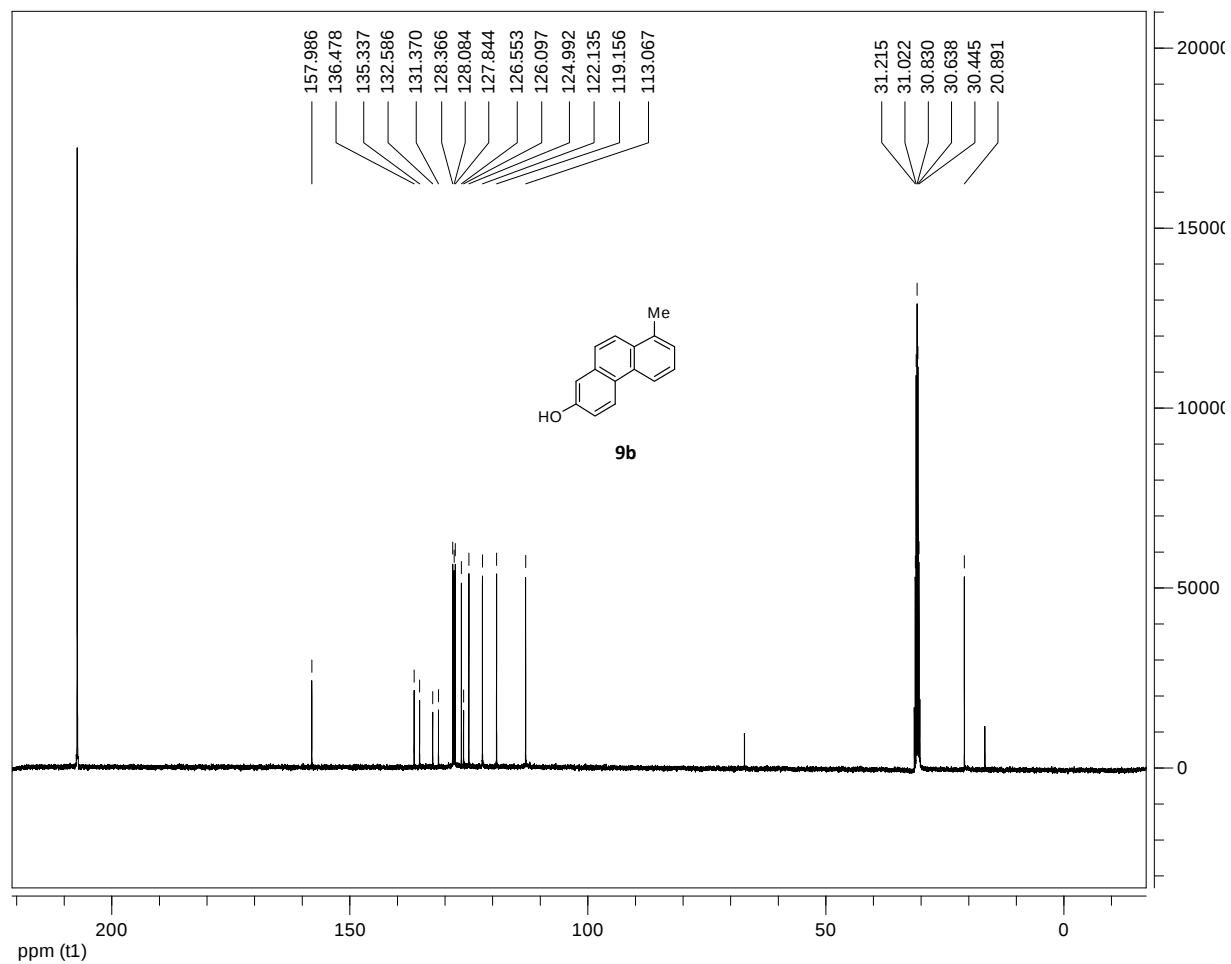
¹³C-NMR, 100 MHz, acetone-d₆



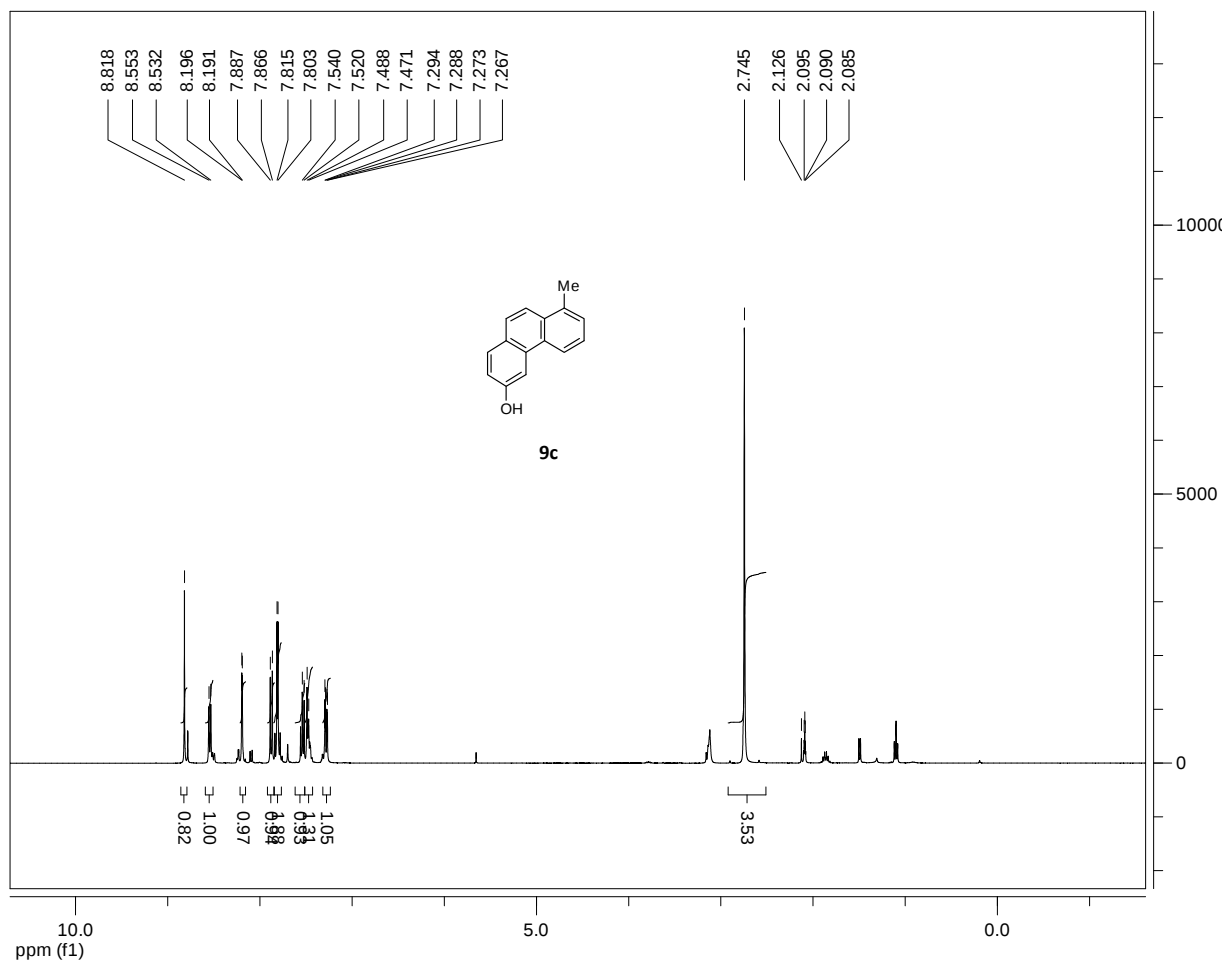
¹H-NMR, 400 MHz, acetone-d₆



¹³C-NMR, 100 MHz, acetone-d₆



¹H-NMR, 400 MHz, acetone-d₆



¹³C-NMR, 100 MHz, acetone-d₆

