

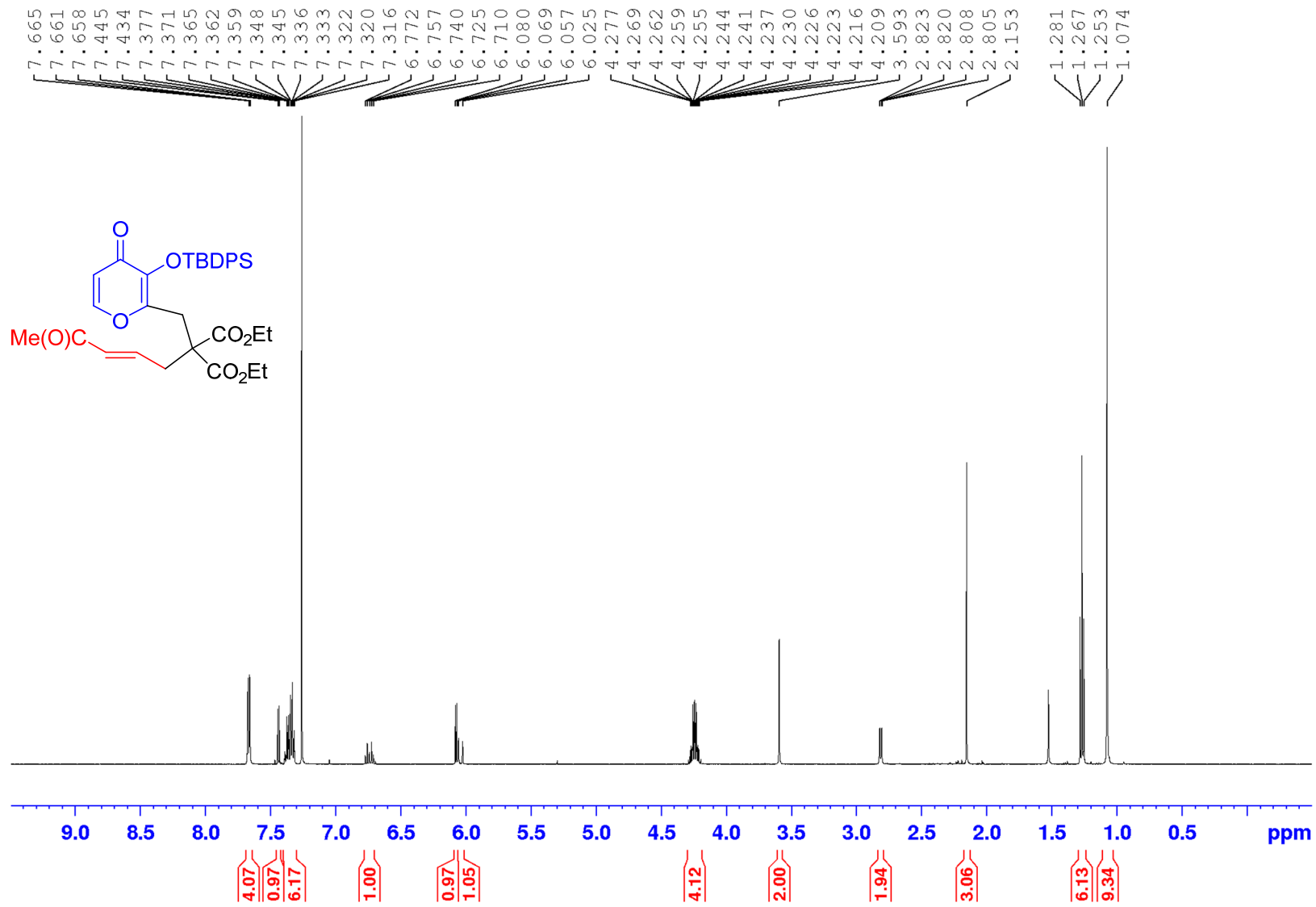
Investigations toward a Unified Reaction Pathway of Thermal and TBSOTf-Mediated Oxidopyrylium-Alkene (5 + 2) Cycloadditions

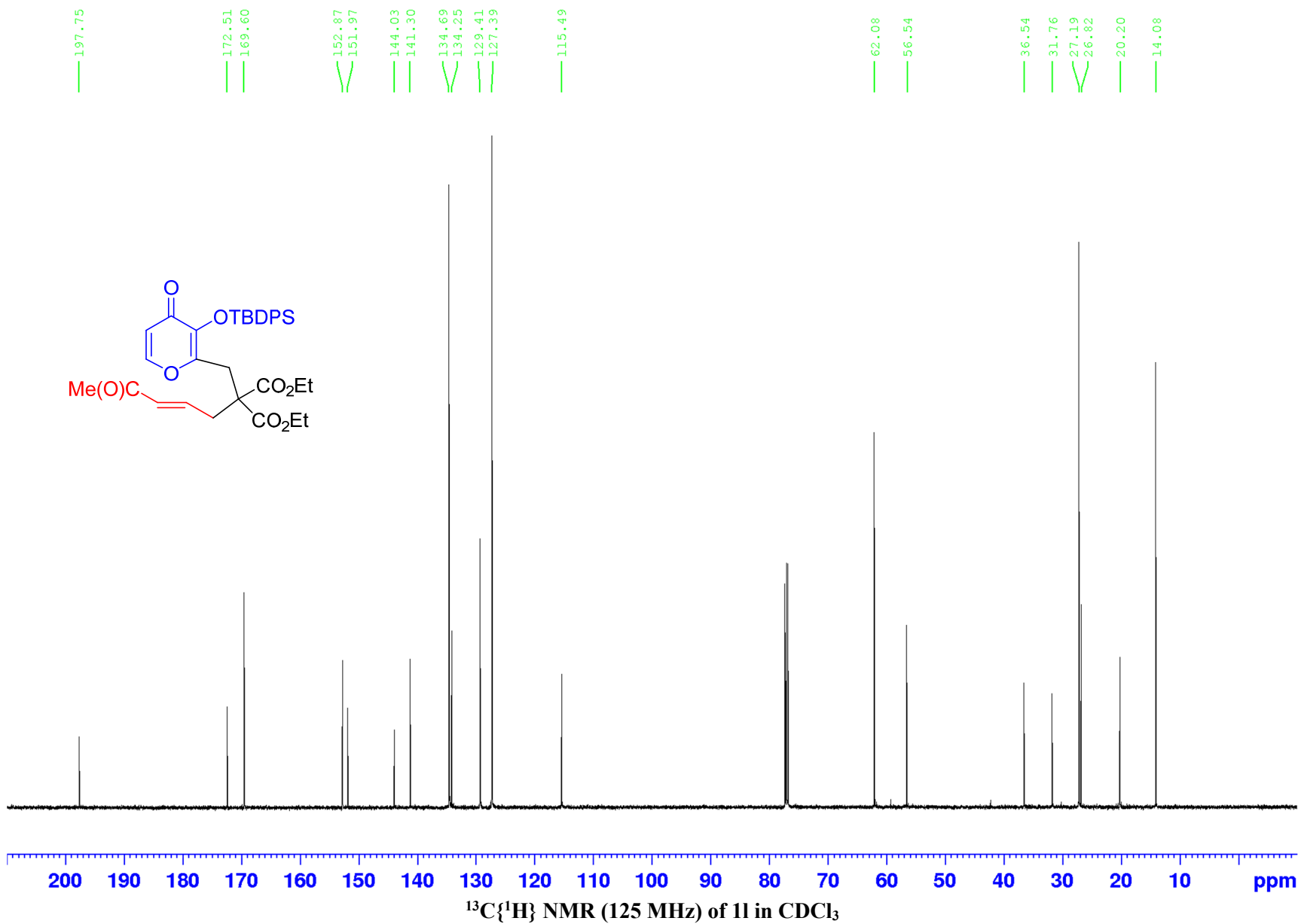
*Adam J. Youman,[†] Samantha N. Rokey,[†] Wentao Guo,[†] Jacob P. Grabowski, Susanna N. Angles, Jacob J. Bulandr, Qing Sun,
John R. Goodell, Dean J. Tantillo,* and T. Andrew Mitchell**

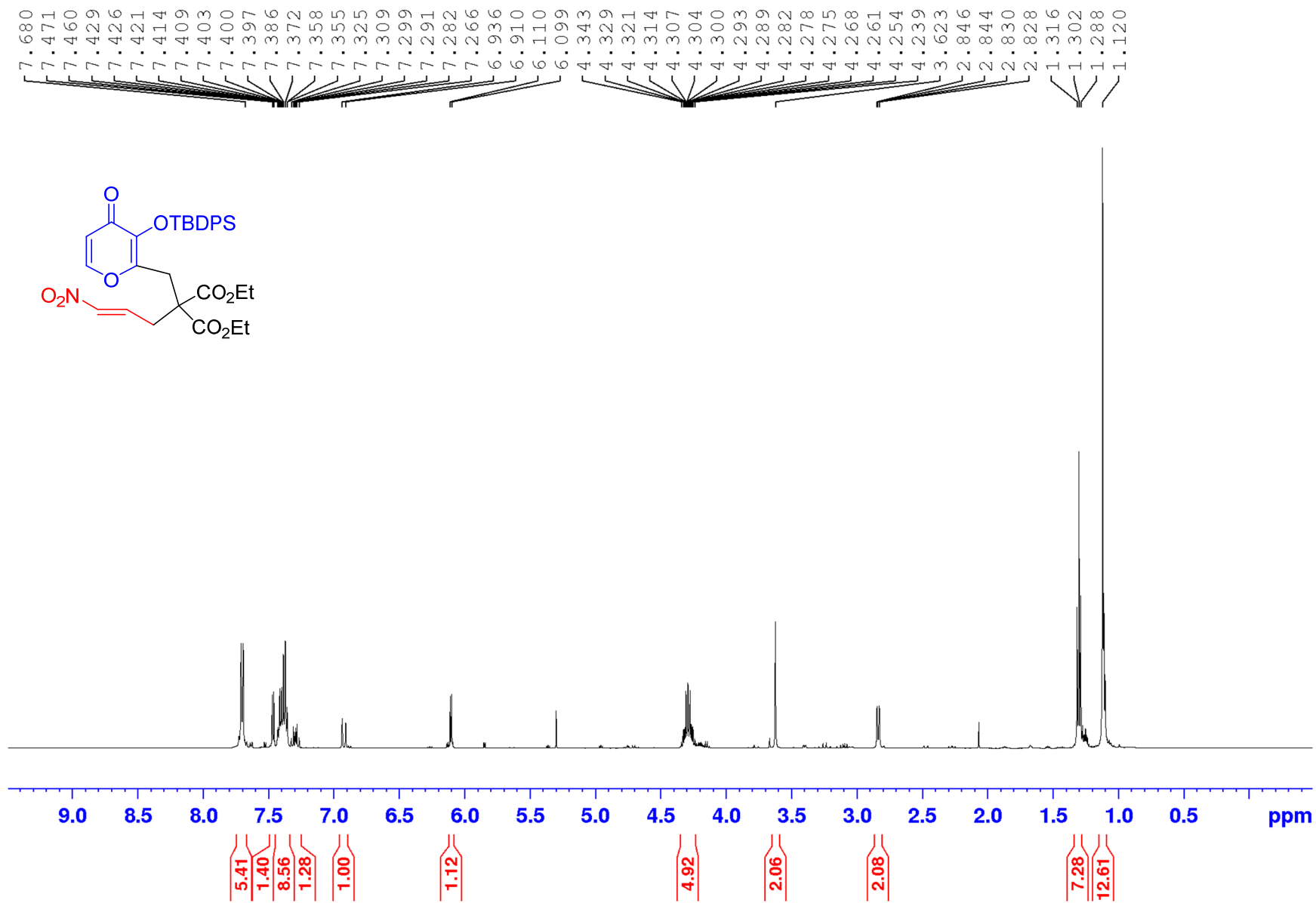
Department of Chemistry, Illinois State University, Campus Box 4160, Normal, IL 61790-4160; mitchell@ilstu.edu

Department of Chemistry, University of California, Davis, 1 Shields Avenue, Davis, CA 95616; djtantillo@ucdavis.edu

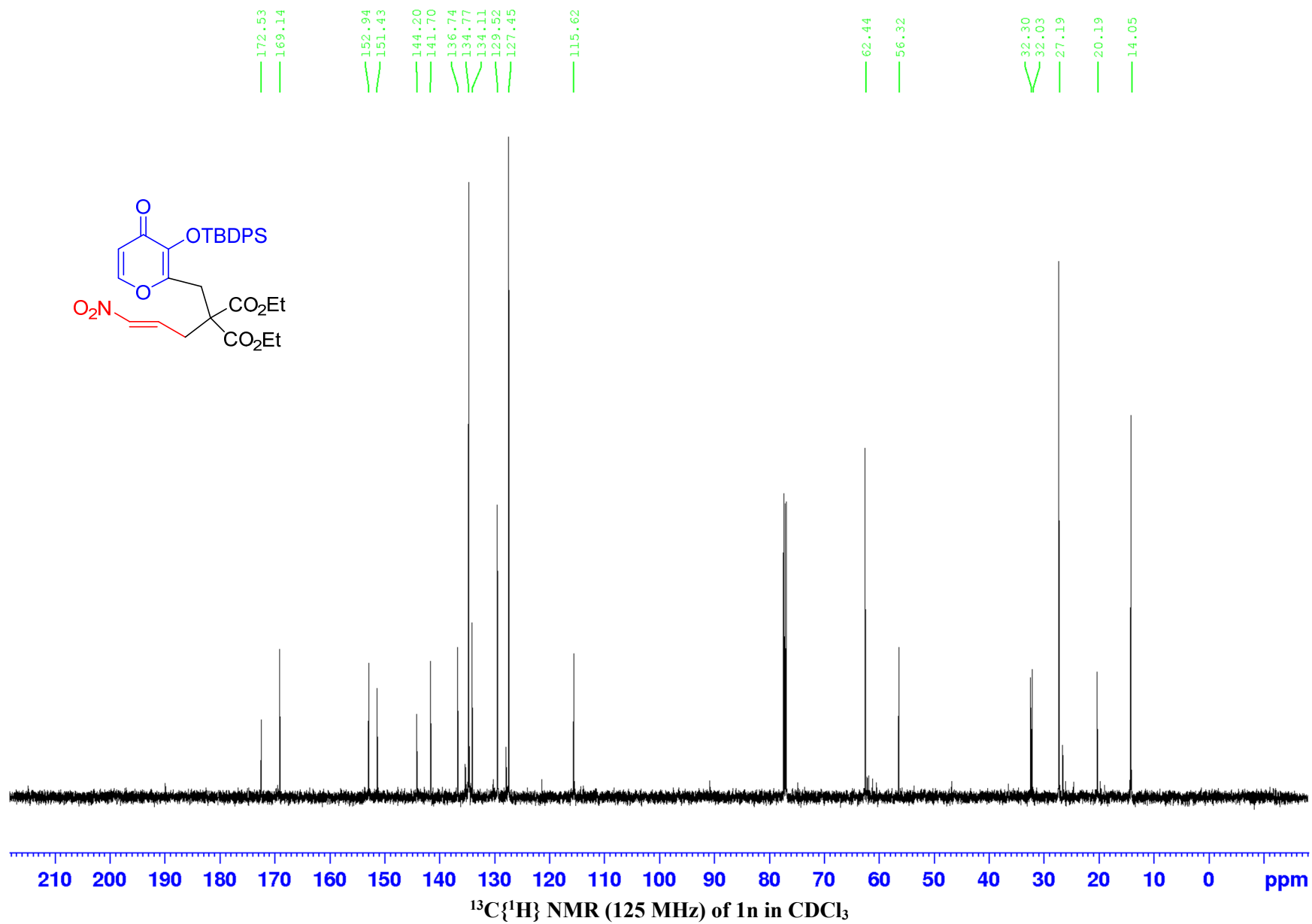
Supporting Information – Spectra

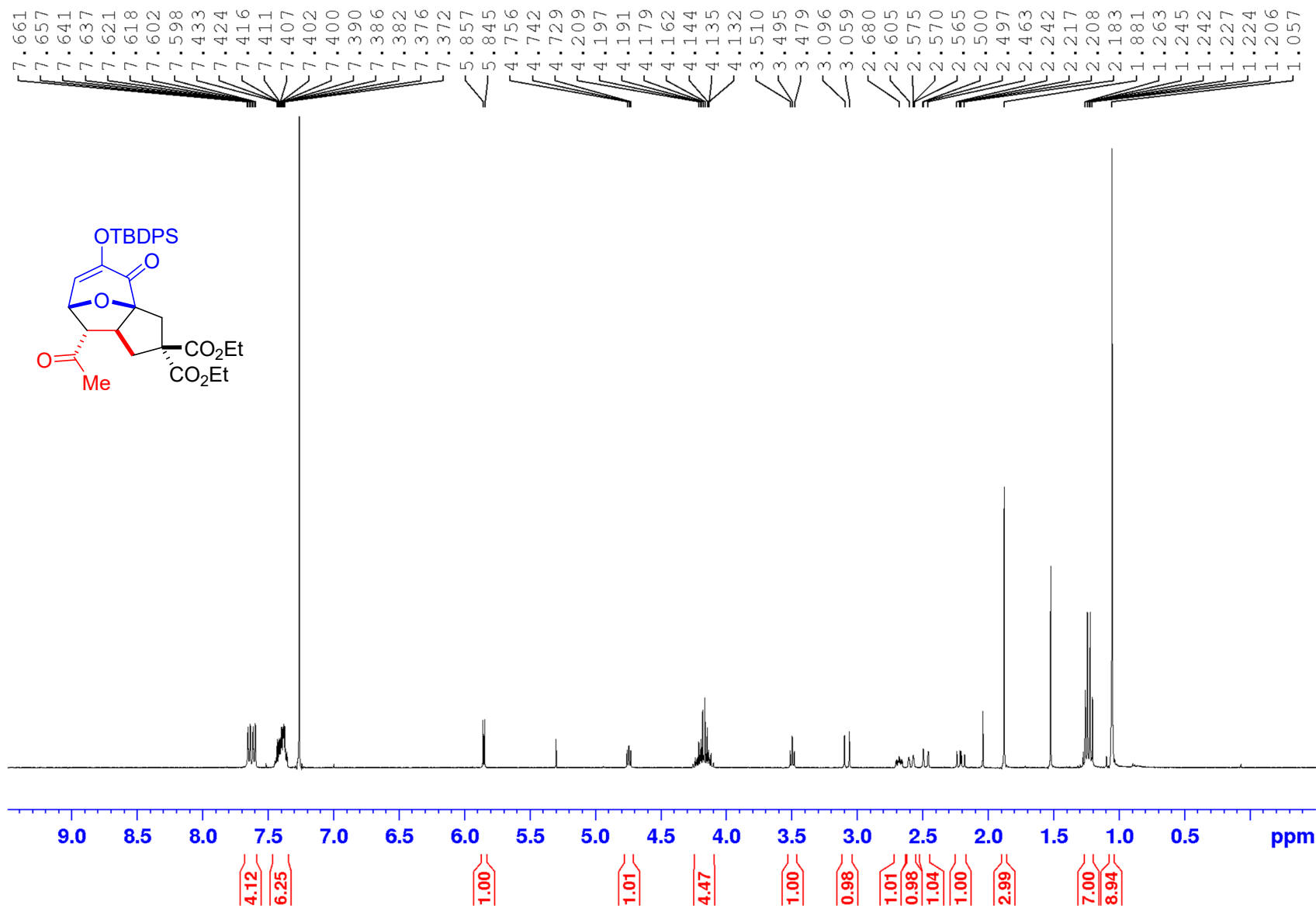




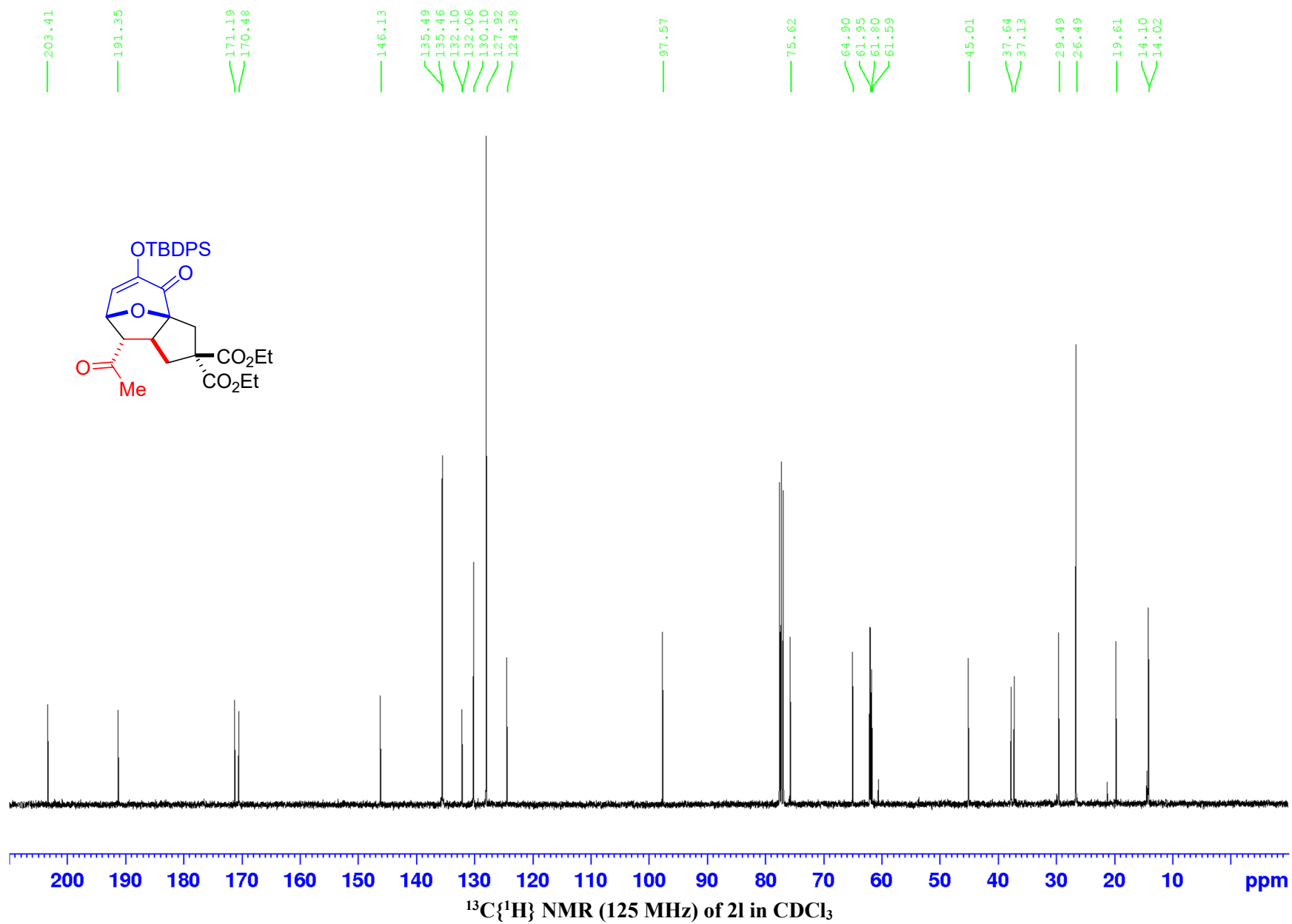


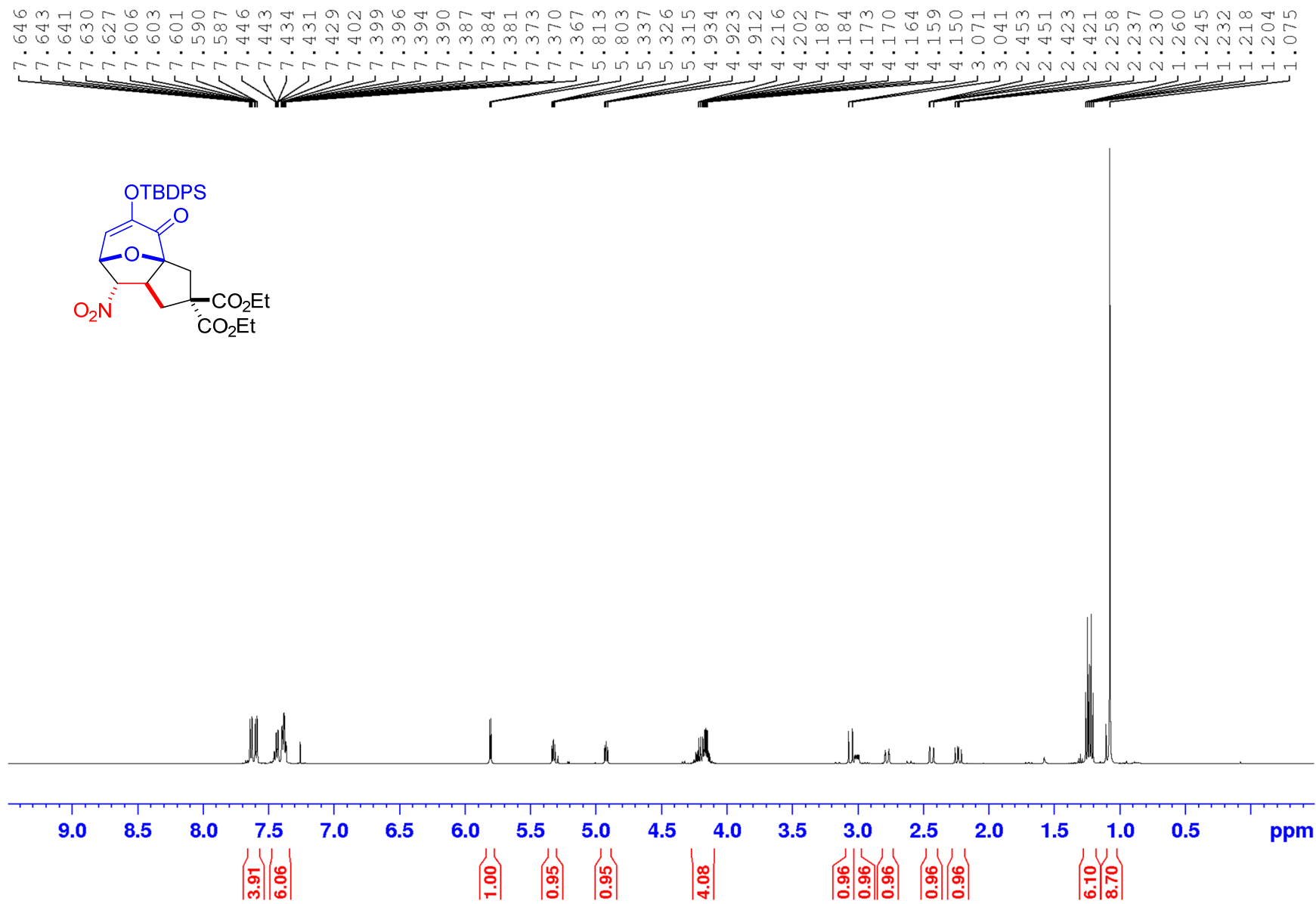
¹H NMR (500 MHz) of 1n in CDCl₃



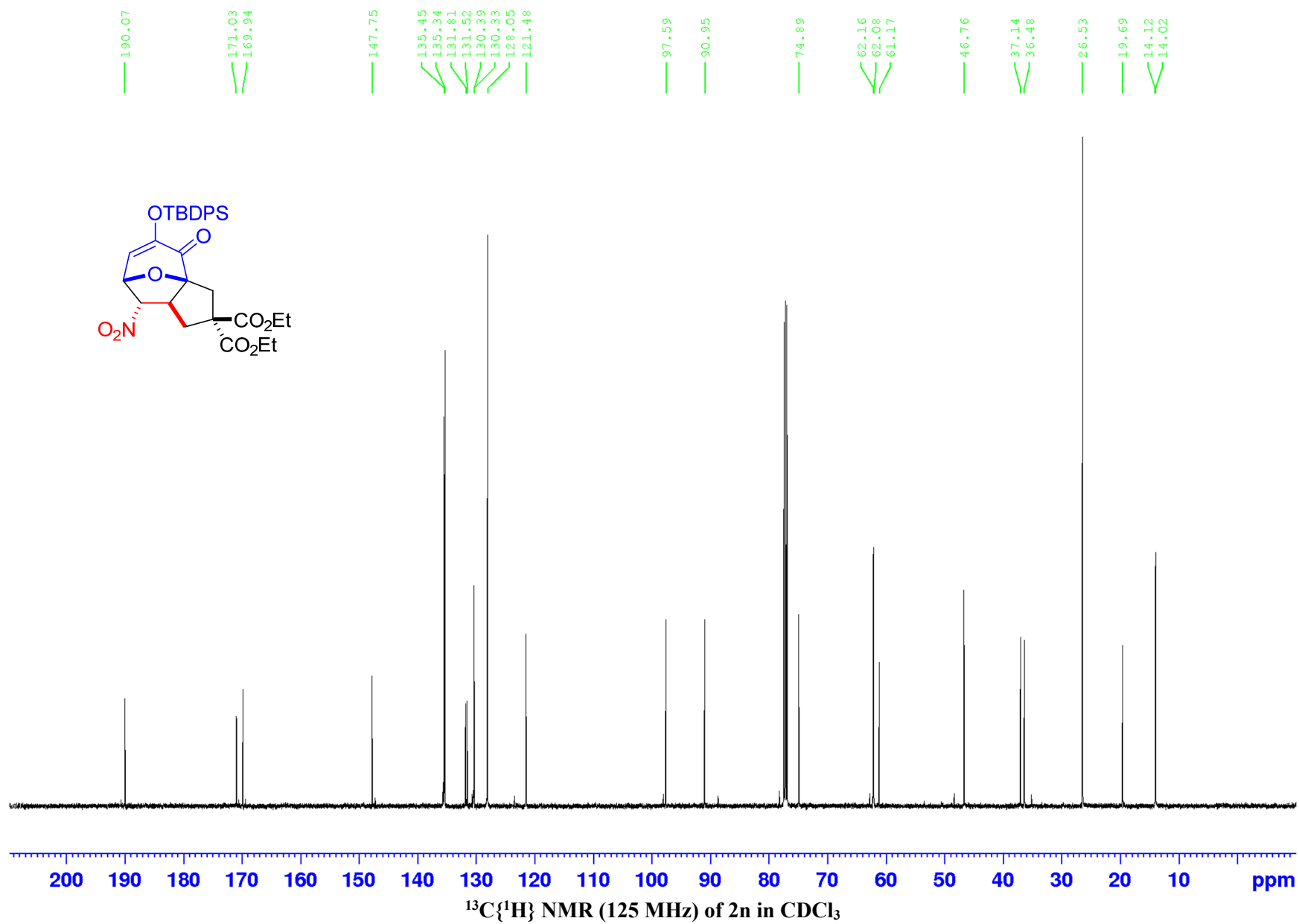


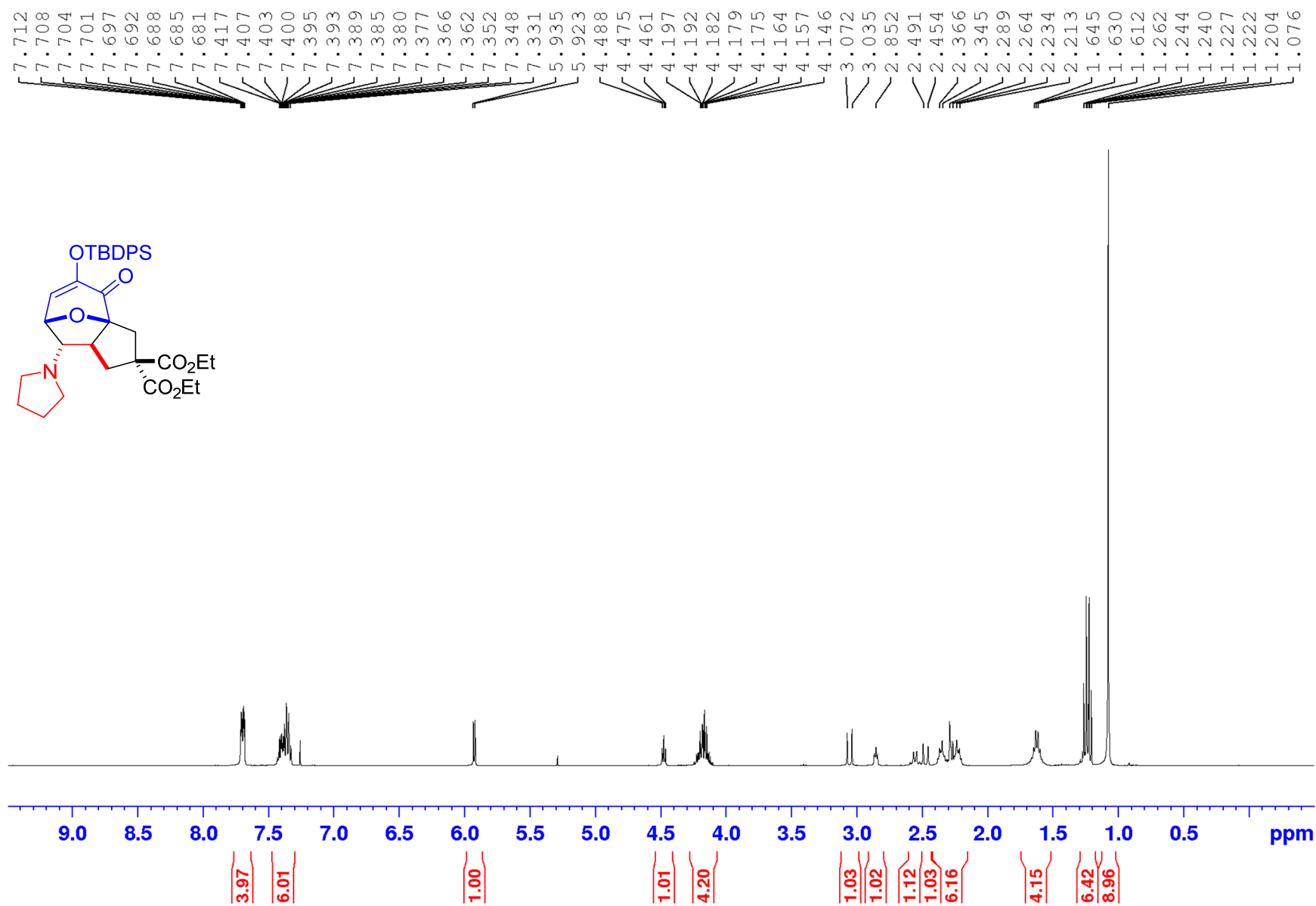
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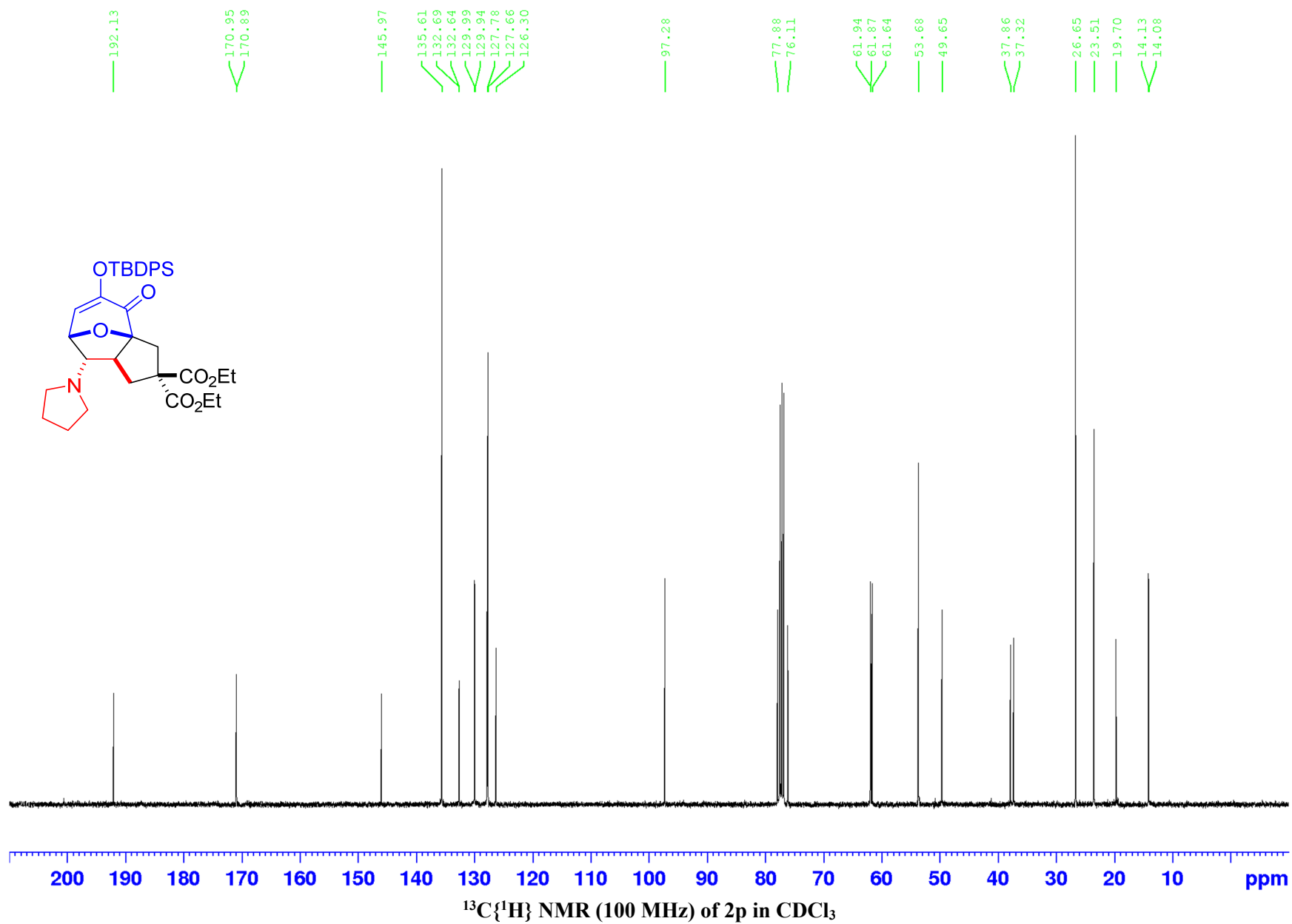


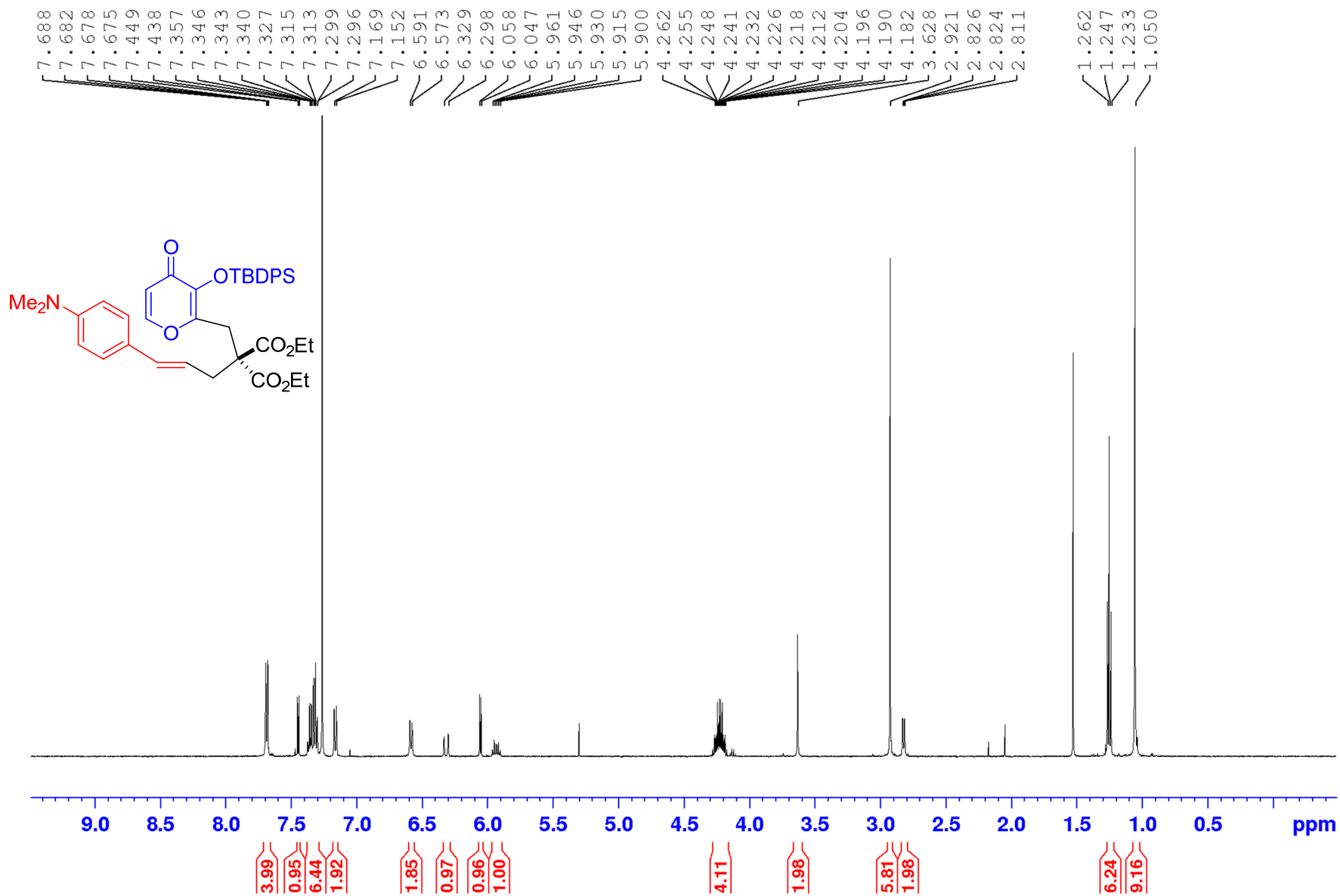
¹H NMR (500 MHz) of 2n in CDCl₃



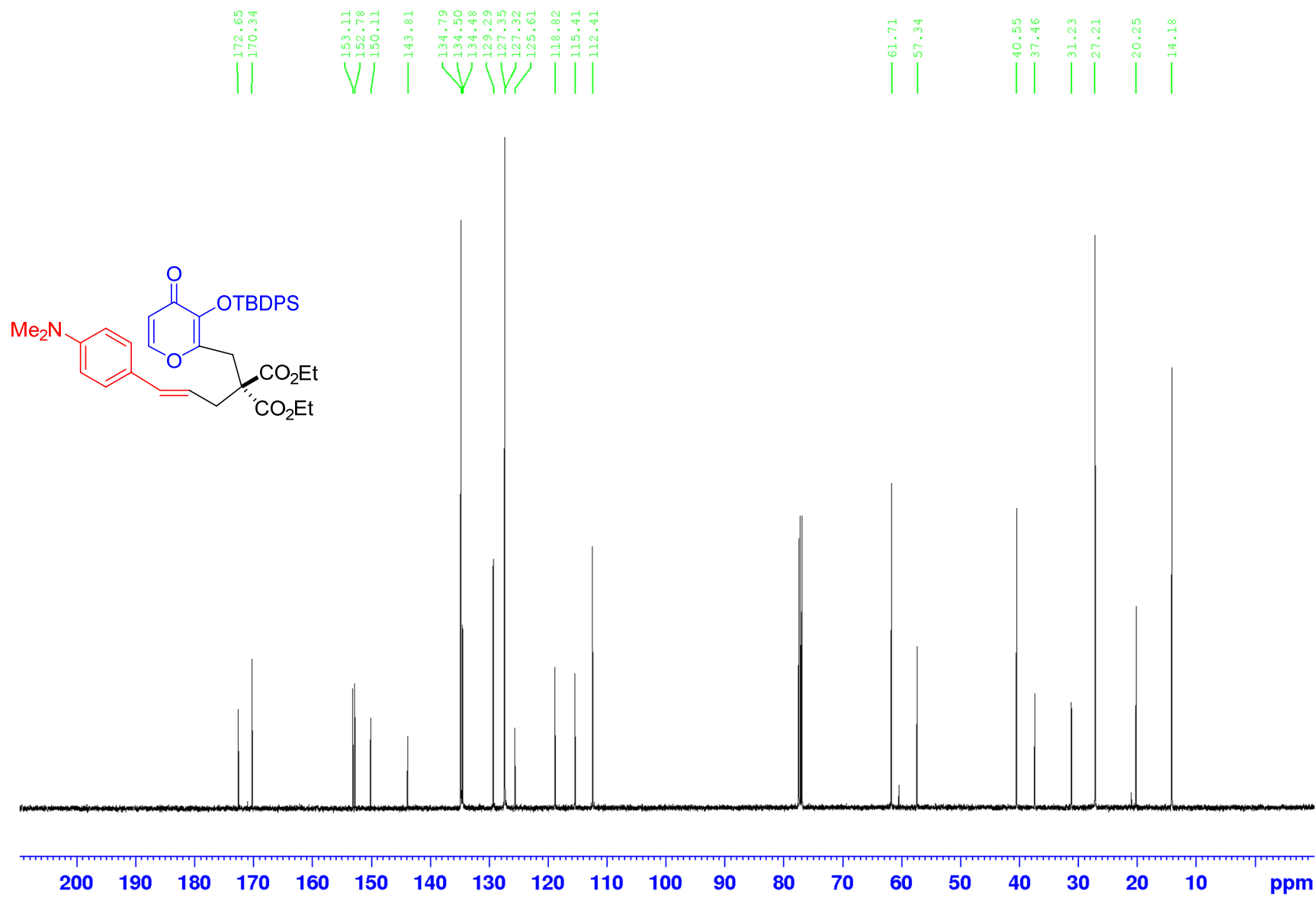


¹H NMR (400 MHz) of 2p in CDCl₃

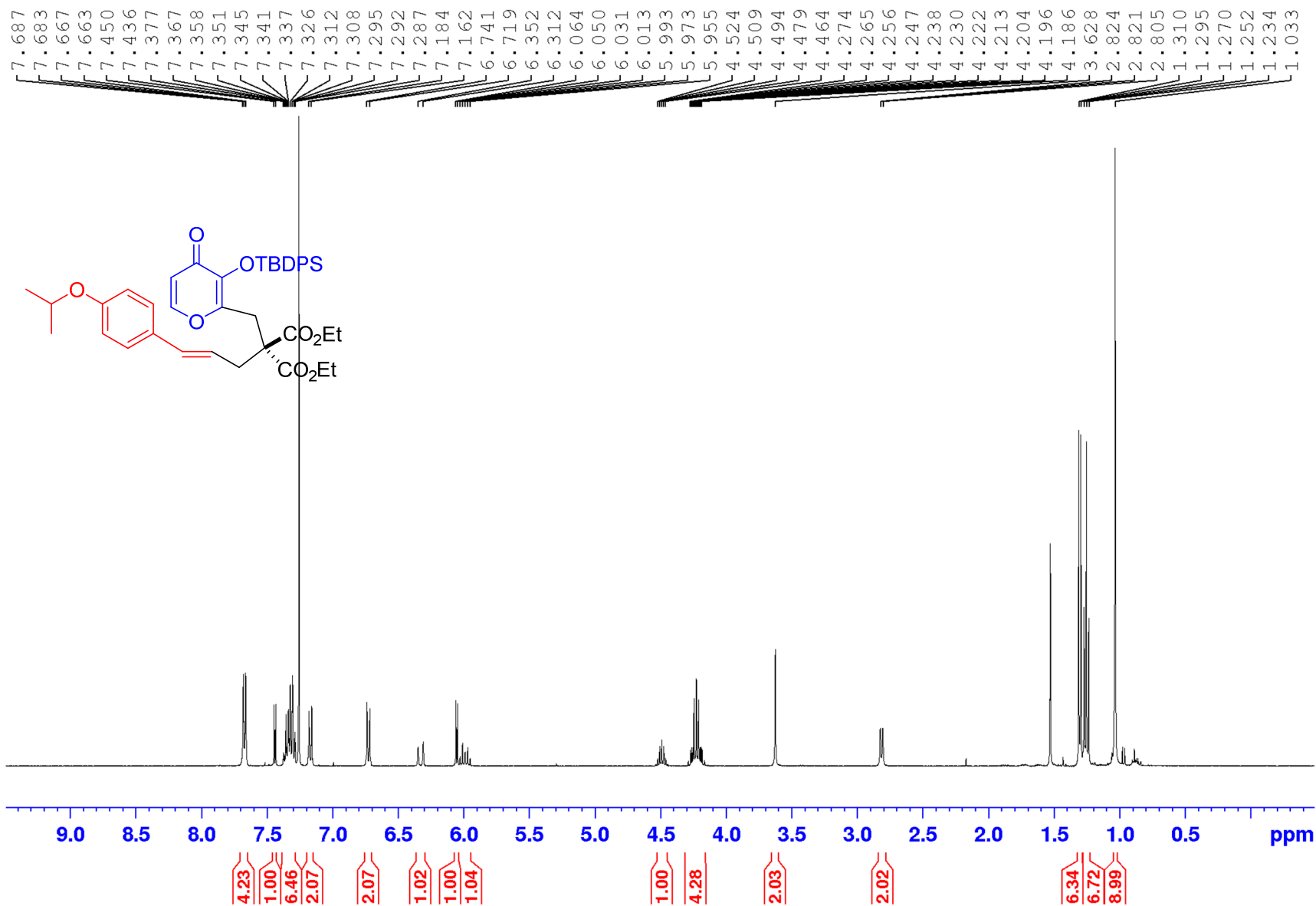




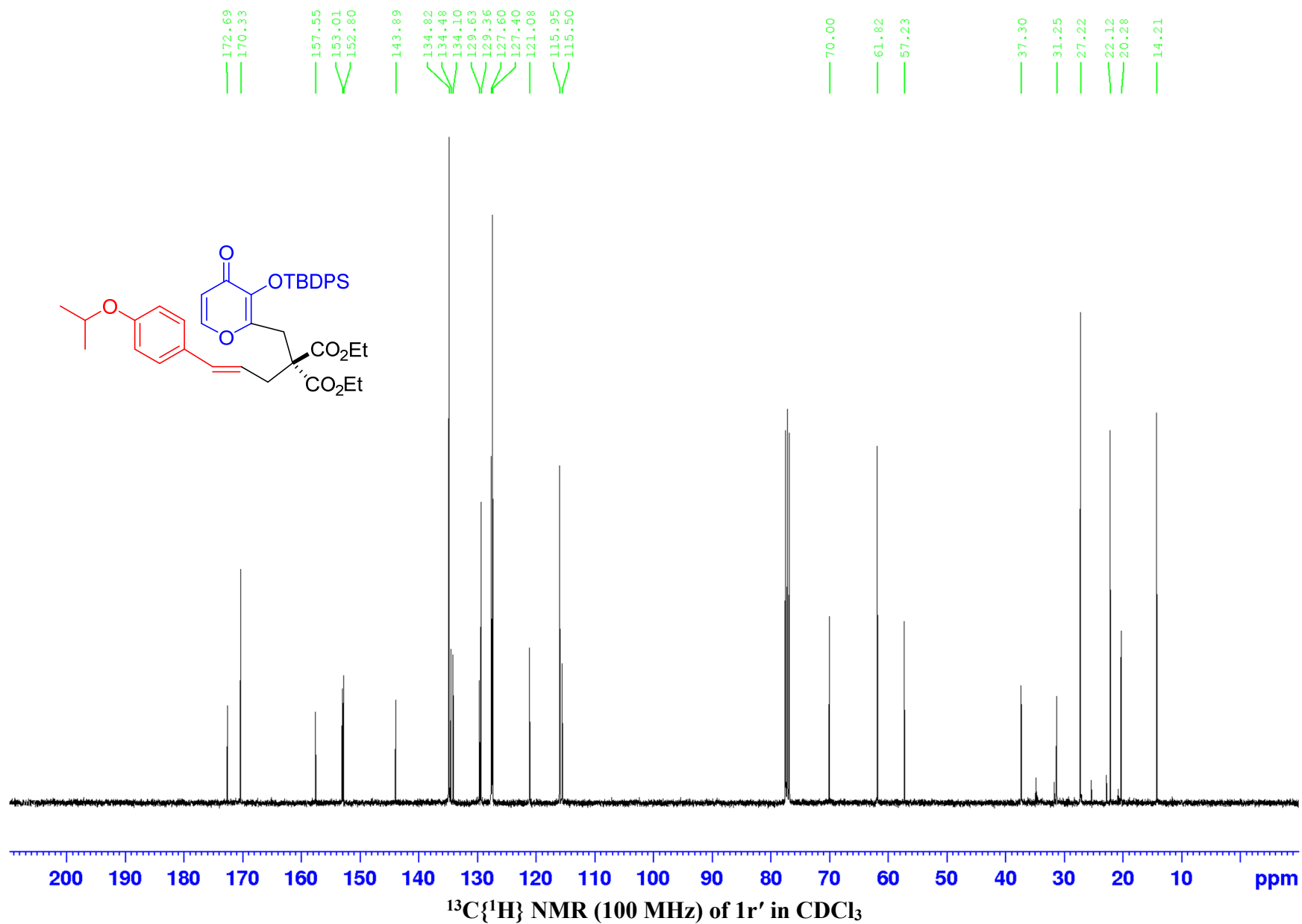
¹H NMR (500 MHz) of 1q' in CDCl₃

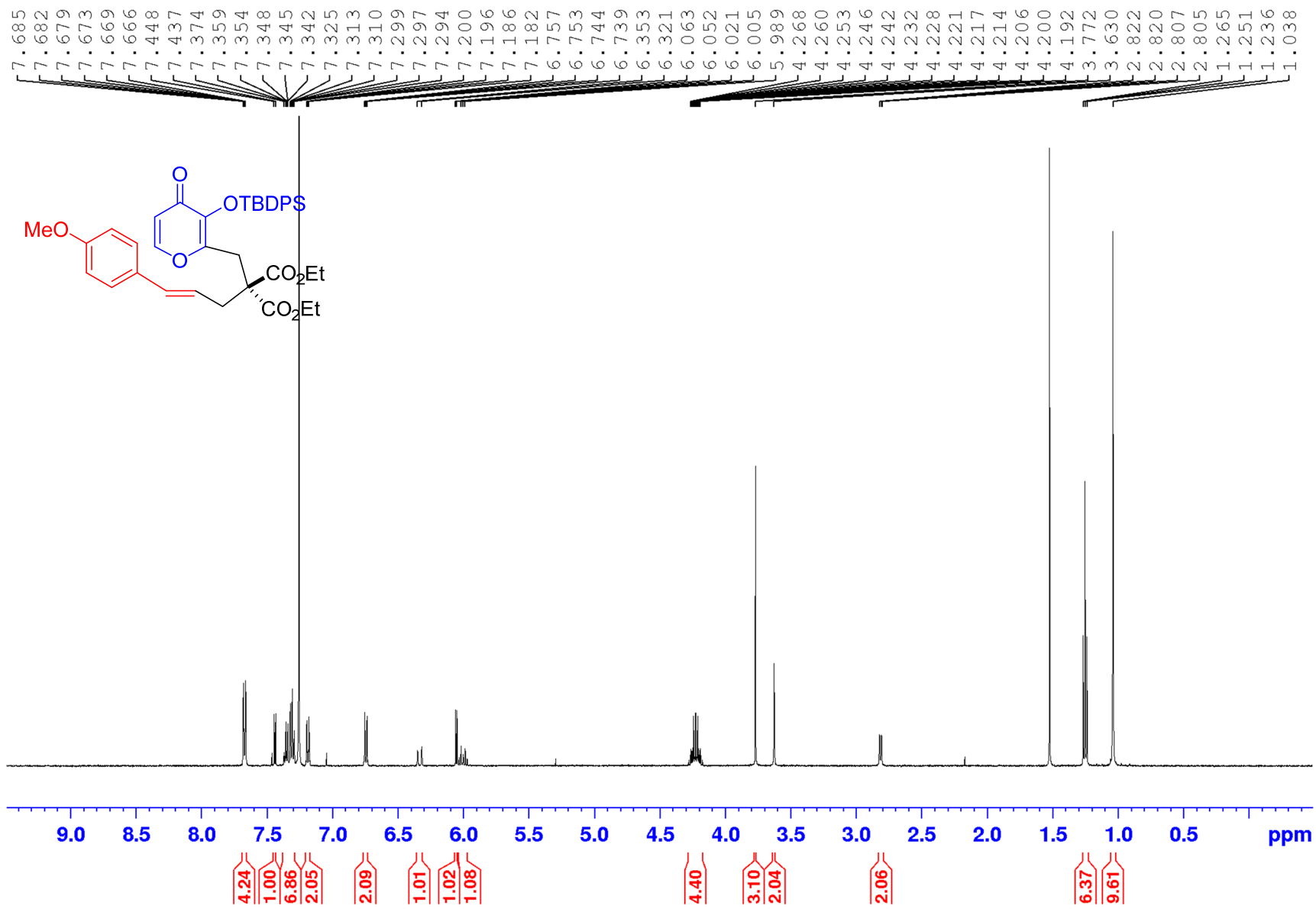


¹³C{¹H} NMR (125 MHz) of 1q' in CDCl₃

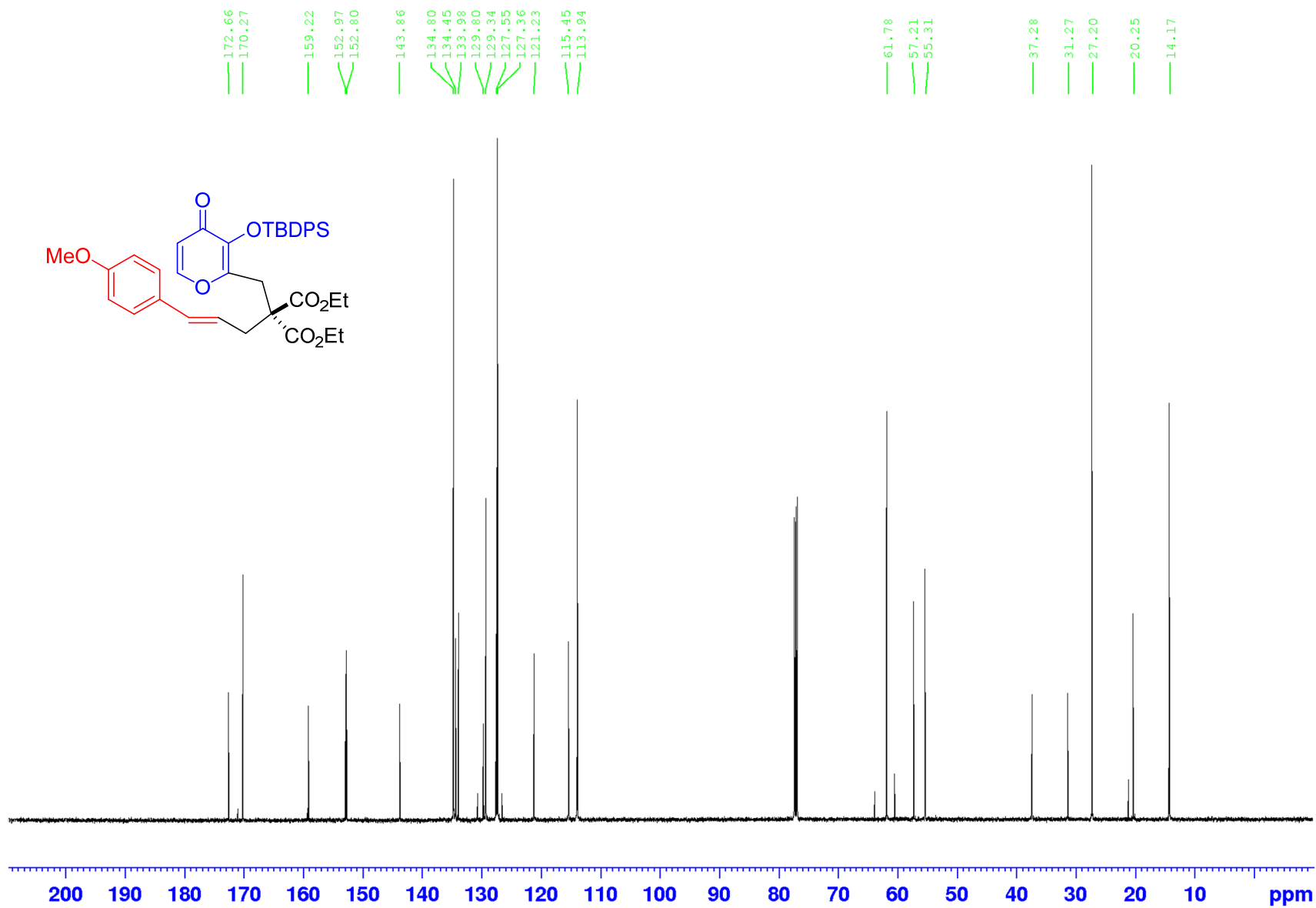


¹H NMR (400 MHz) of 1r' in CDCl₃

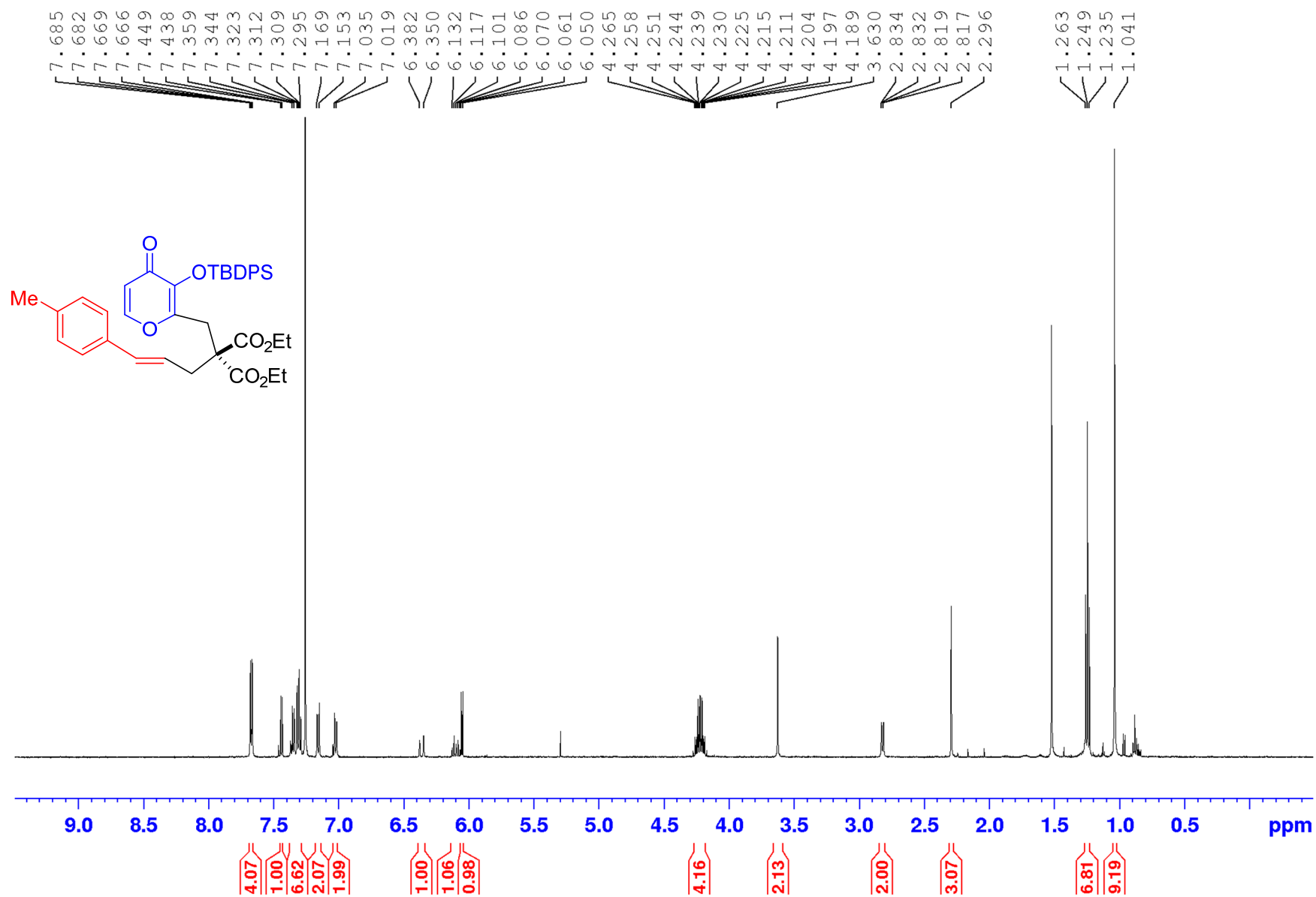




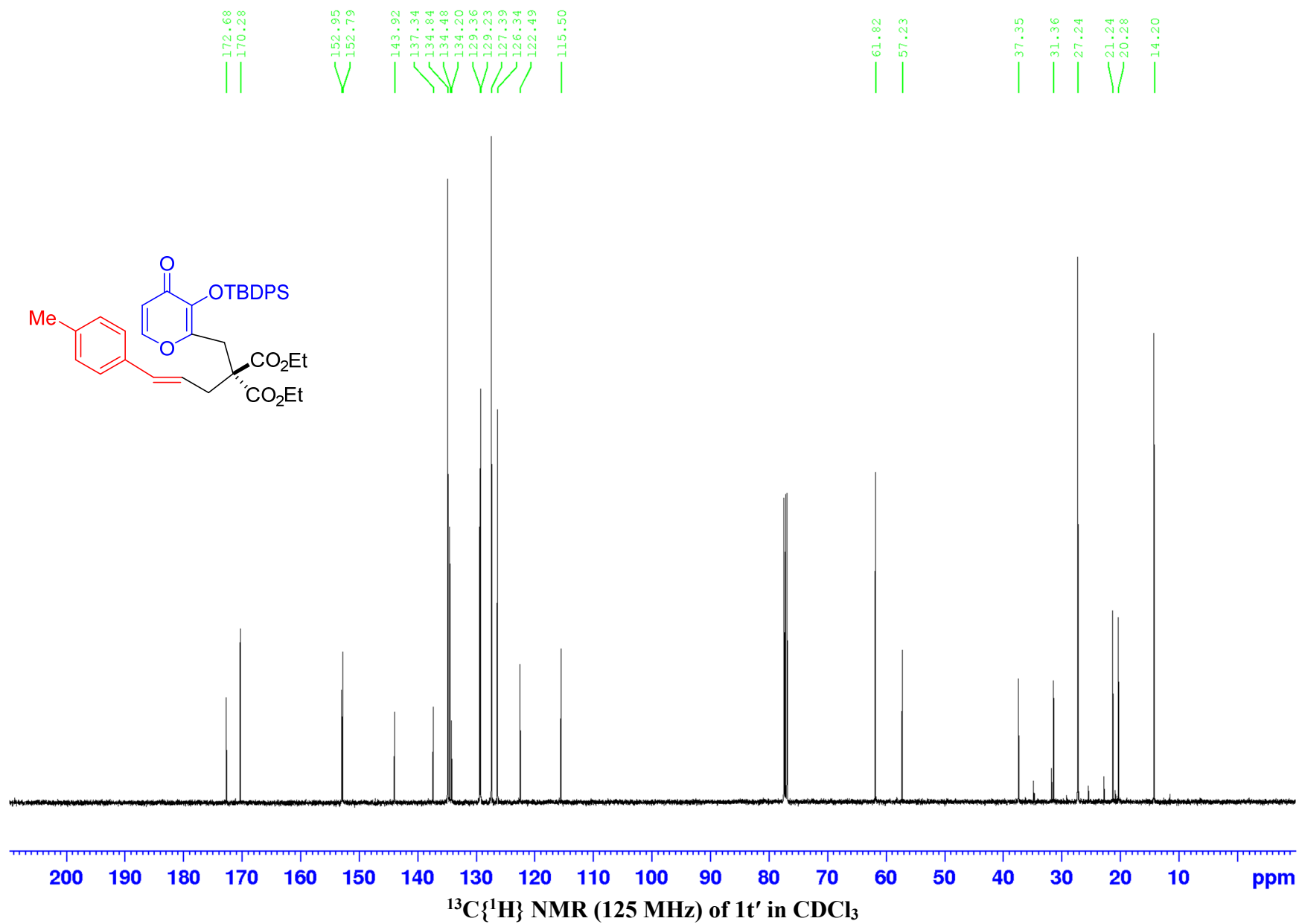
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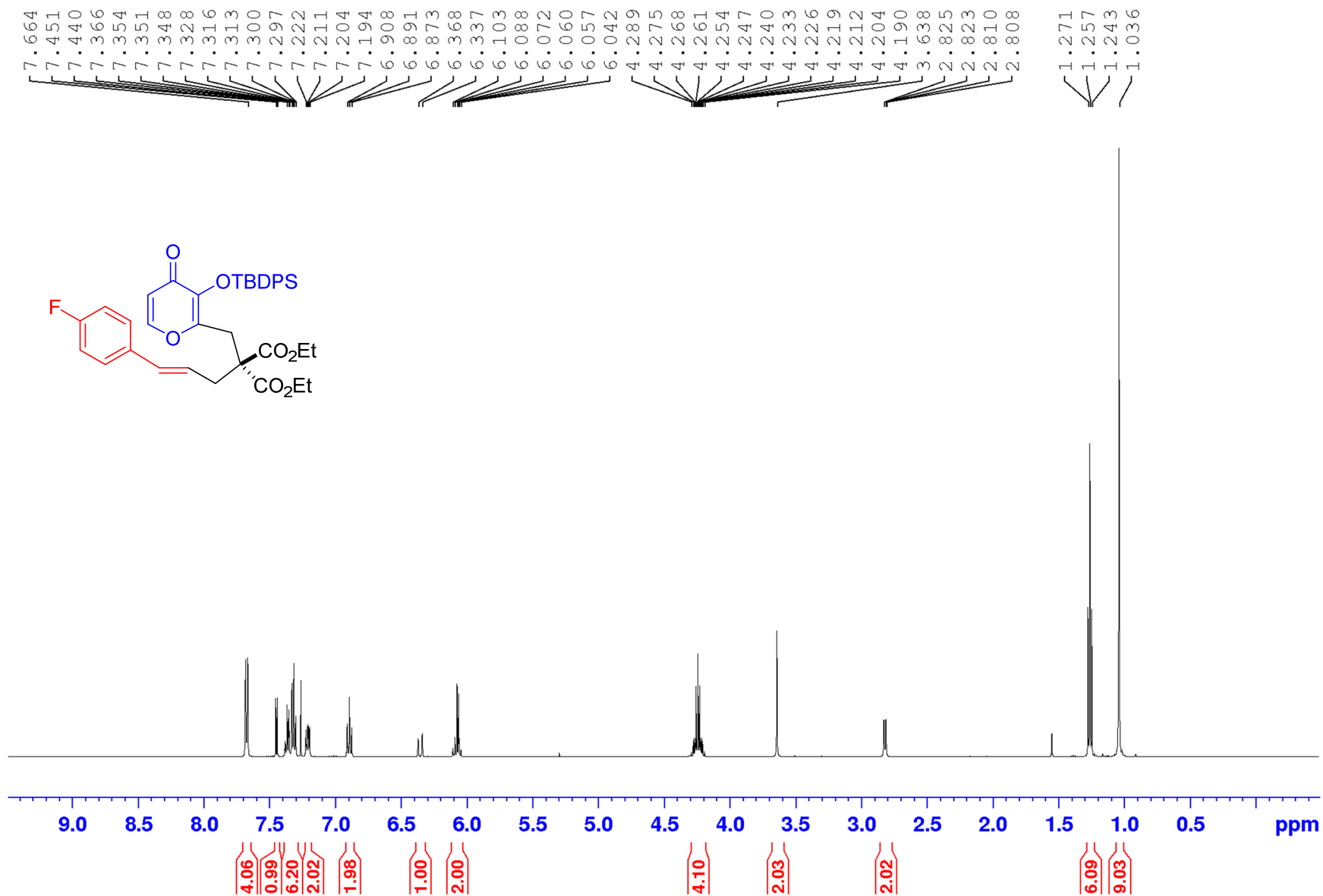


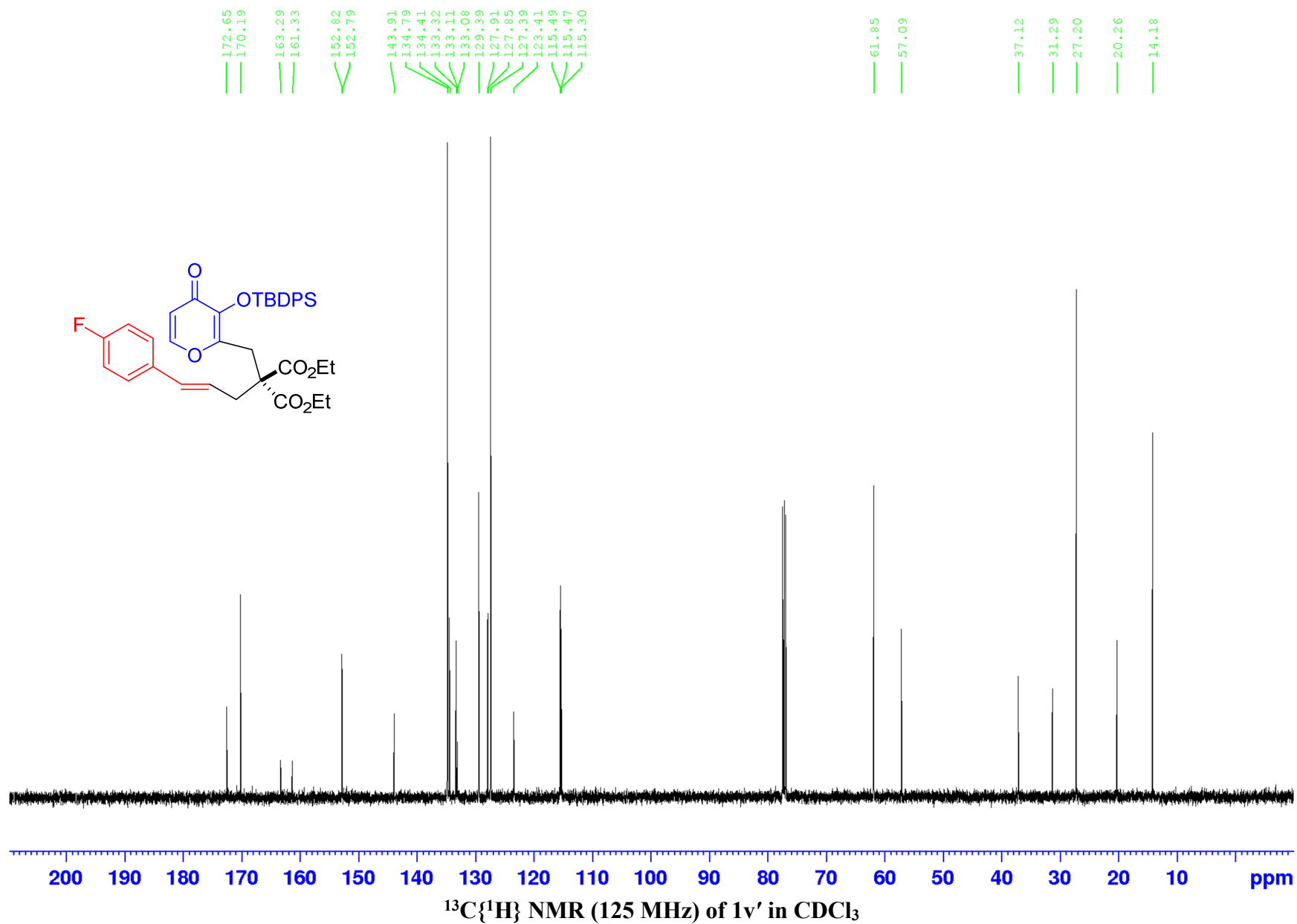
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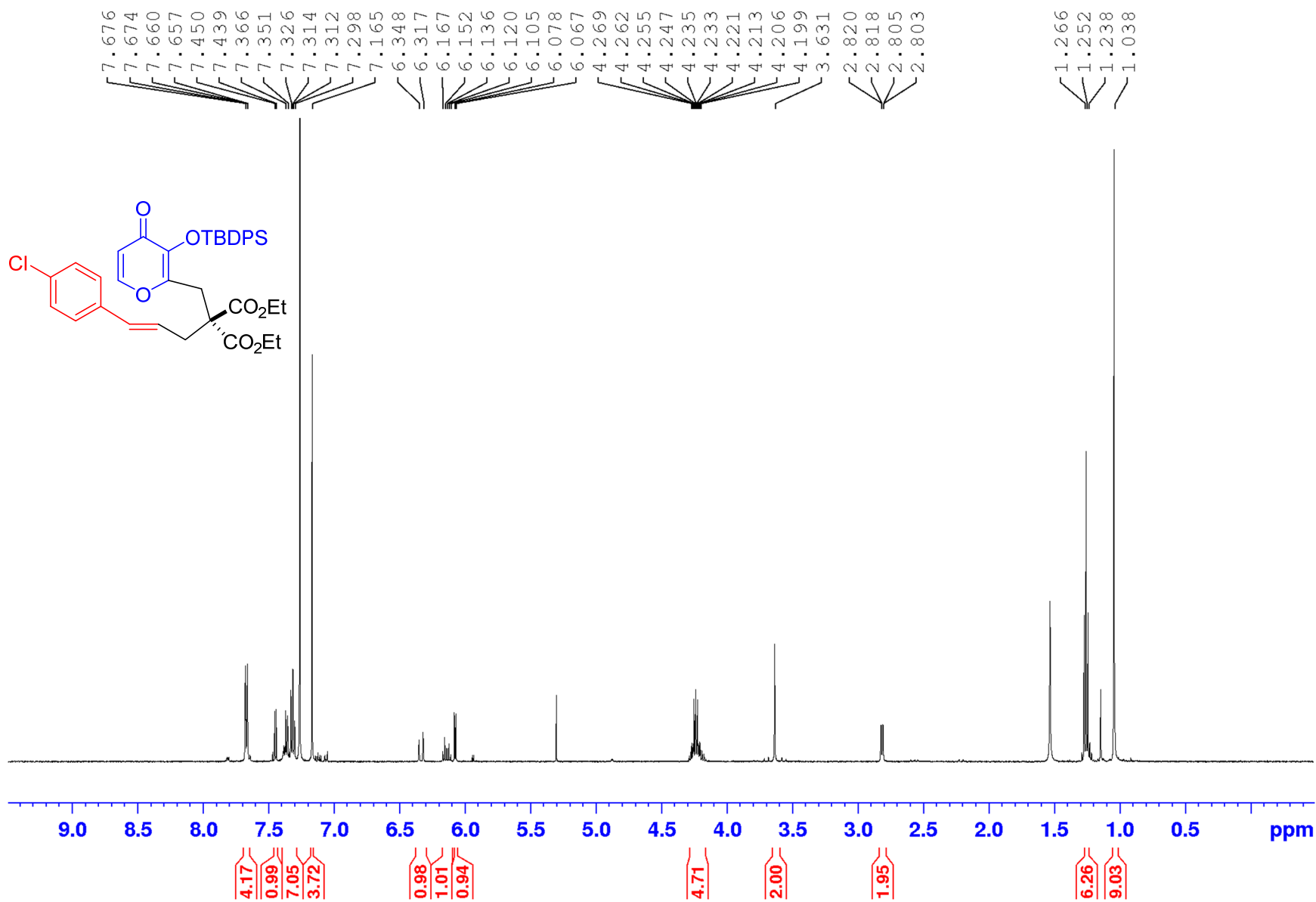


¹H NMR (500 MHz) of 1t' in CDCl₃

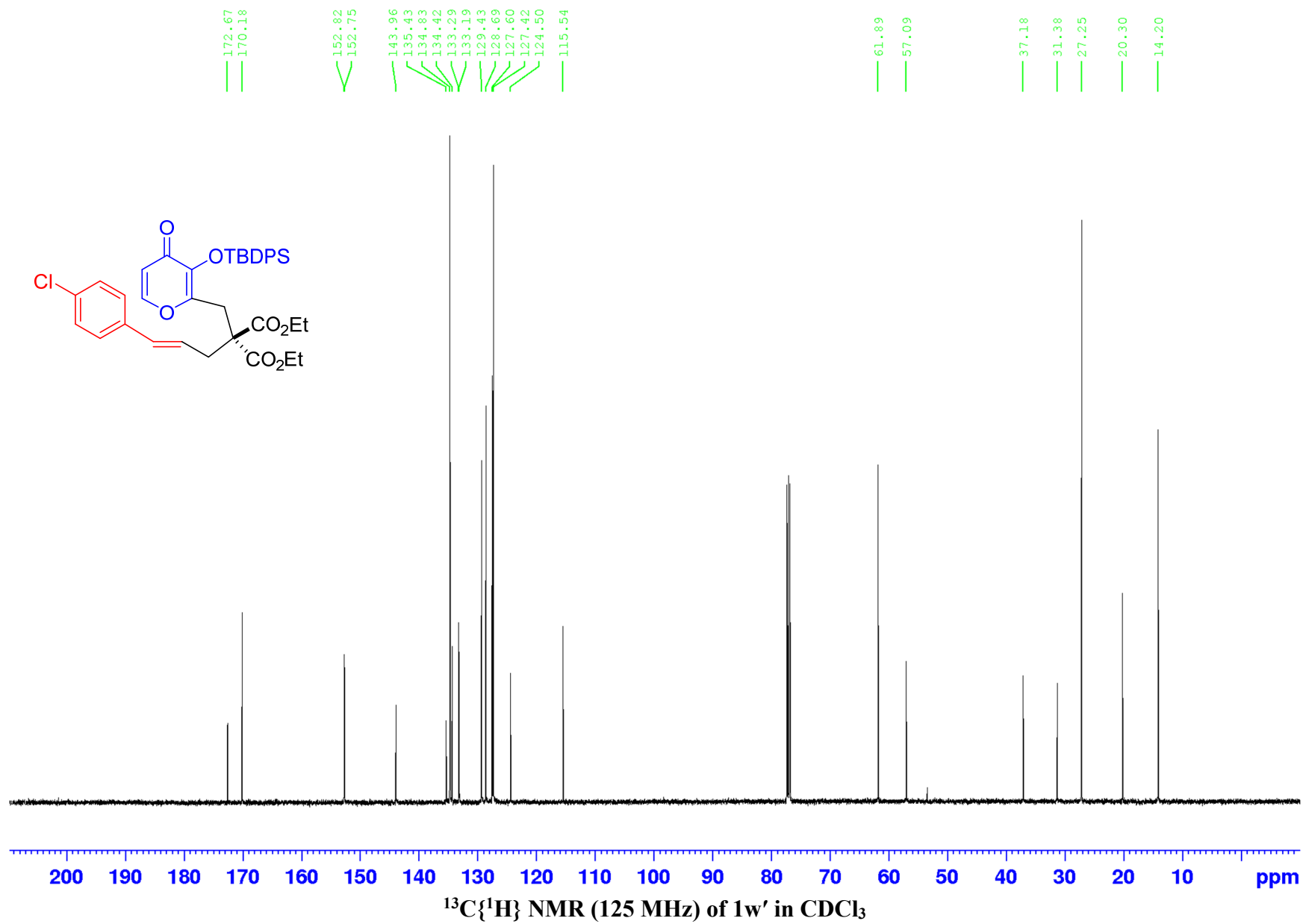


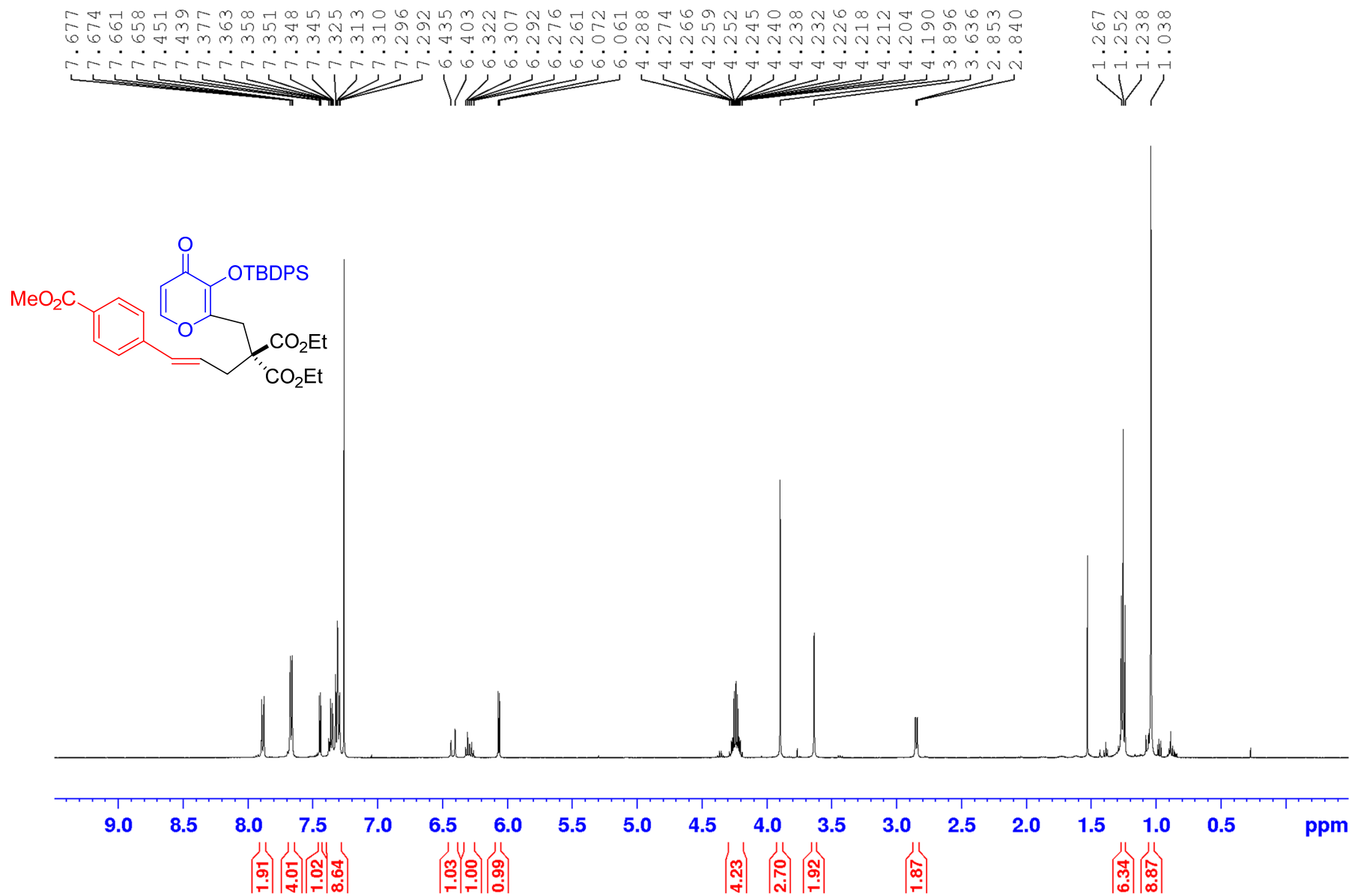




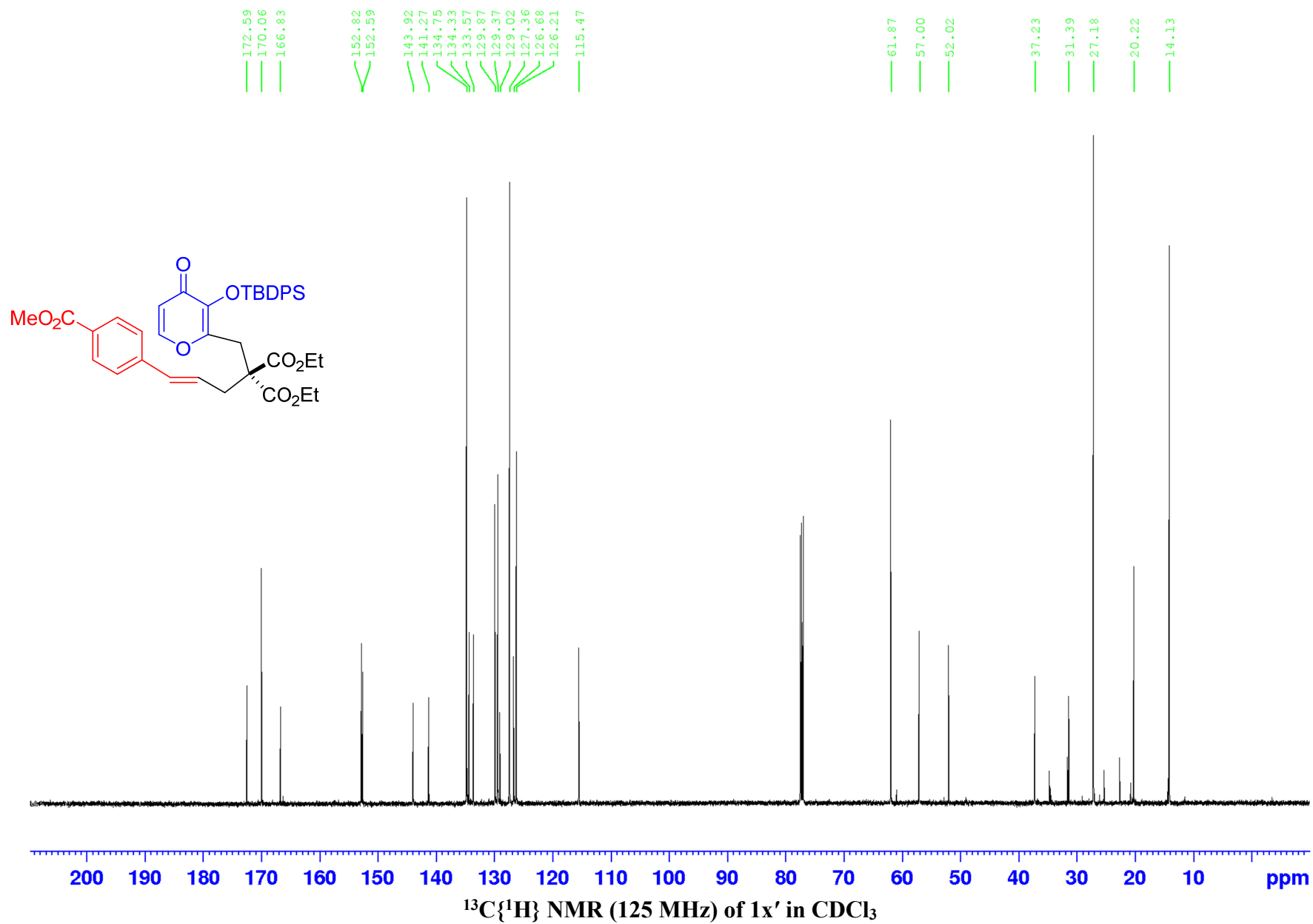


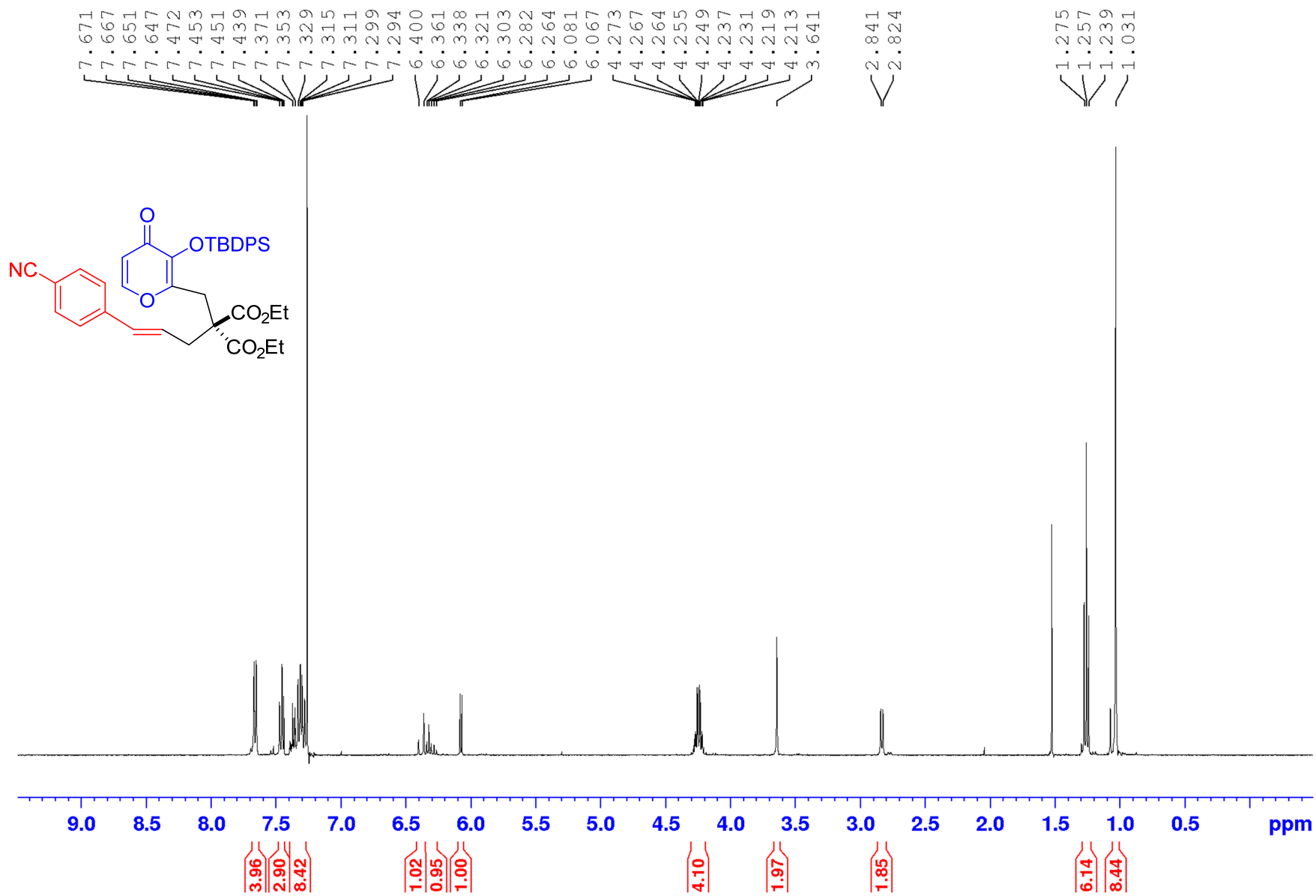
¹H NMR (500 MHz) of 1w' in CDCl₃



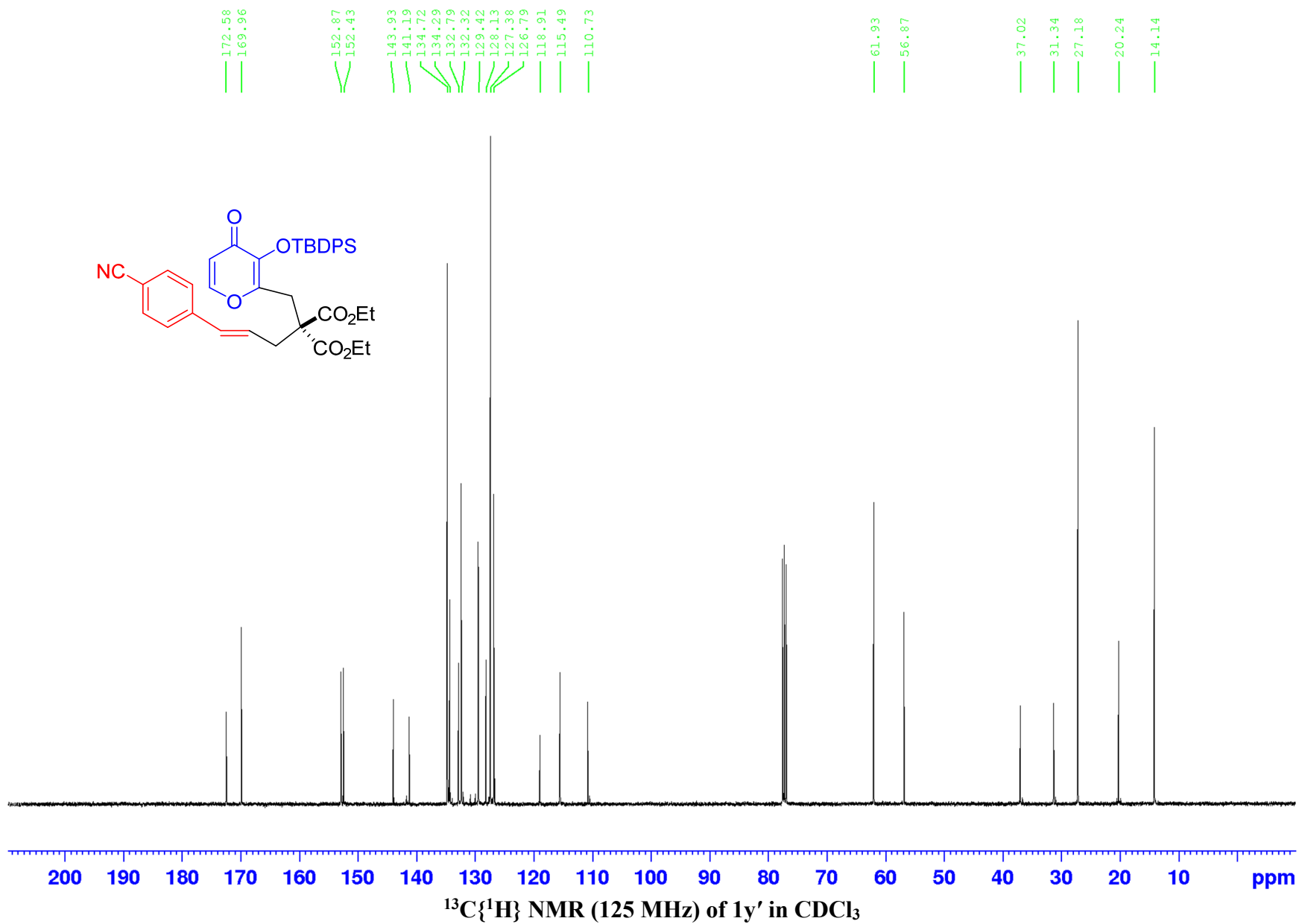


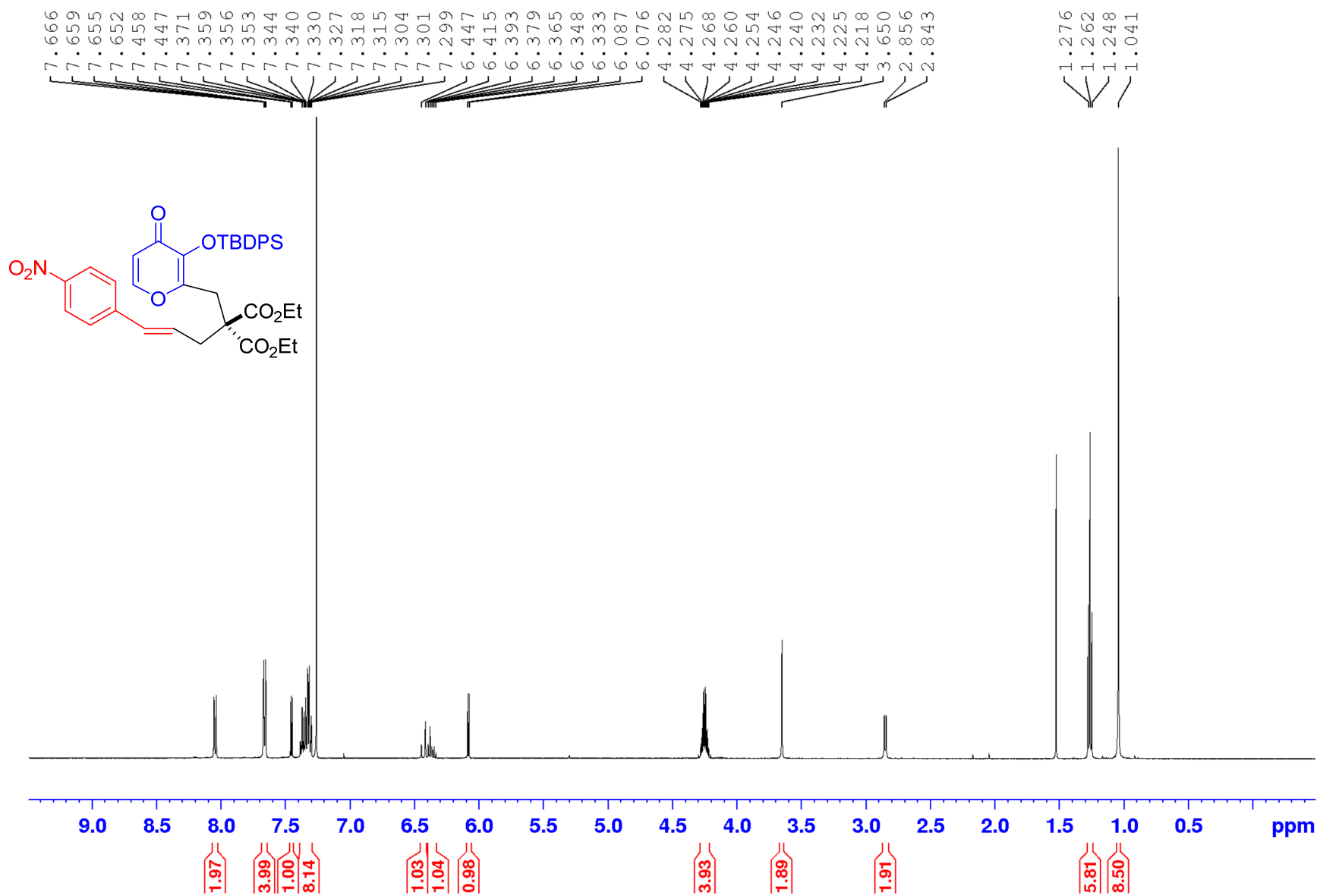
¹H NMR (500 MHz) of **1x'** in CDCl₃



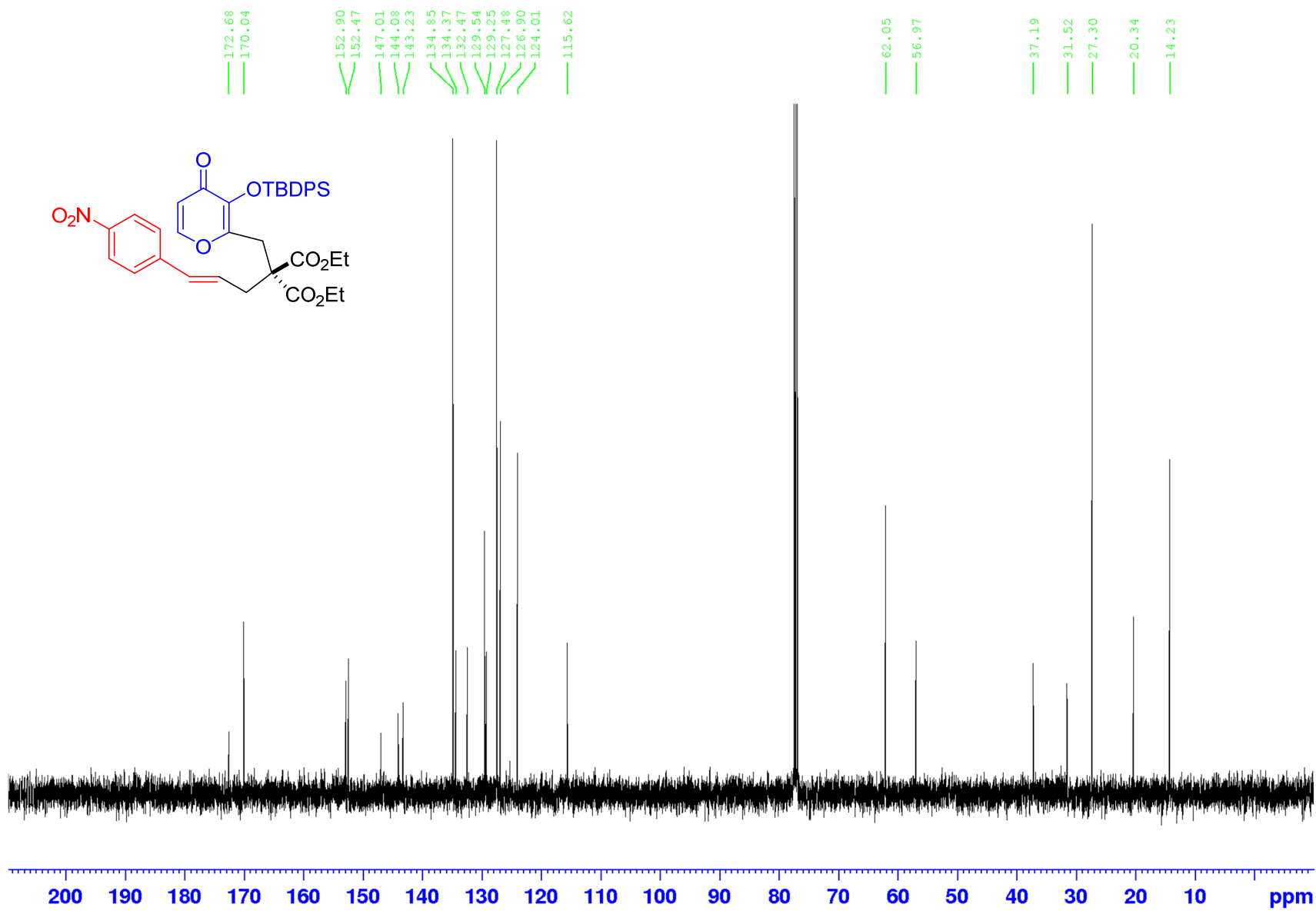


¹H NMR (500 MHz) of **1y'** in CDCl₃

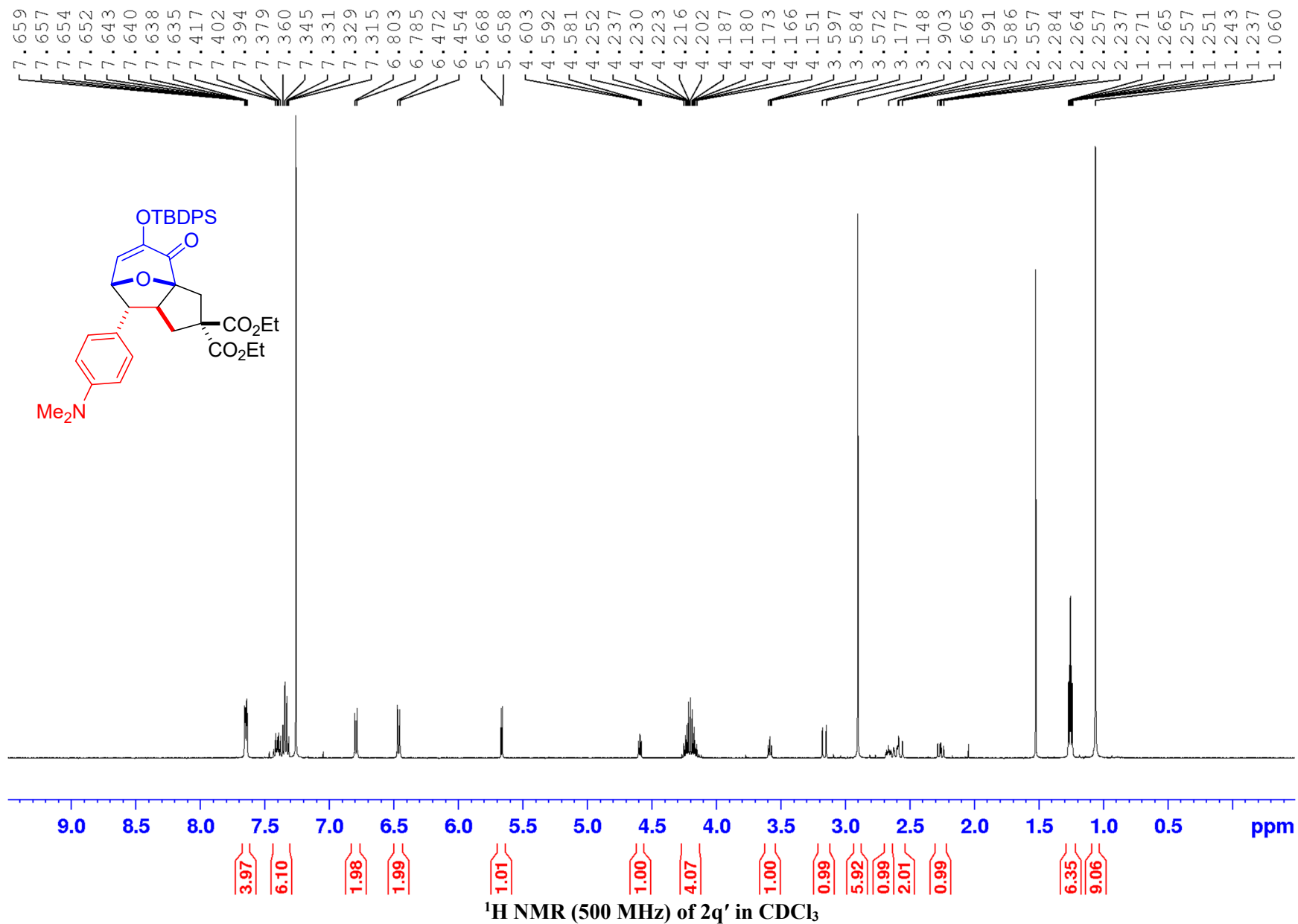


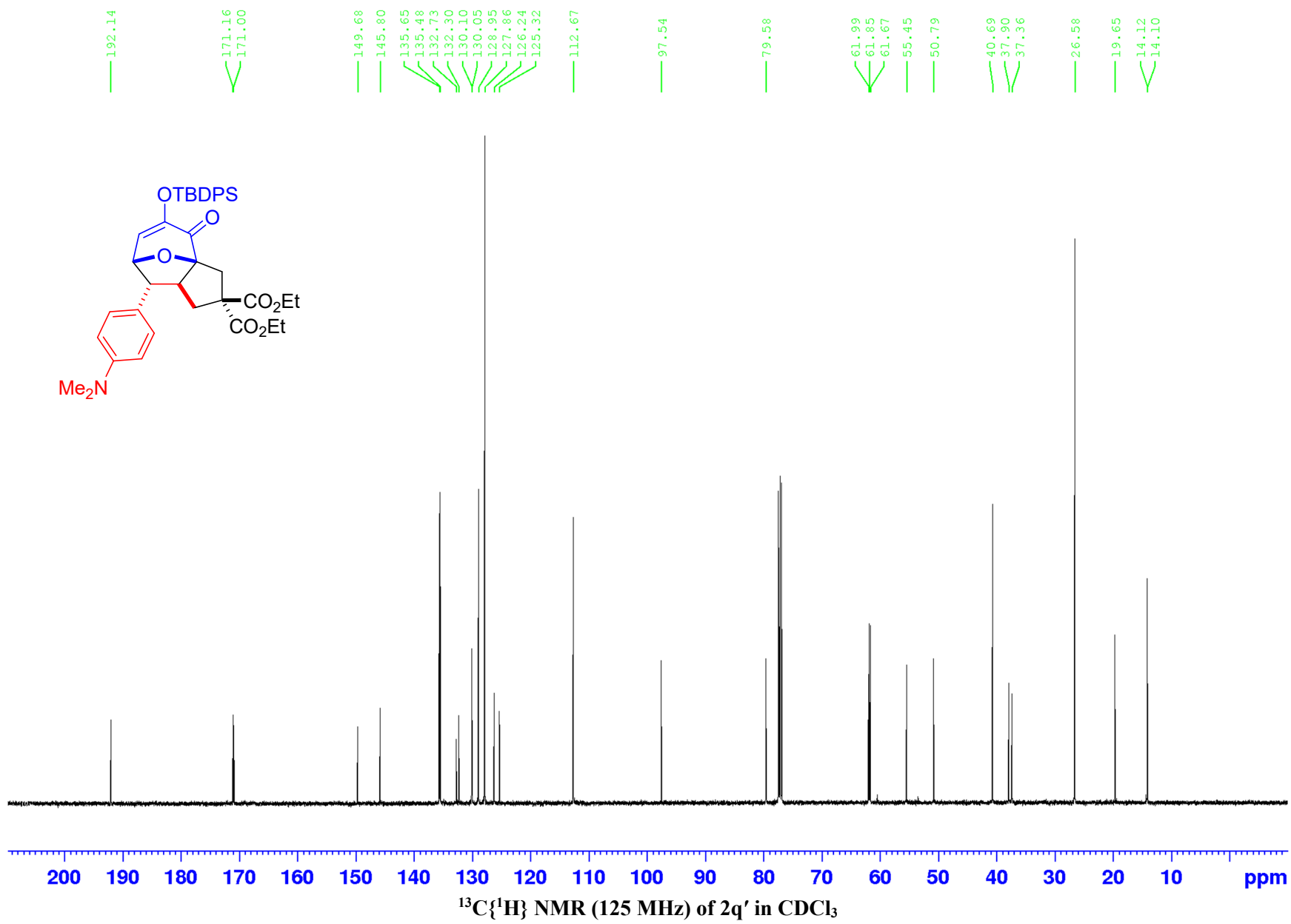


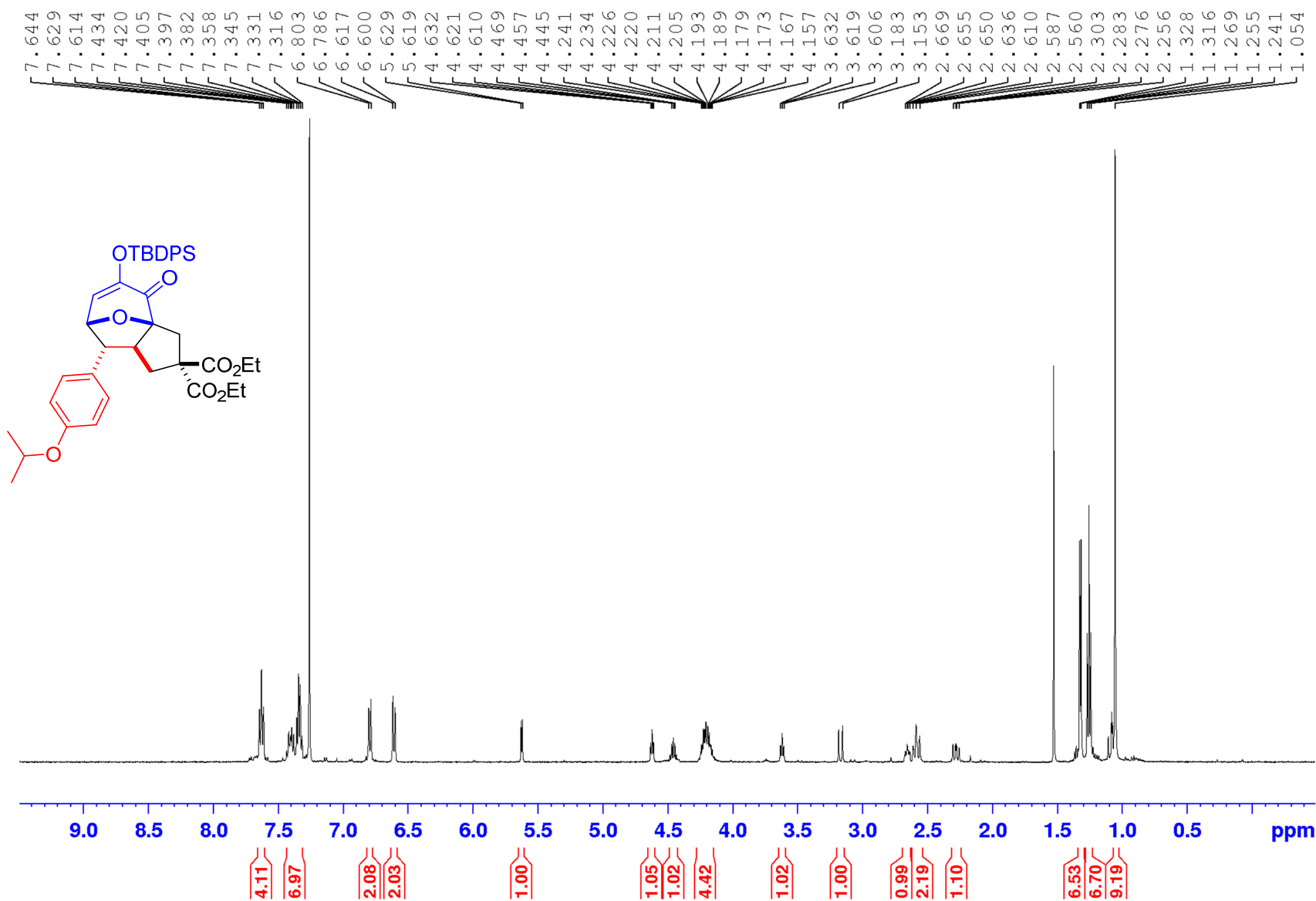
¹H NMR (500 MHz) of 1z' in CDCl₃



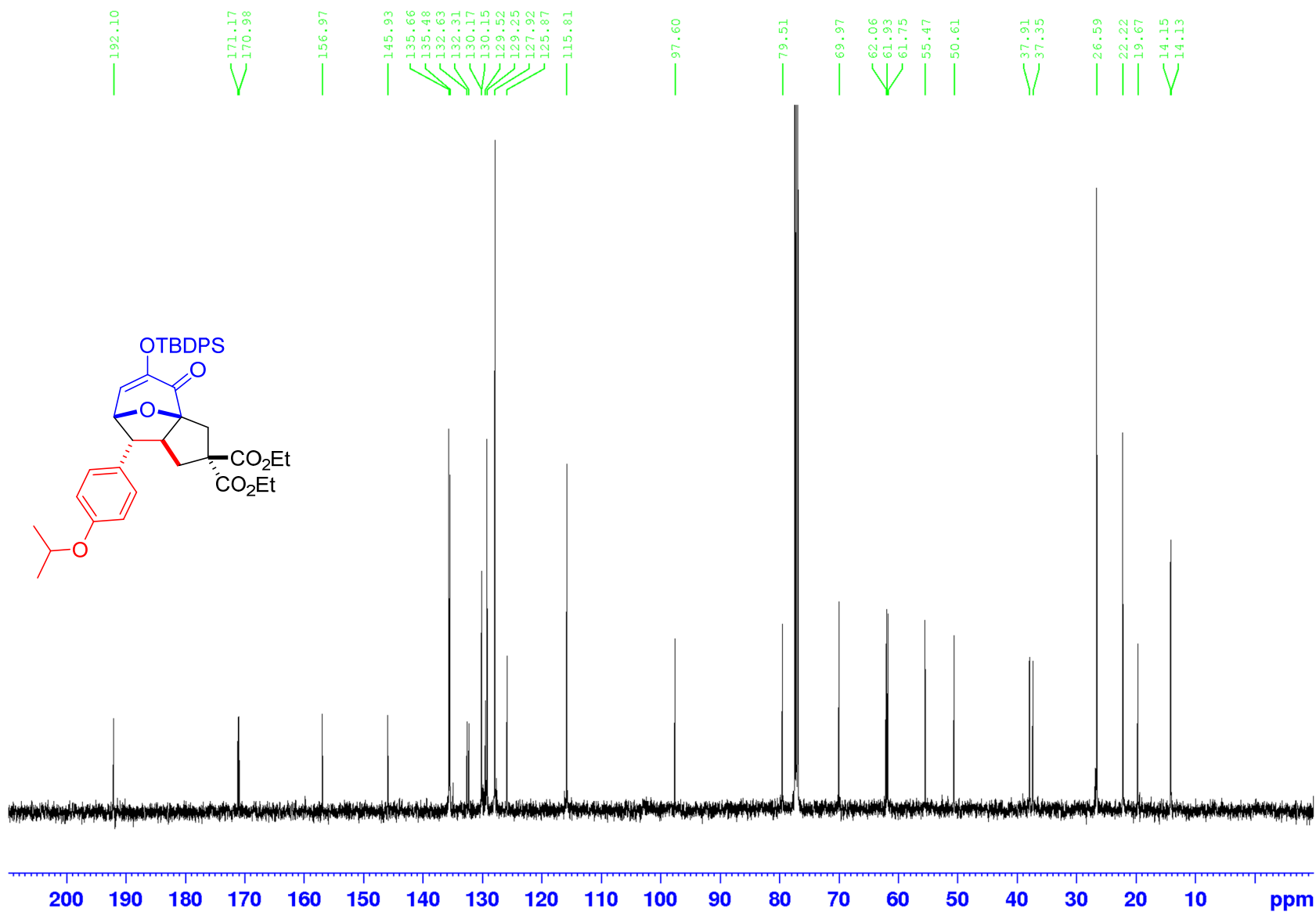
¹³C{¹H} NMR (125 MHz) of 1z' in CDCl₃



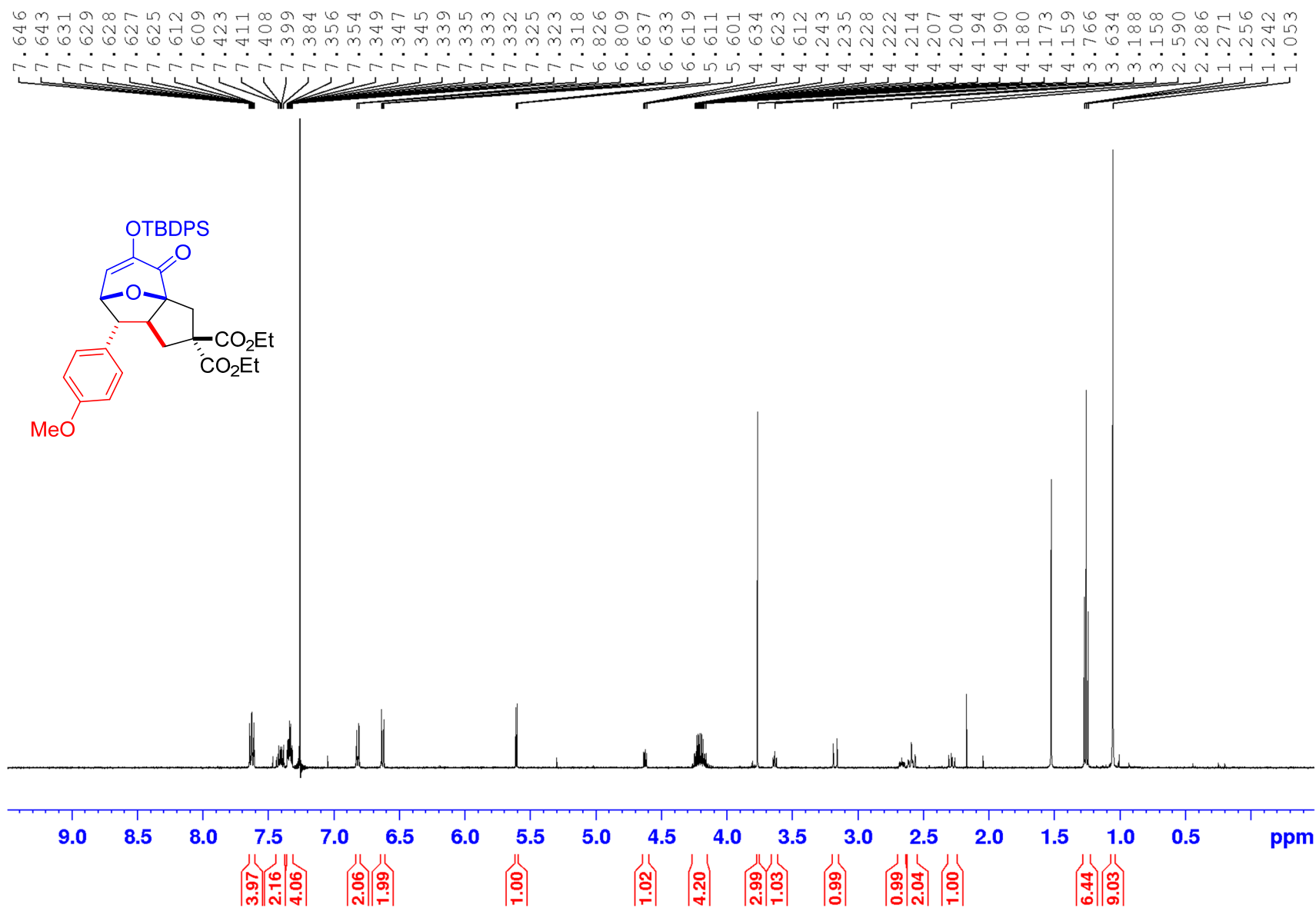




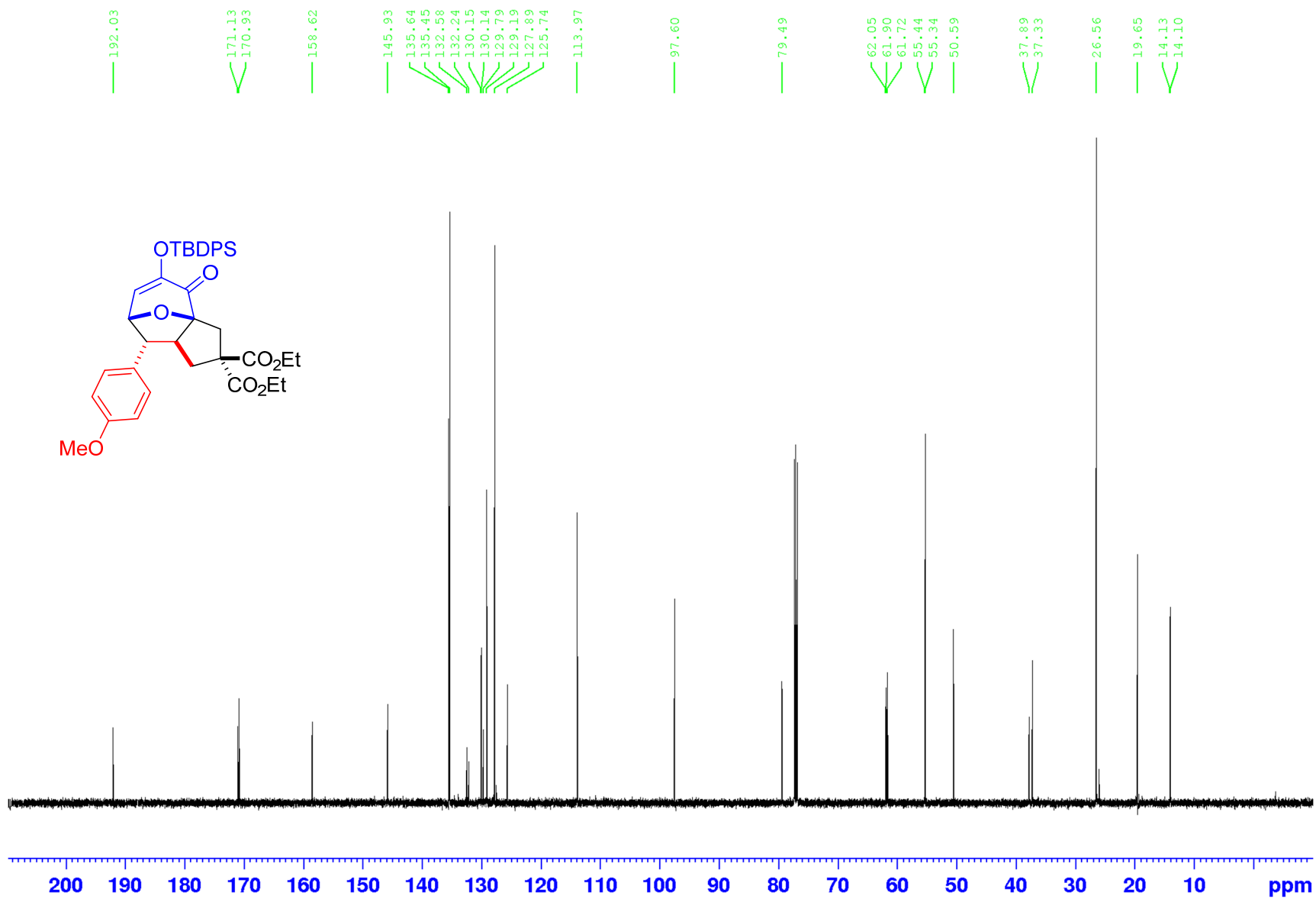
¹H NMR (500 MHz) of 2r' in CDCl₃

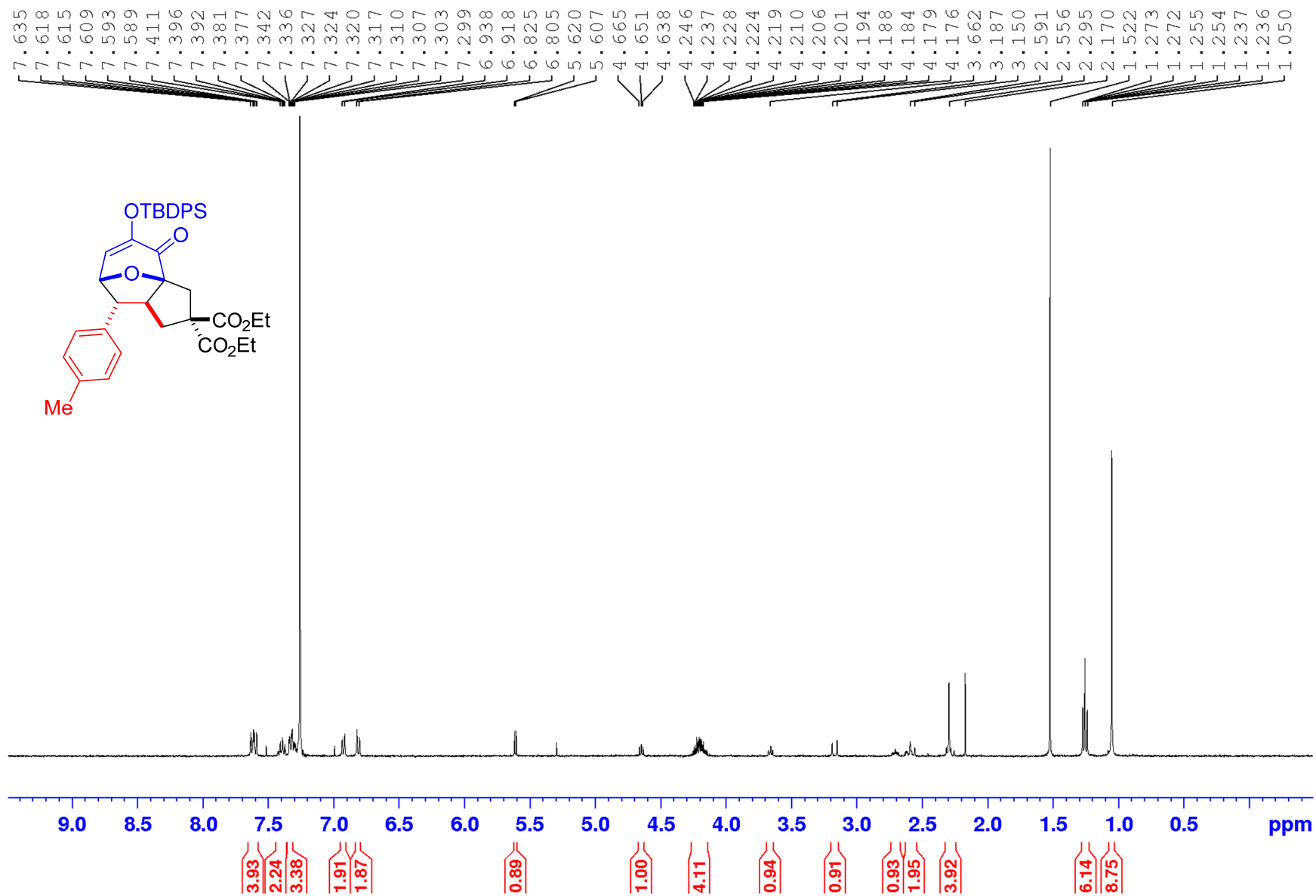


$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz) of 2r' in CDCl_3

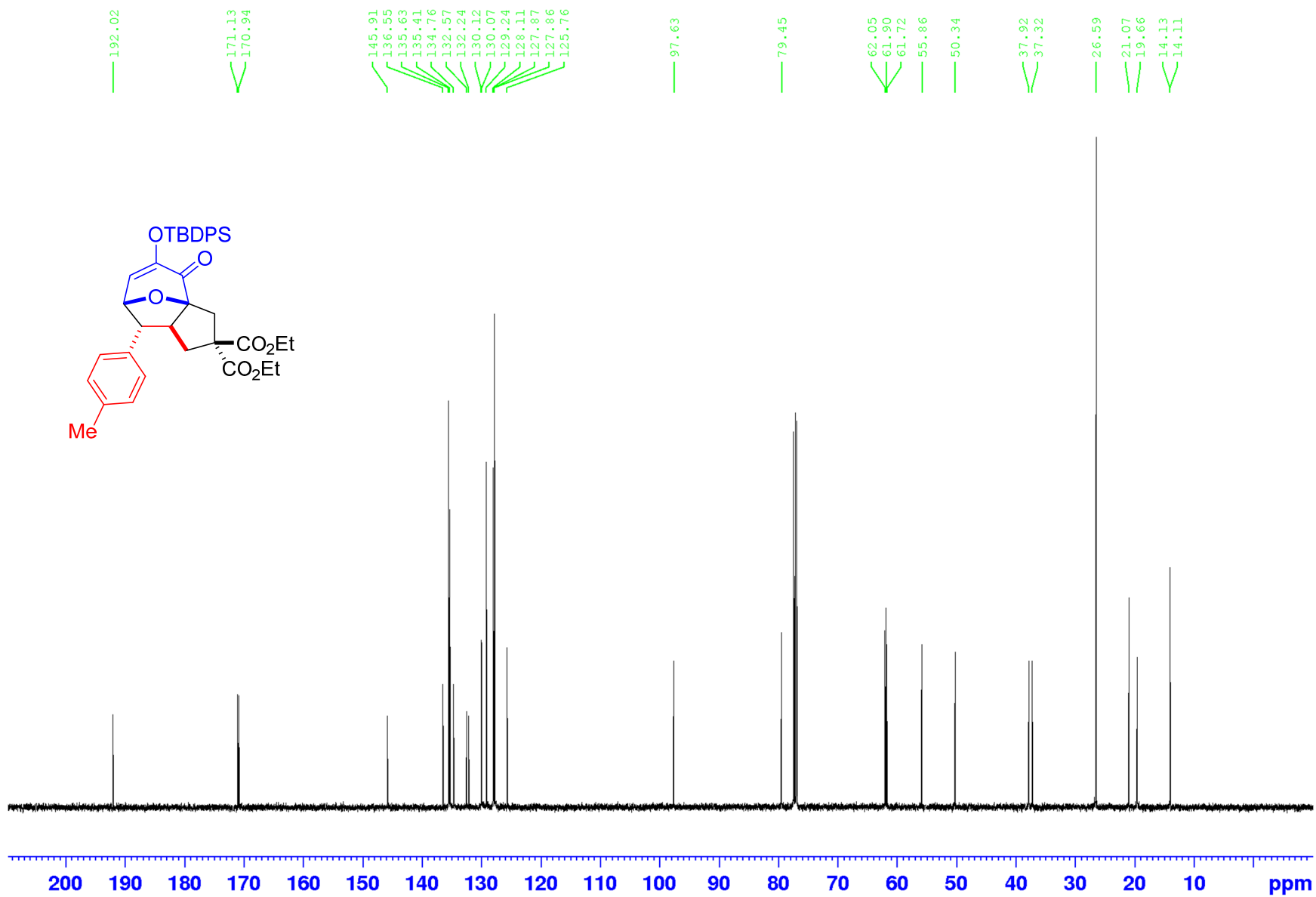


¹H NMR (500 MHz) of **2s'** in CDCl₃

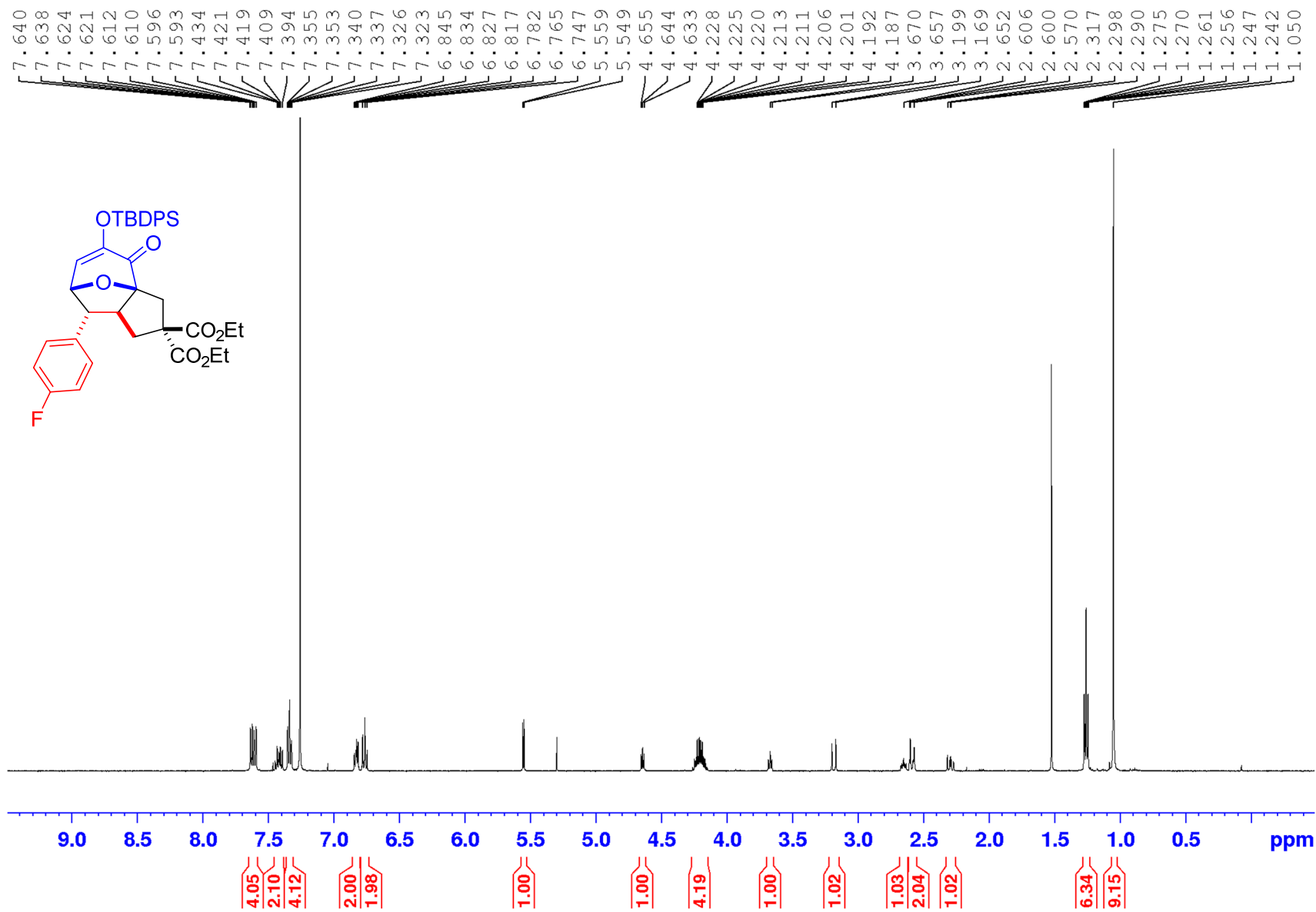




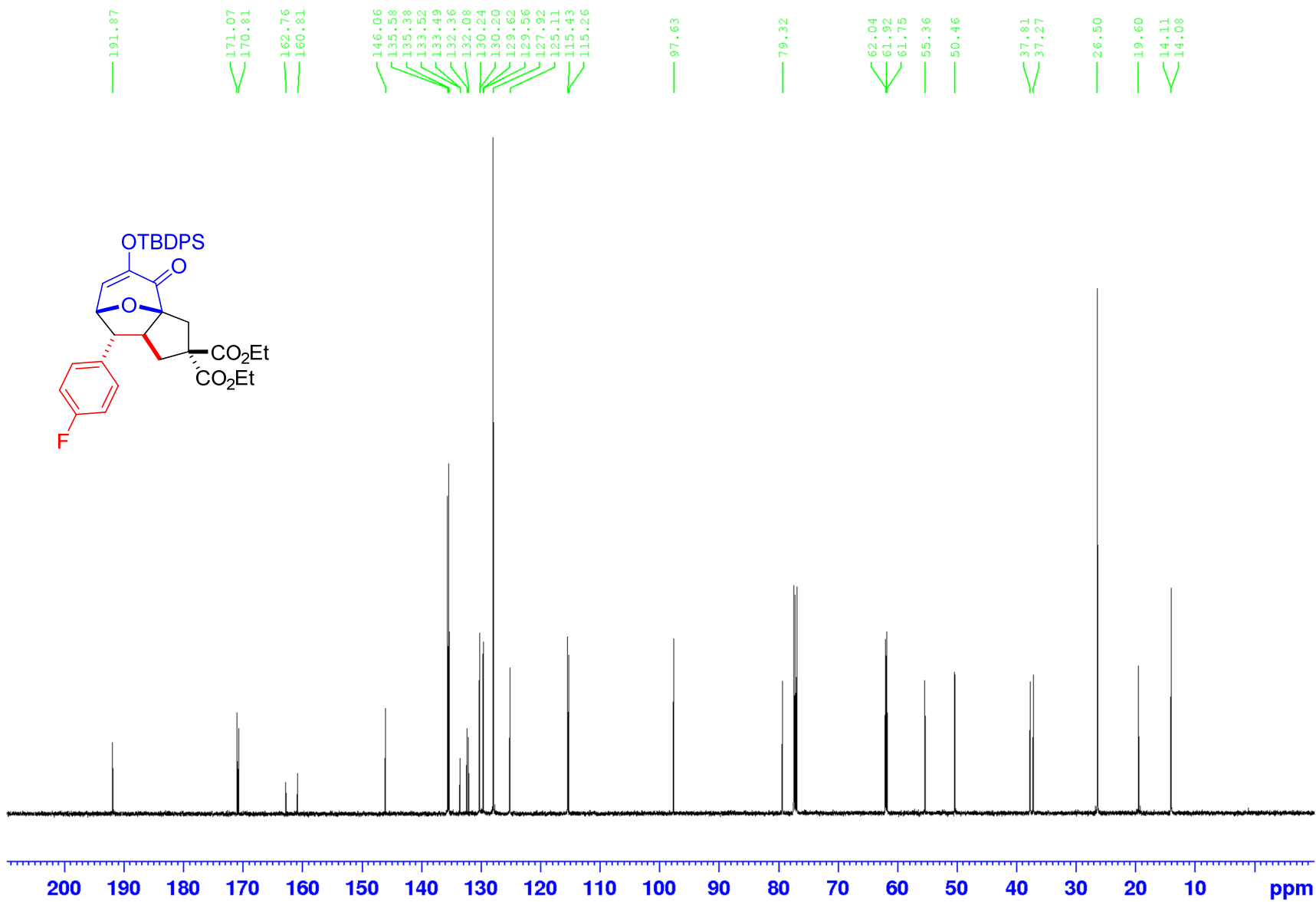
¹H NMR (500 MHz) of 2t' in CDCl₃



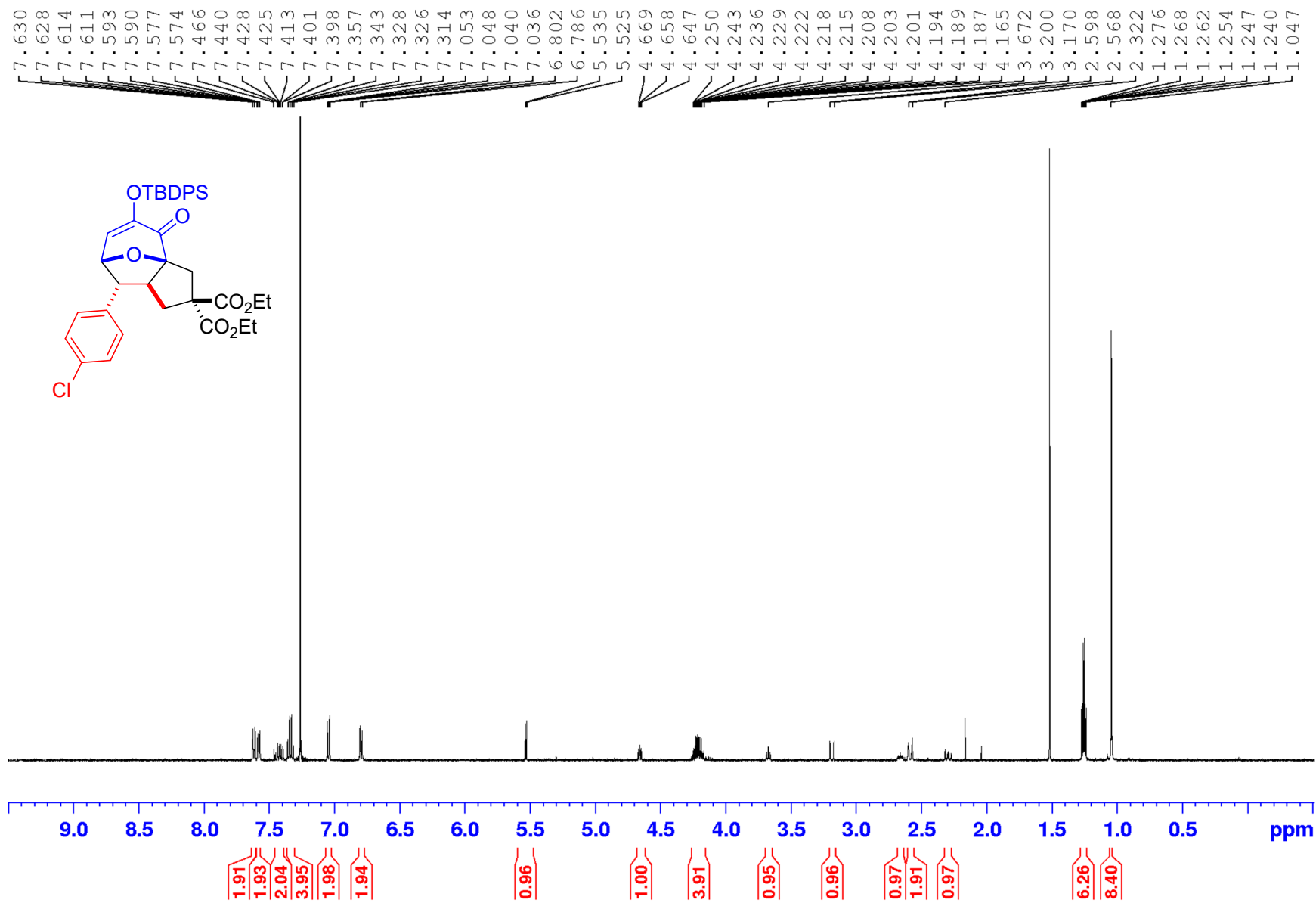
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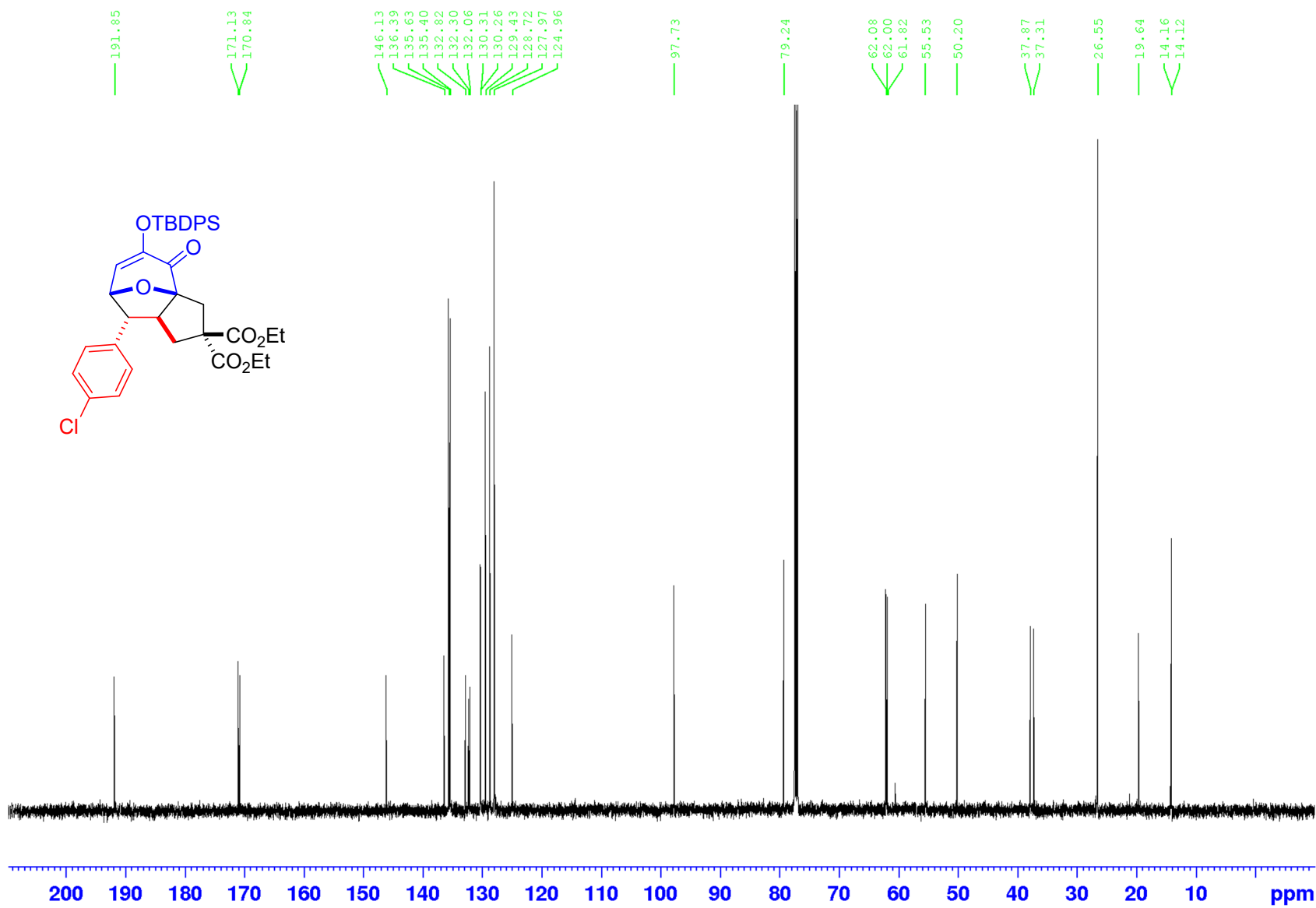
¹H NMR (500 MHz) of **2v'** in CDCl₃



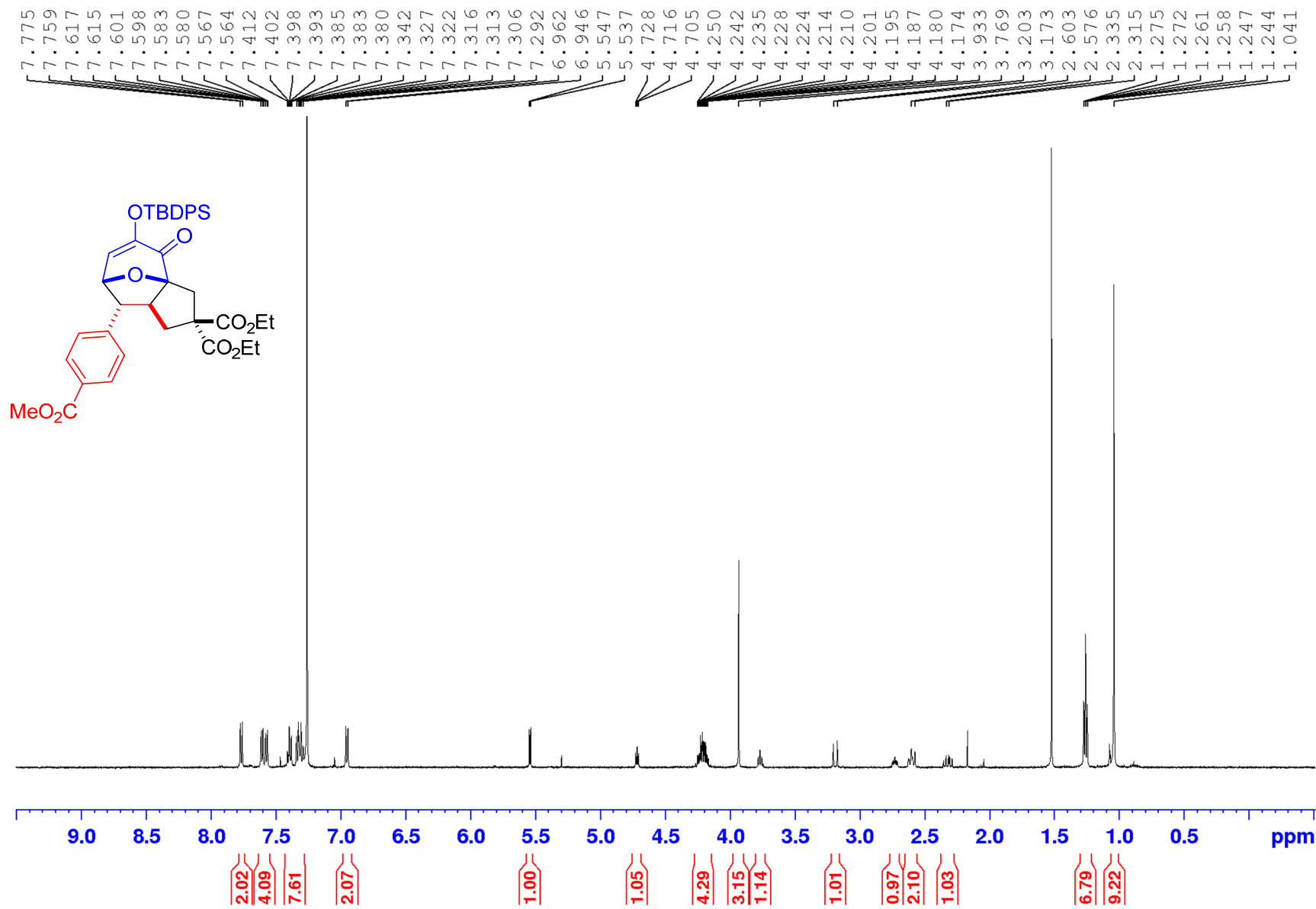
¹³C{¹H} NMR (125 MHz) of 2v' in CDCl₃



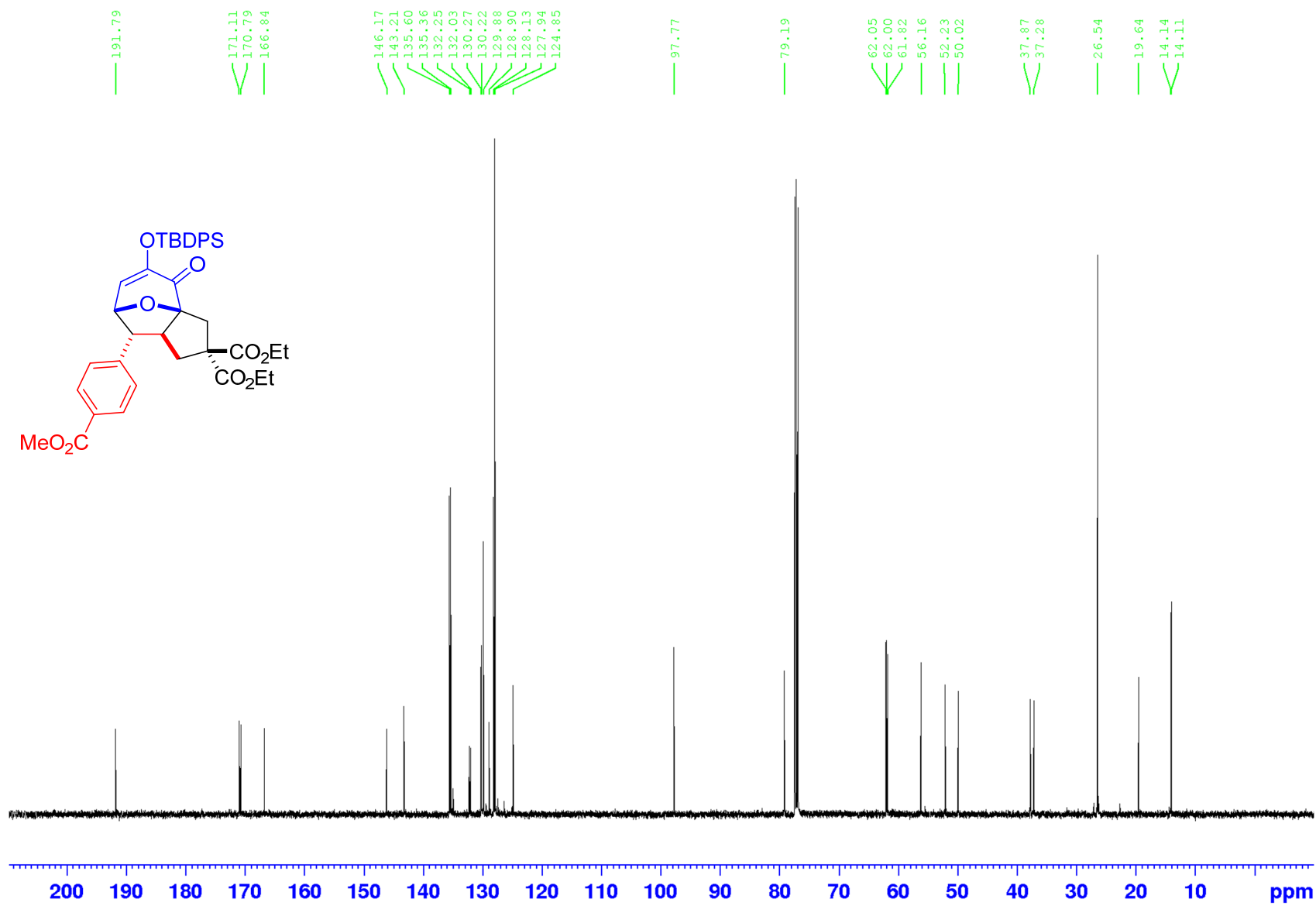
¹H NMR (500 MHz) of 2w' in CDCl₃



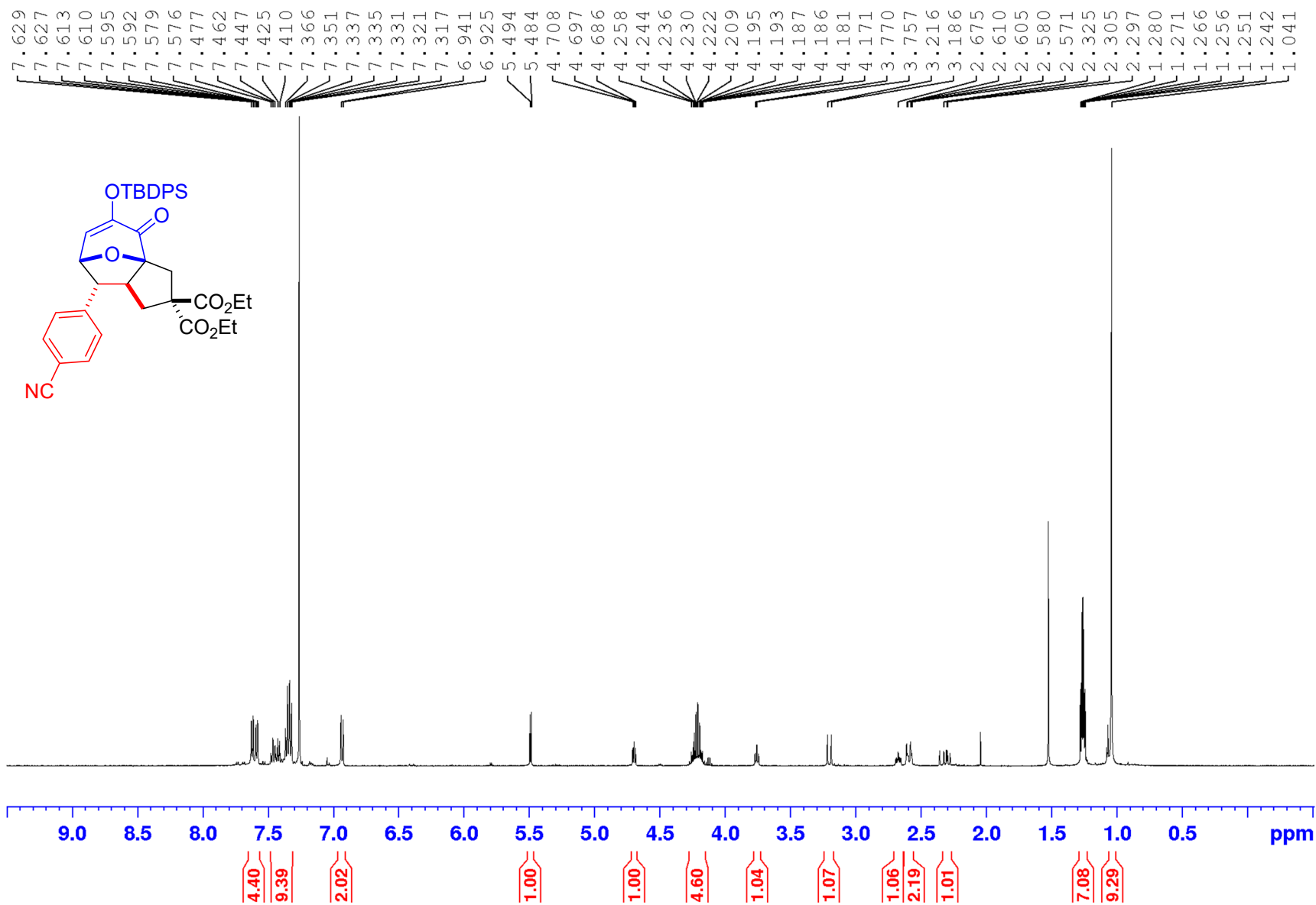
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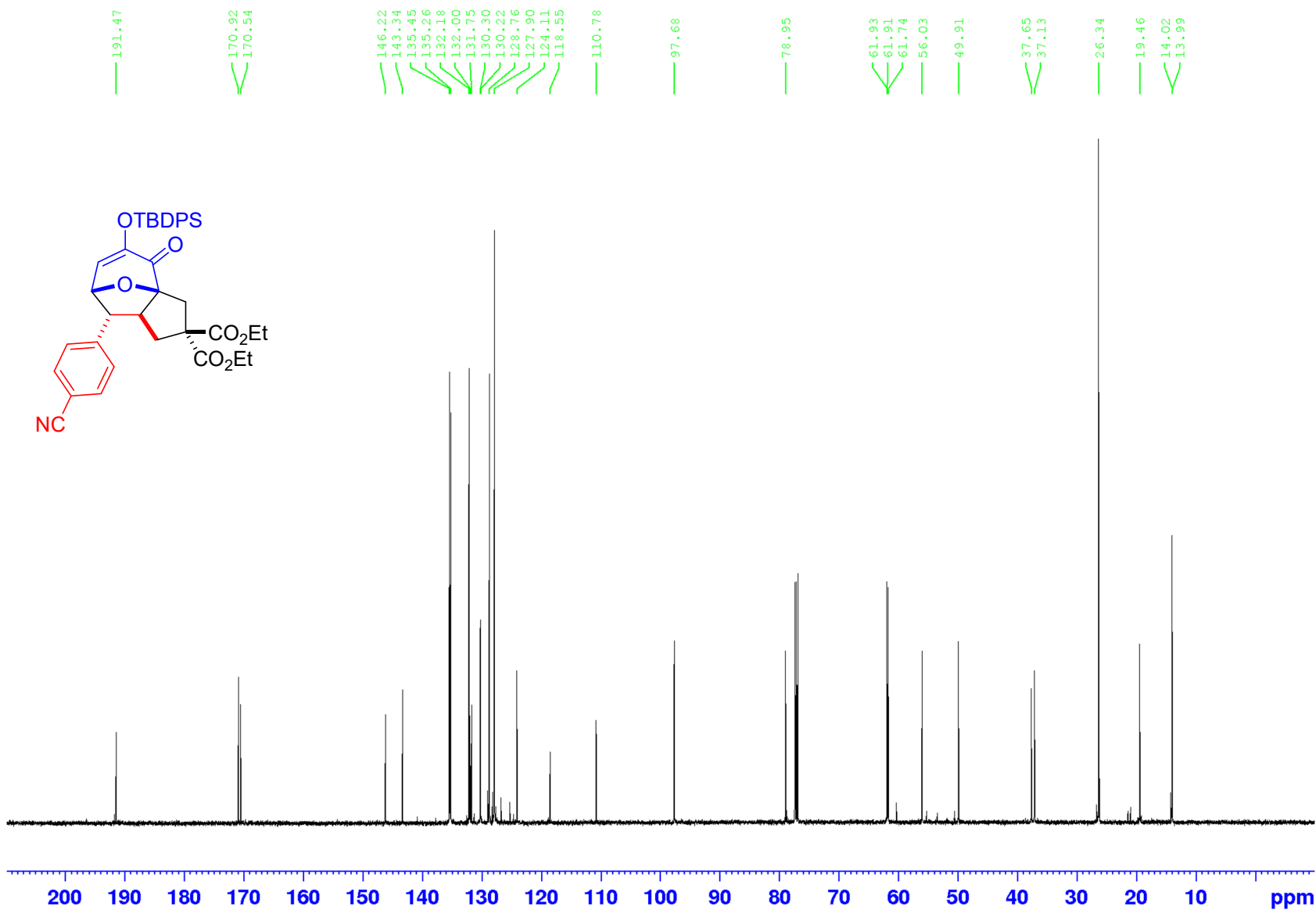
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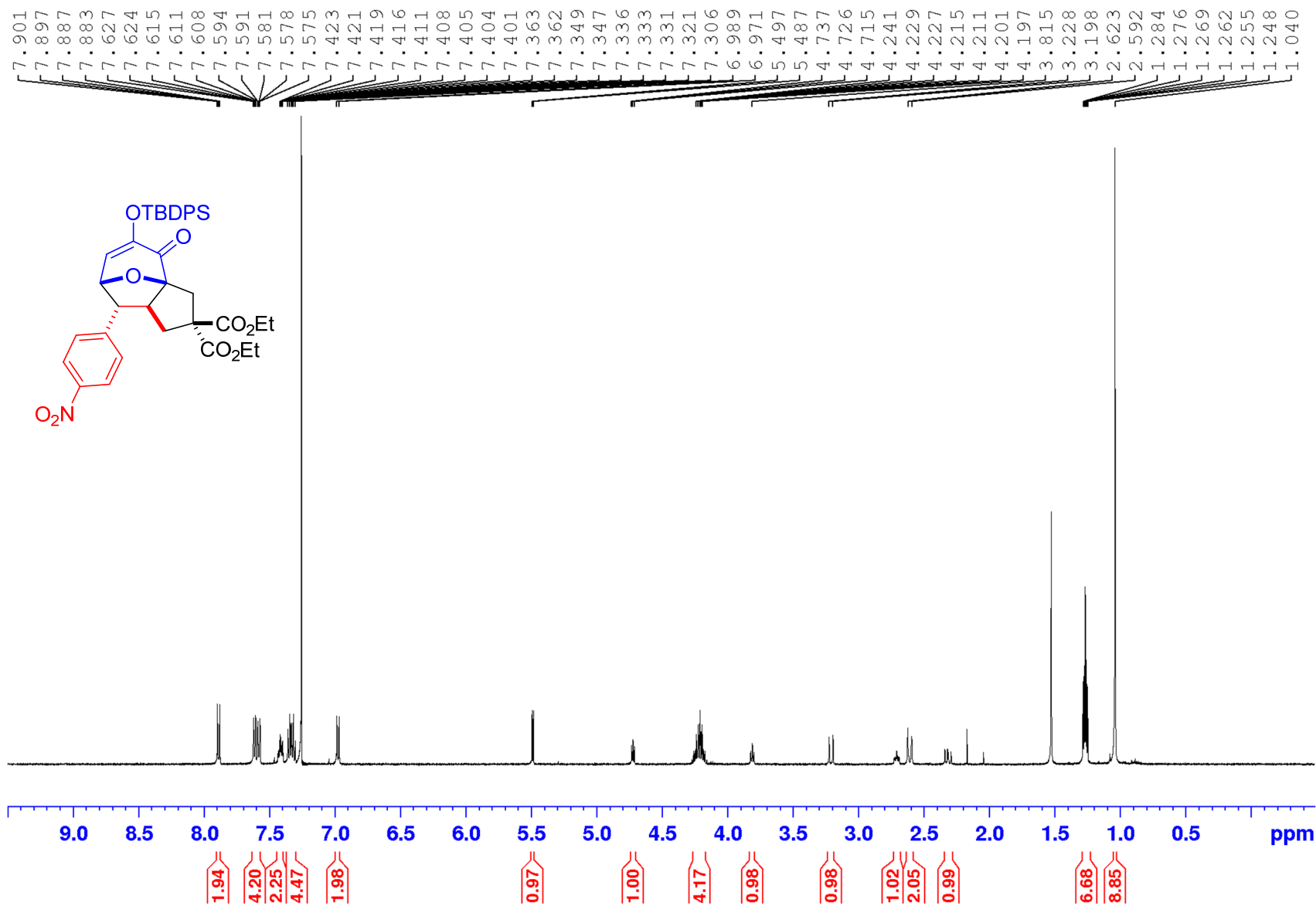
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz) of **2x'** in CDCl_3



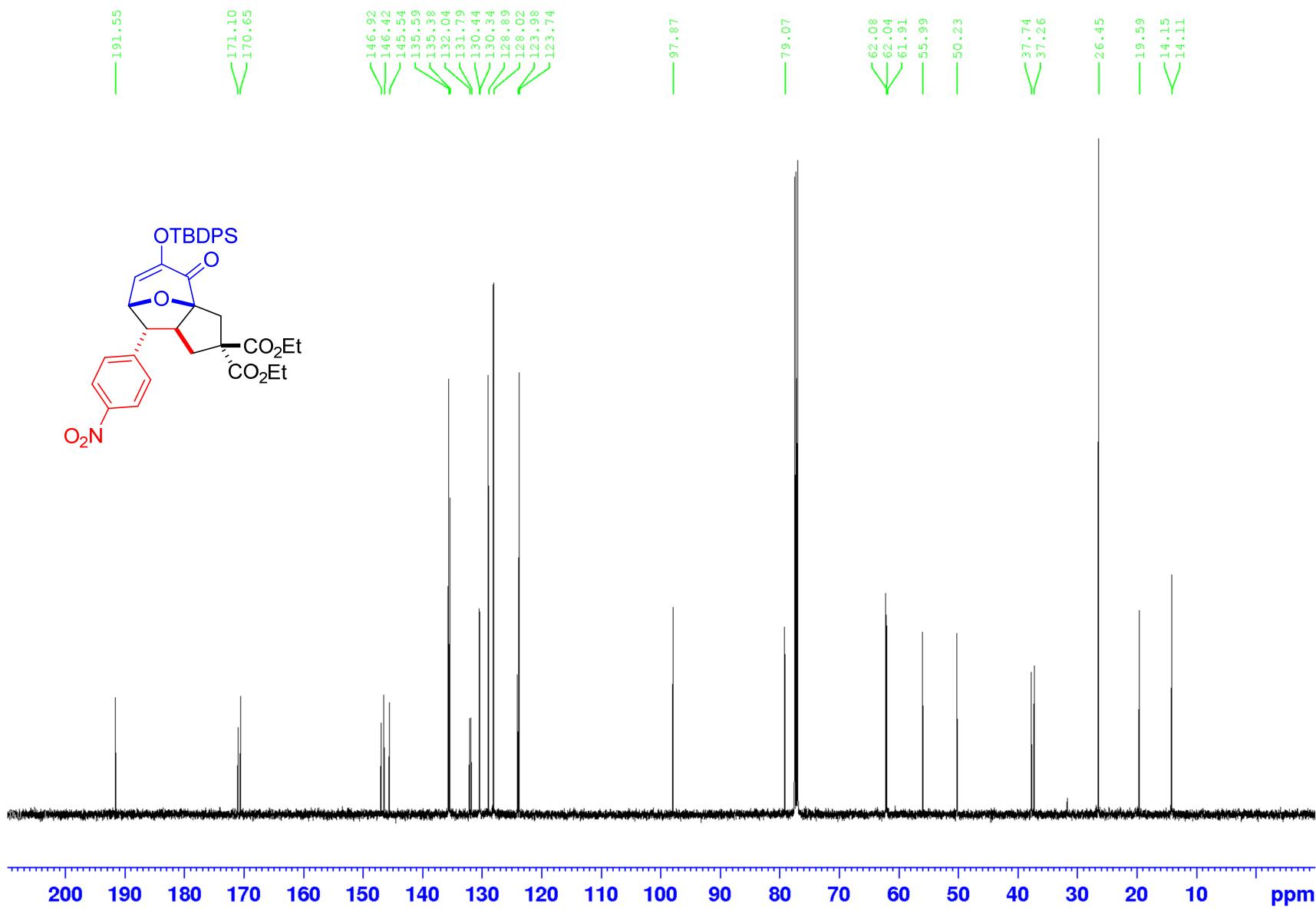
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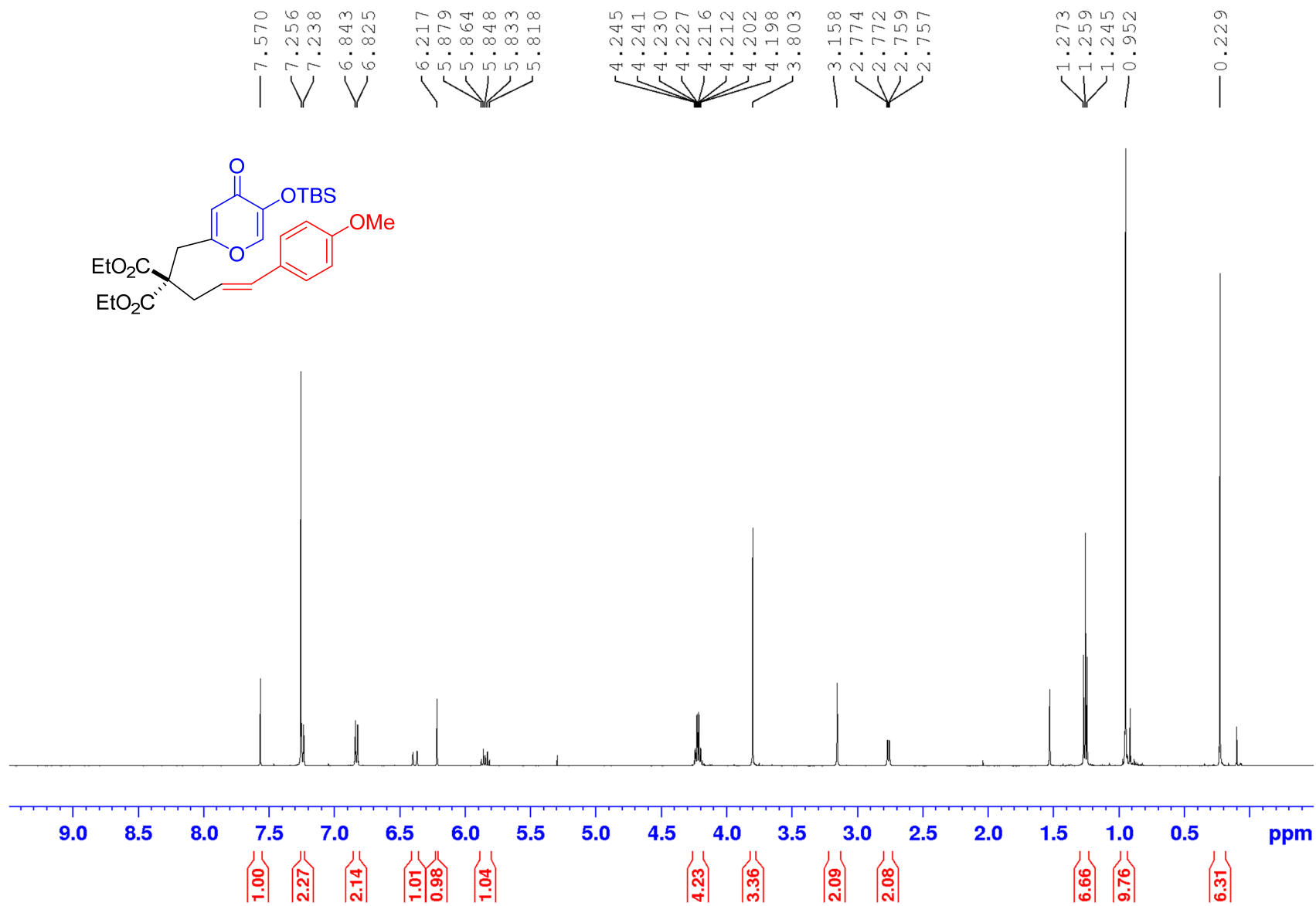
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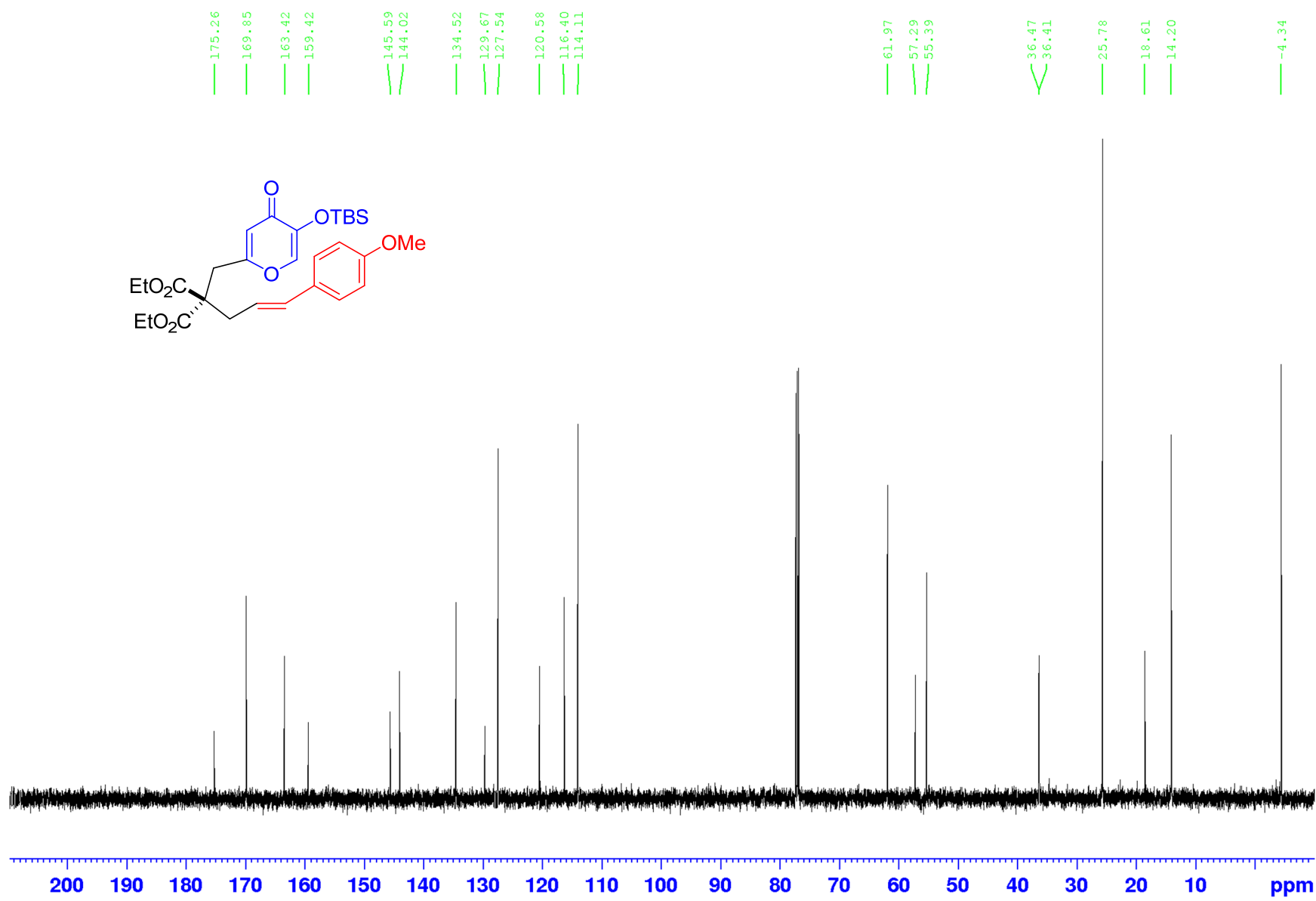
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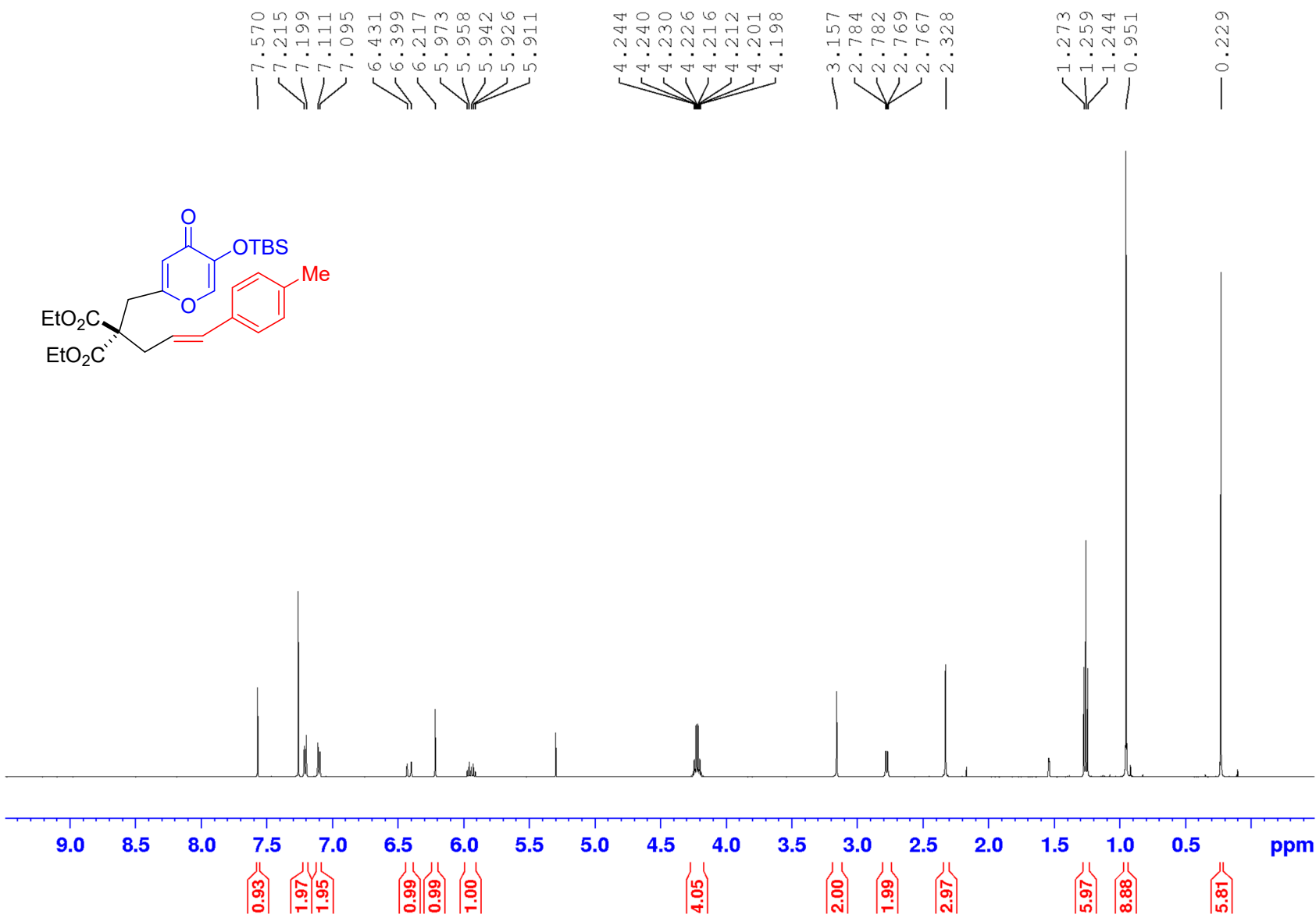
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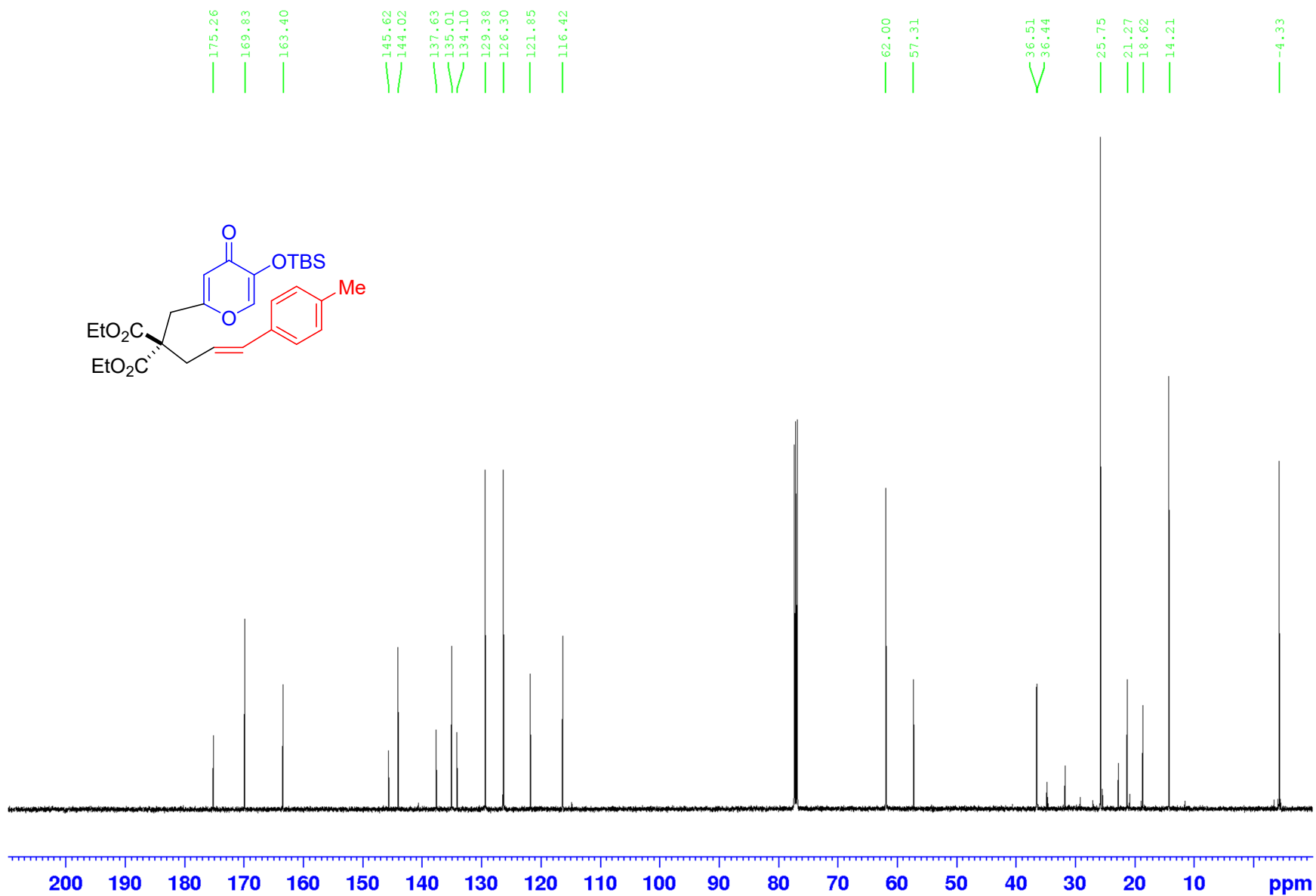
¹H NMR (500 MHz) of 3e in CDCl₃

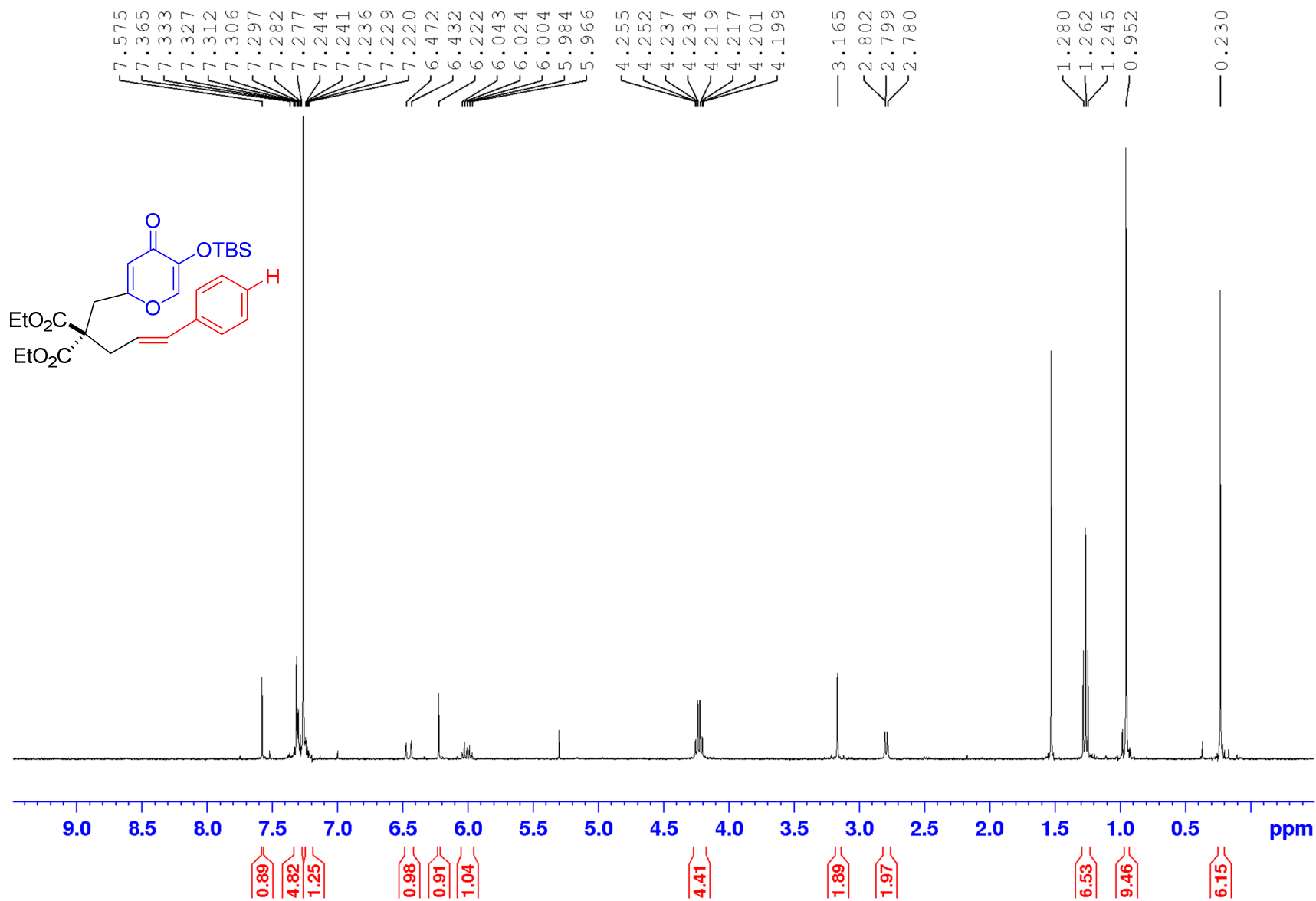


¹³C{¹H} NMR (125 MHz) of 3e in CDCl₃

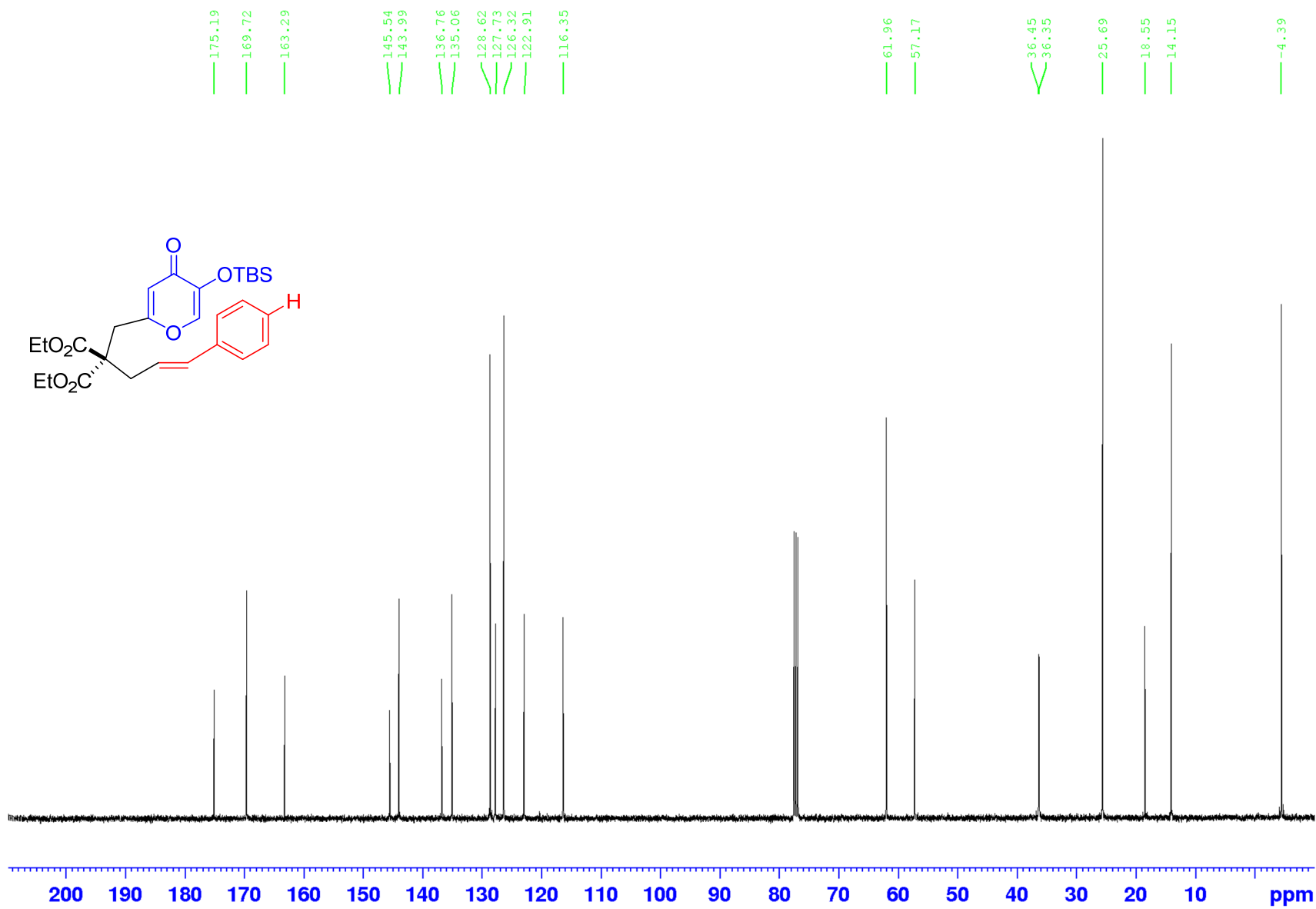


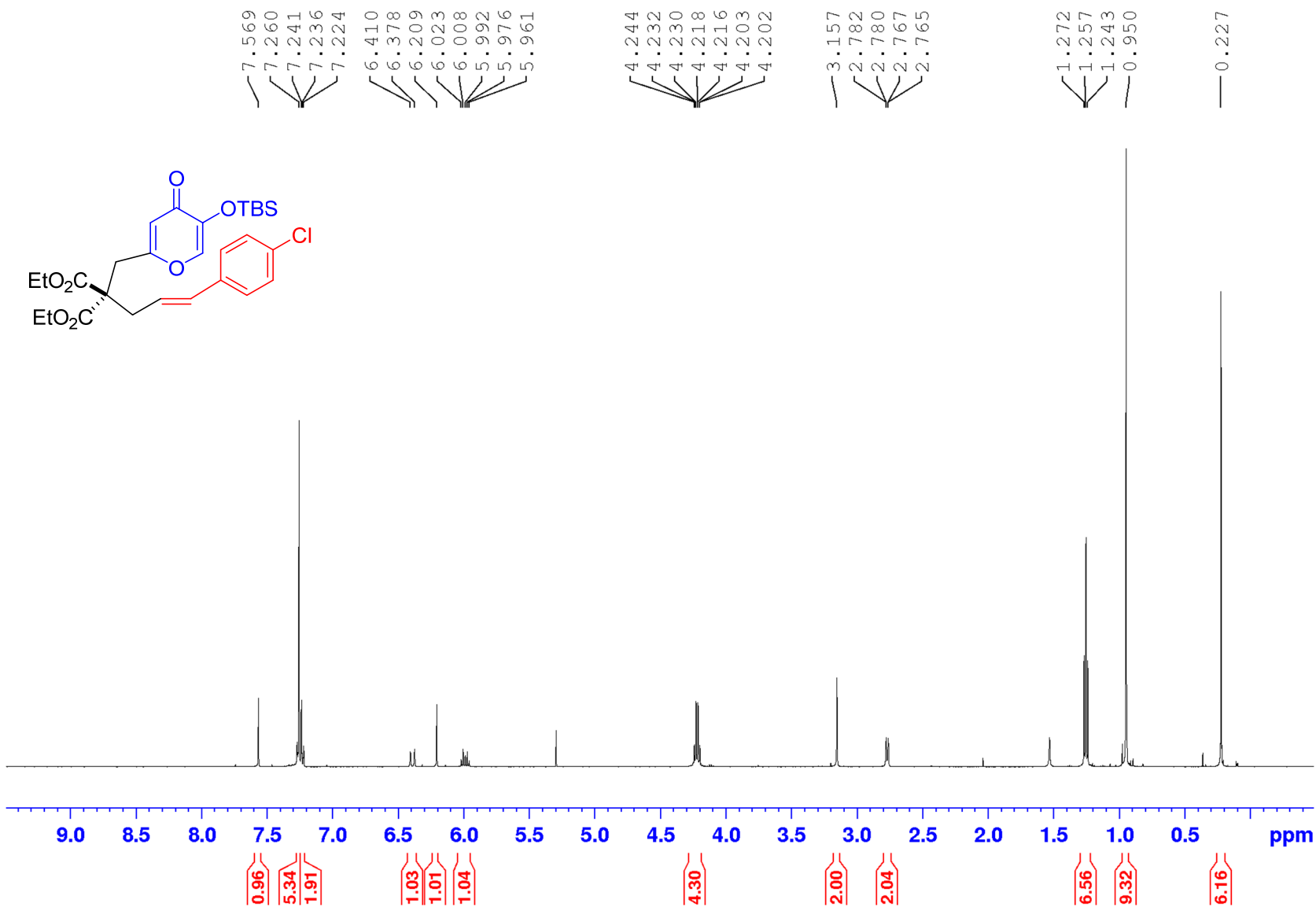
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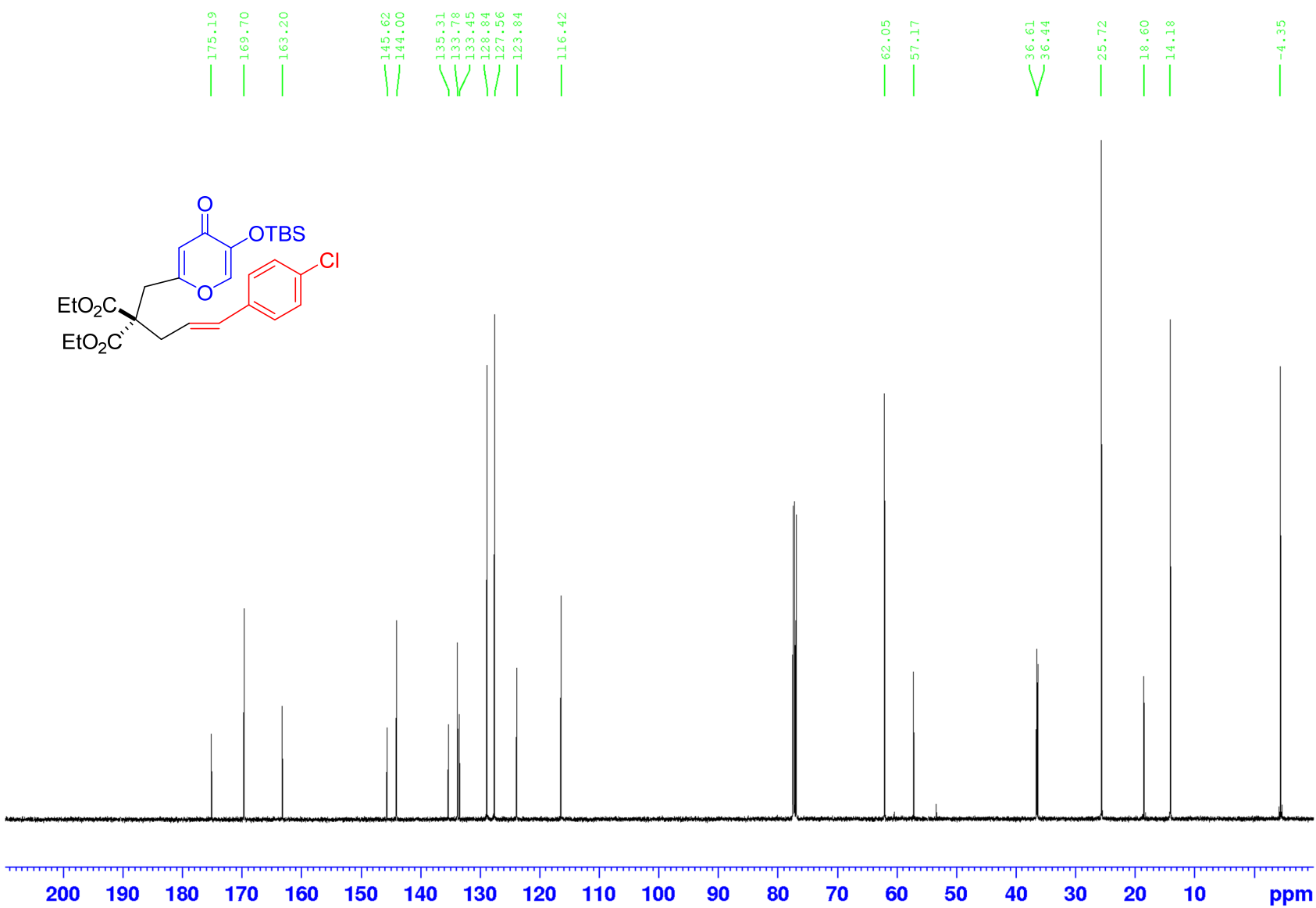


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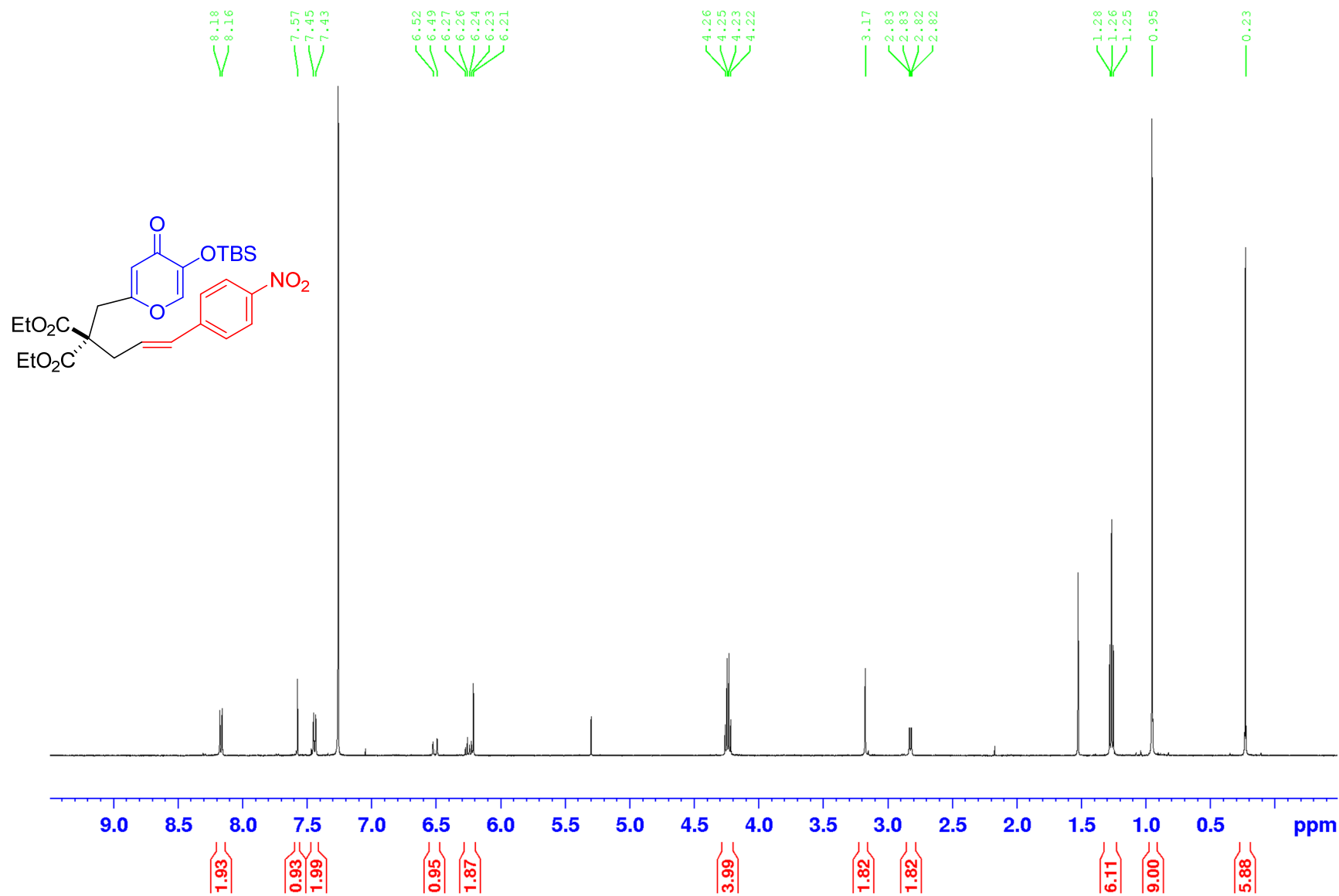




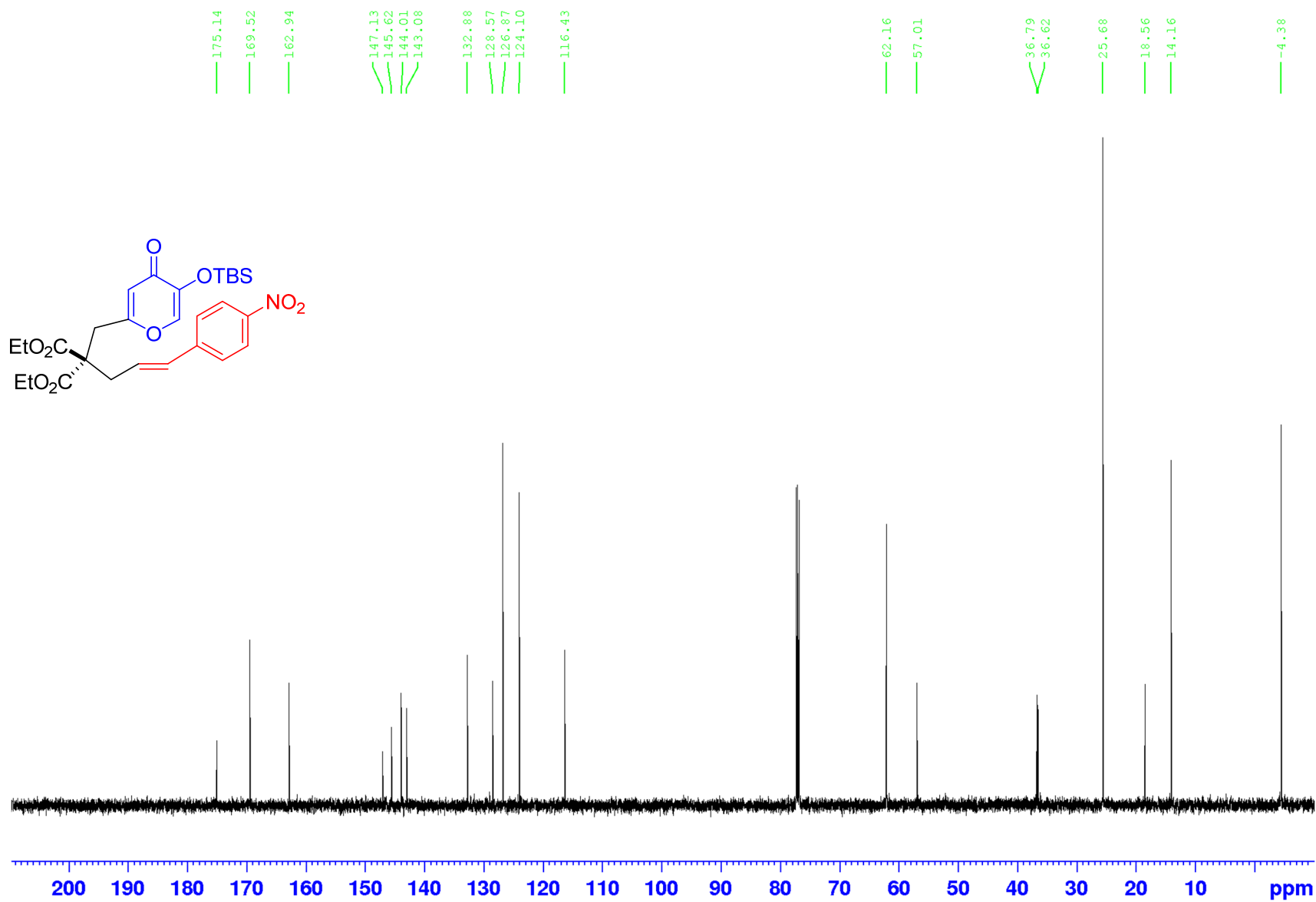
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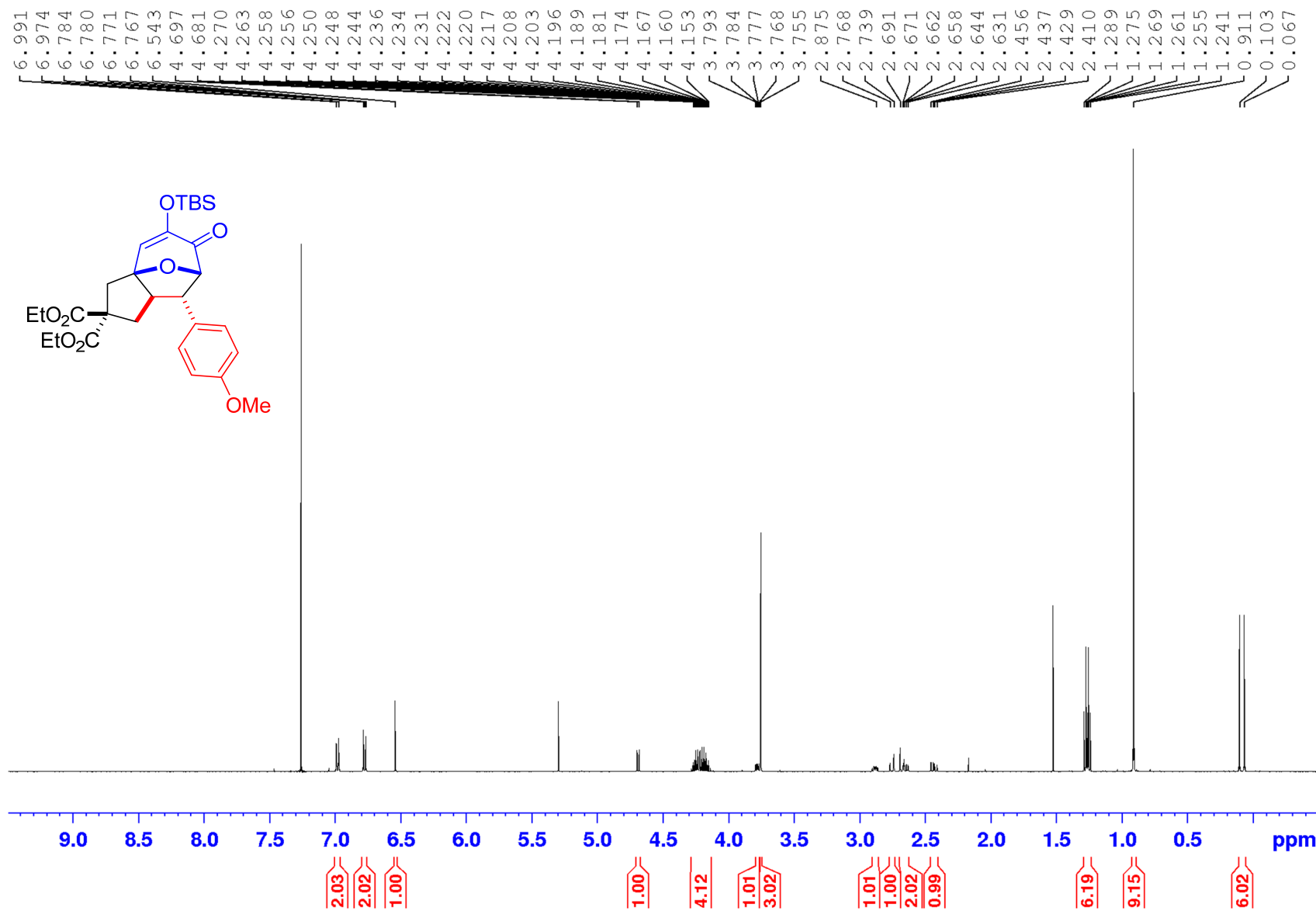


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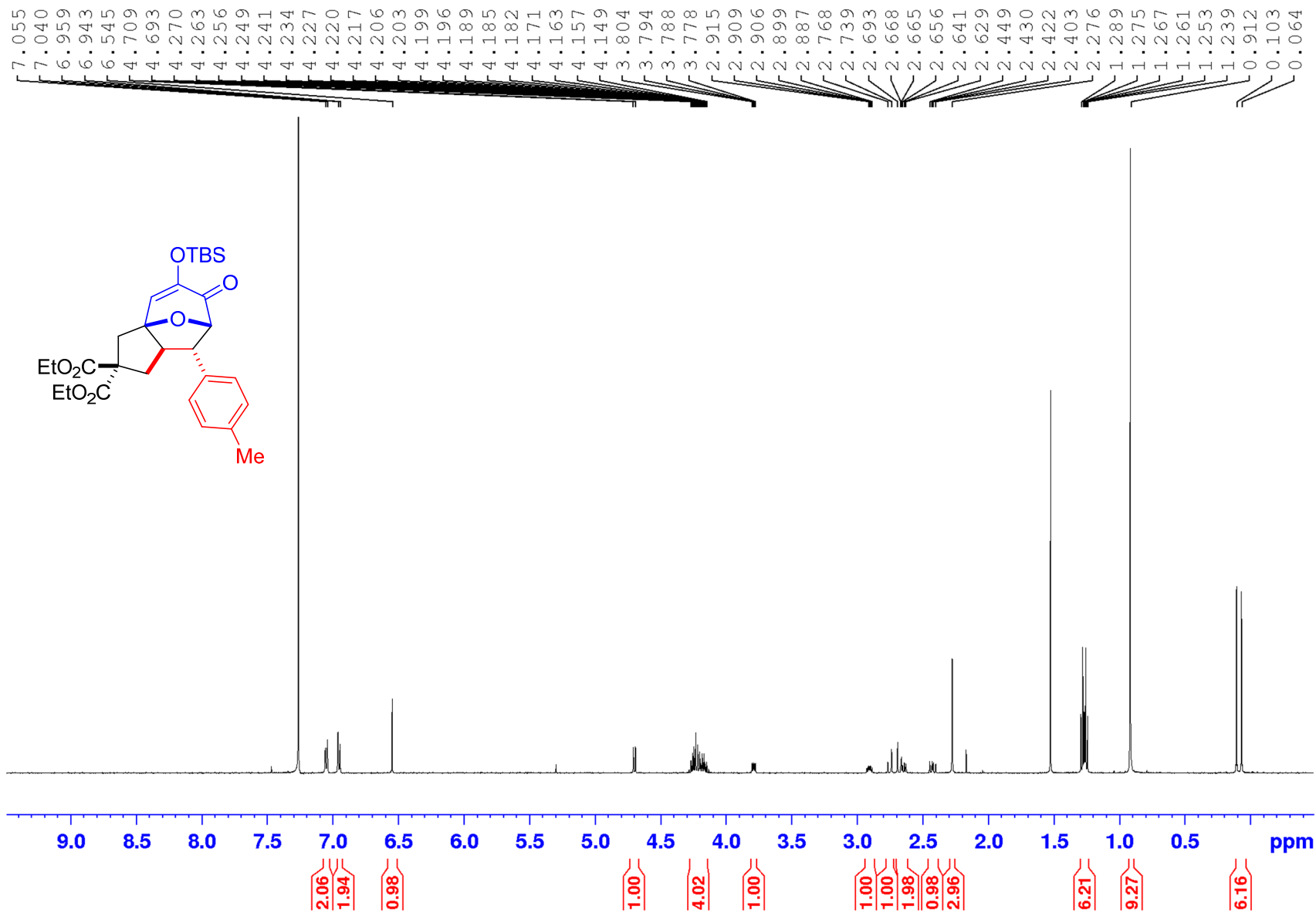


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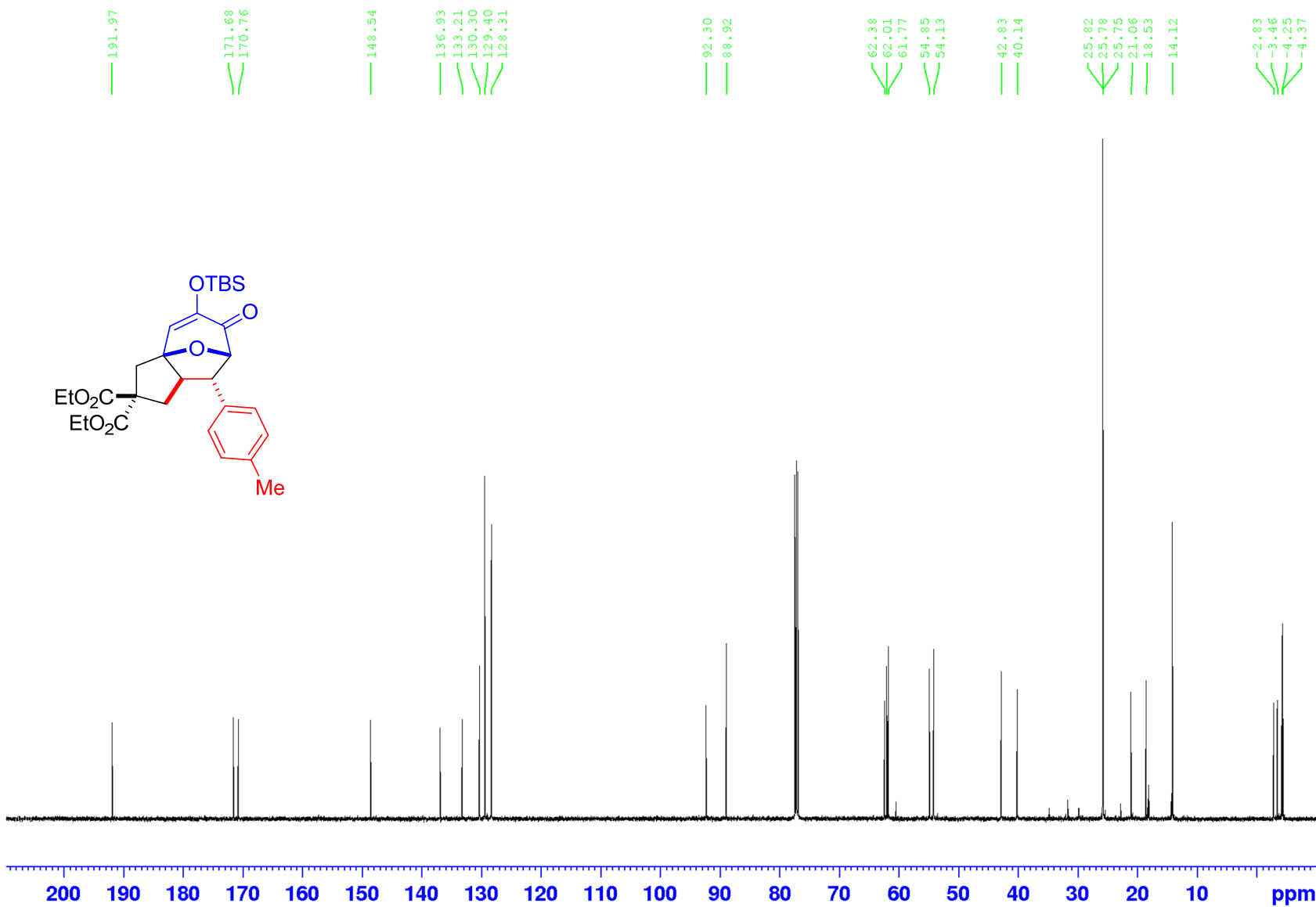




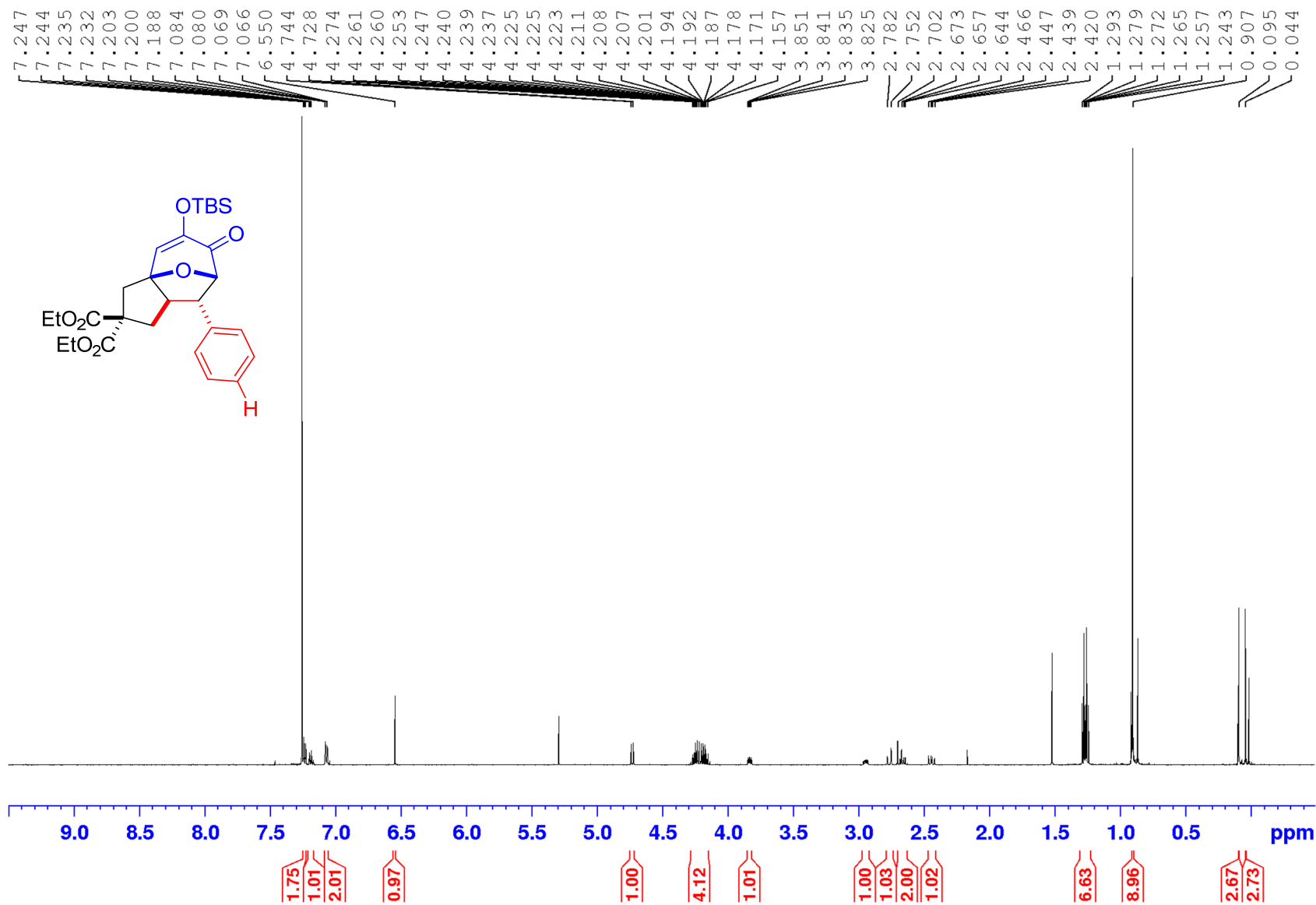
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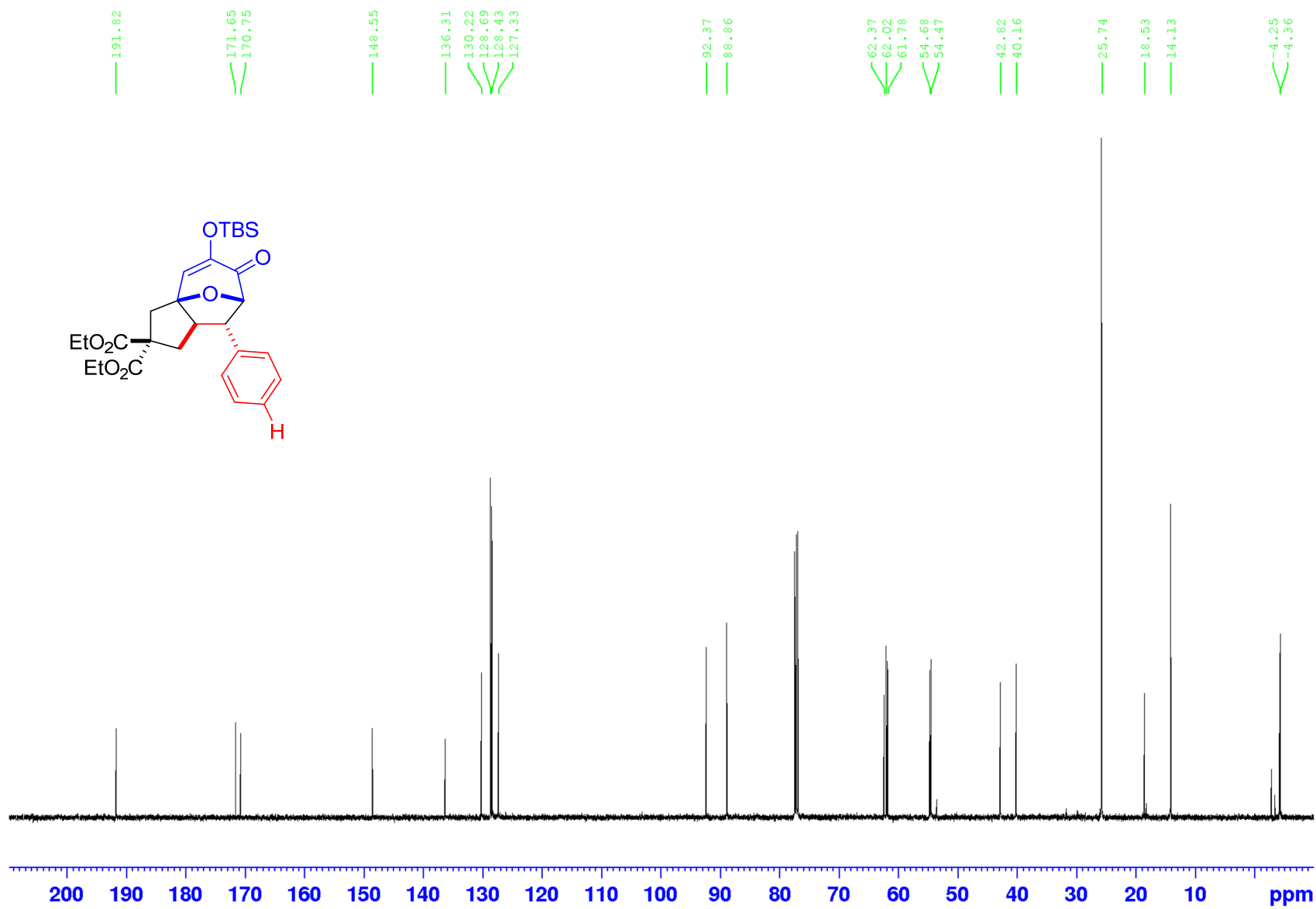
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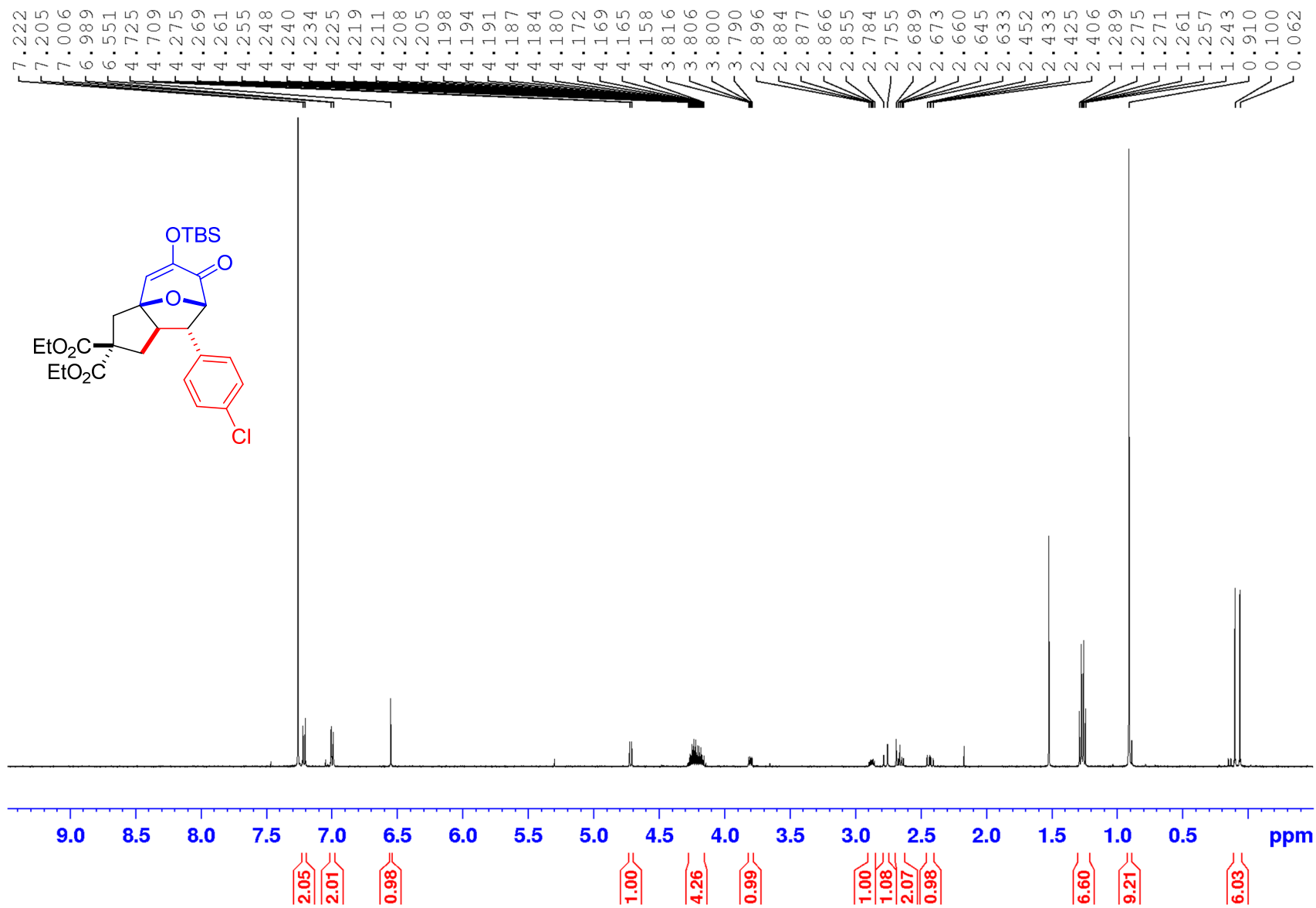
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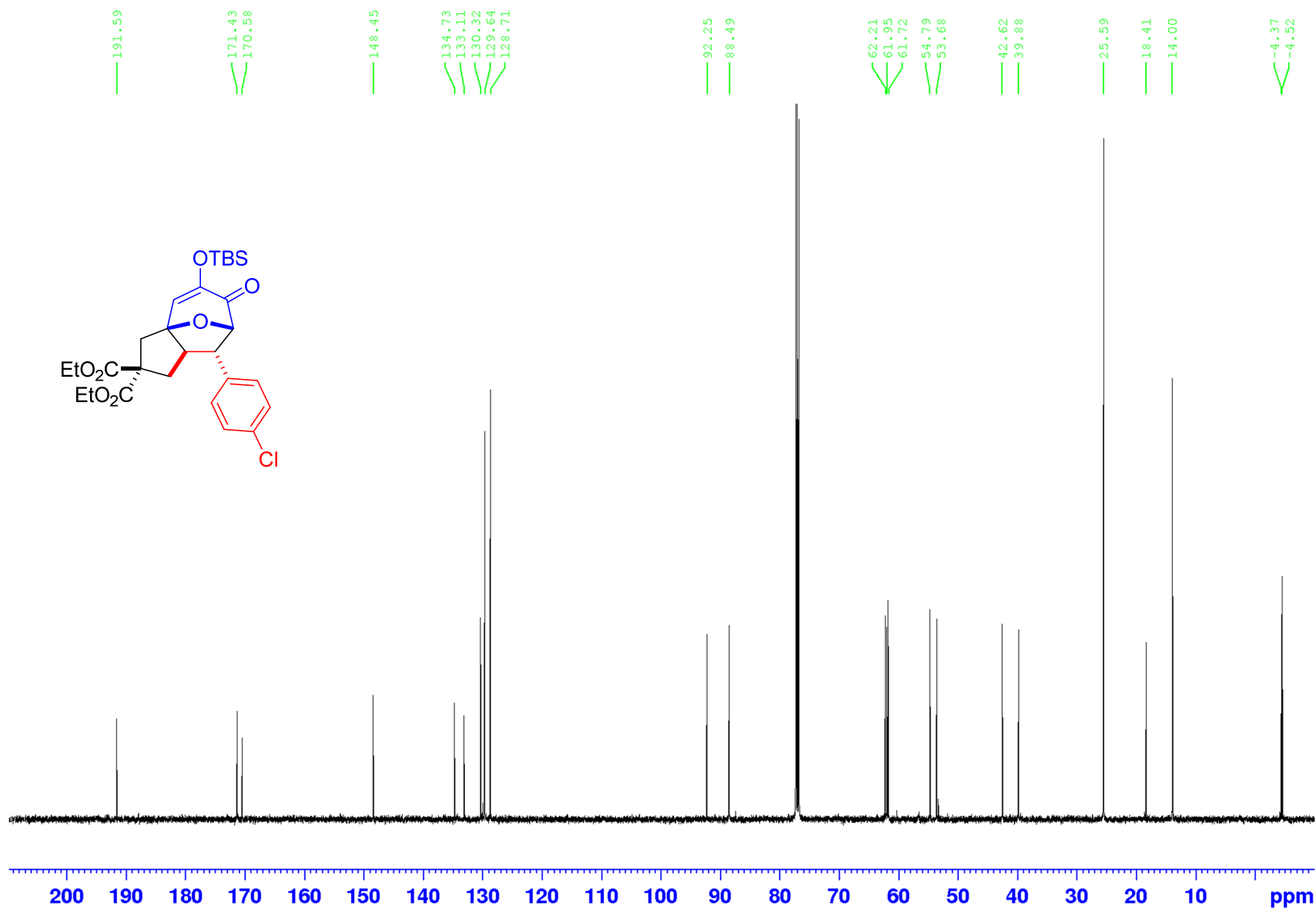
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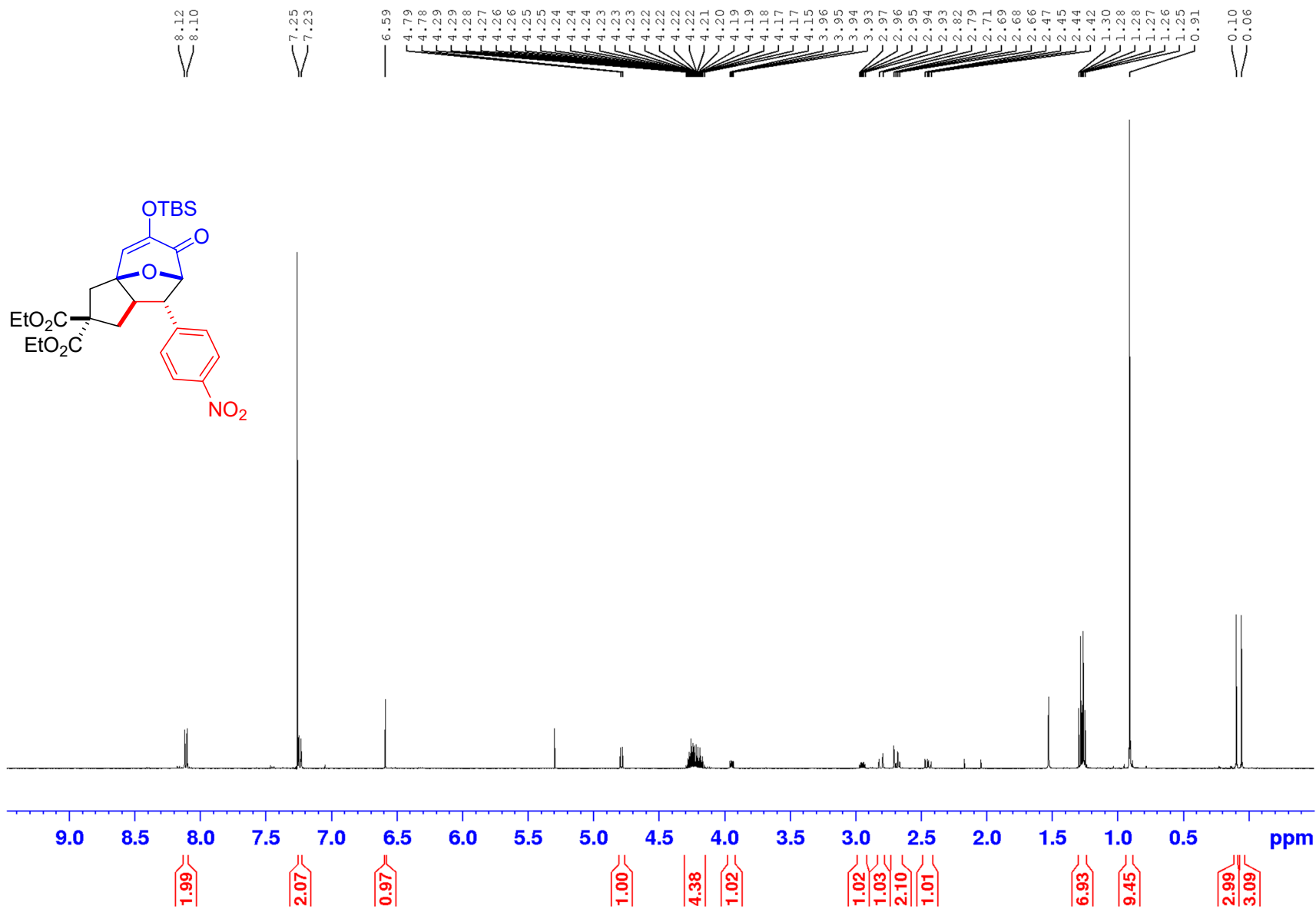
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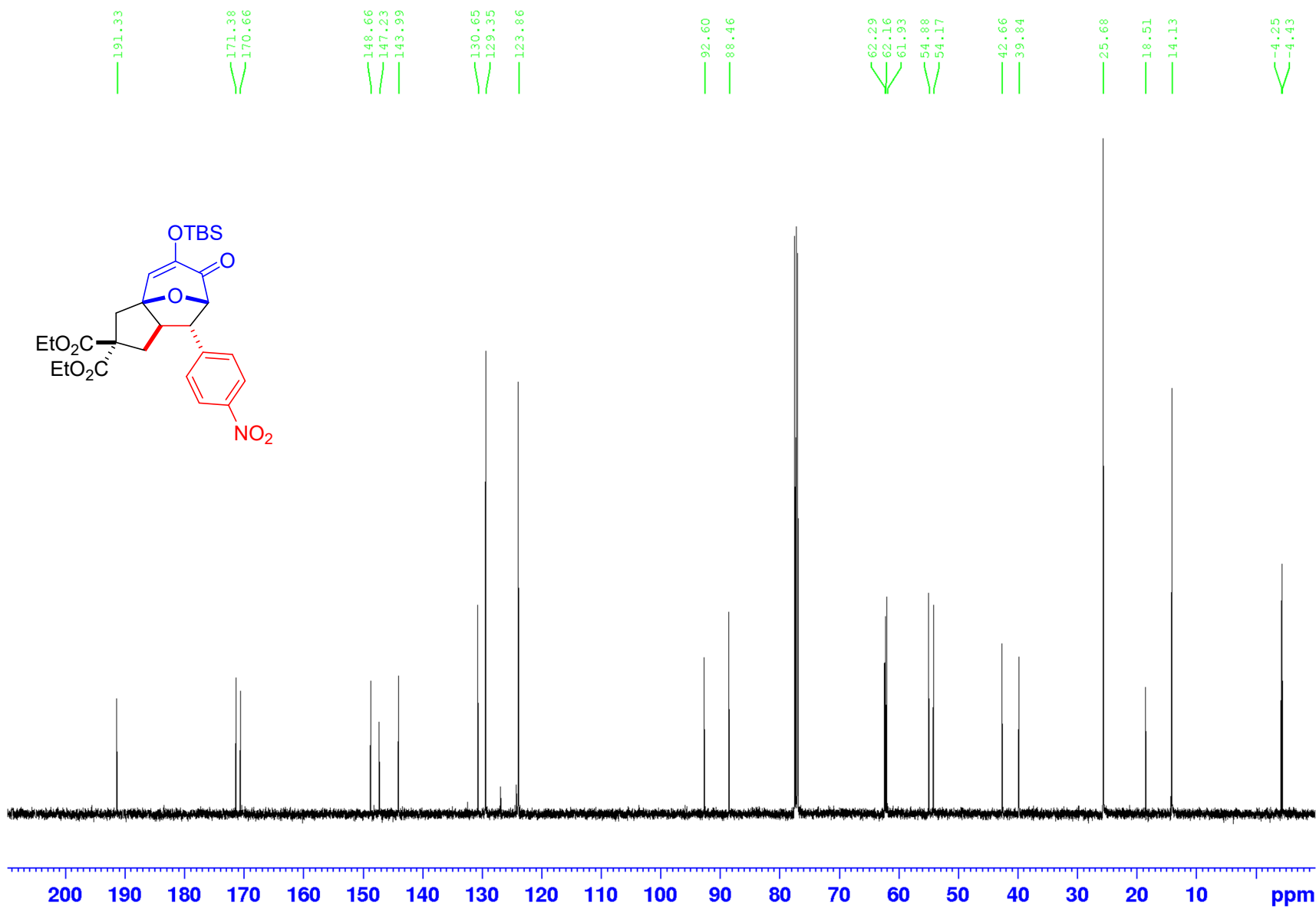
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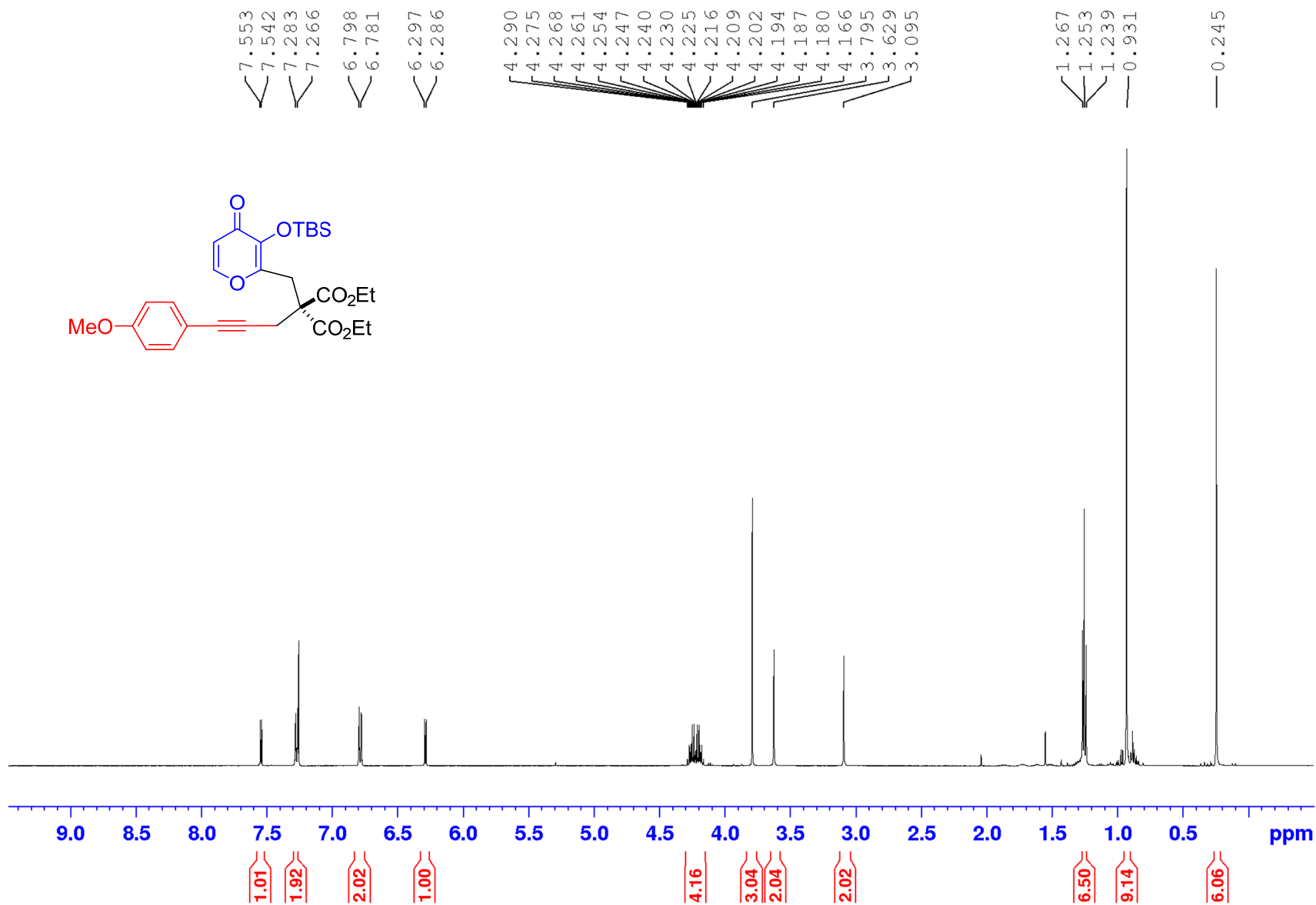
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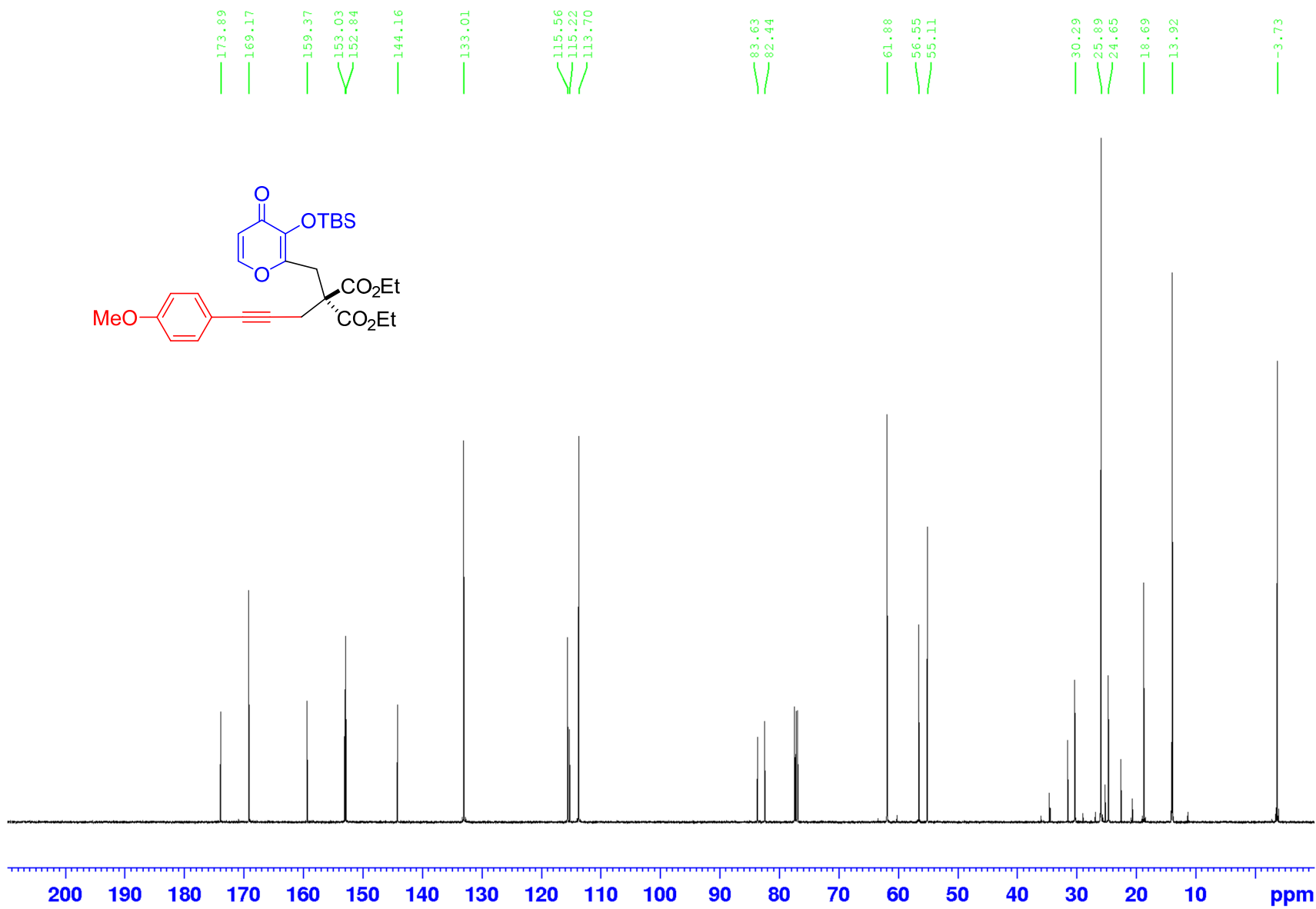
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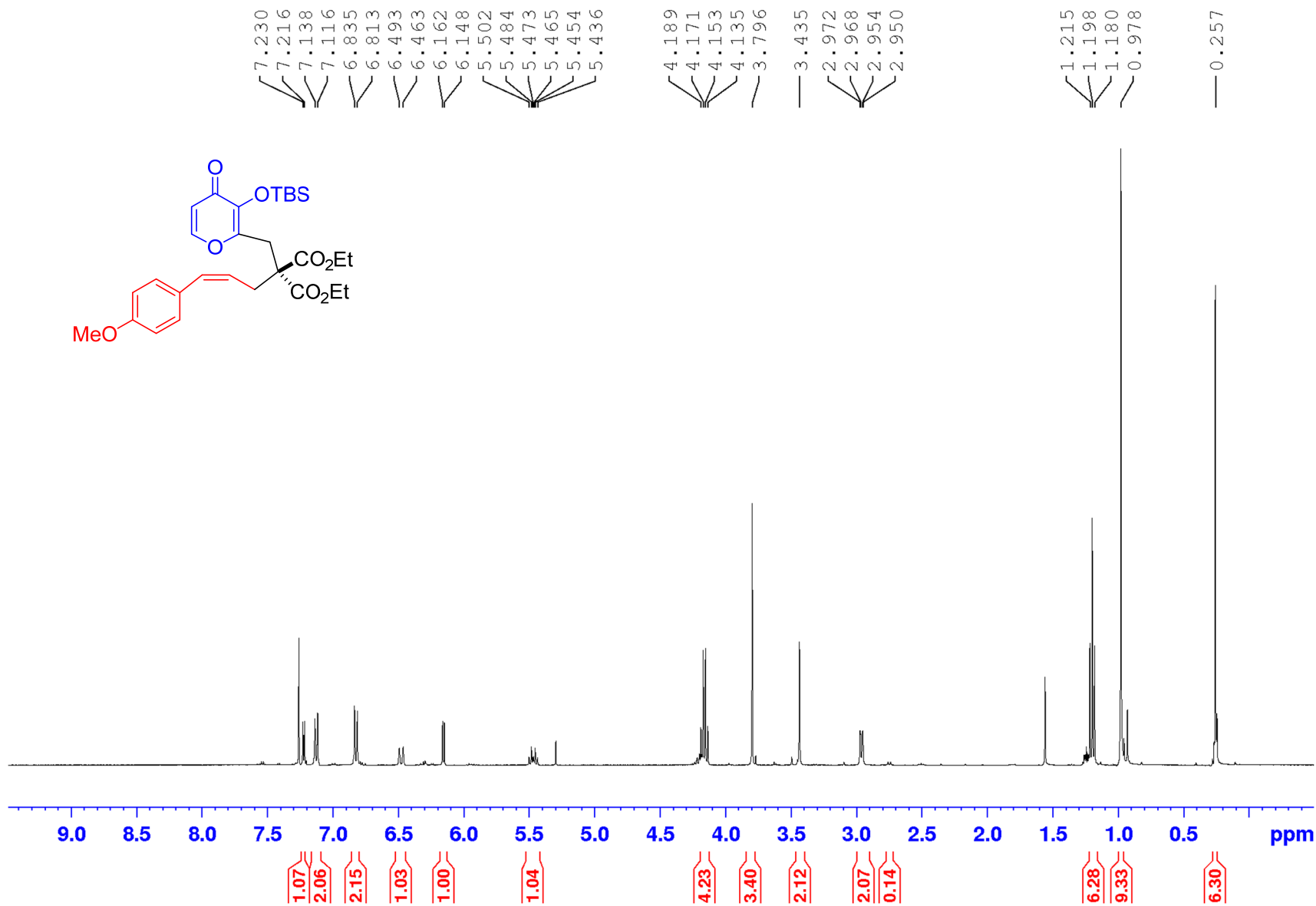
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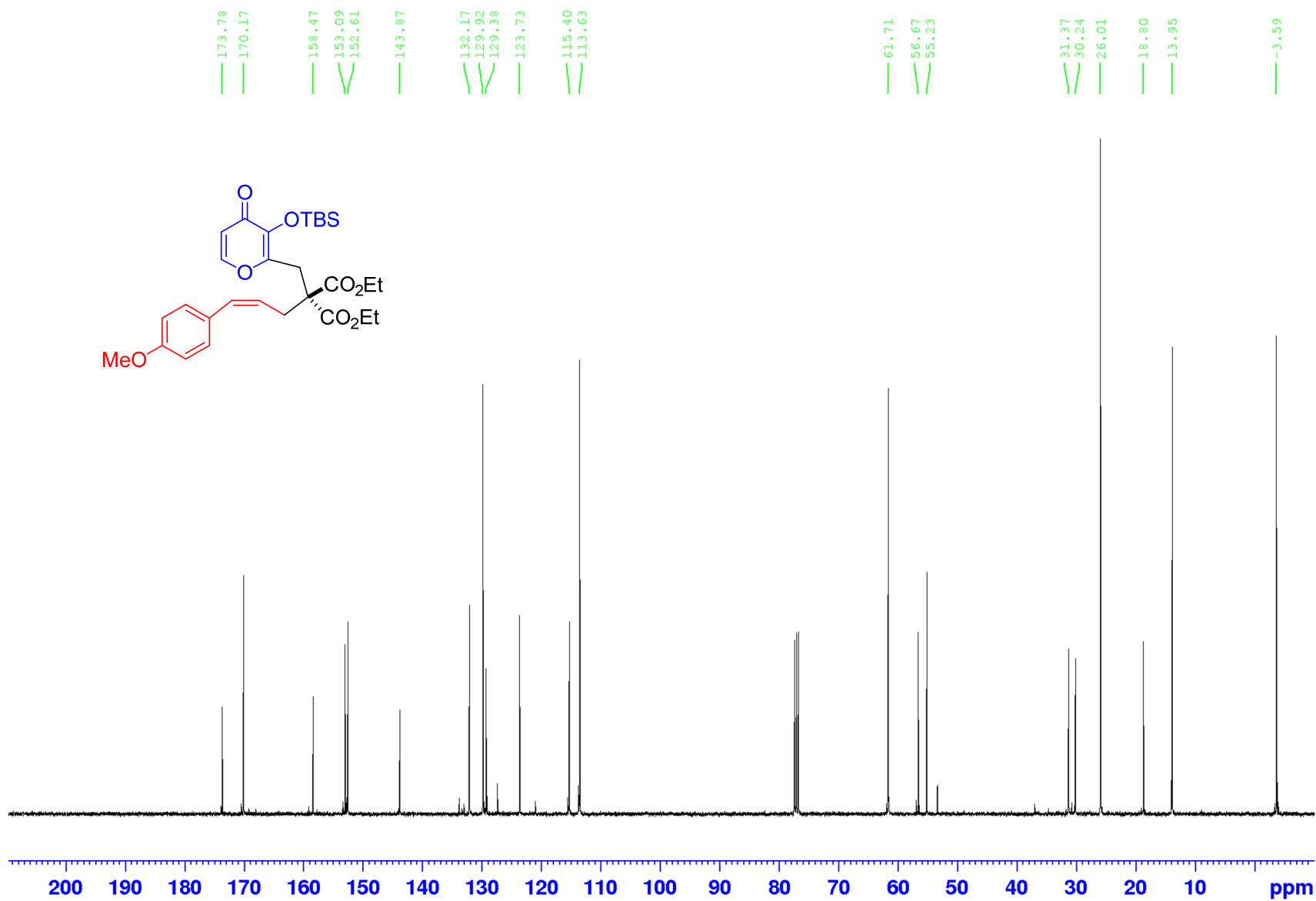
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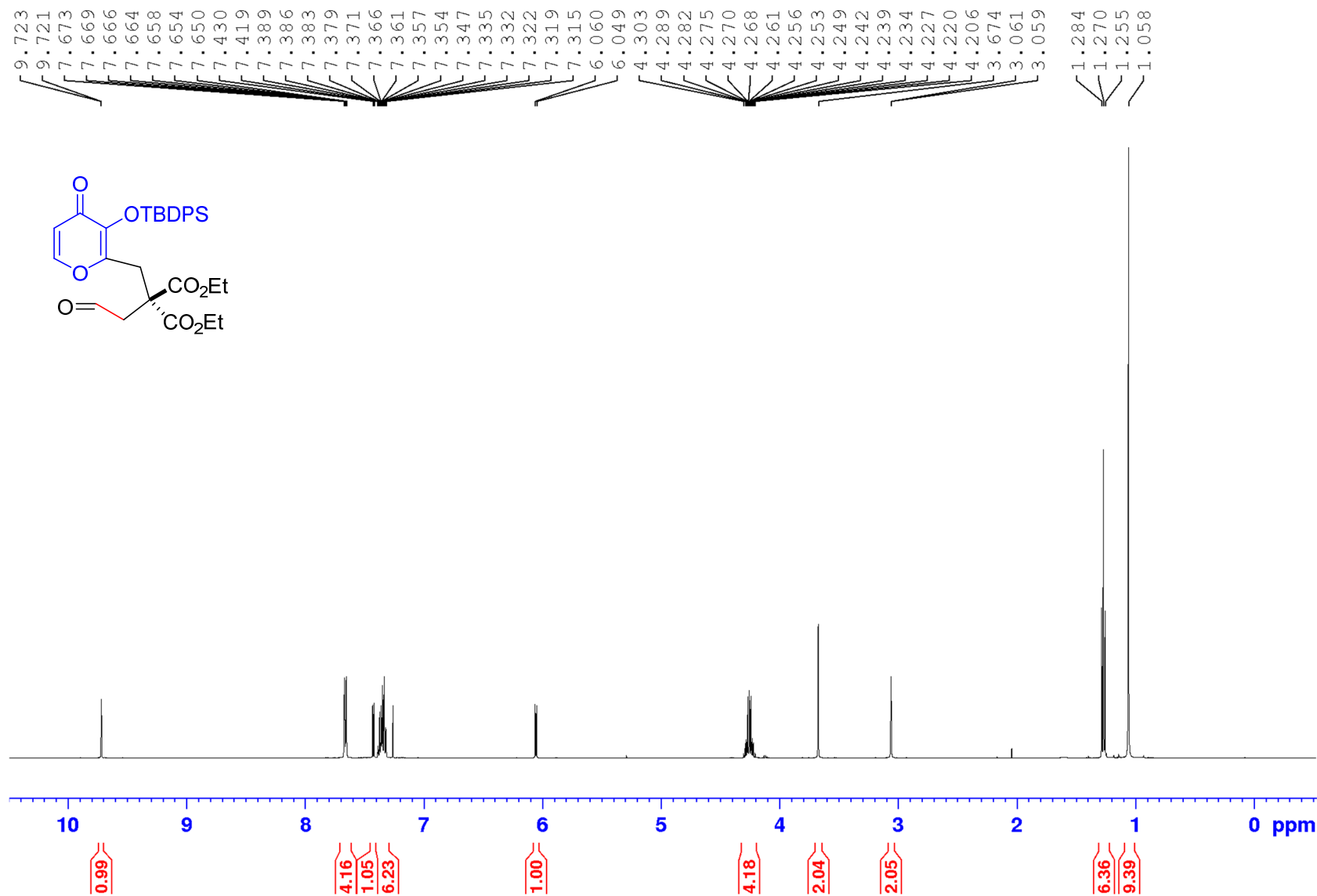
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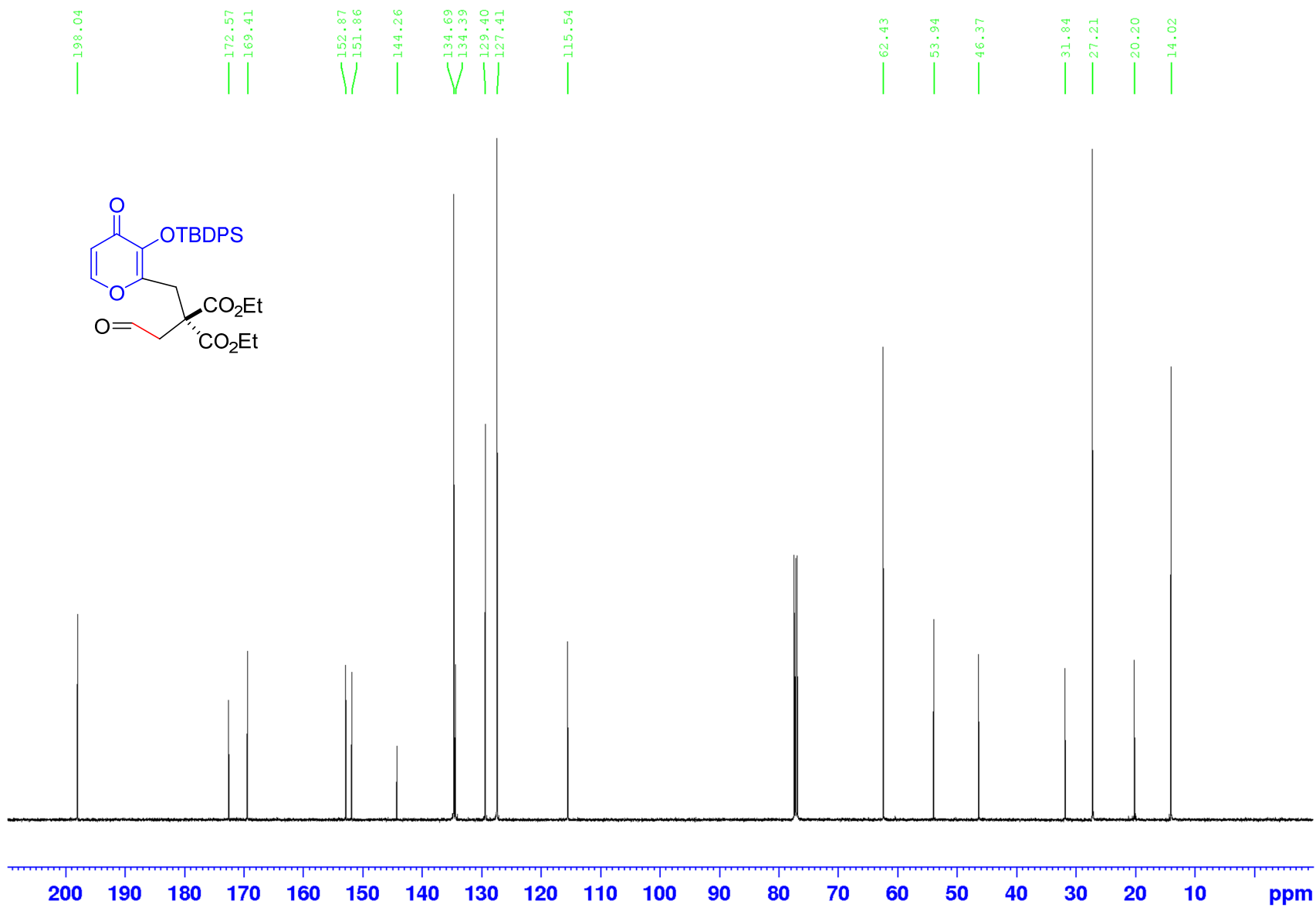
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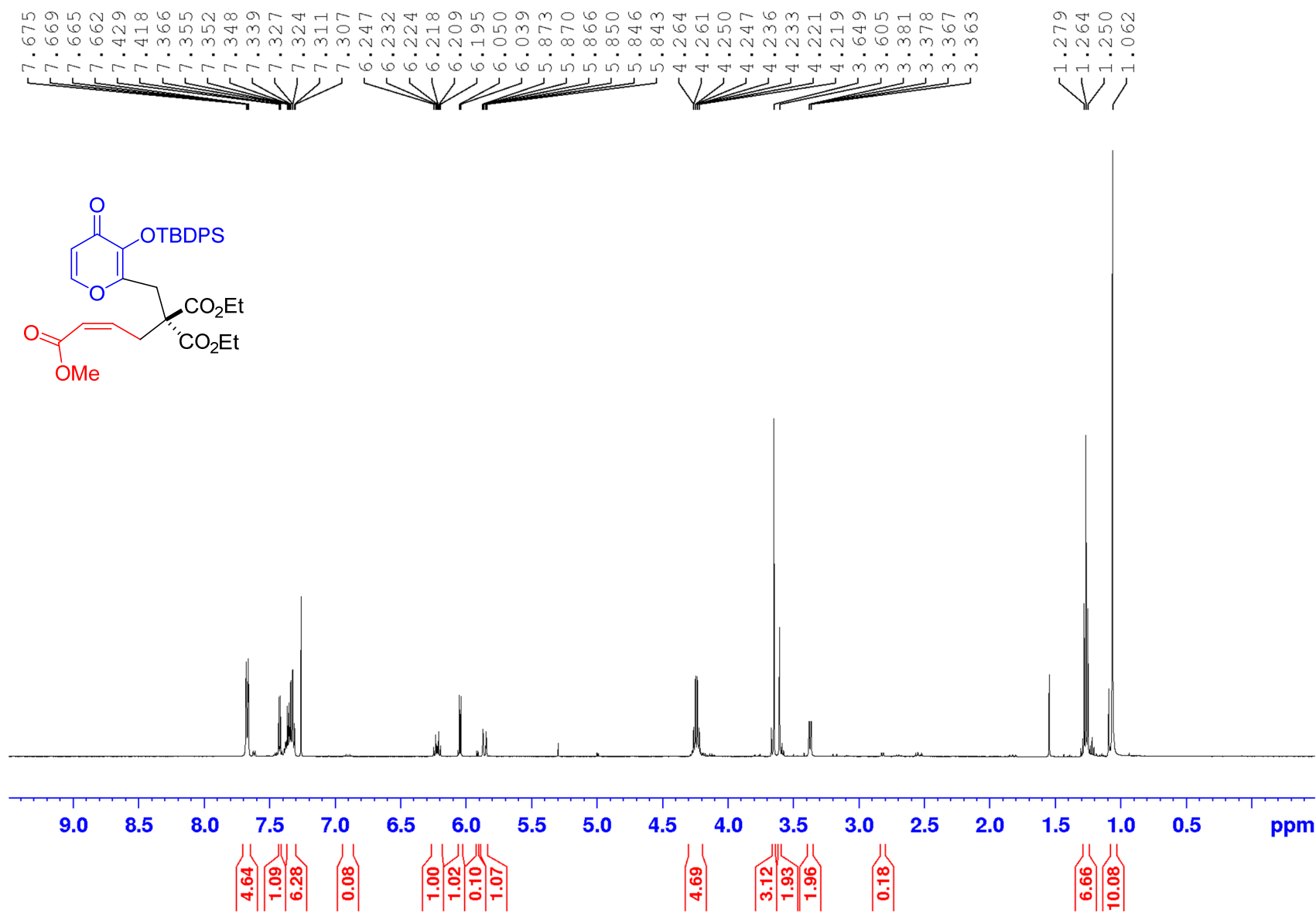


¹³C{¹H} NMR (100 MHz) of *cis*-1s in CDCl₃

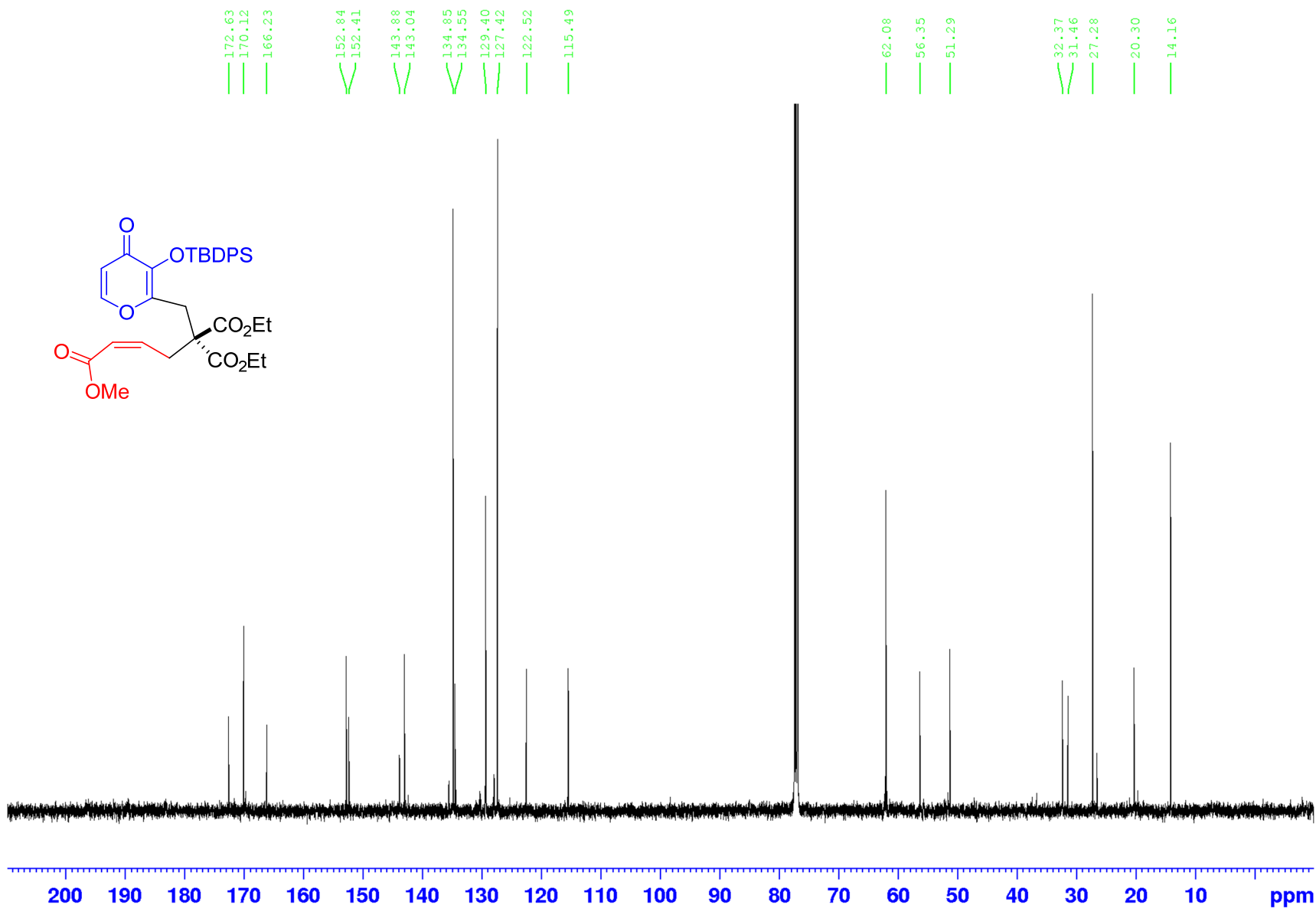


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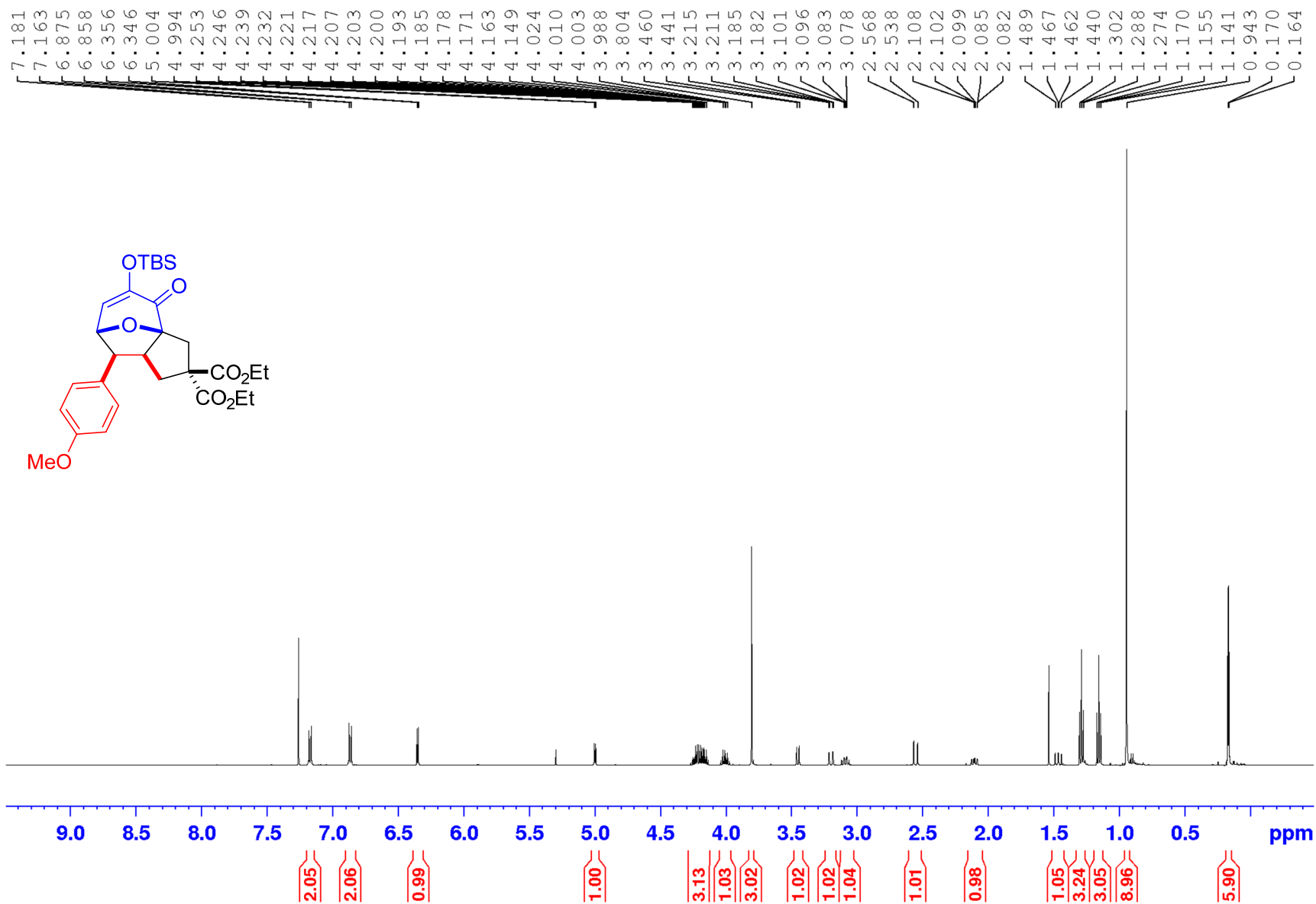




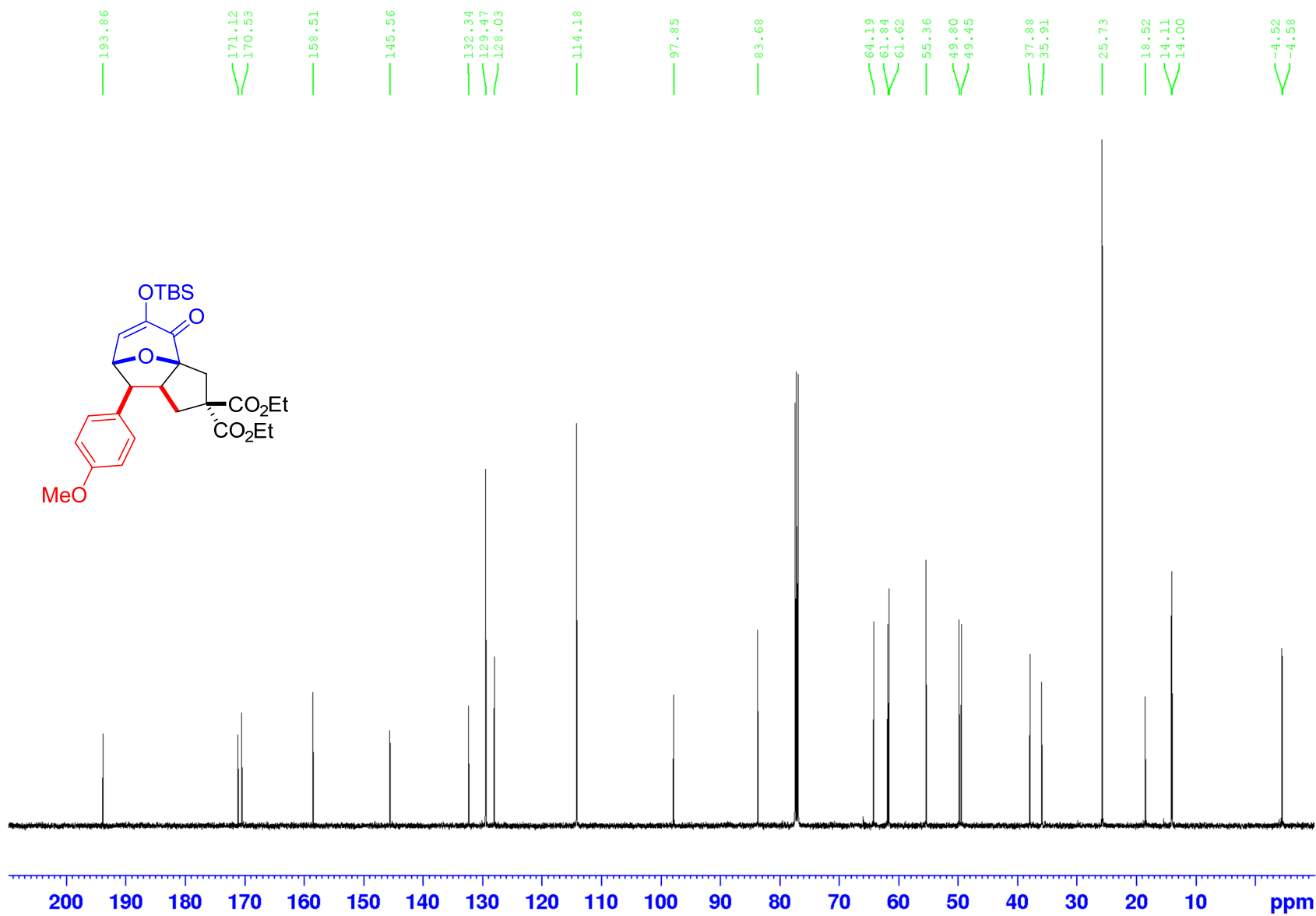
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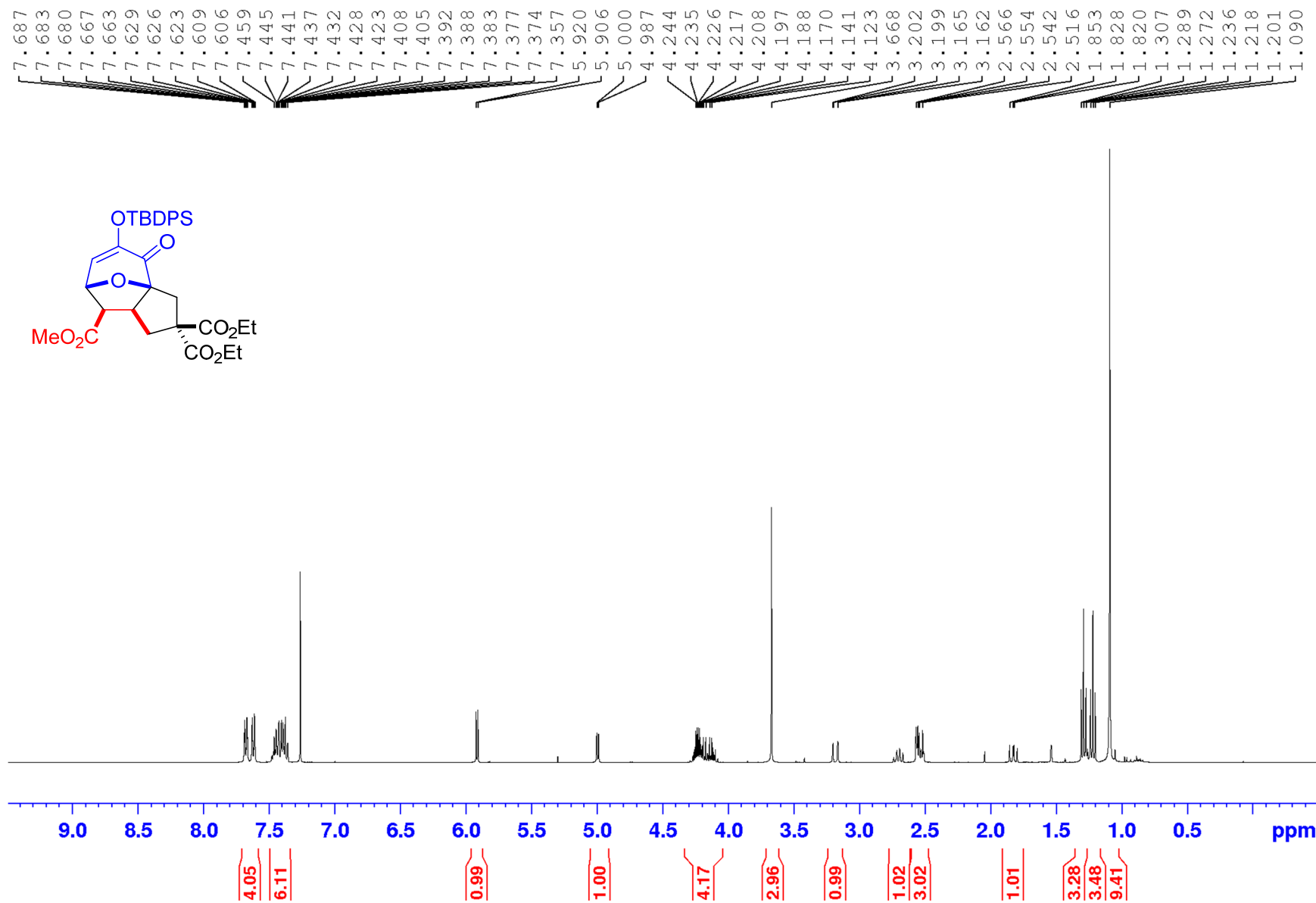
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz) of *cis*-1g in CDCl_3



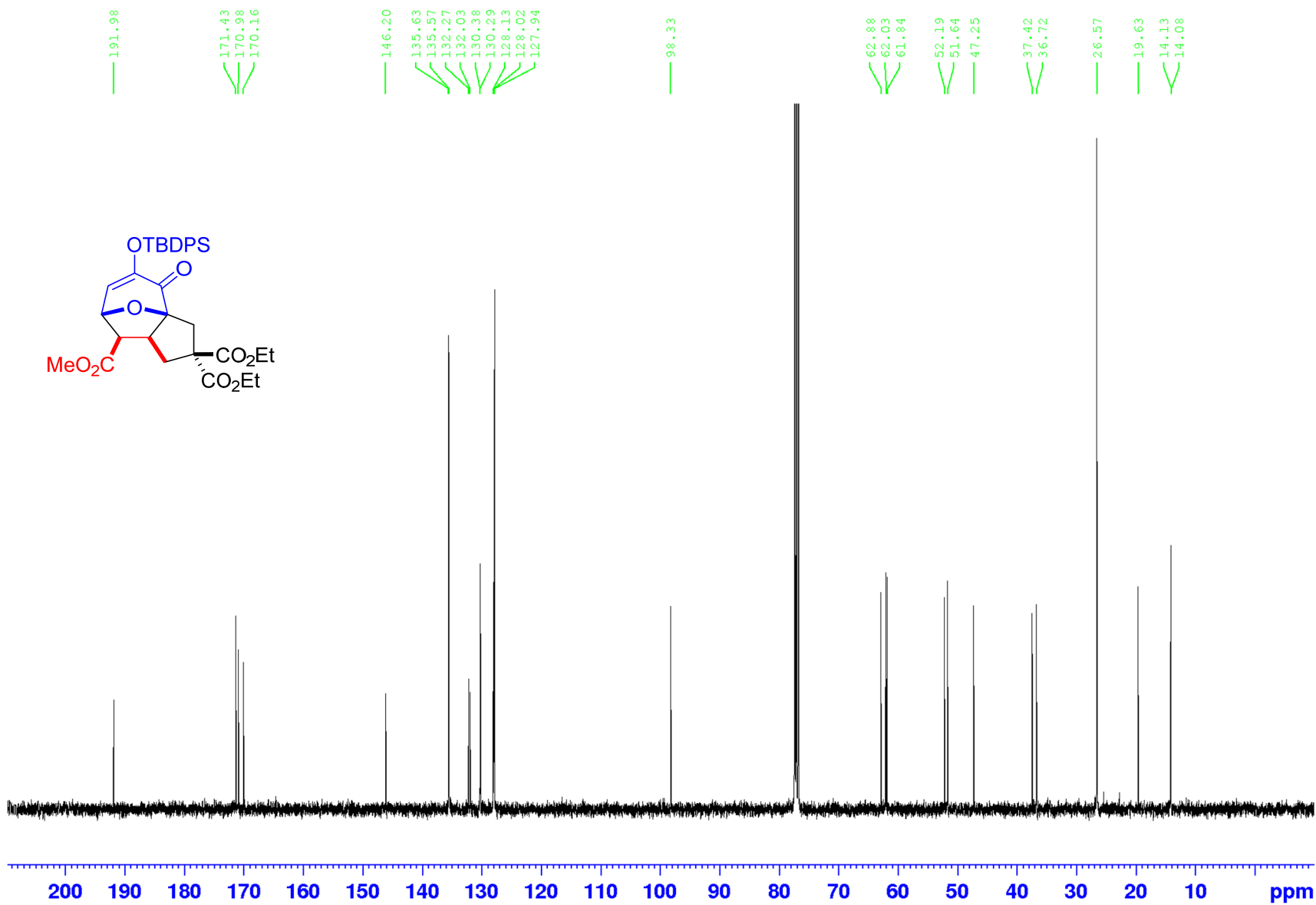
¹H NMR (500 MHz) of *cis*-2s in CDCl₃



¹³C{¹H} NMR (125 MHz) of *cis*-2s in CDCl₃



¹H NMR (400 MHz) of *cis*-2g in CDCl₃



¹³C{¹H} NMR (100 MHz) of *cis*-2g in CDCl₃