

Supporting Information-II

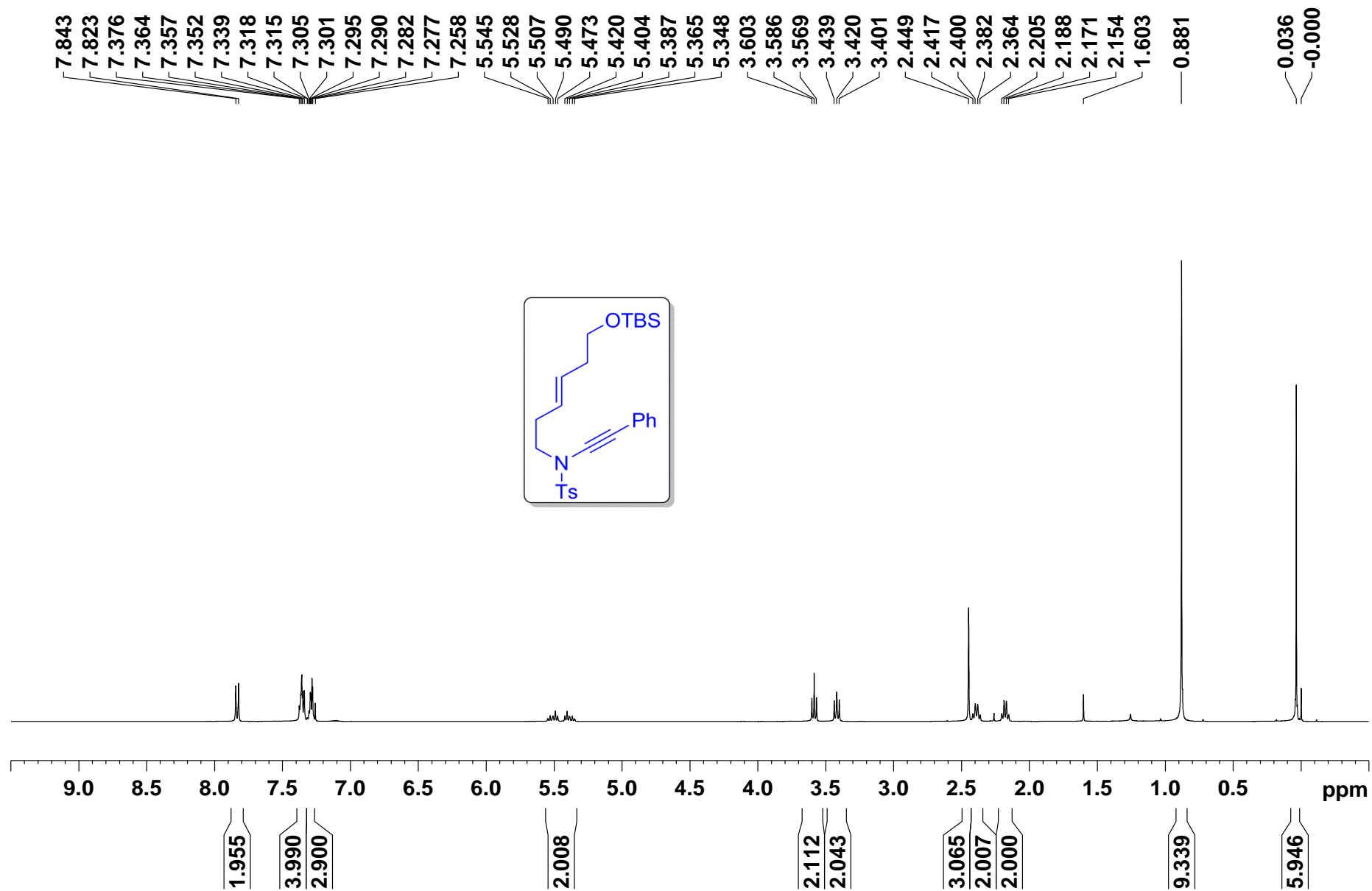
NMR Spectral Data

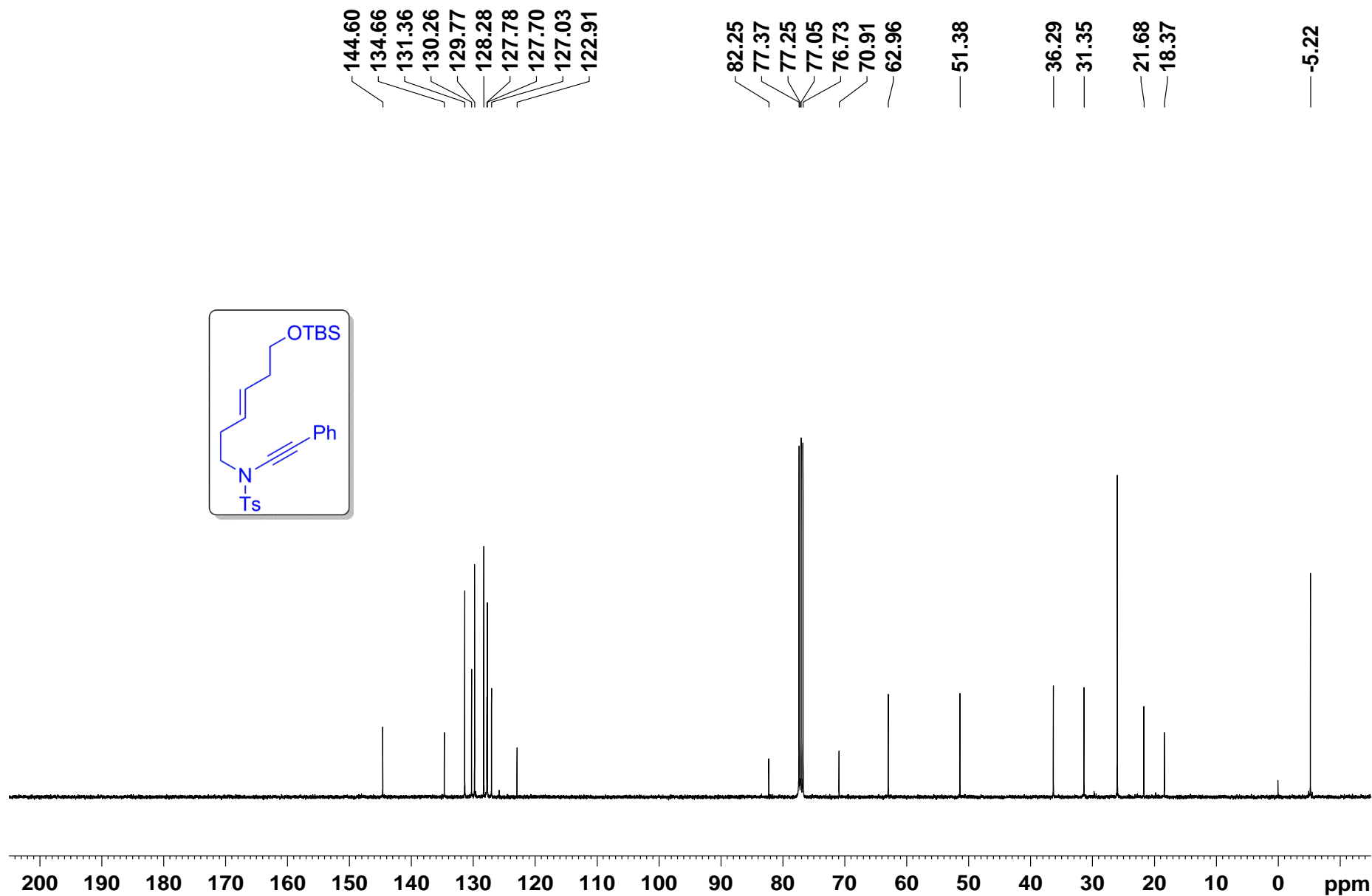
Aminocatalytic asymmetric [4+2]-annulation to access functionally rich hexahydrospiroindole pyrazolones

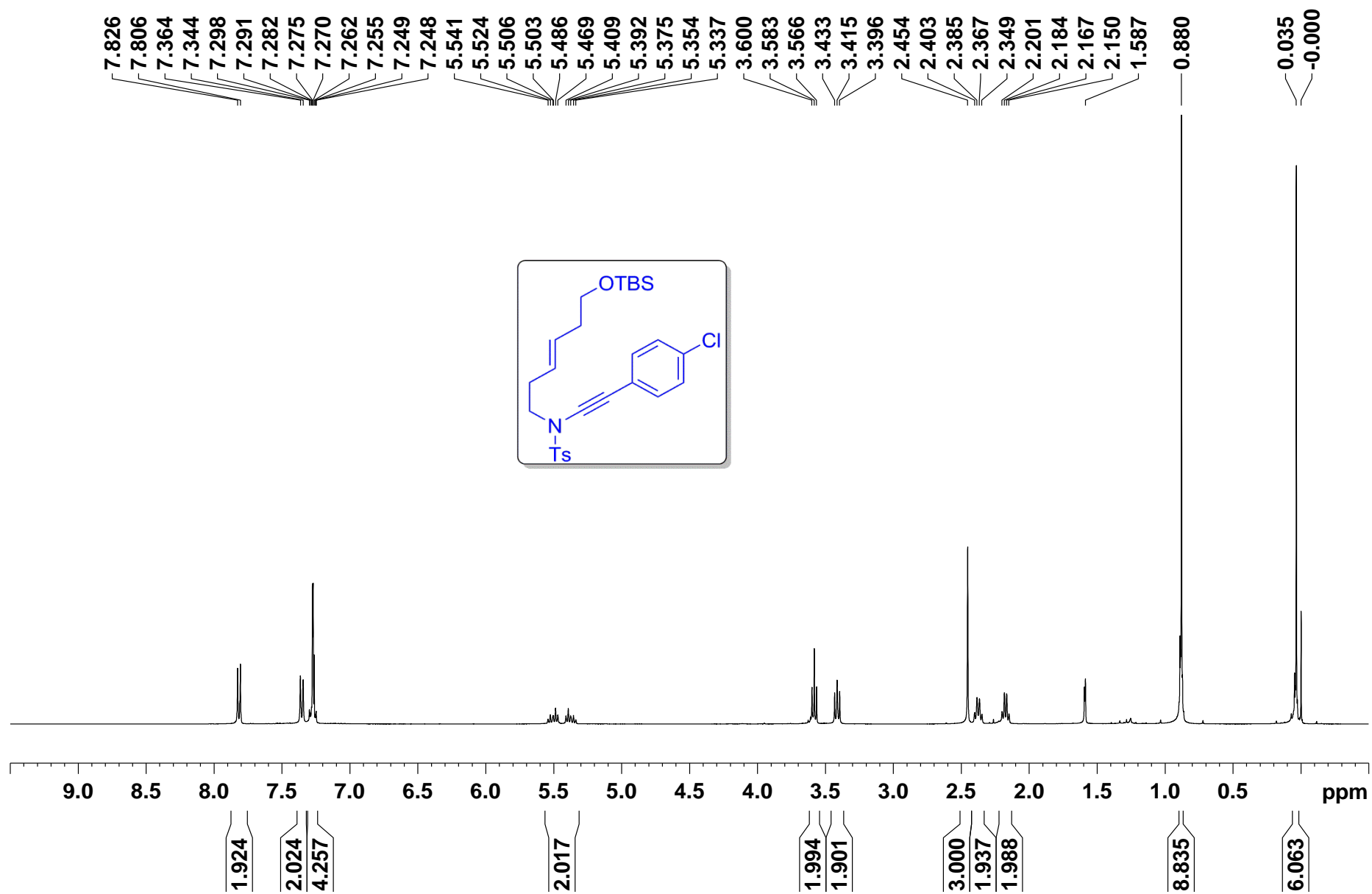
Madavi S. Prasad,* Murugesan Sivaprakash, and A. Palanichamy

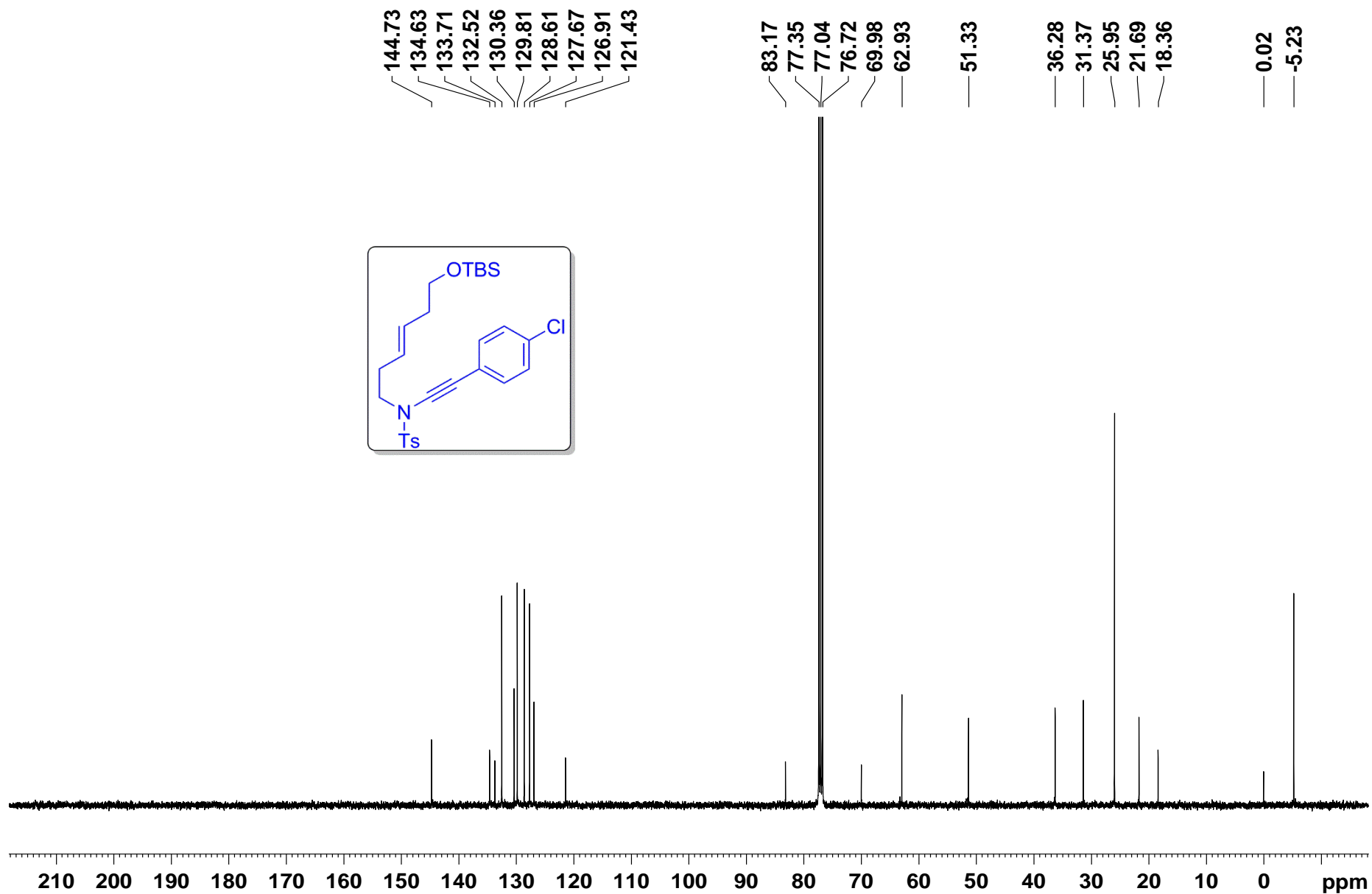
Asymmetric Synthesis and Catalysis Laboratory, Department of Chemistry, Central University of Tamil Nadu, Thiruvarur, 610 005, India

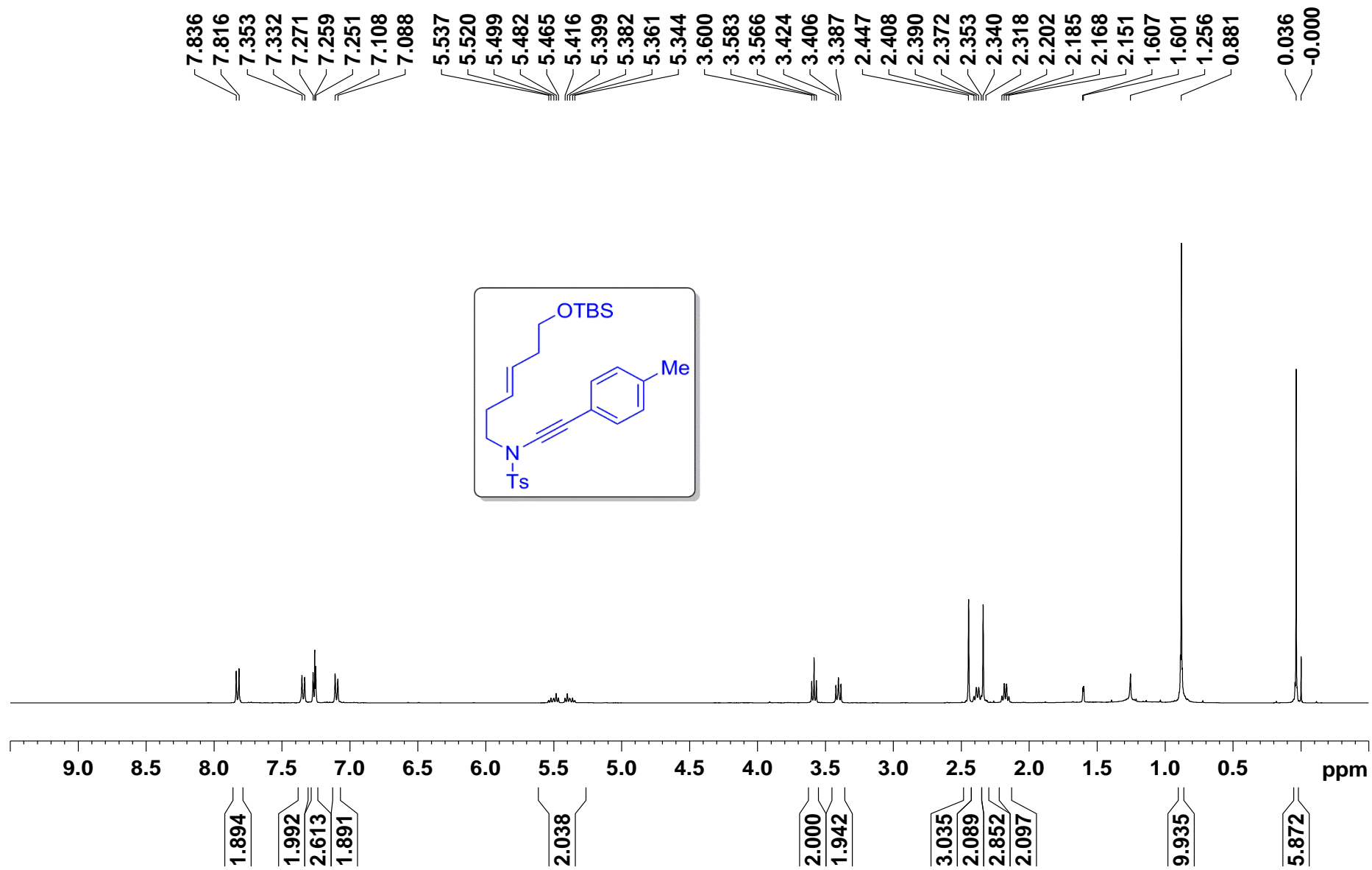
shivaprasad@cutn.ac.in and shivacutn@gmail.com

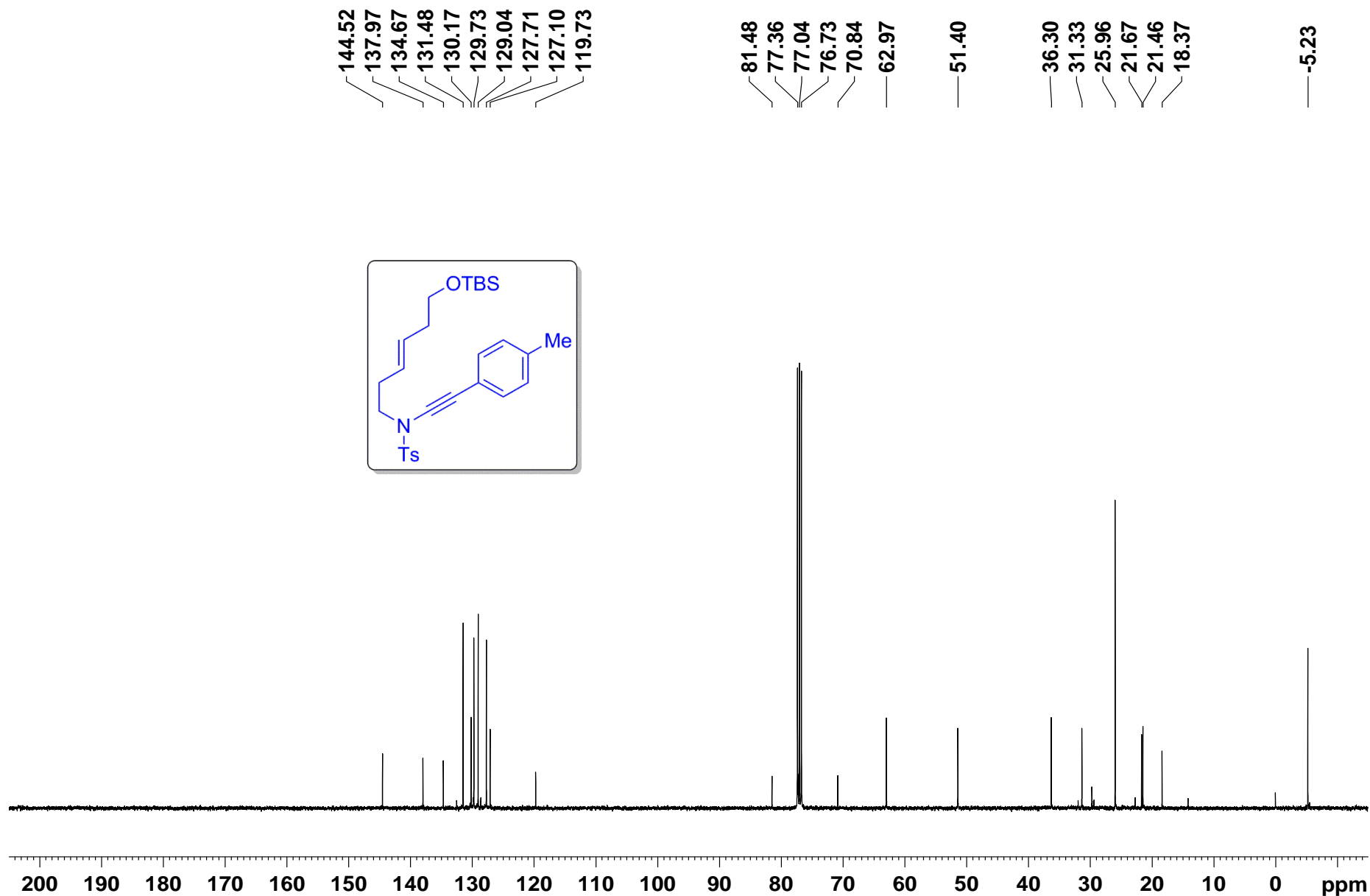


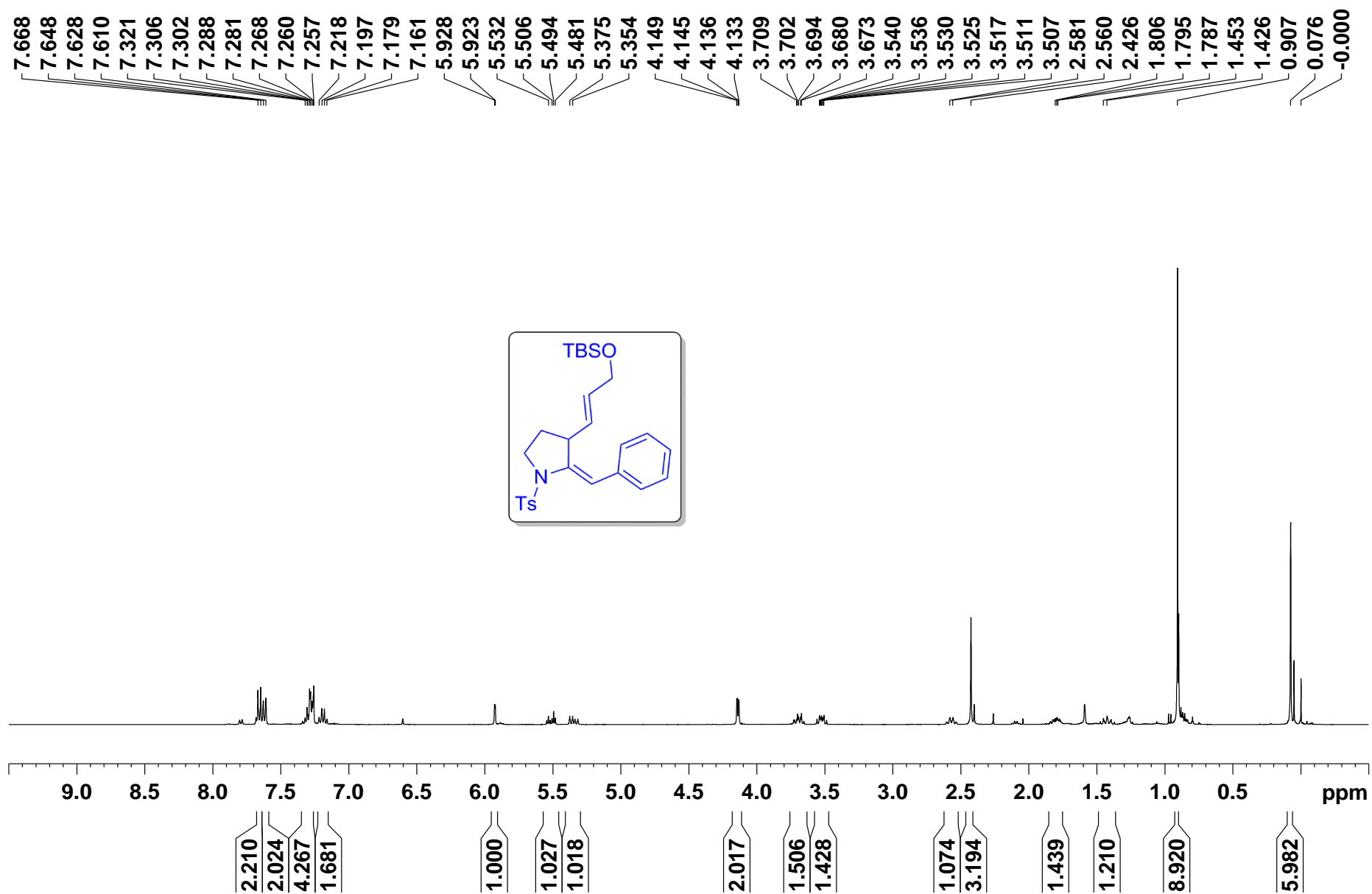


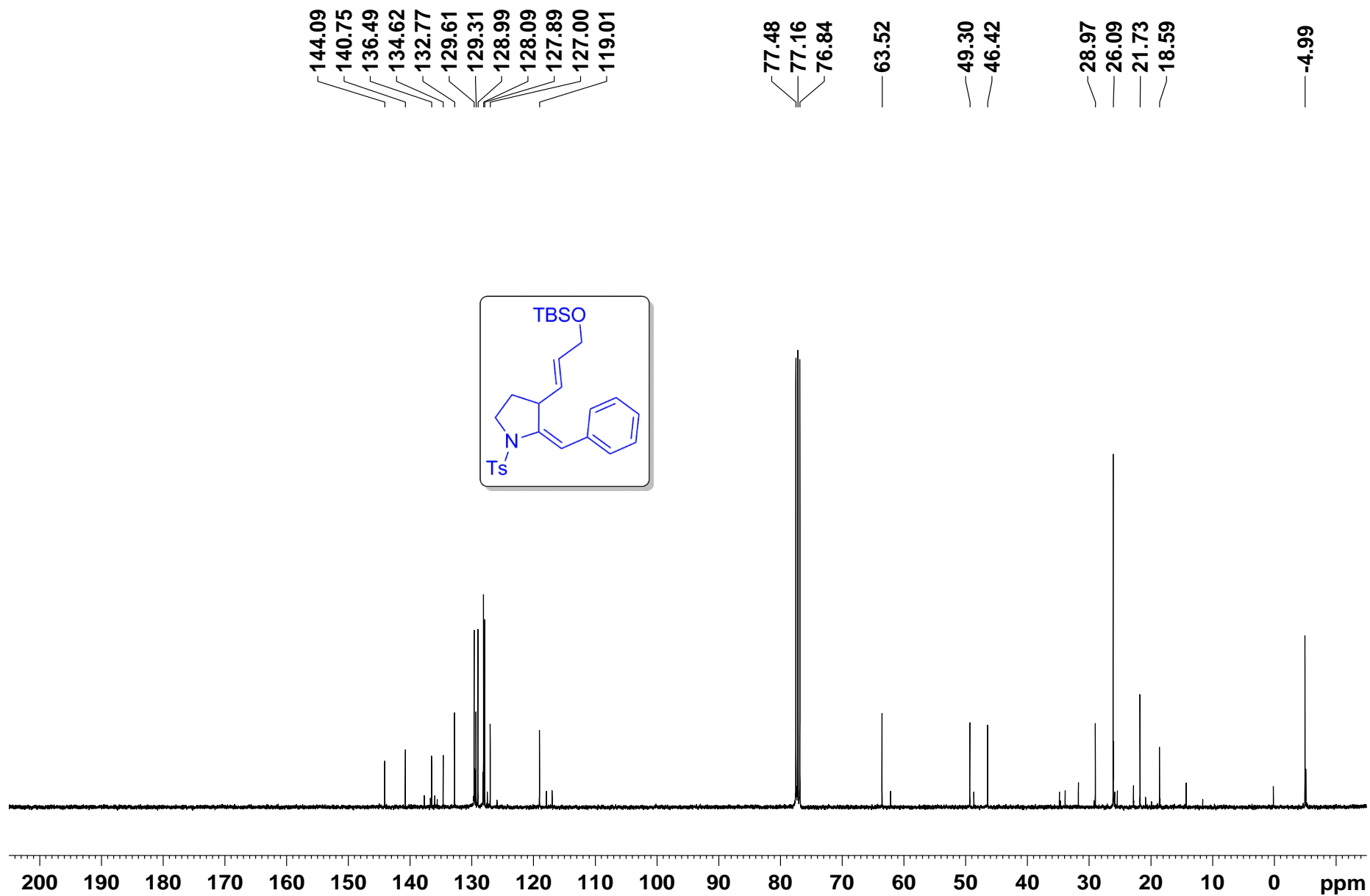


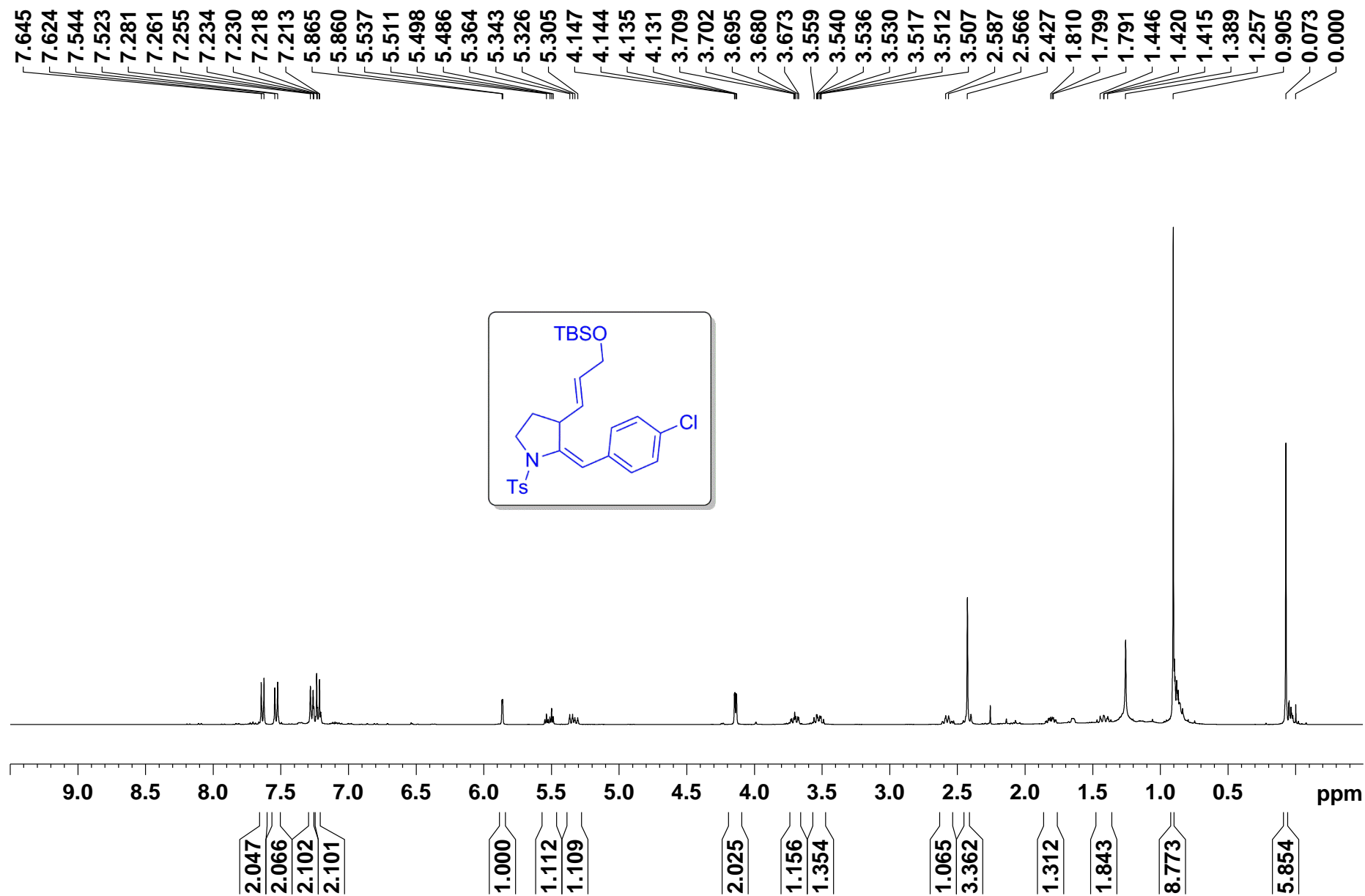


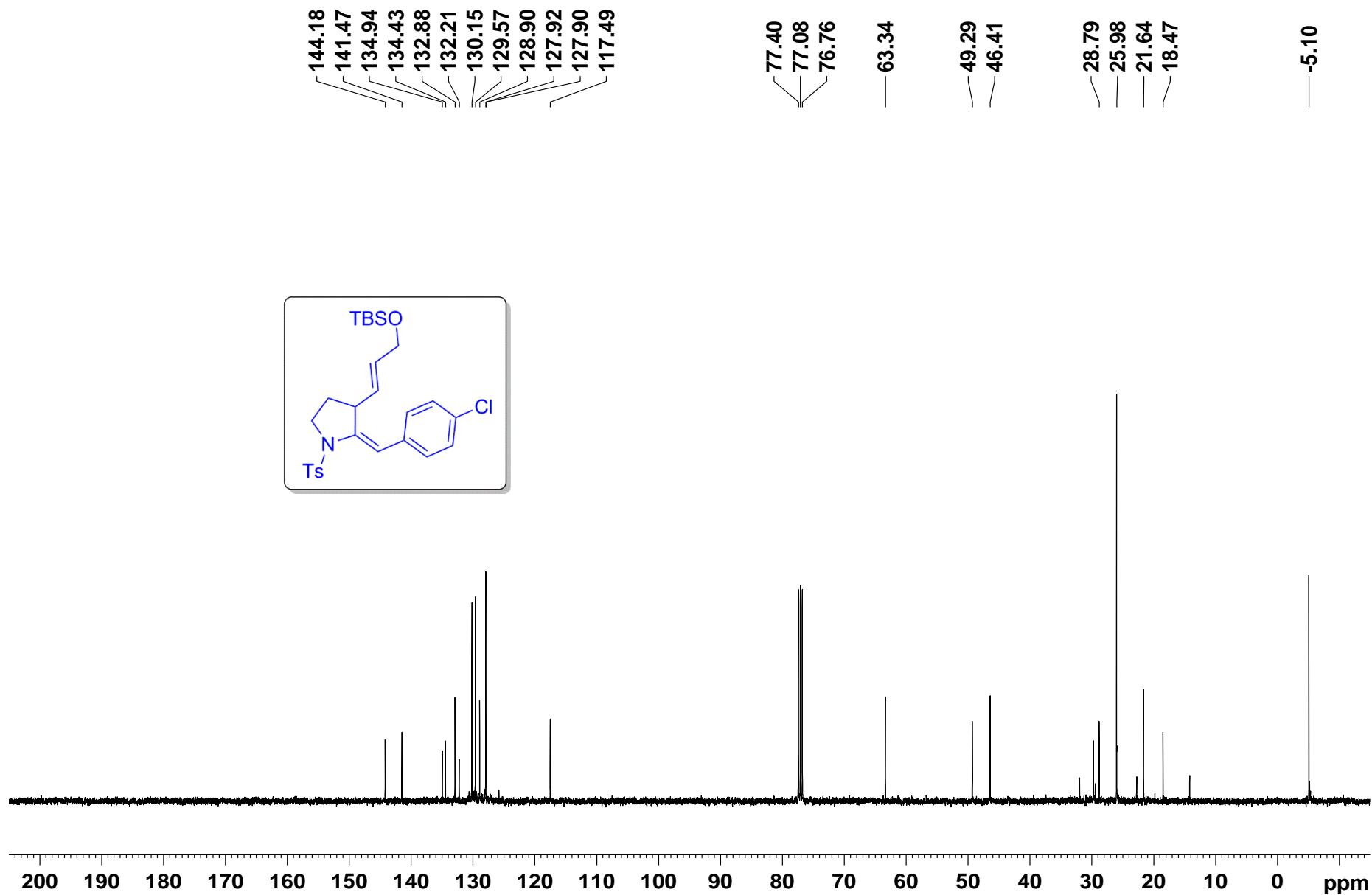
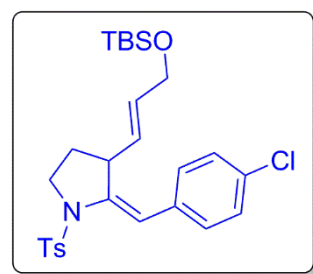


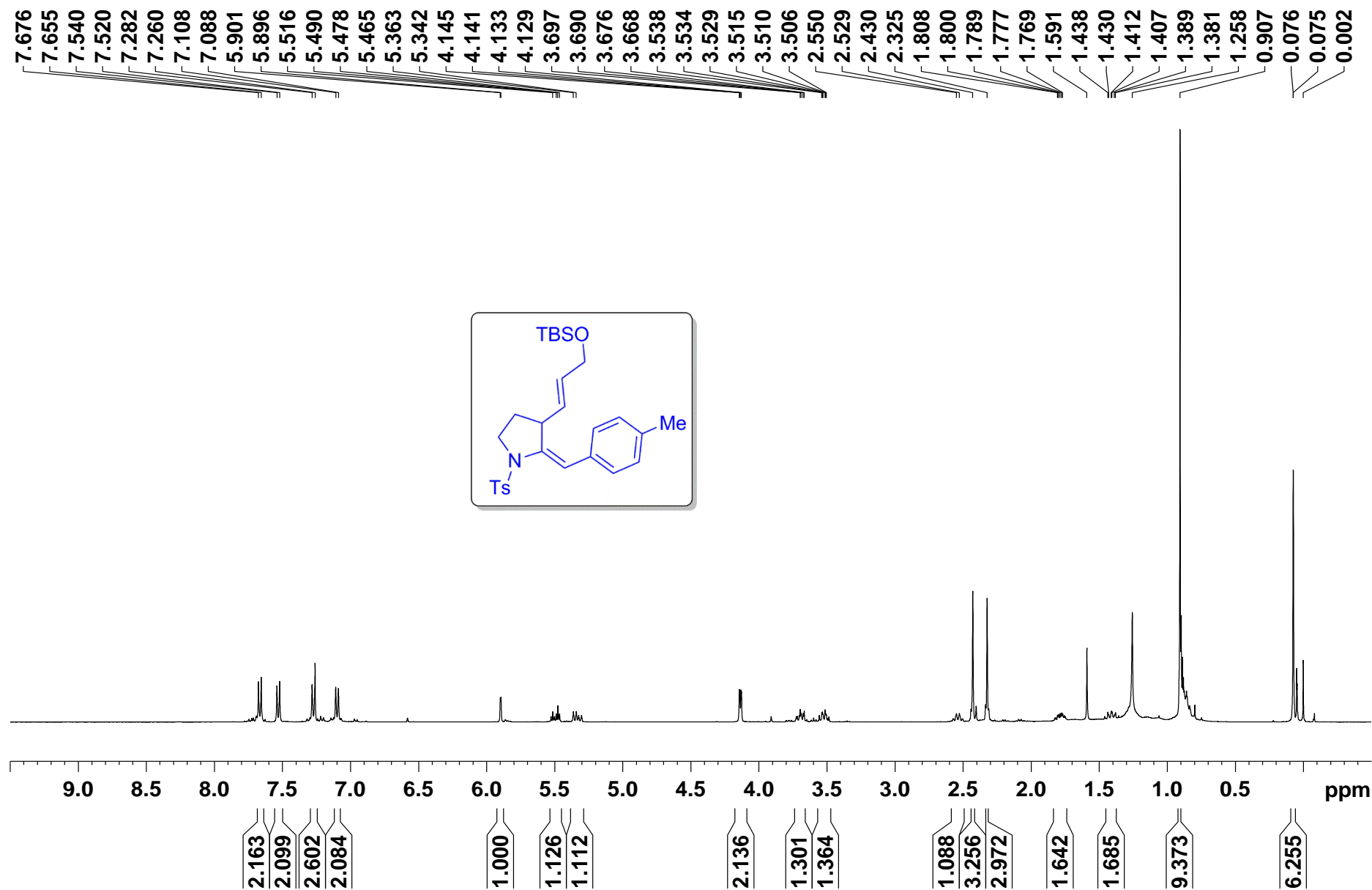


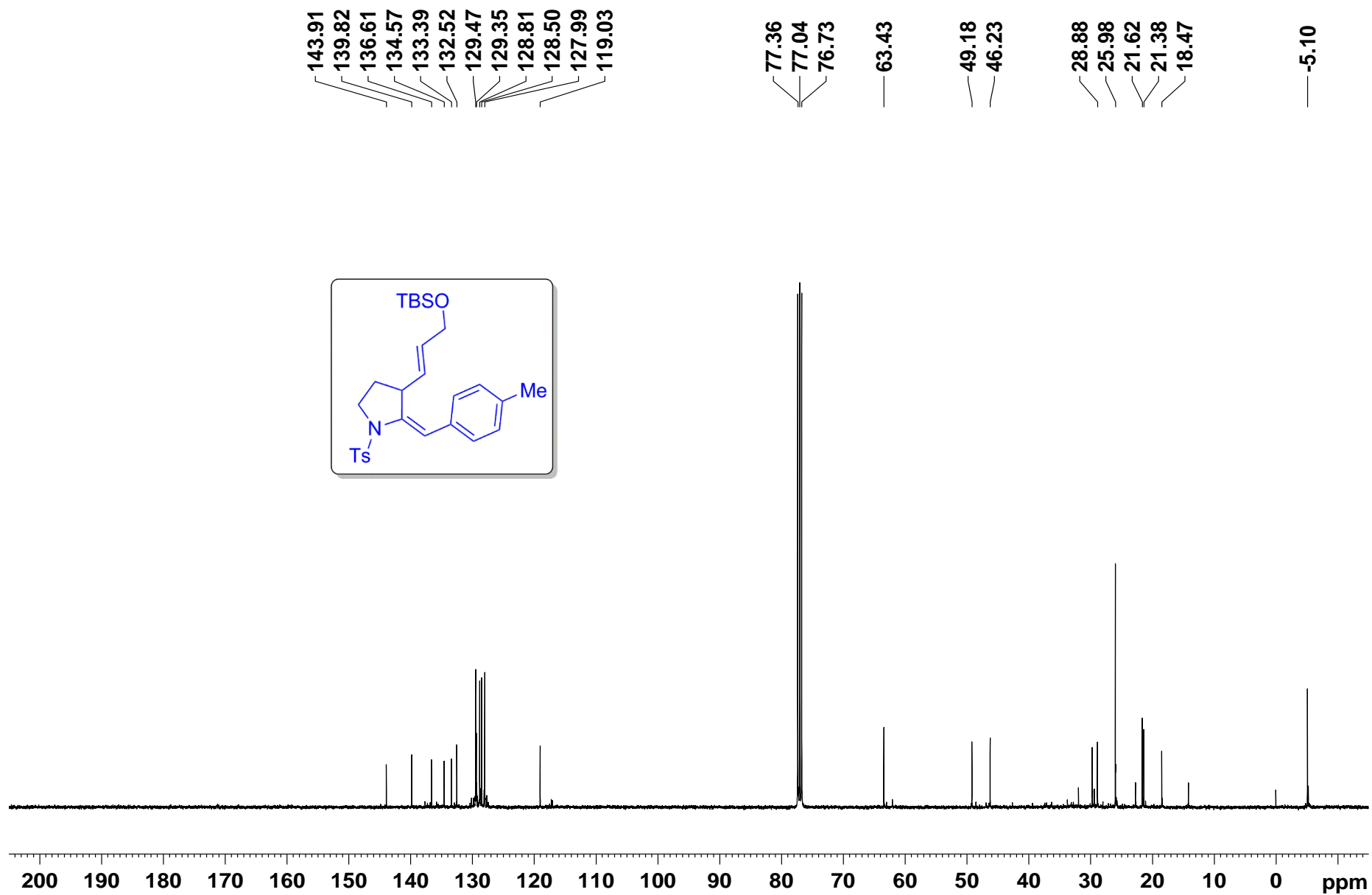


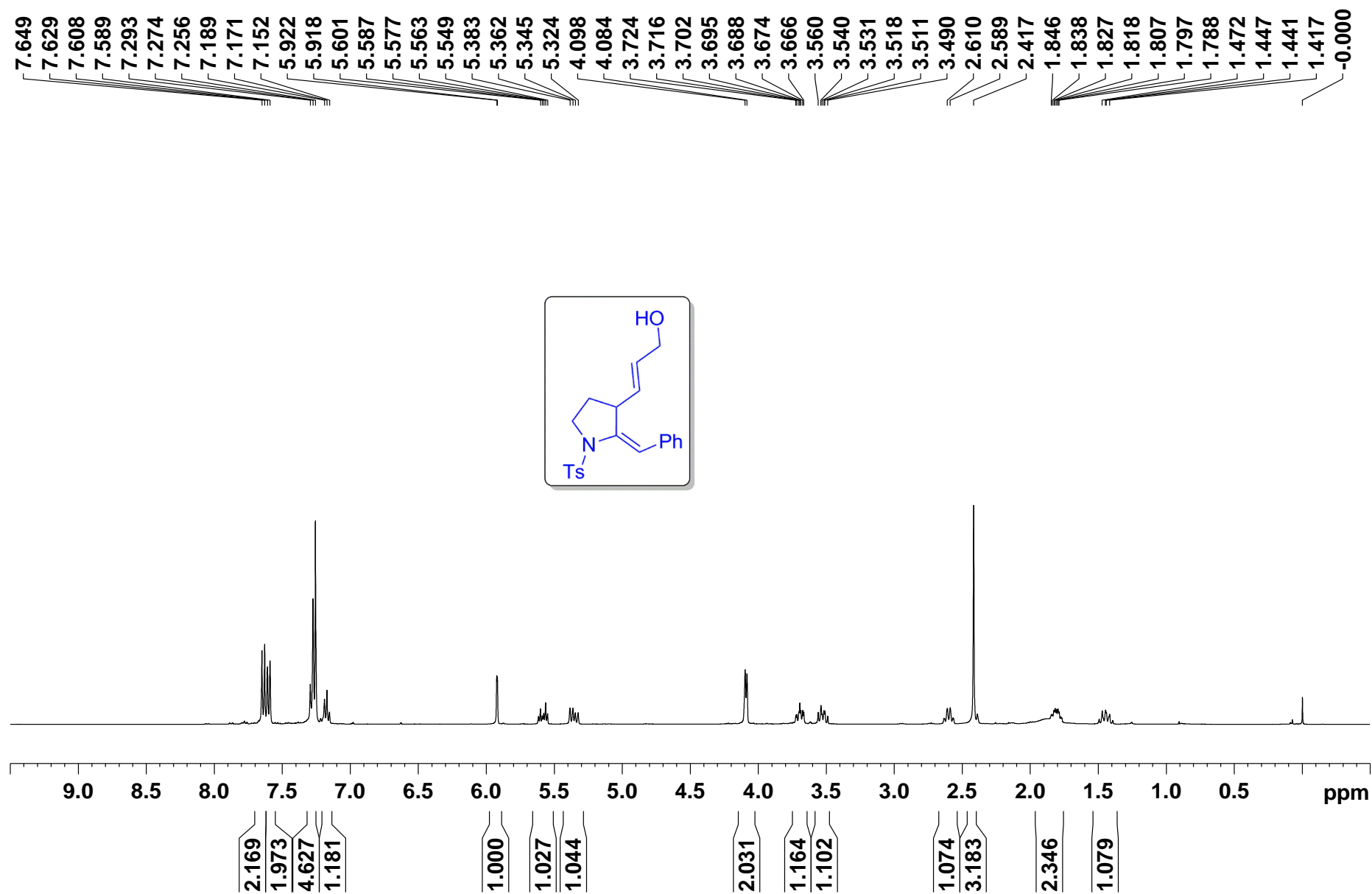


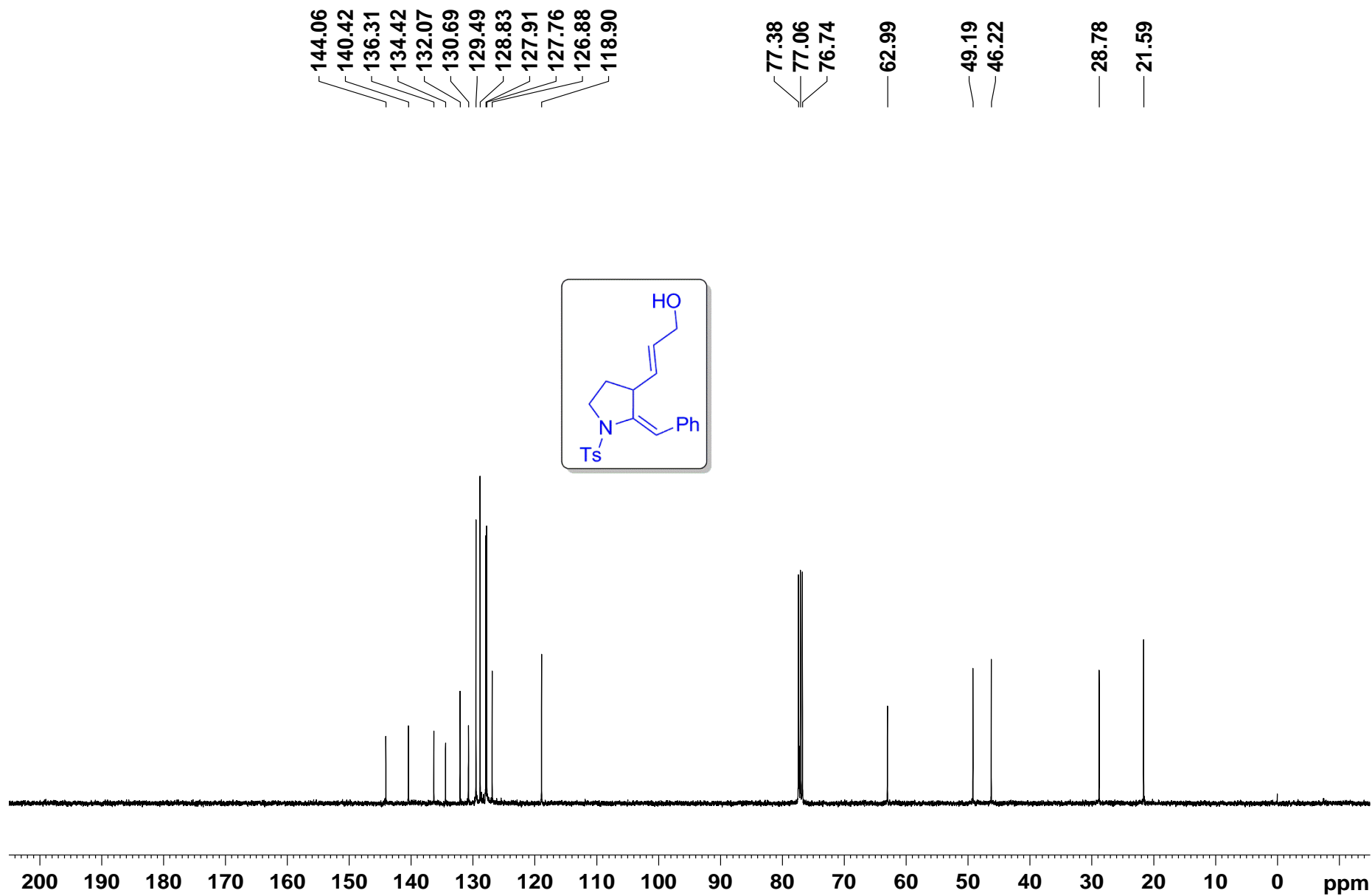


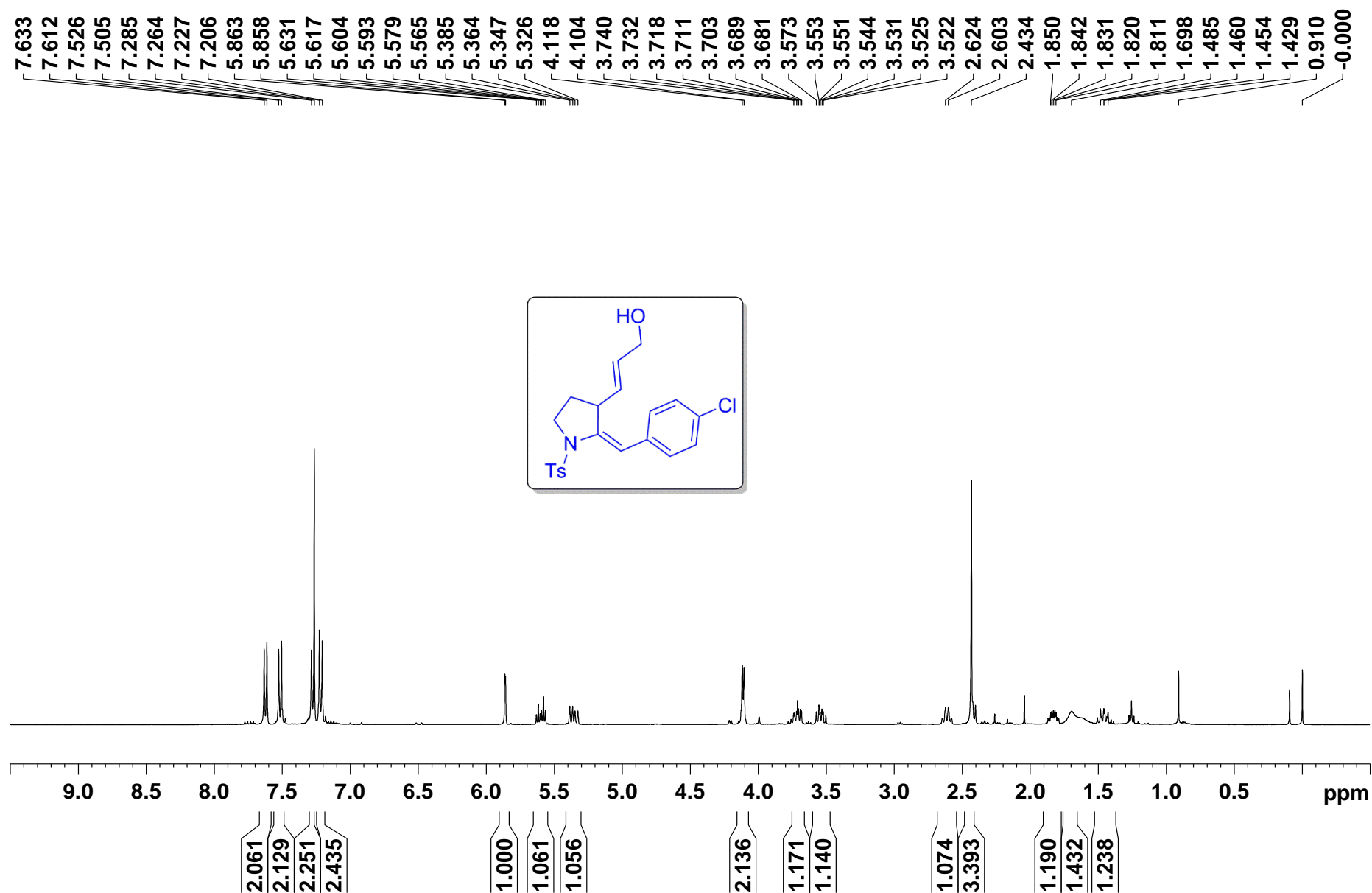


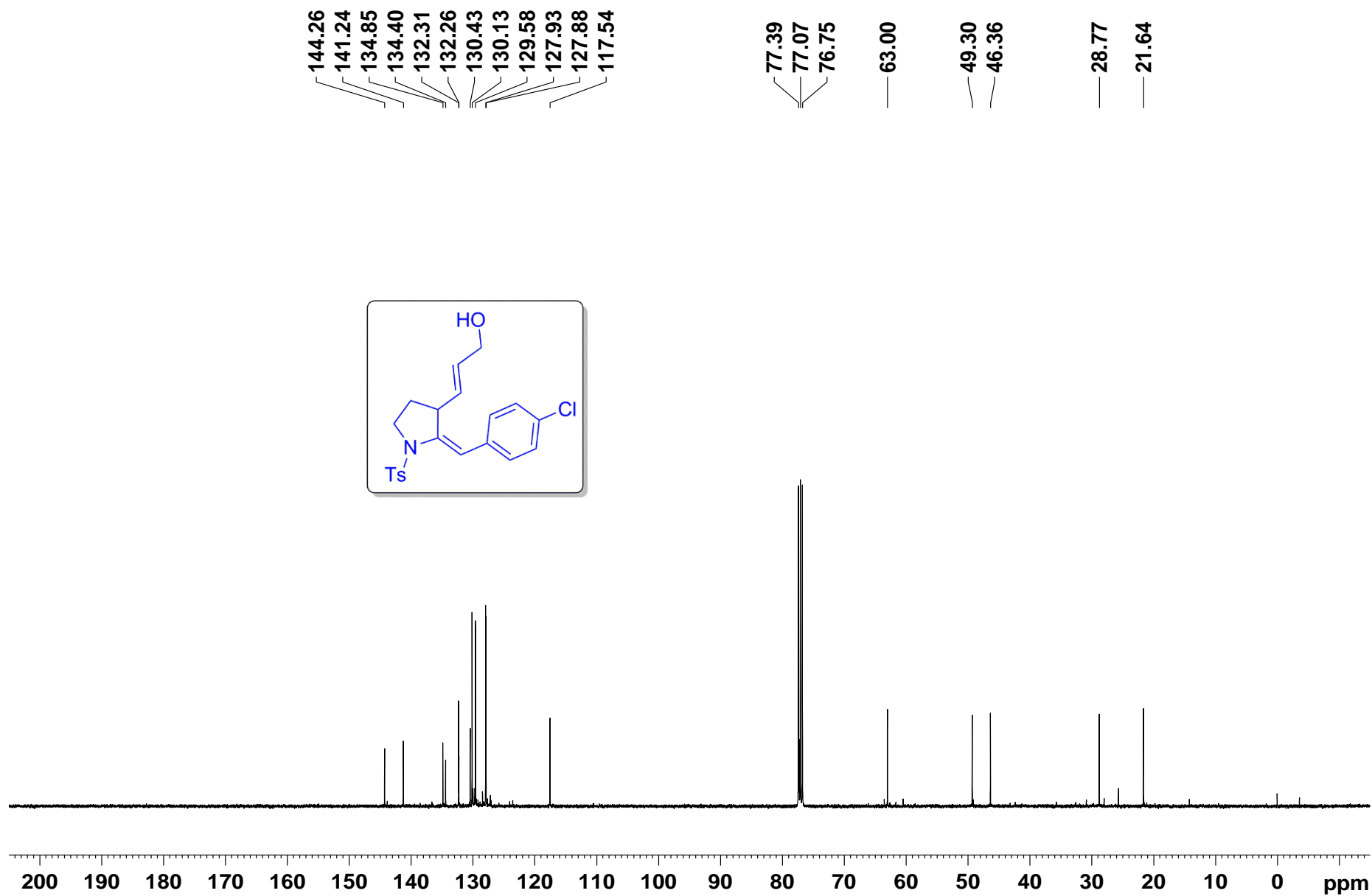


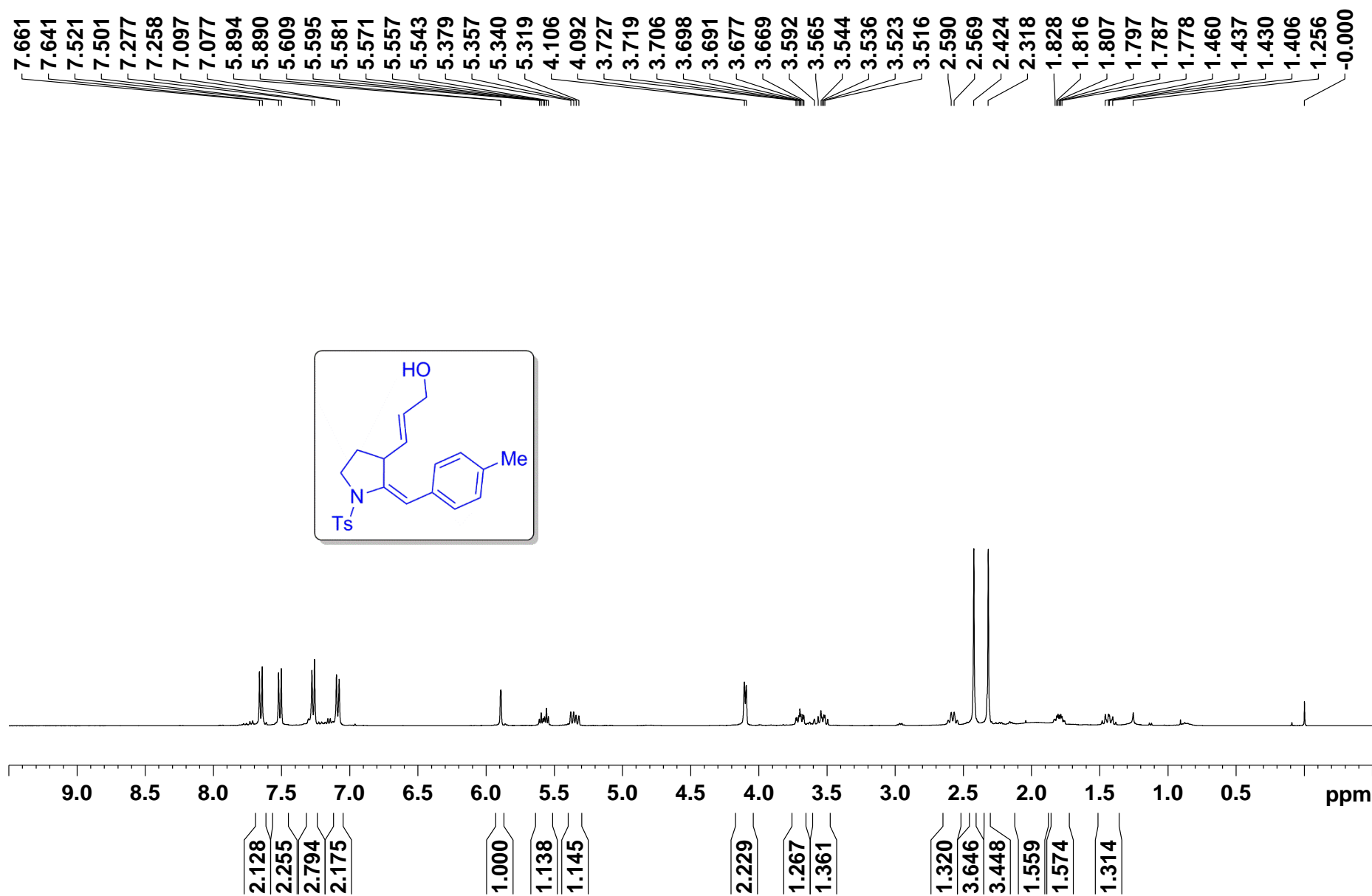


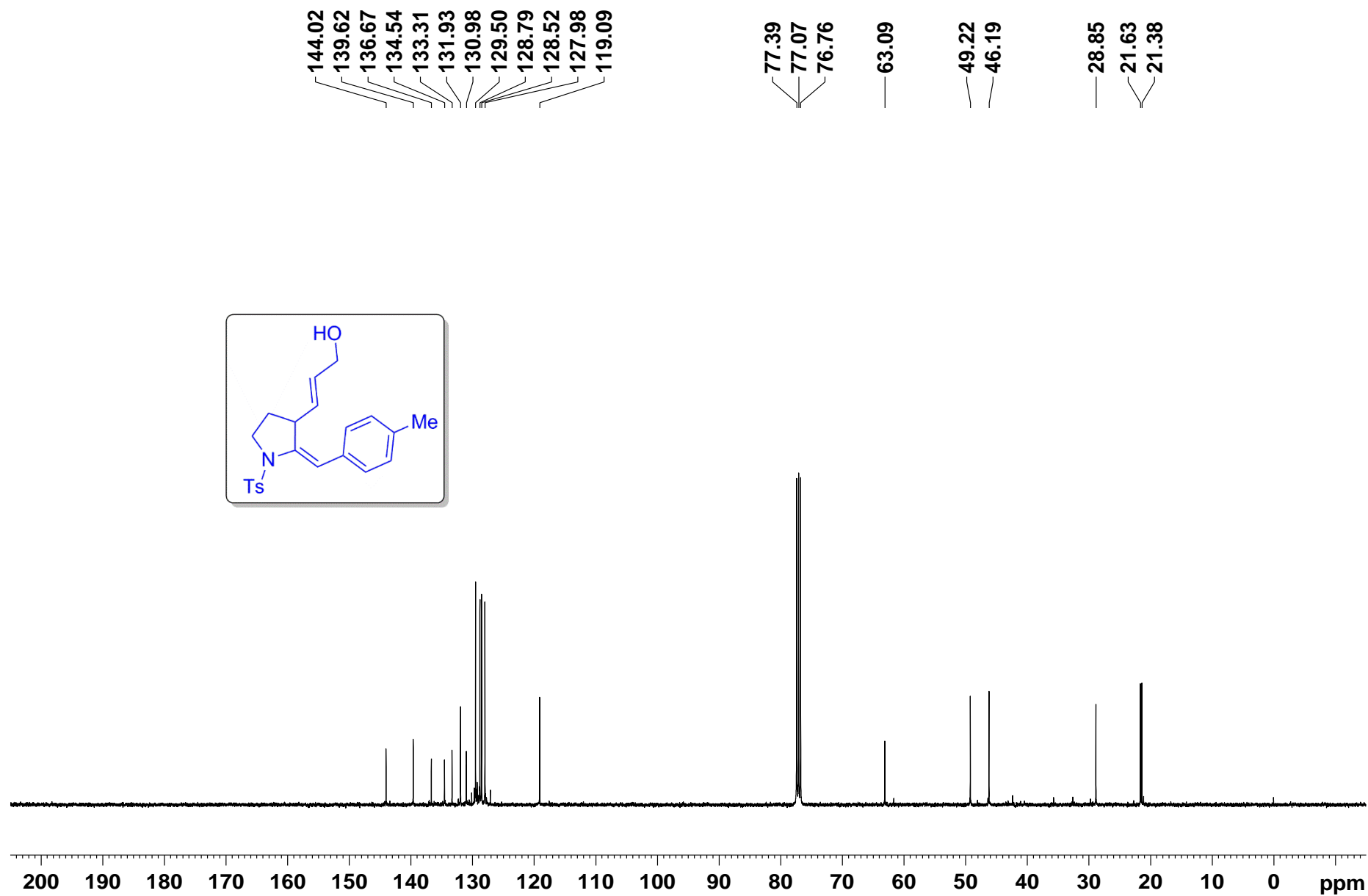


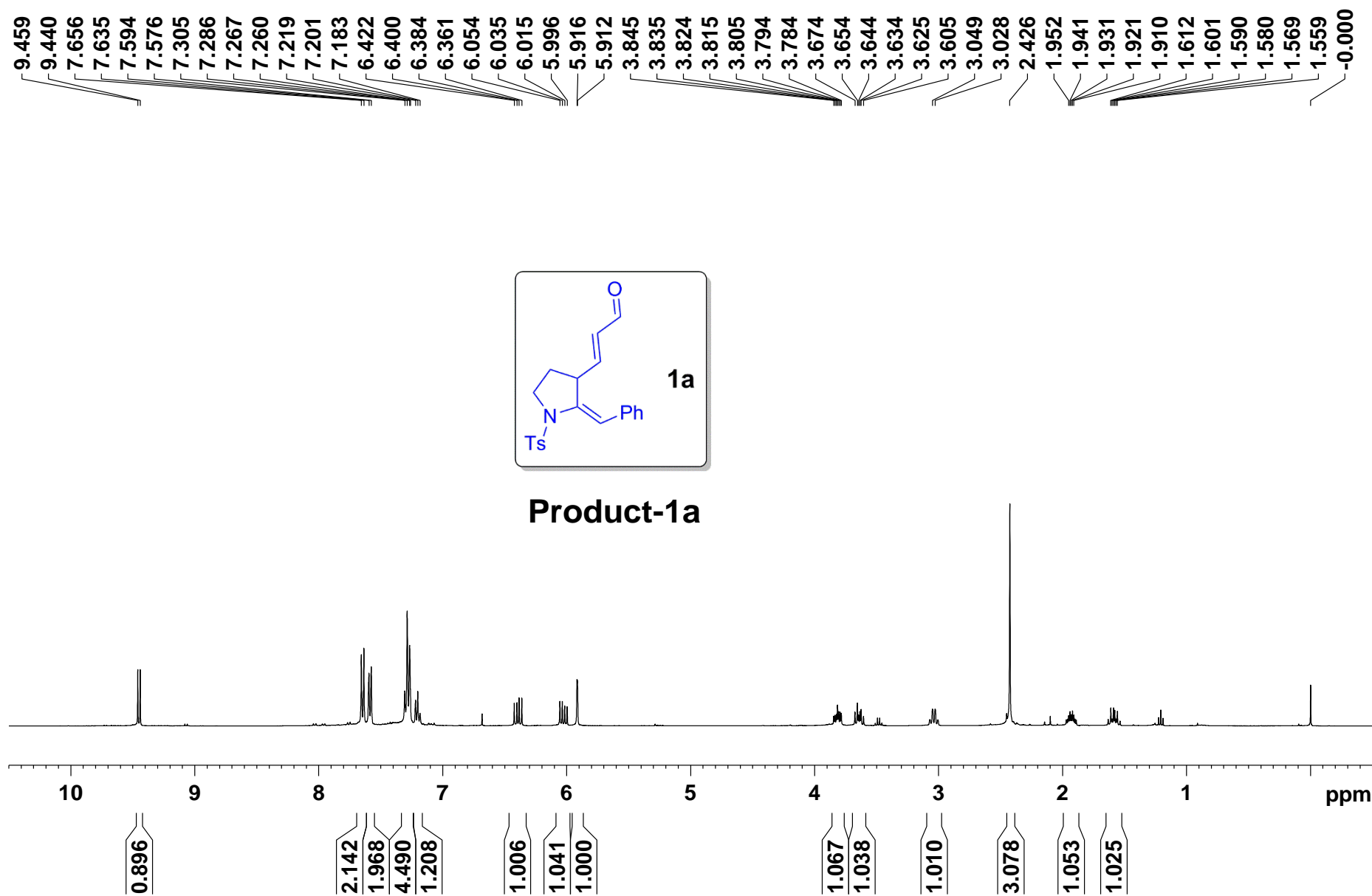












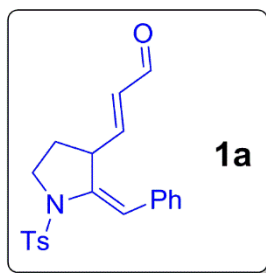
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138.52
135.72
134.53
133.80
129.77
128.96
128.05
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127.48
120.77

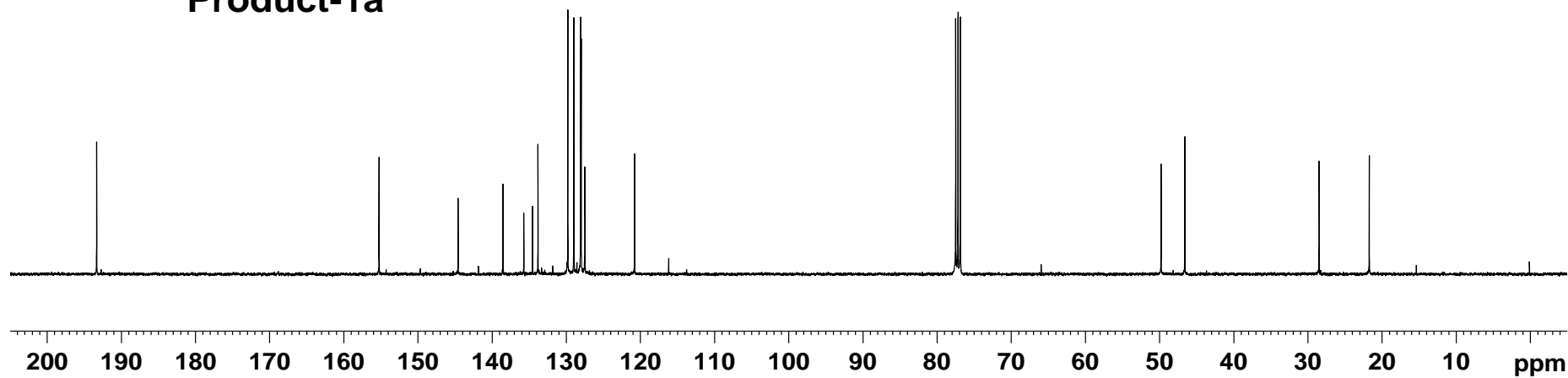
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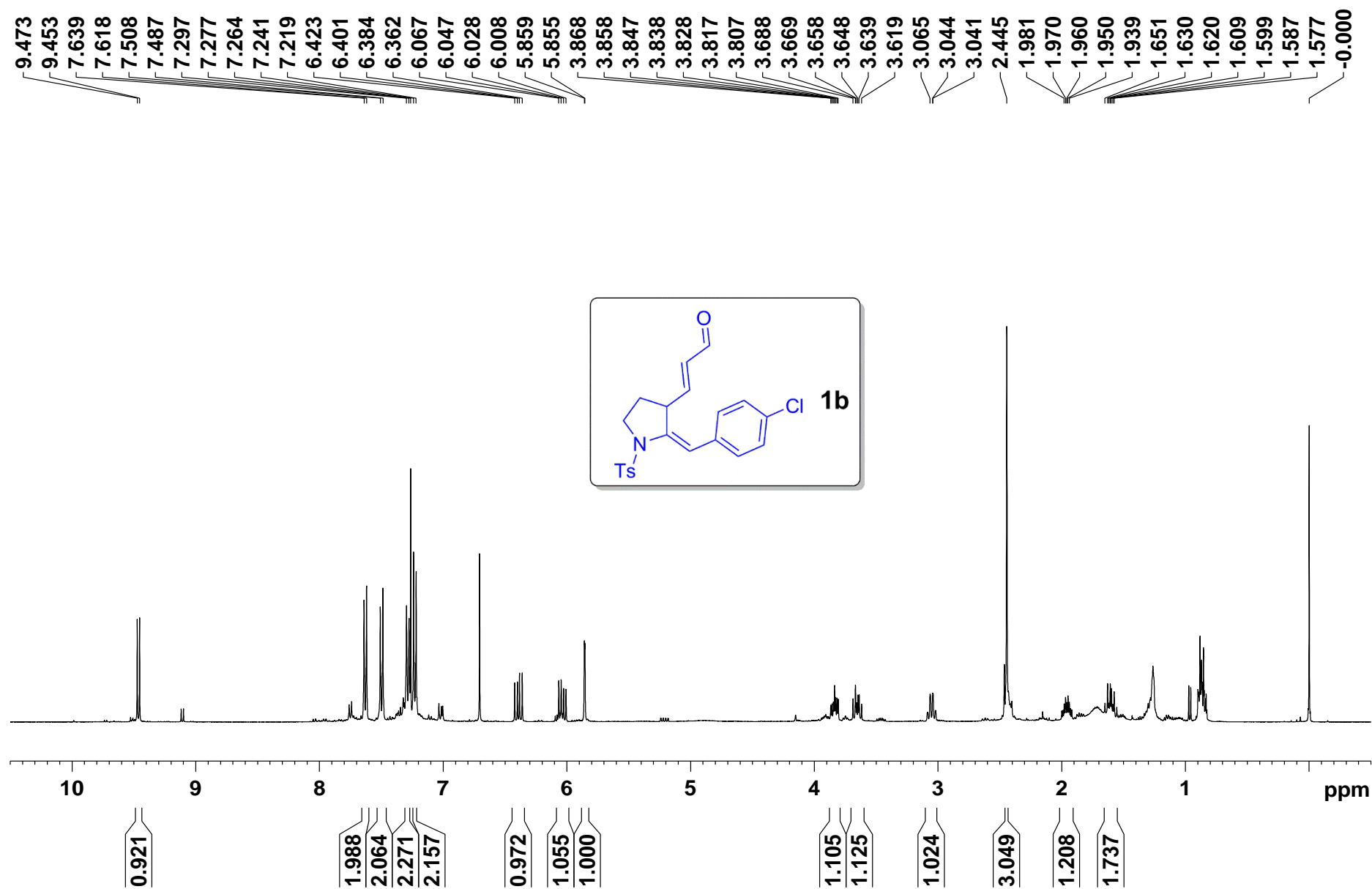
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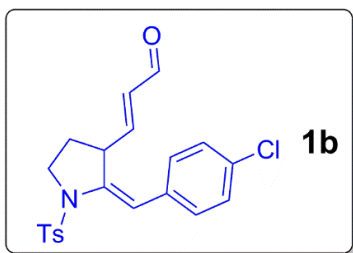
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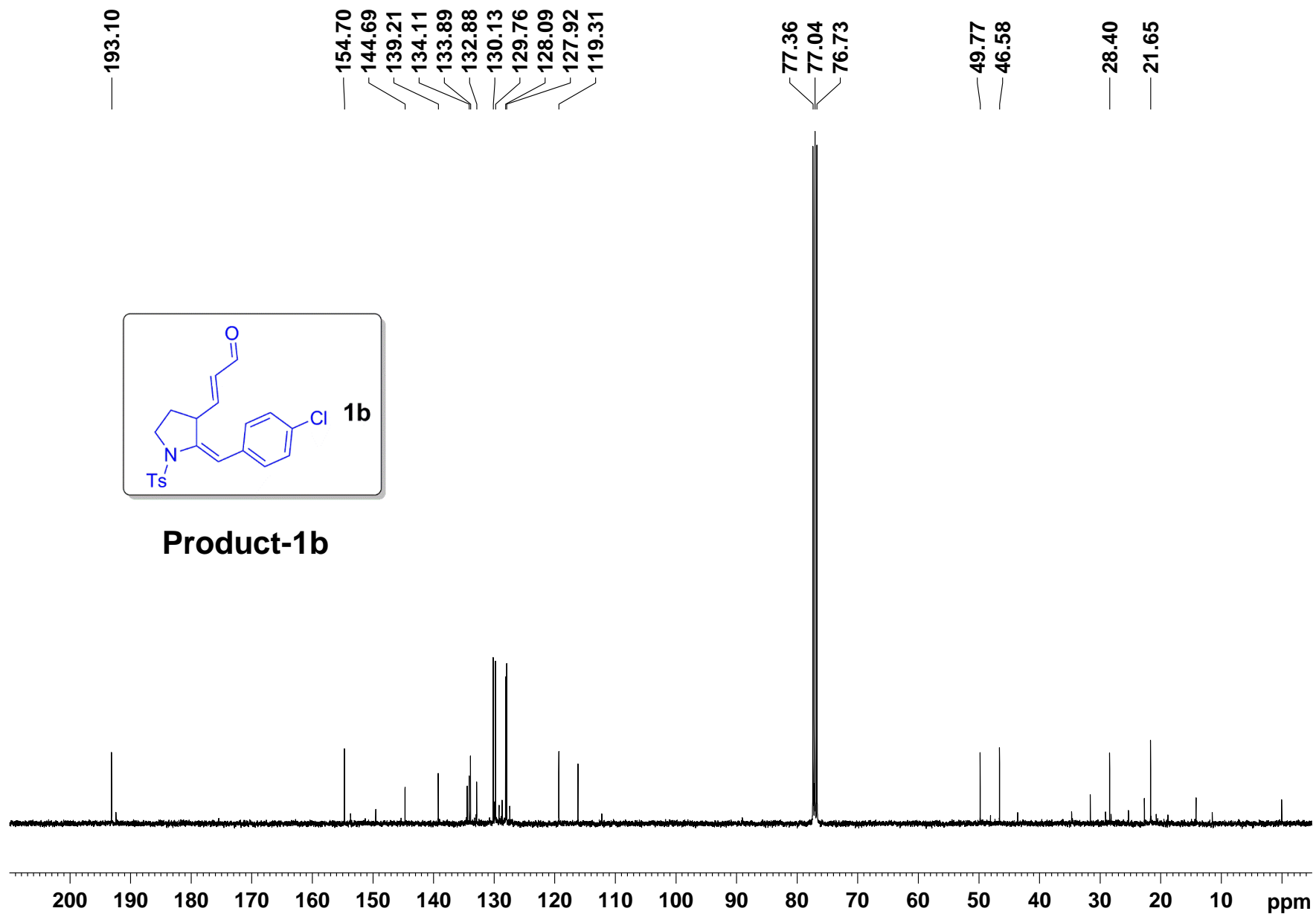
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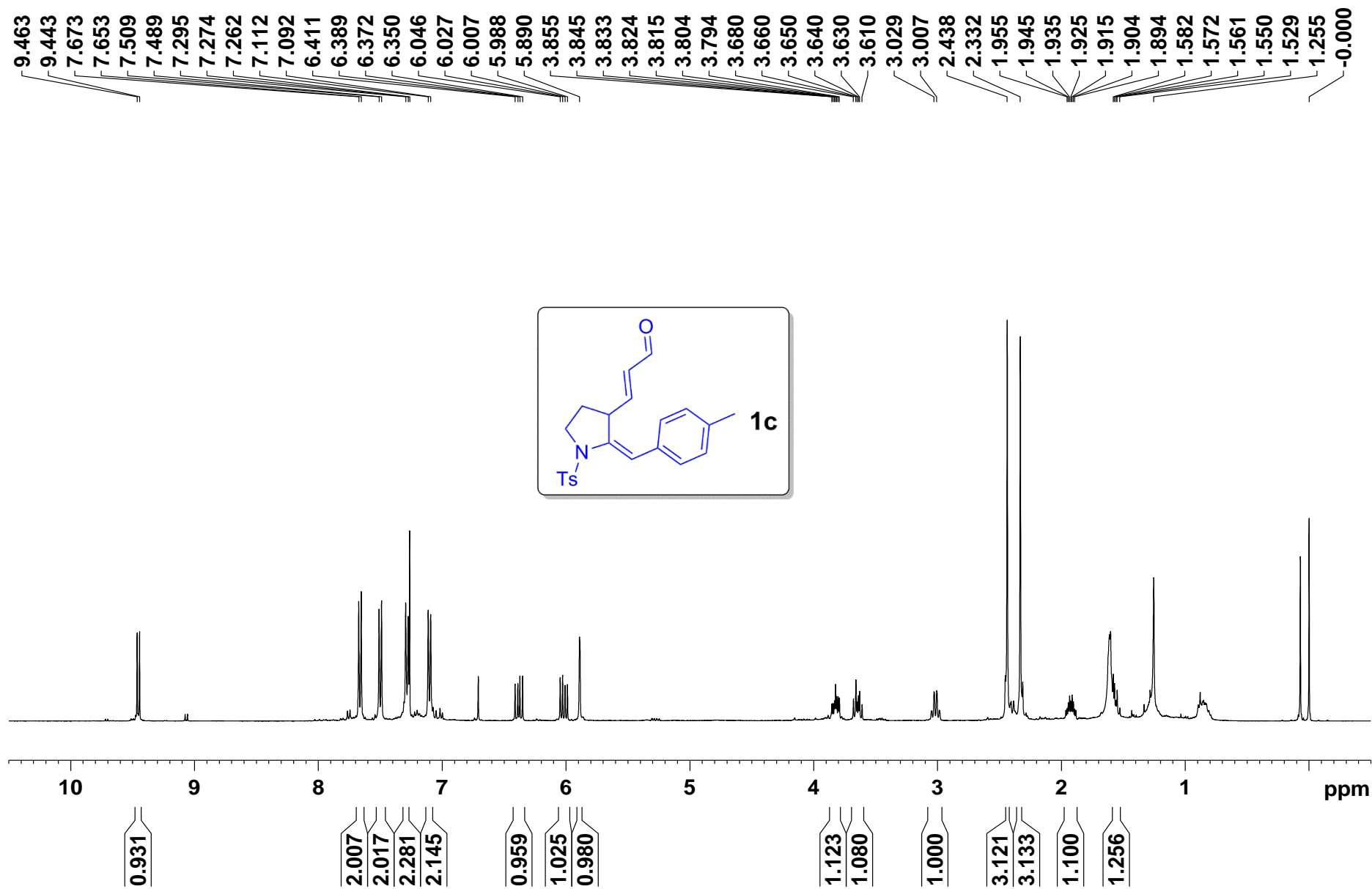


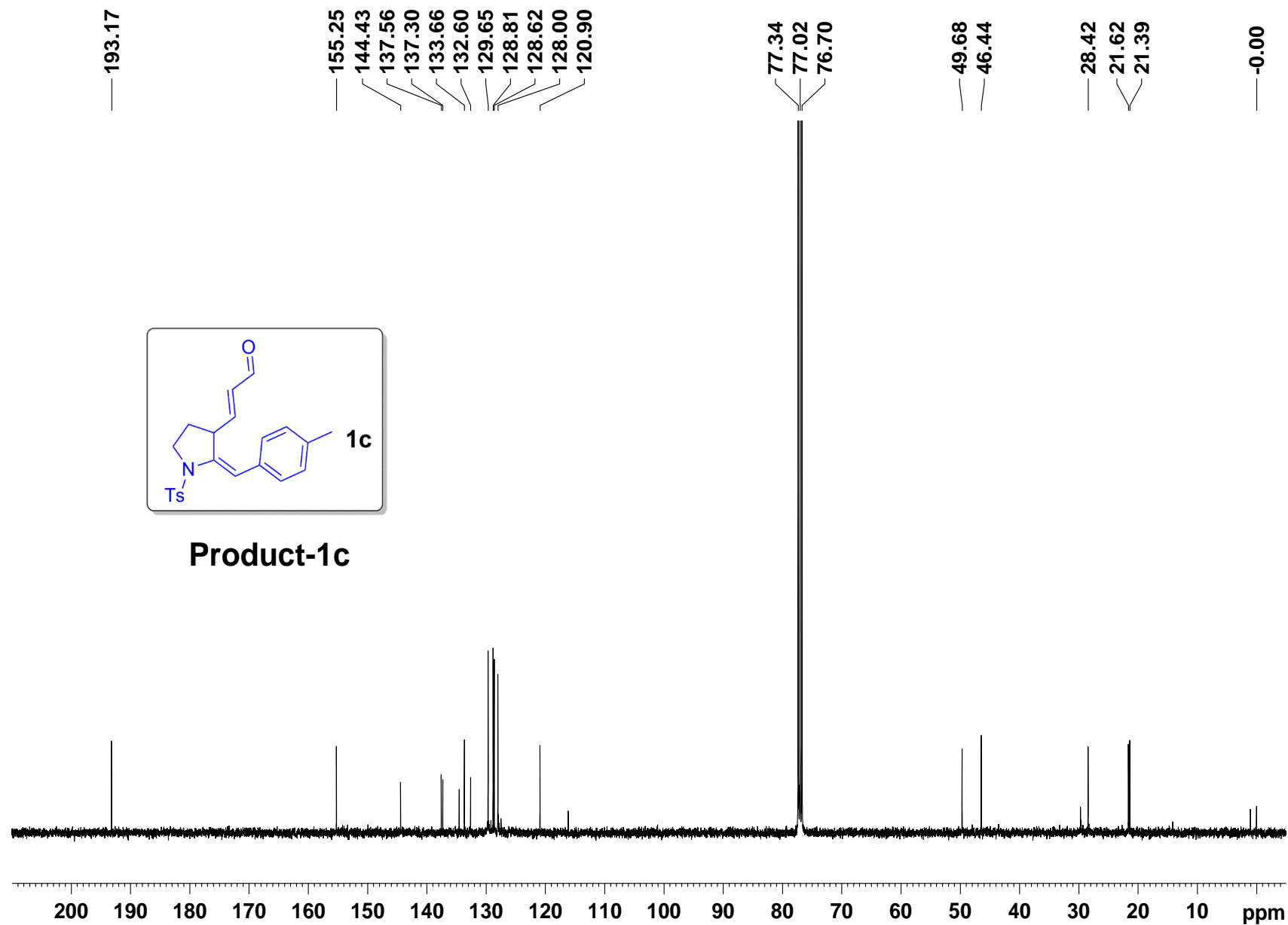


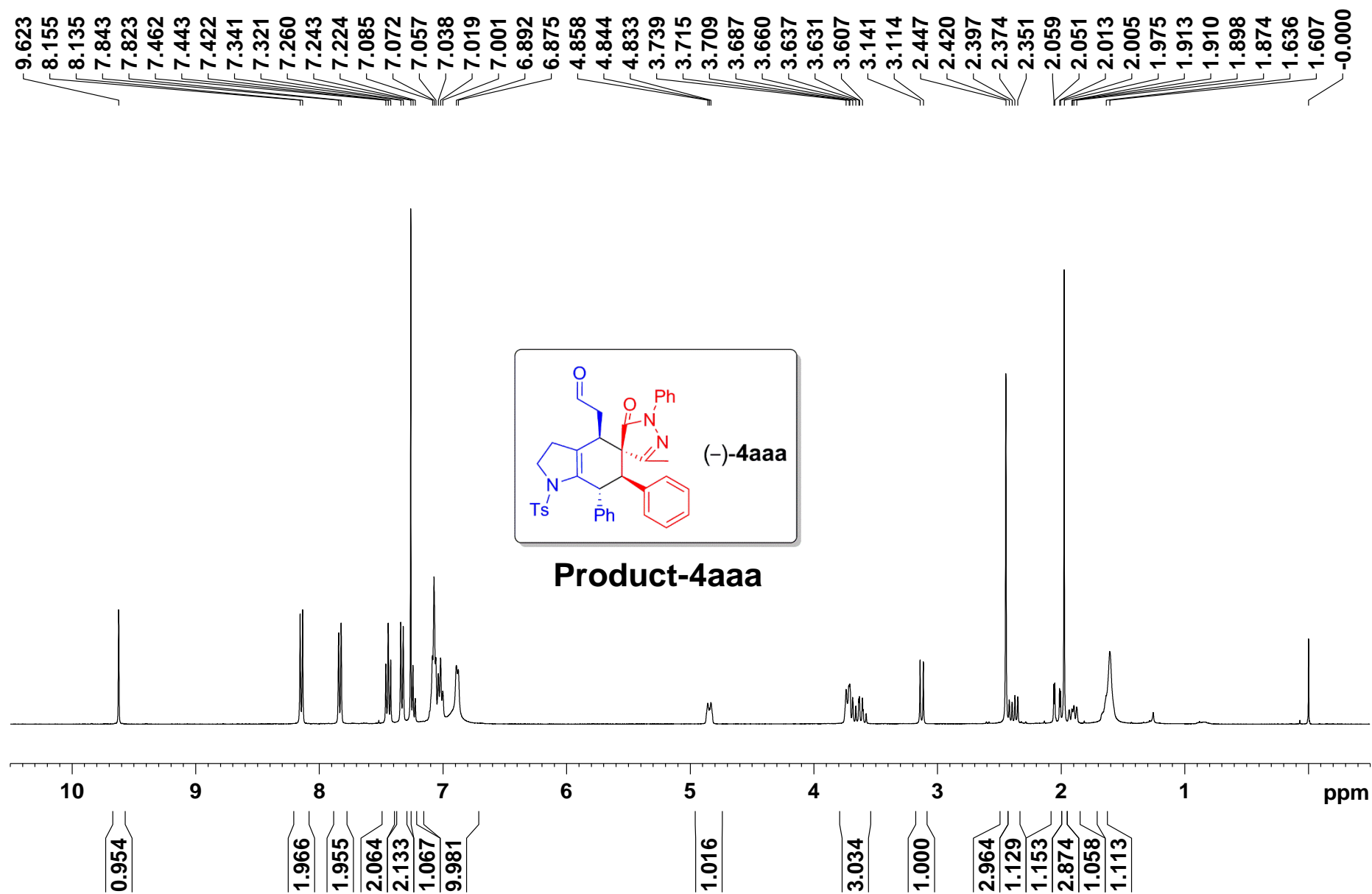


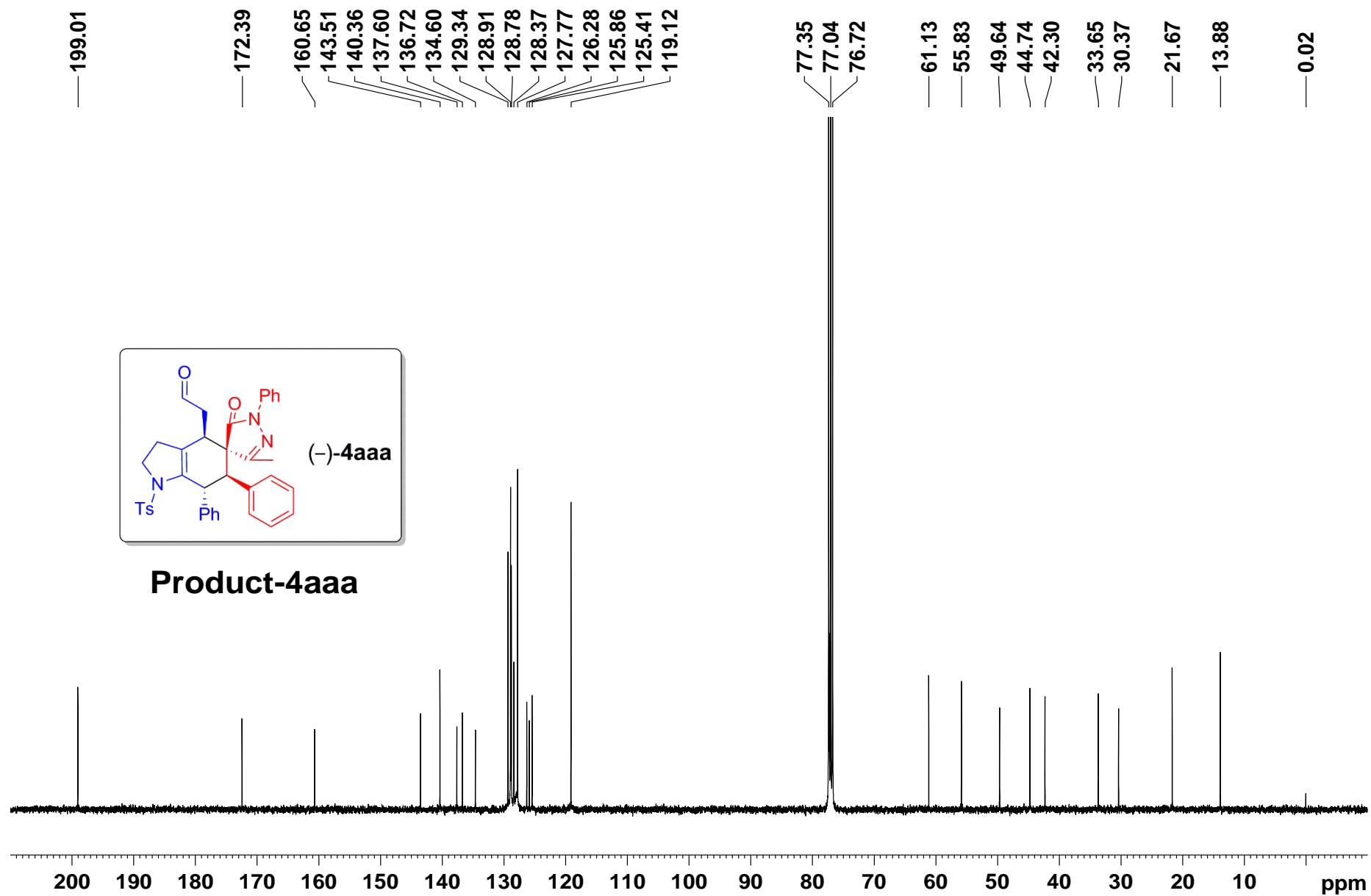
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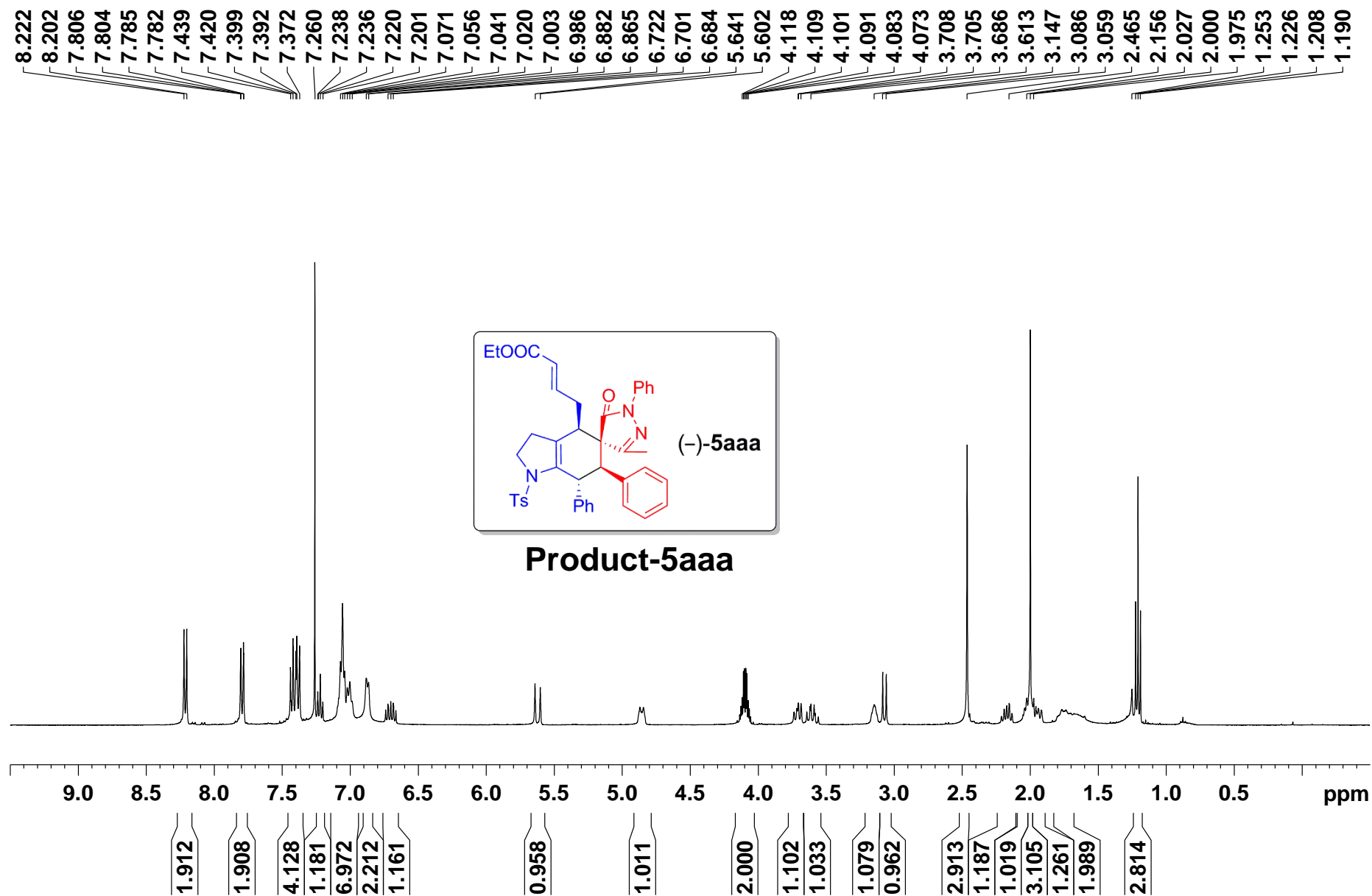


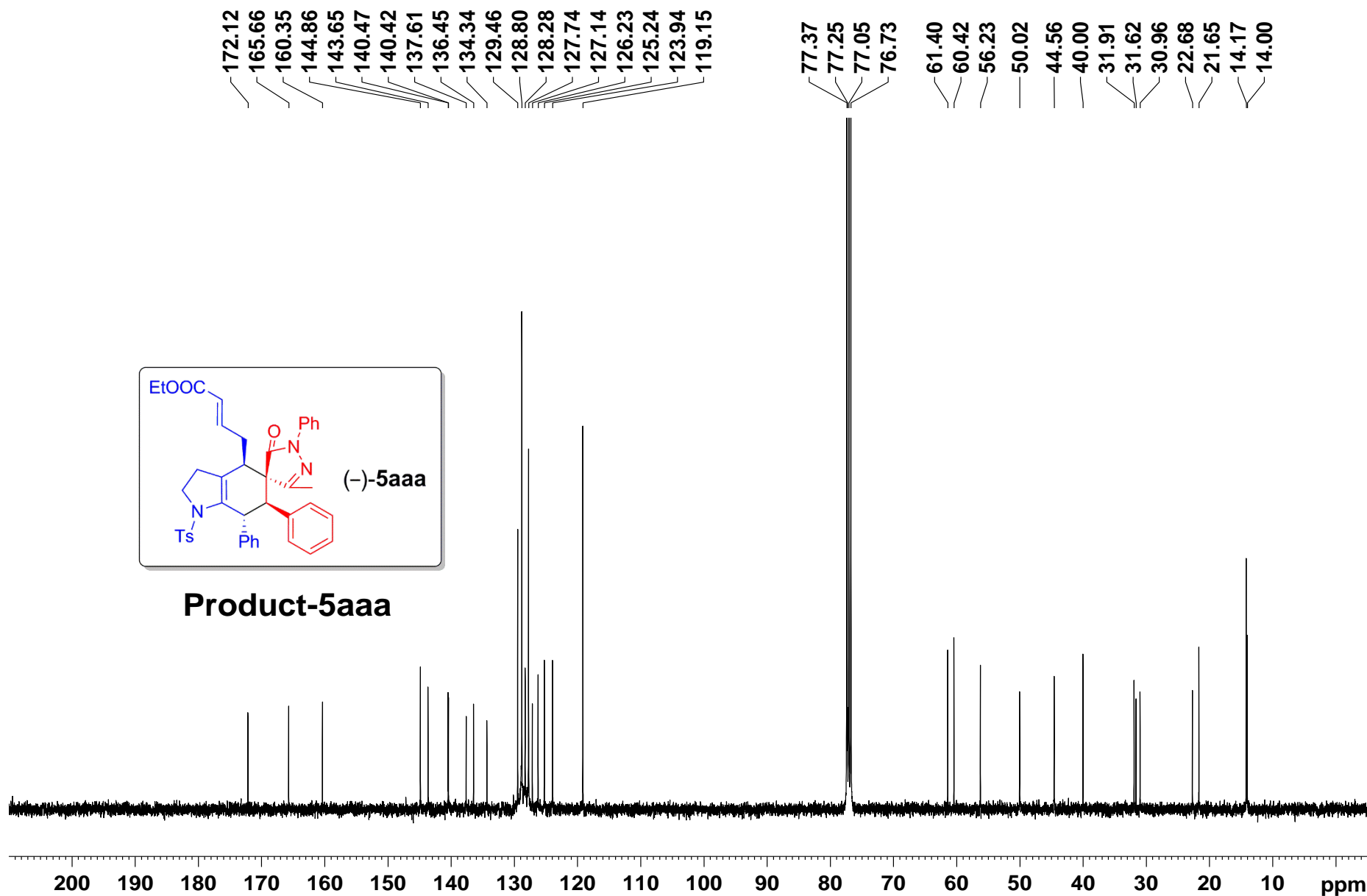


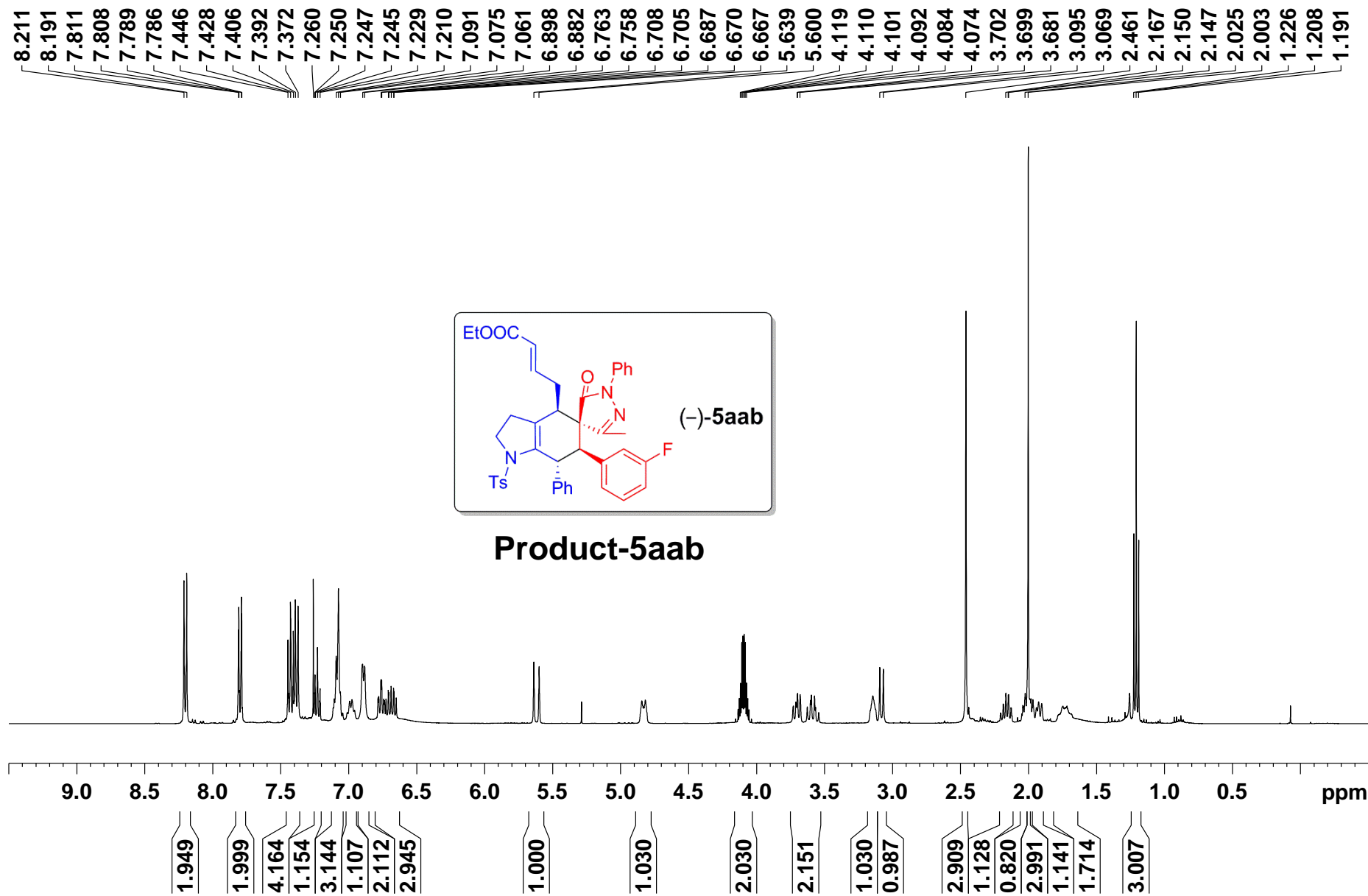


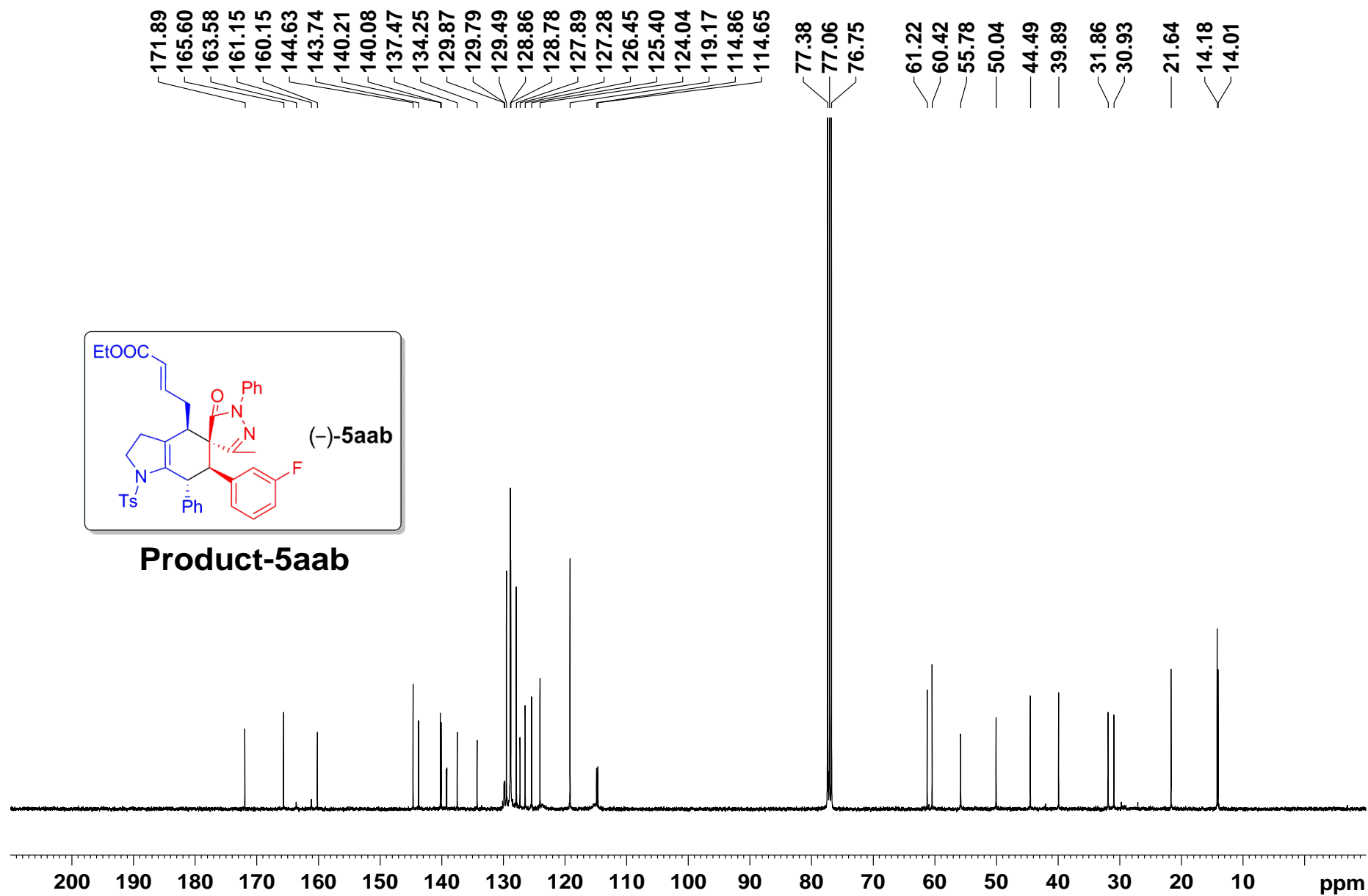


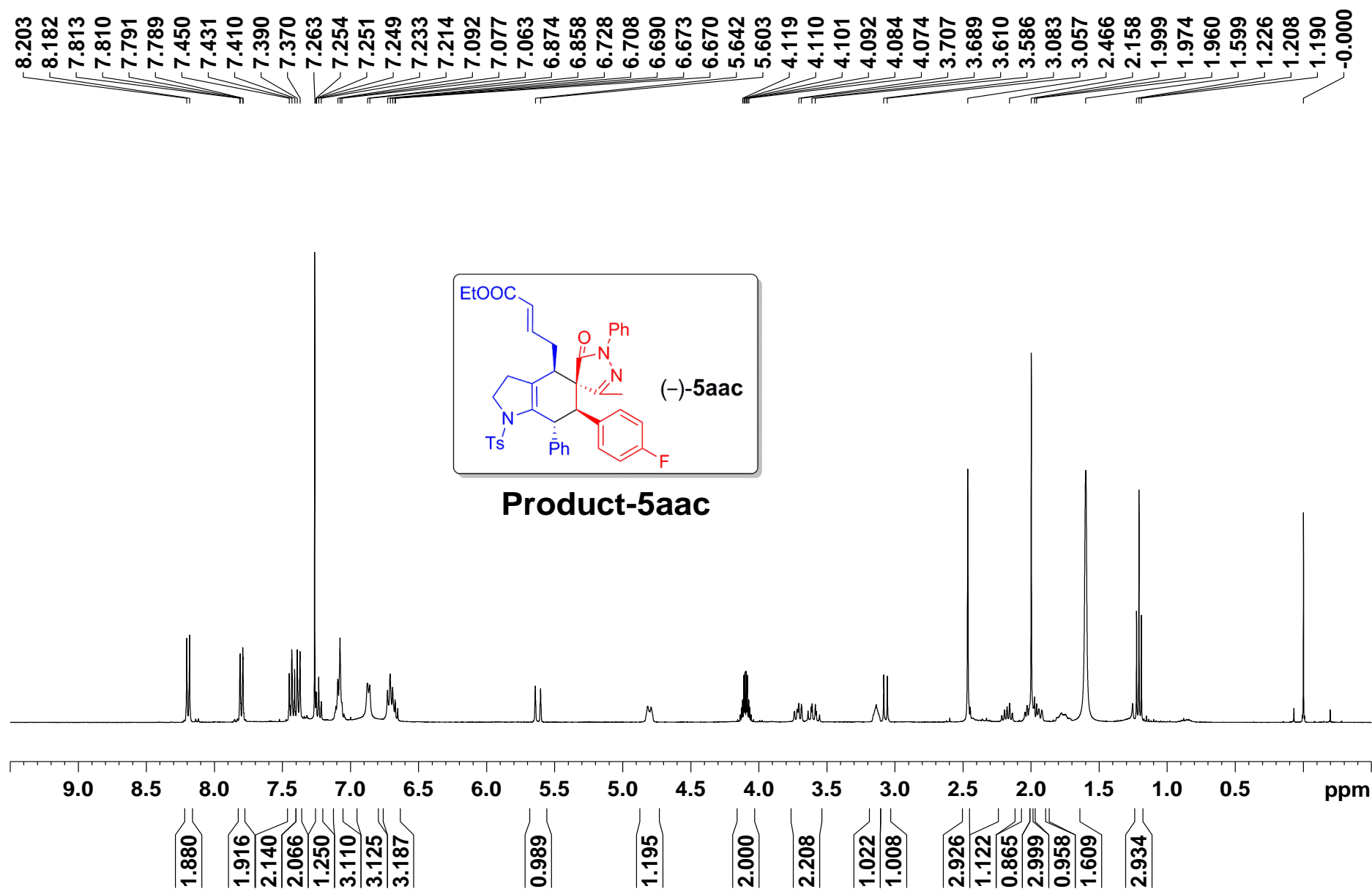


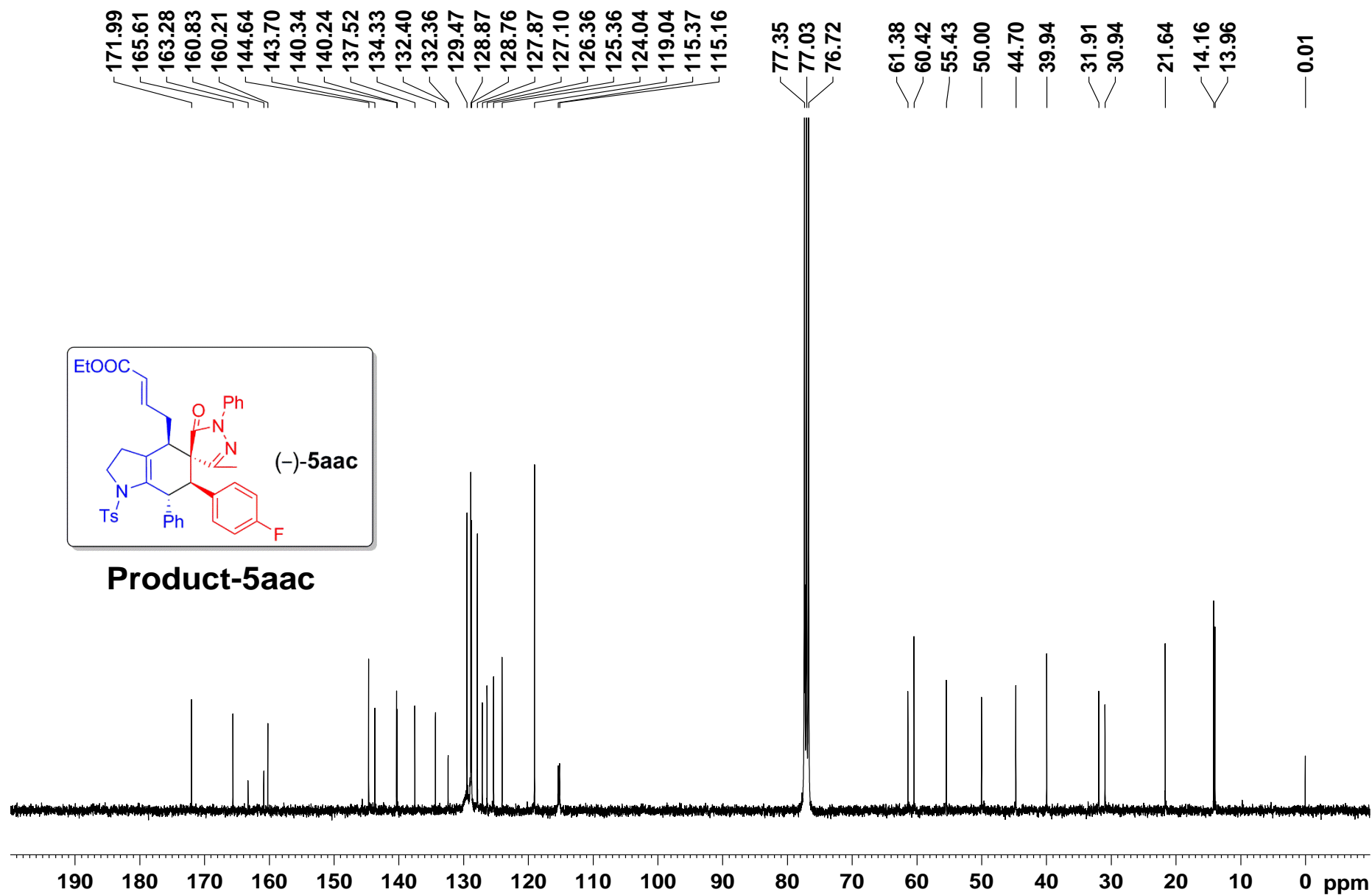


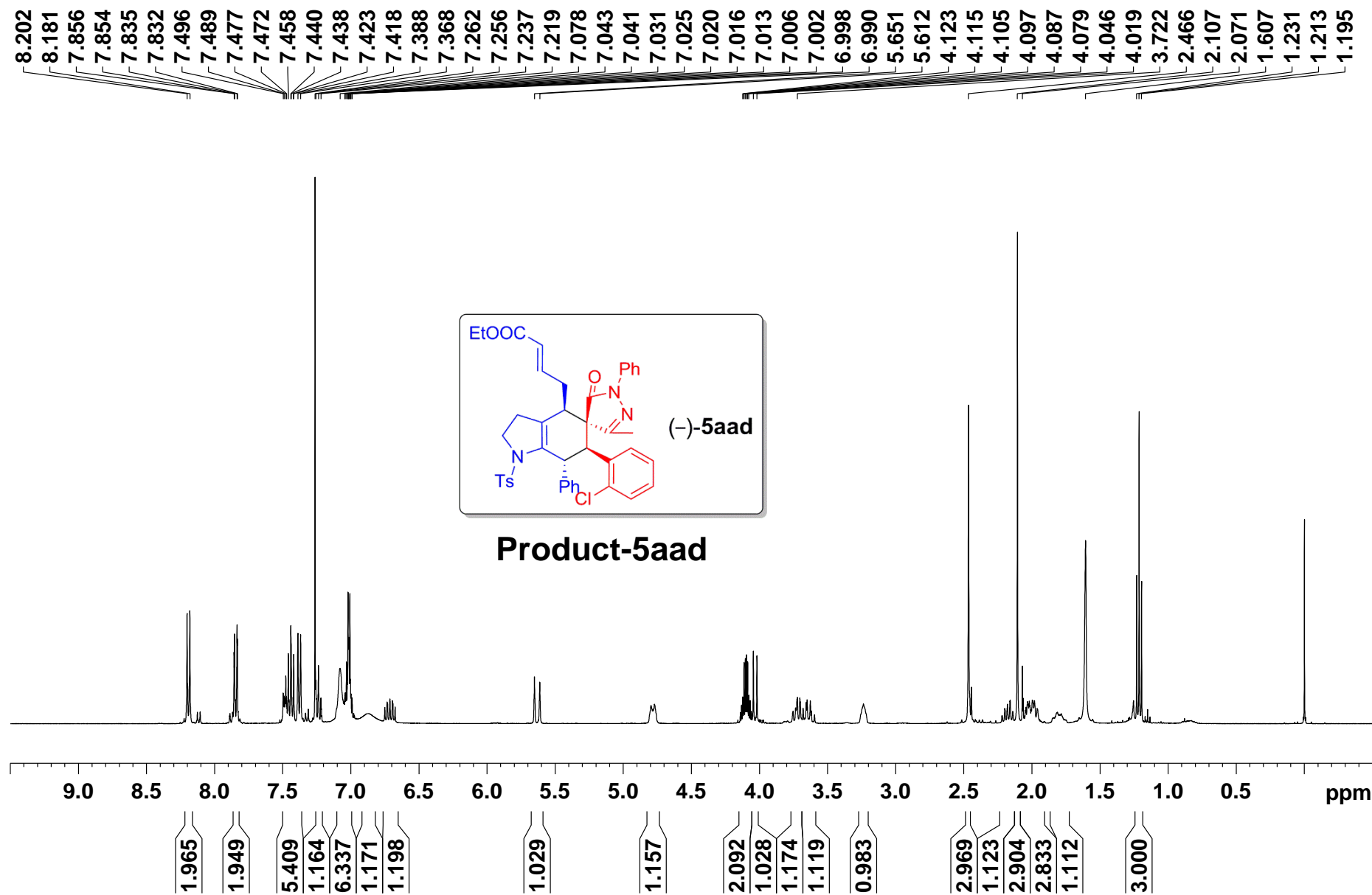


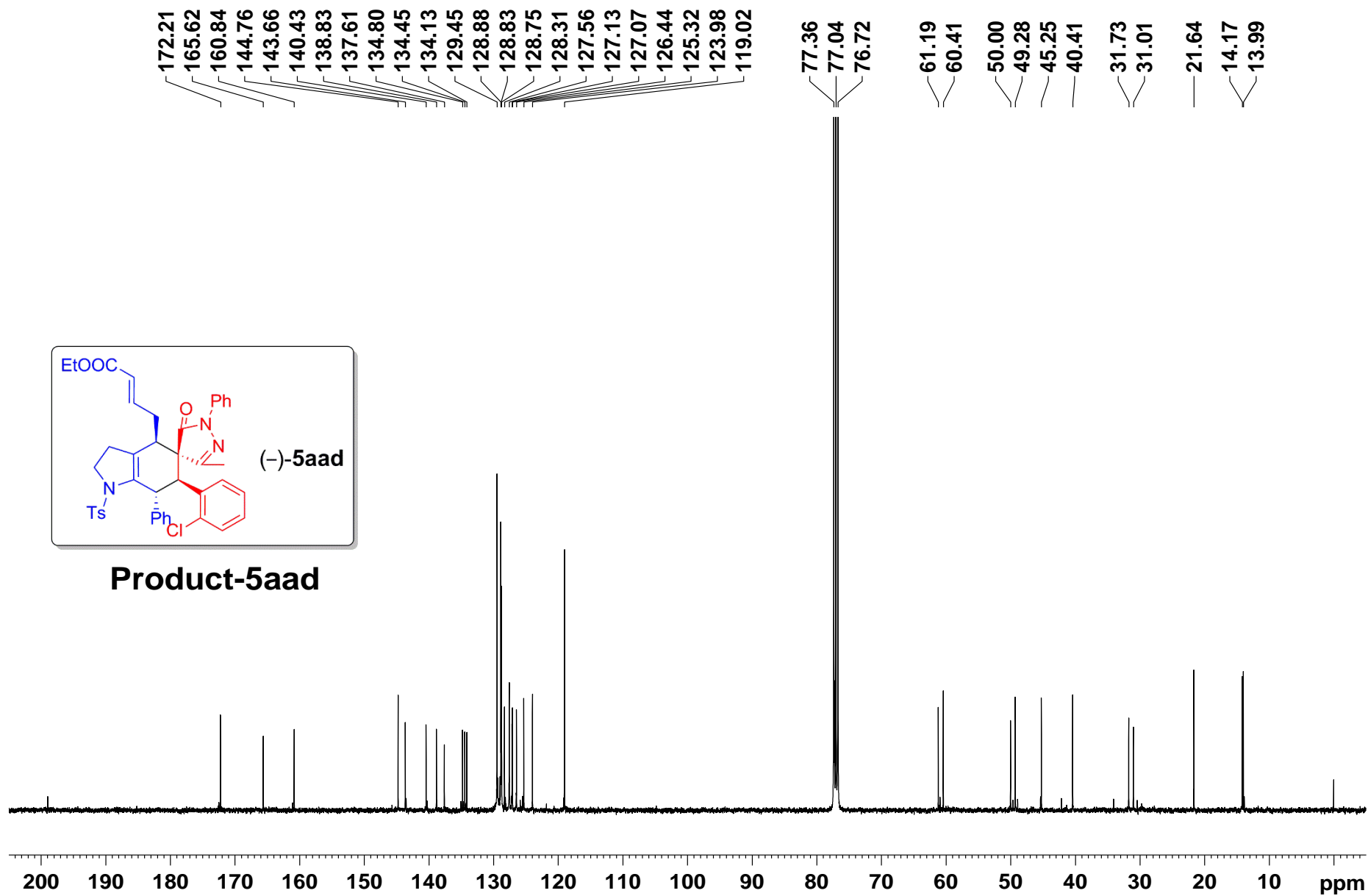


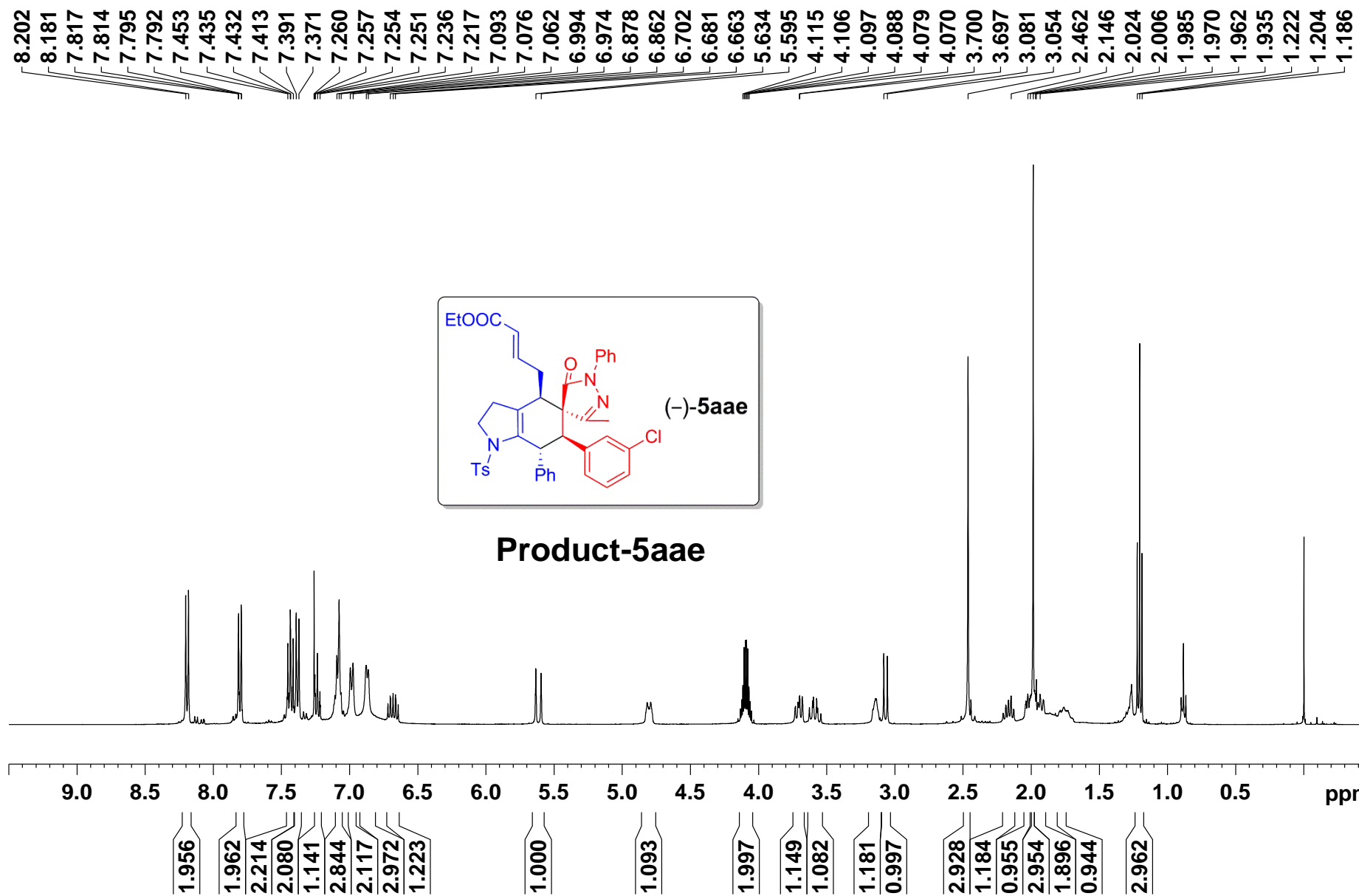


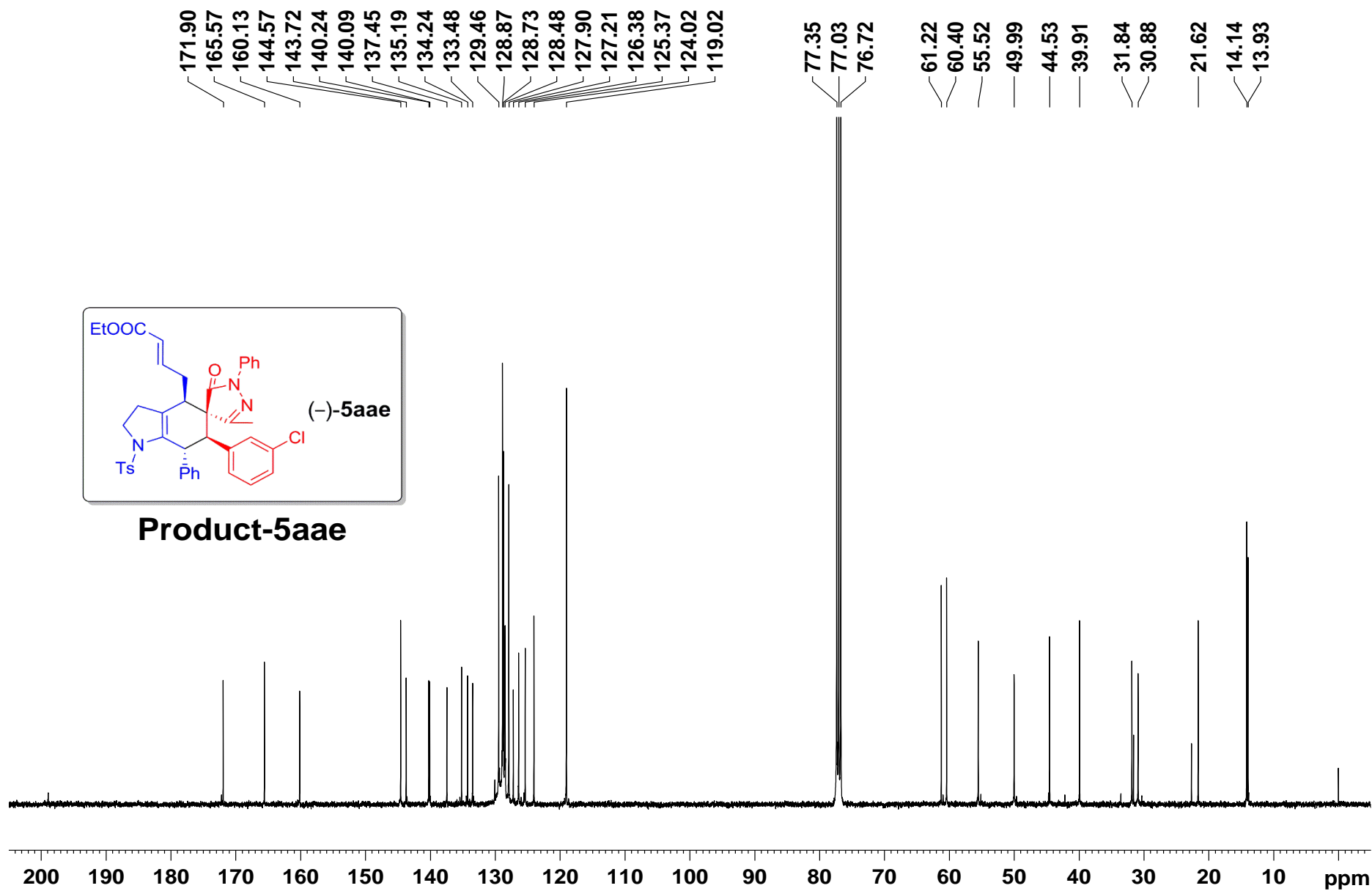


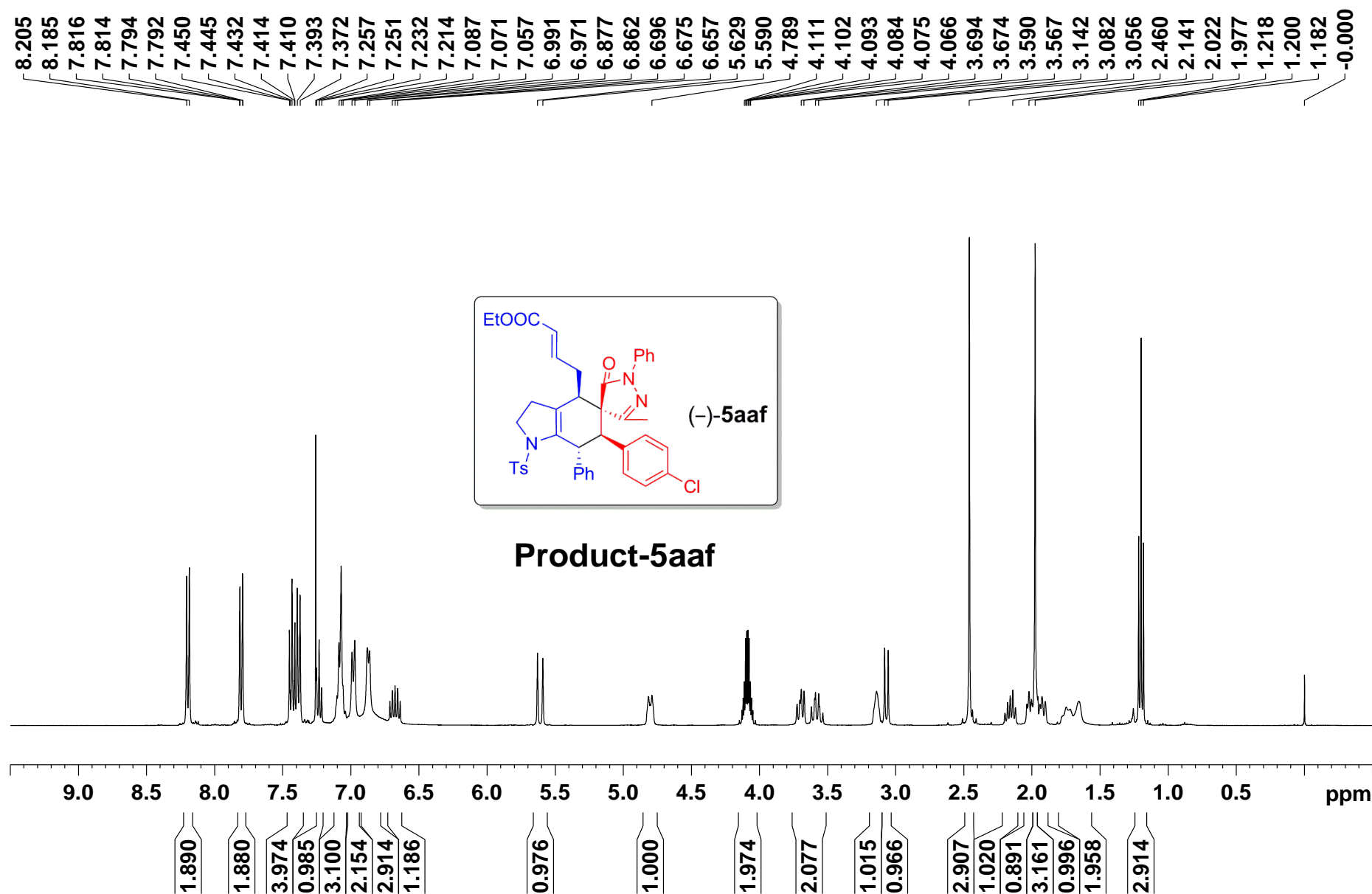


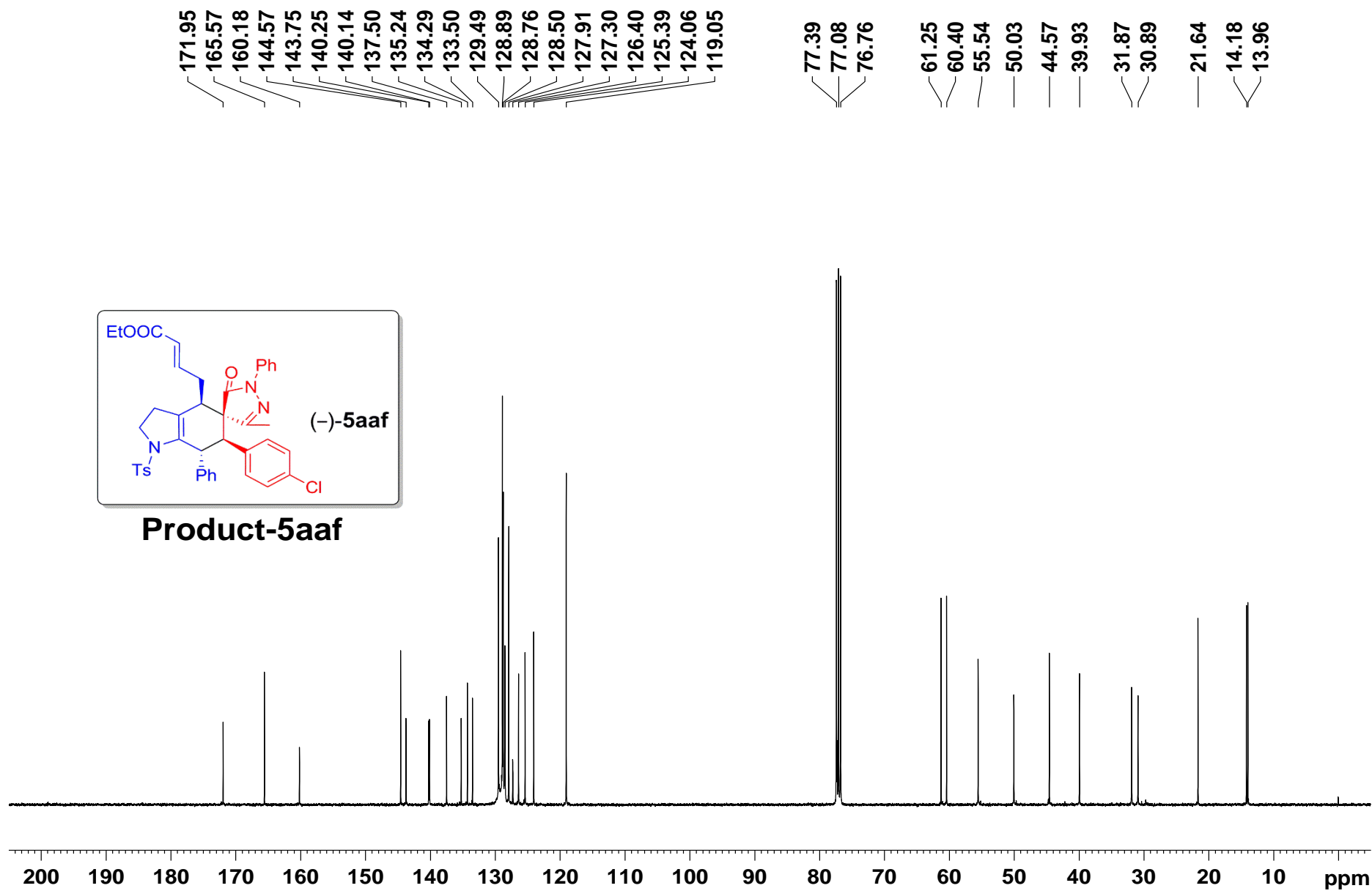


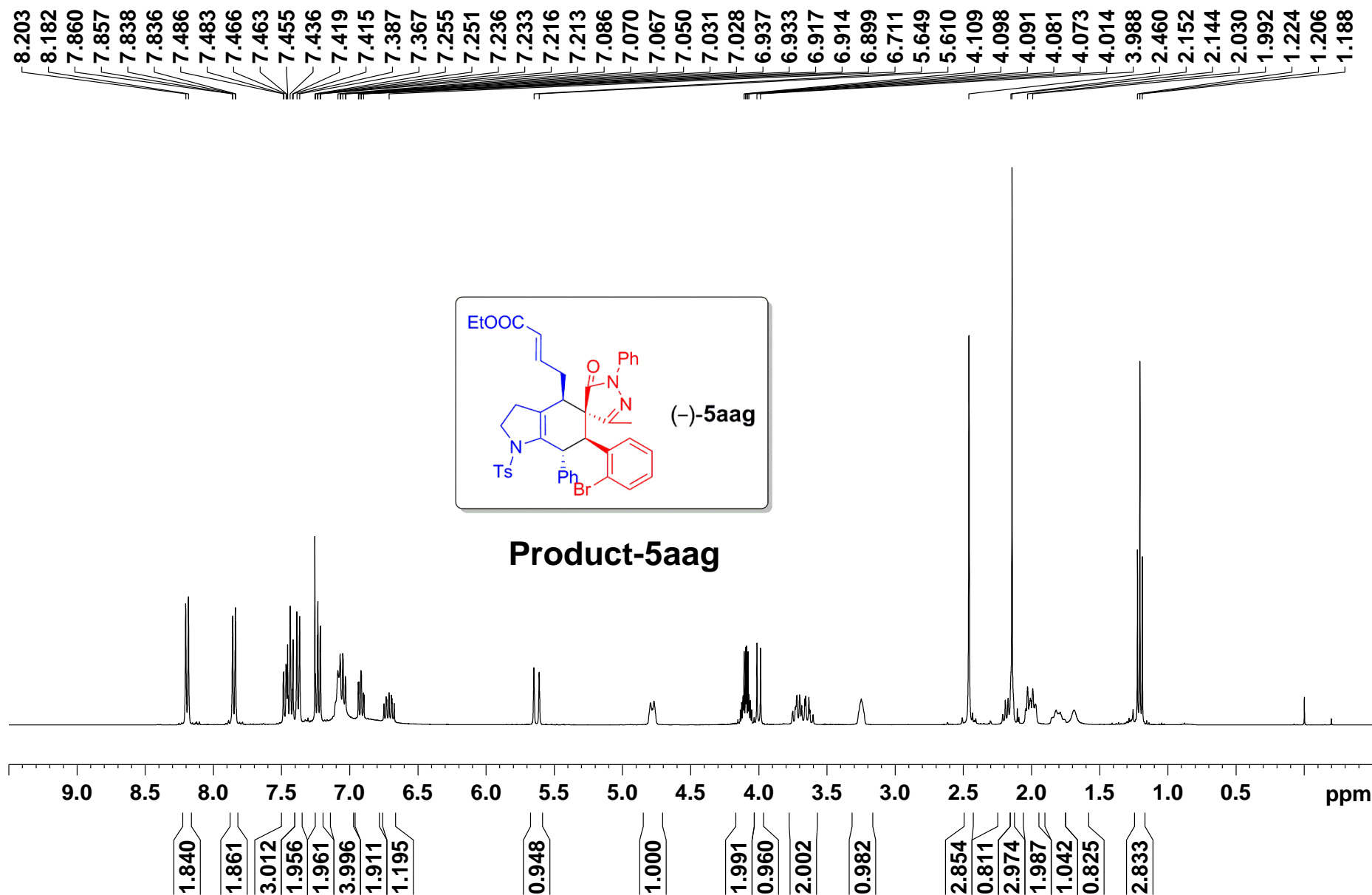


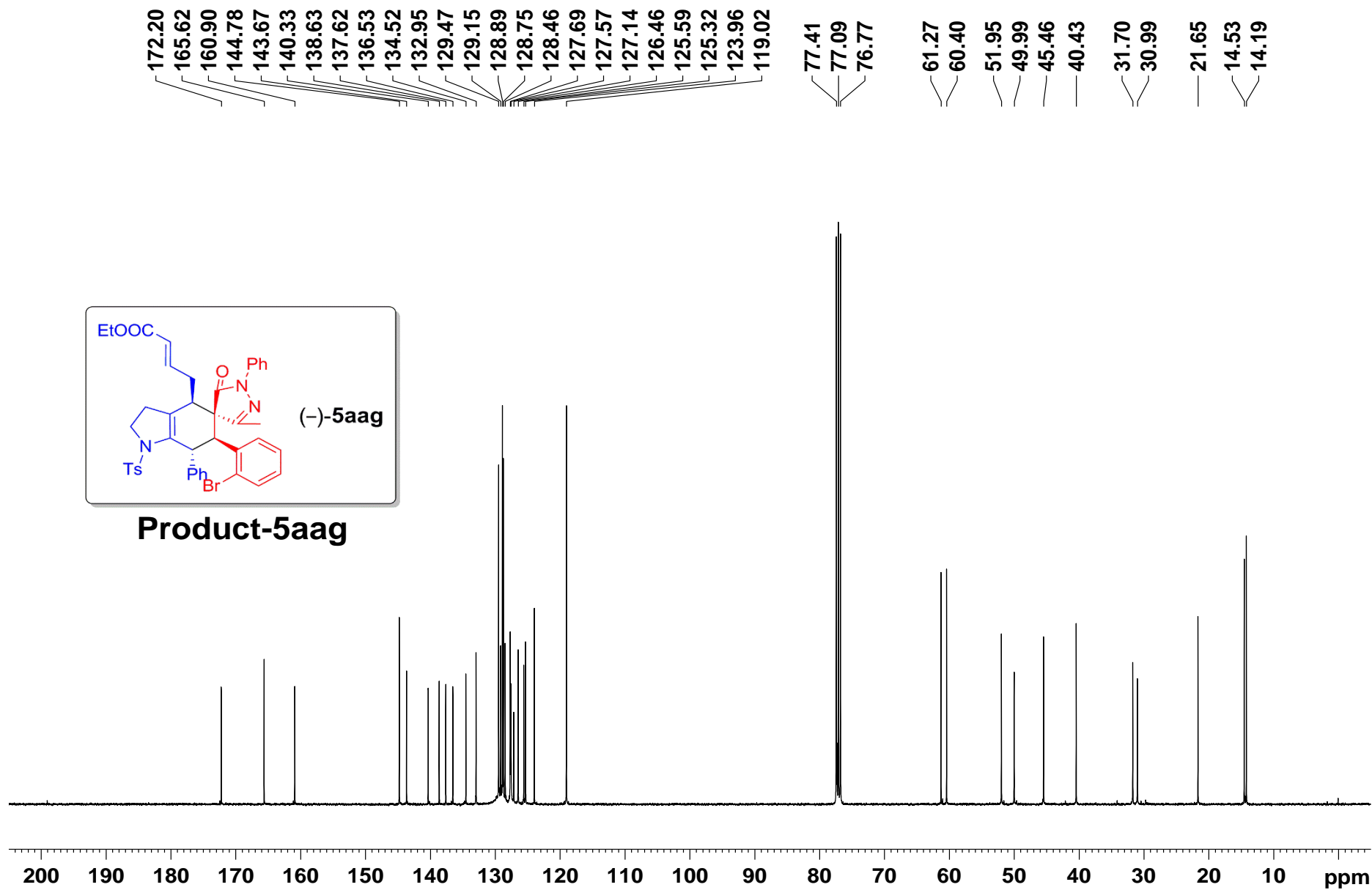


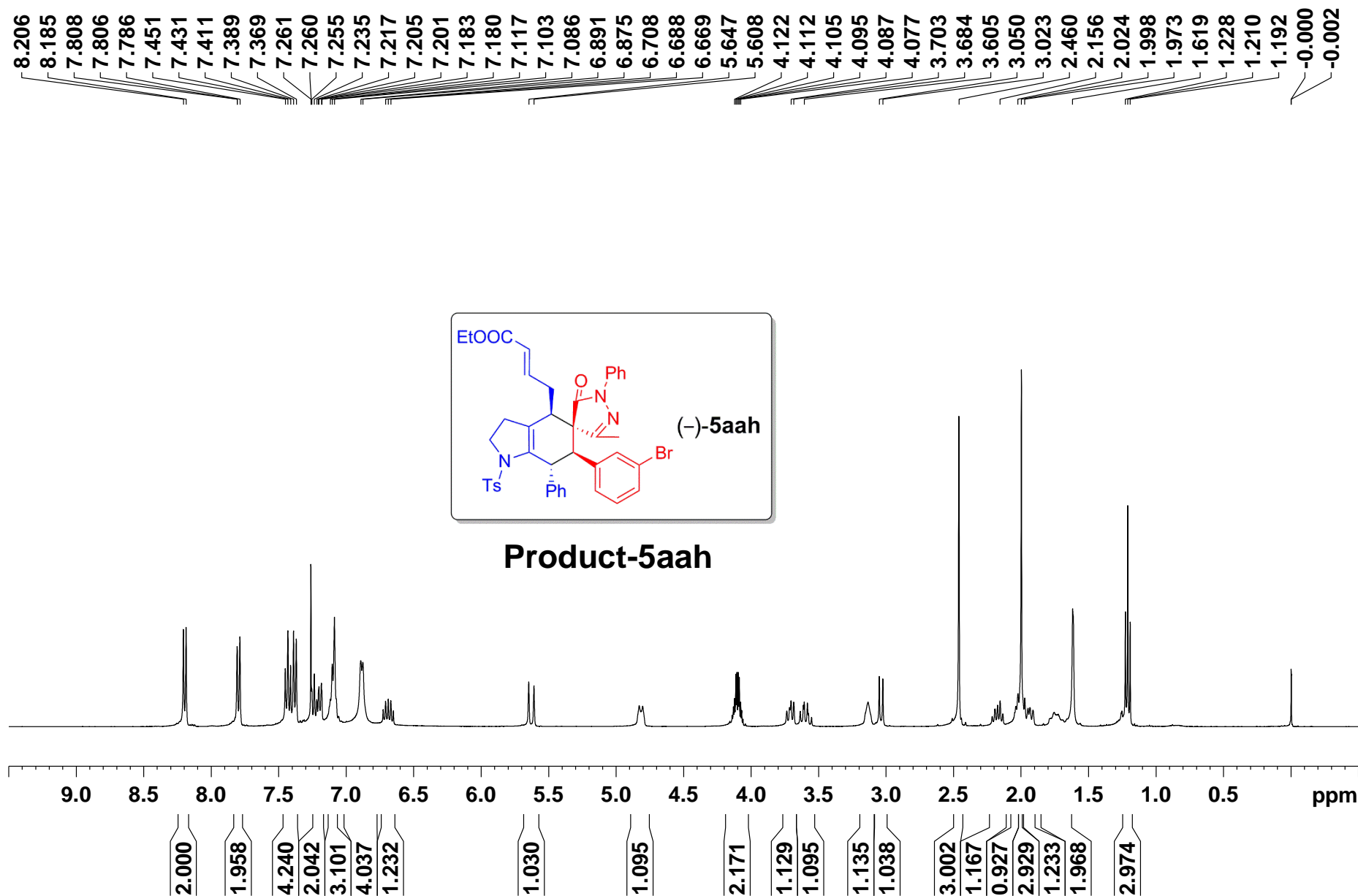


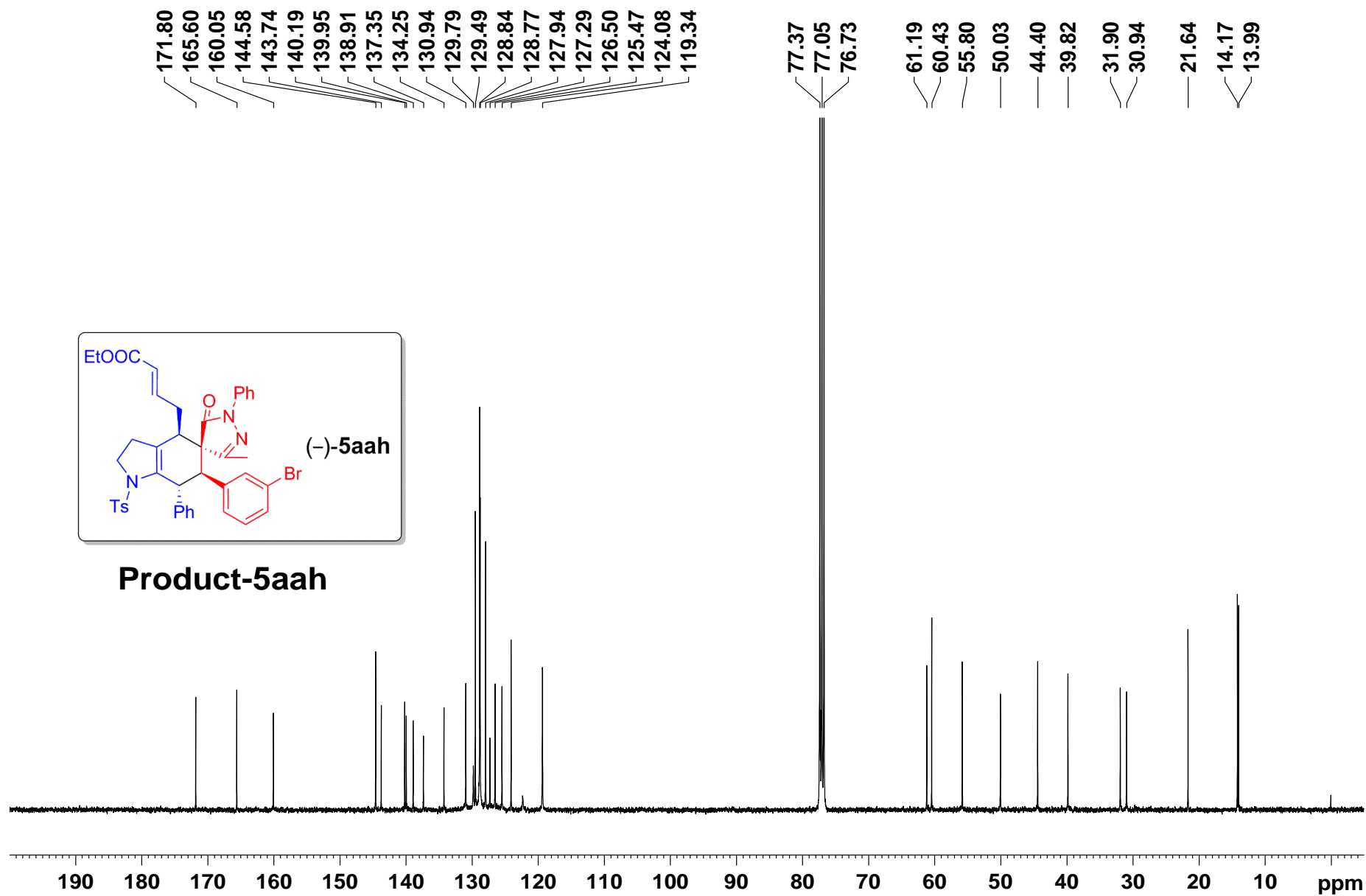


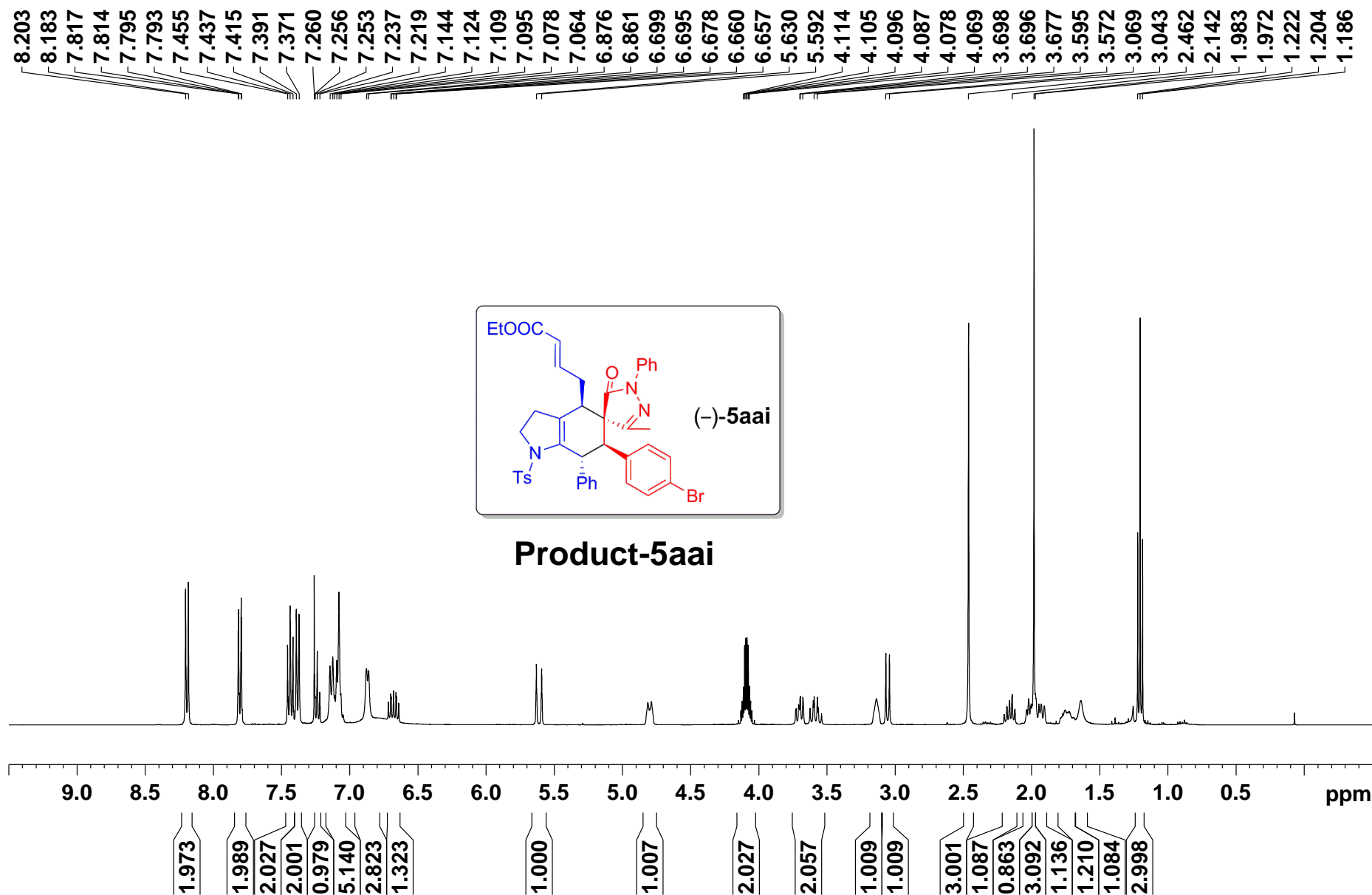


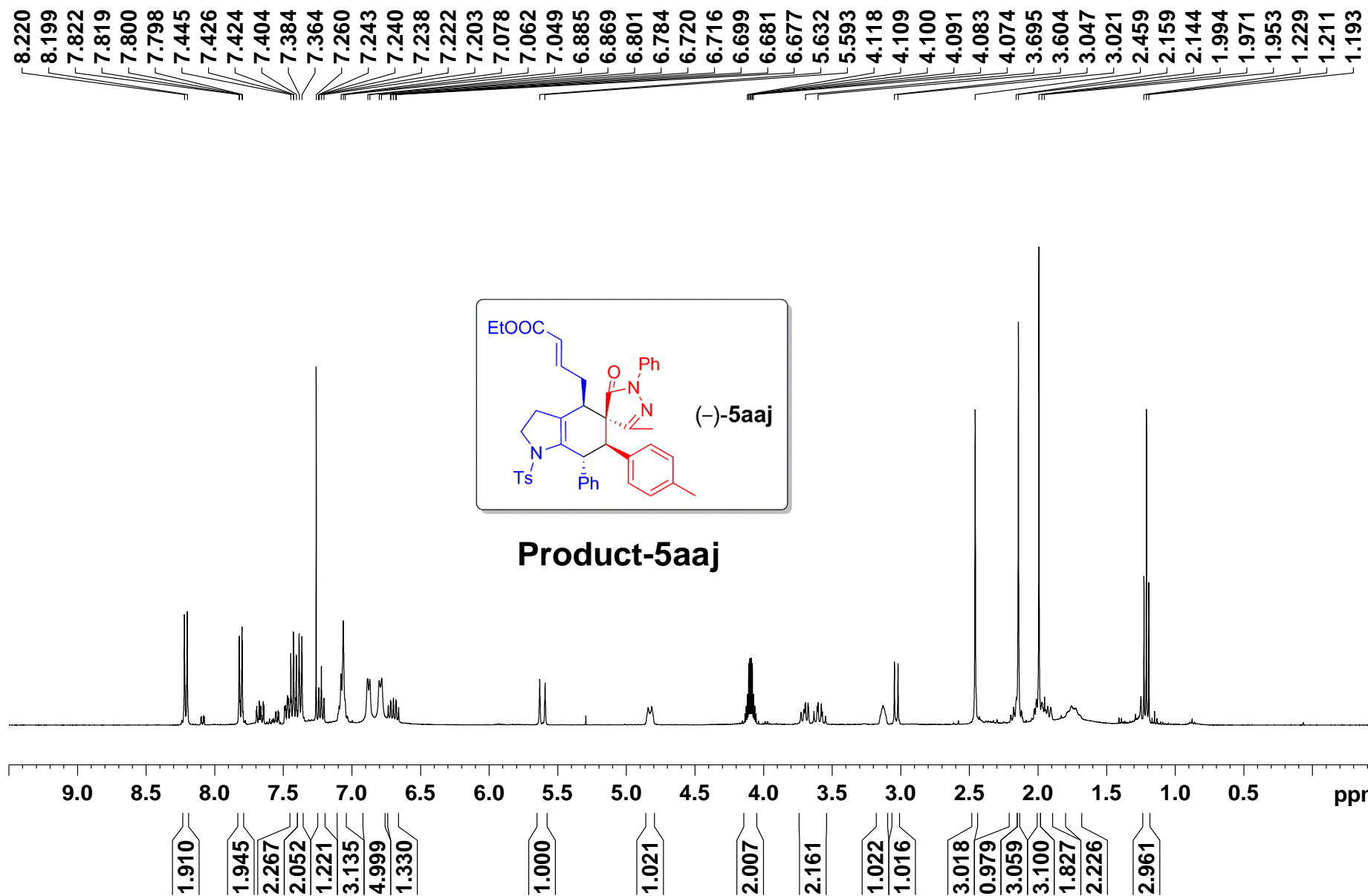


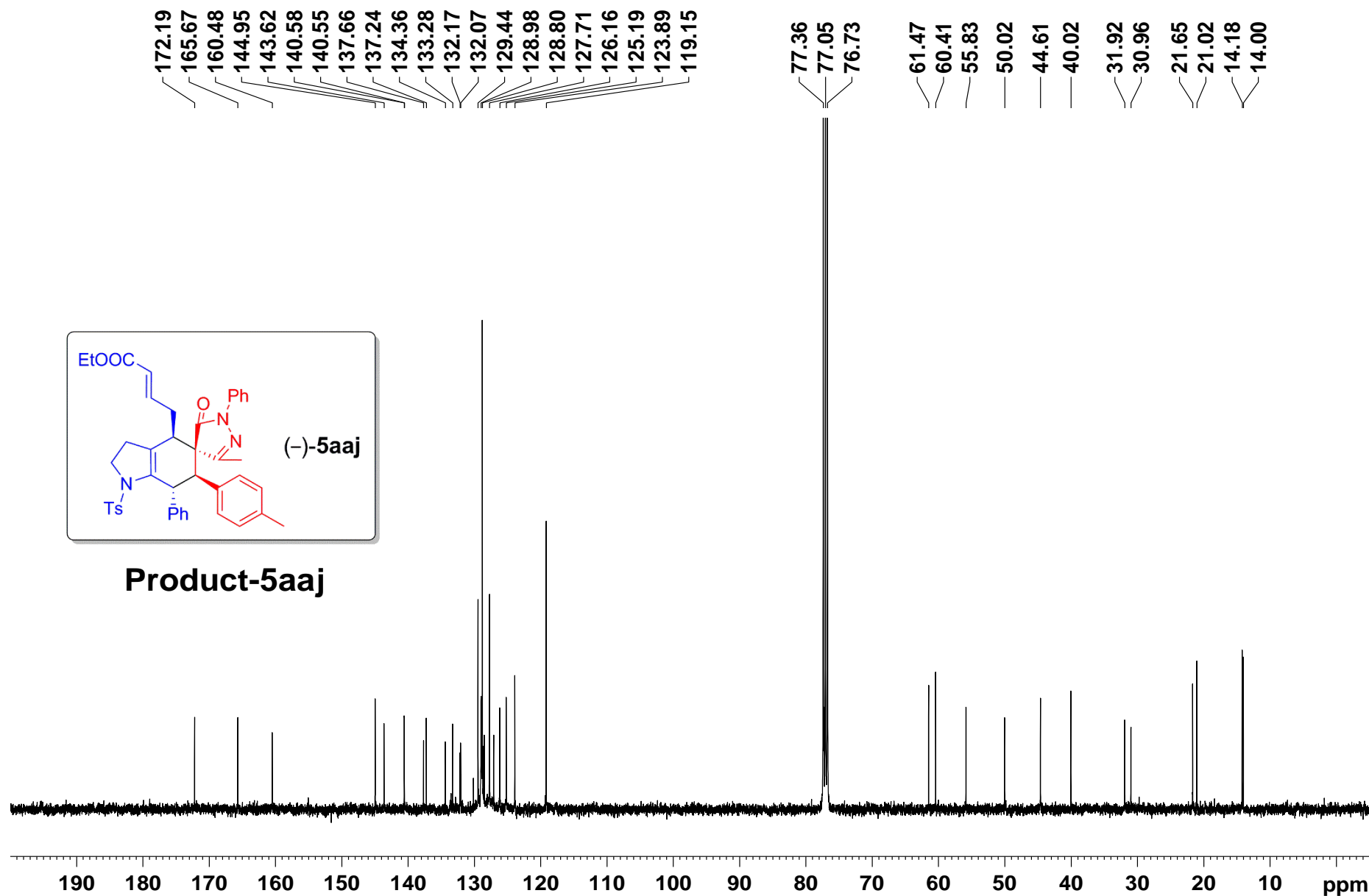


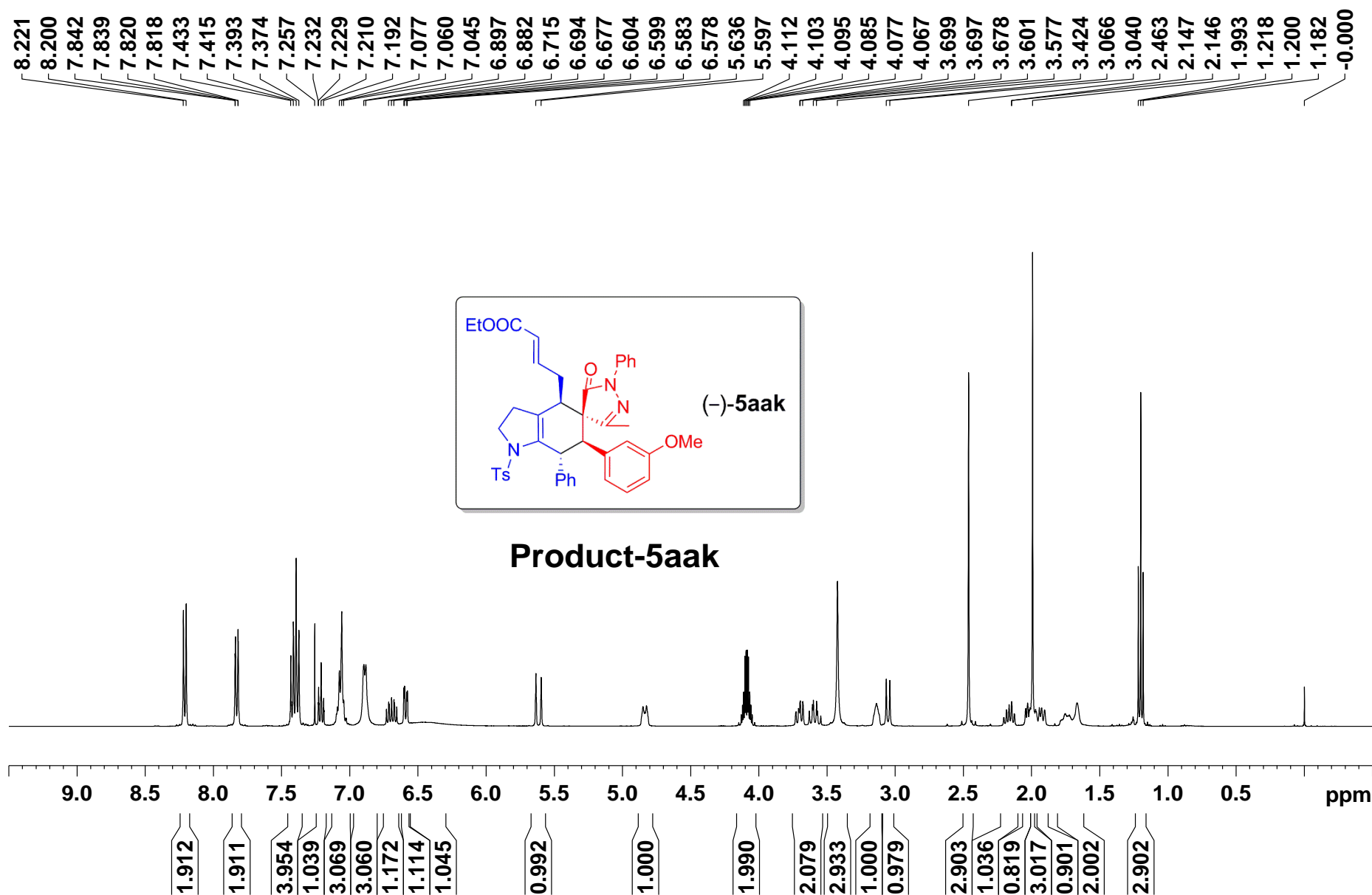


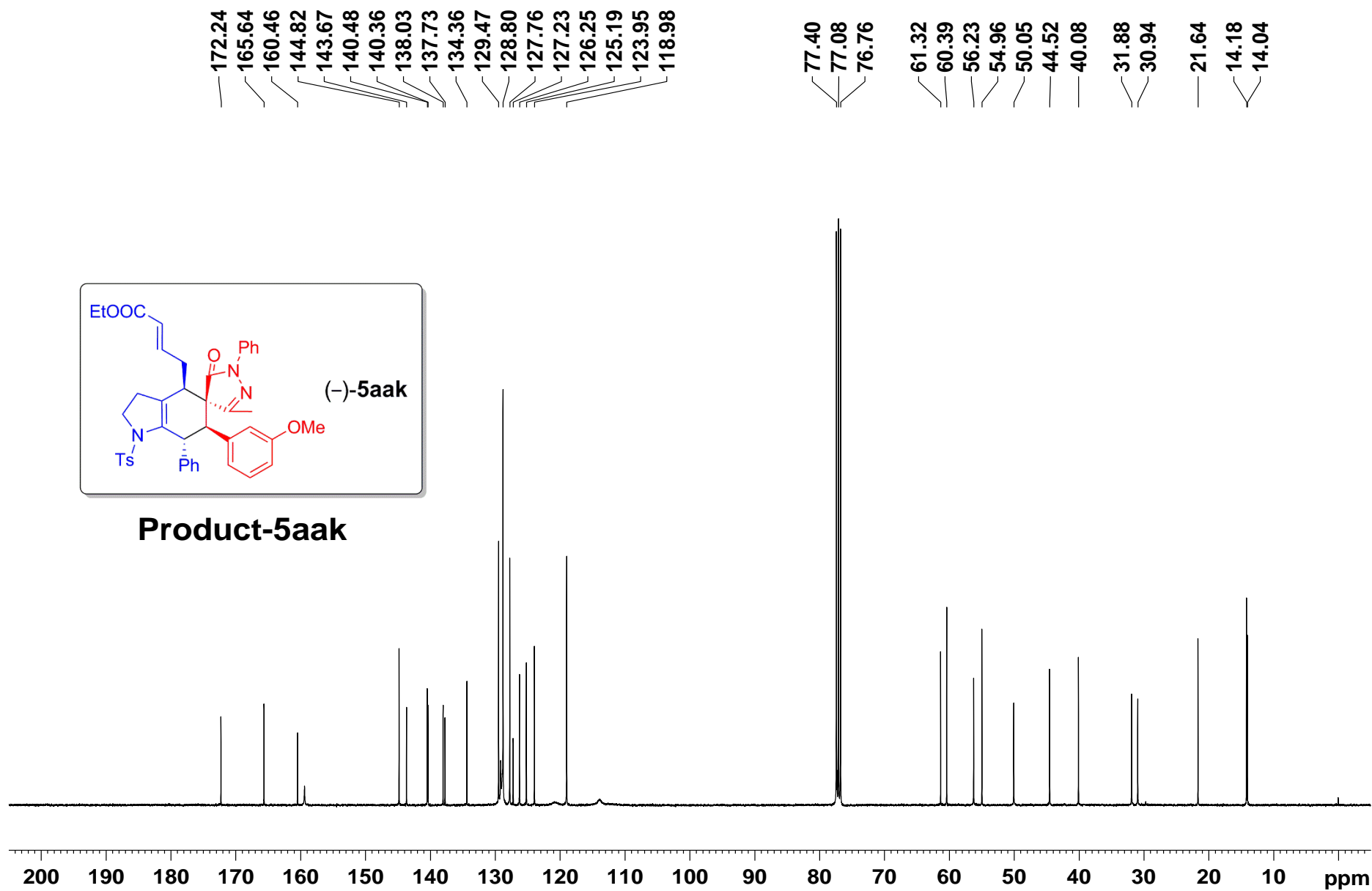


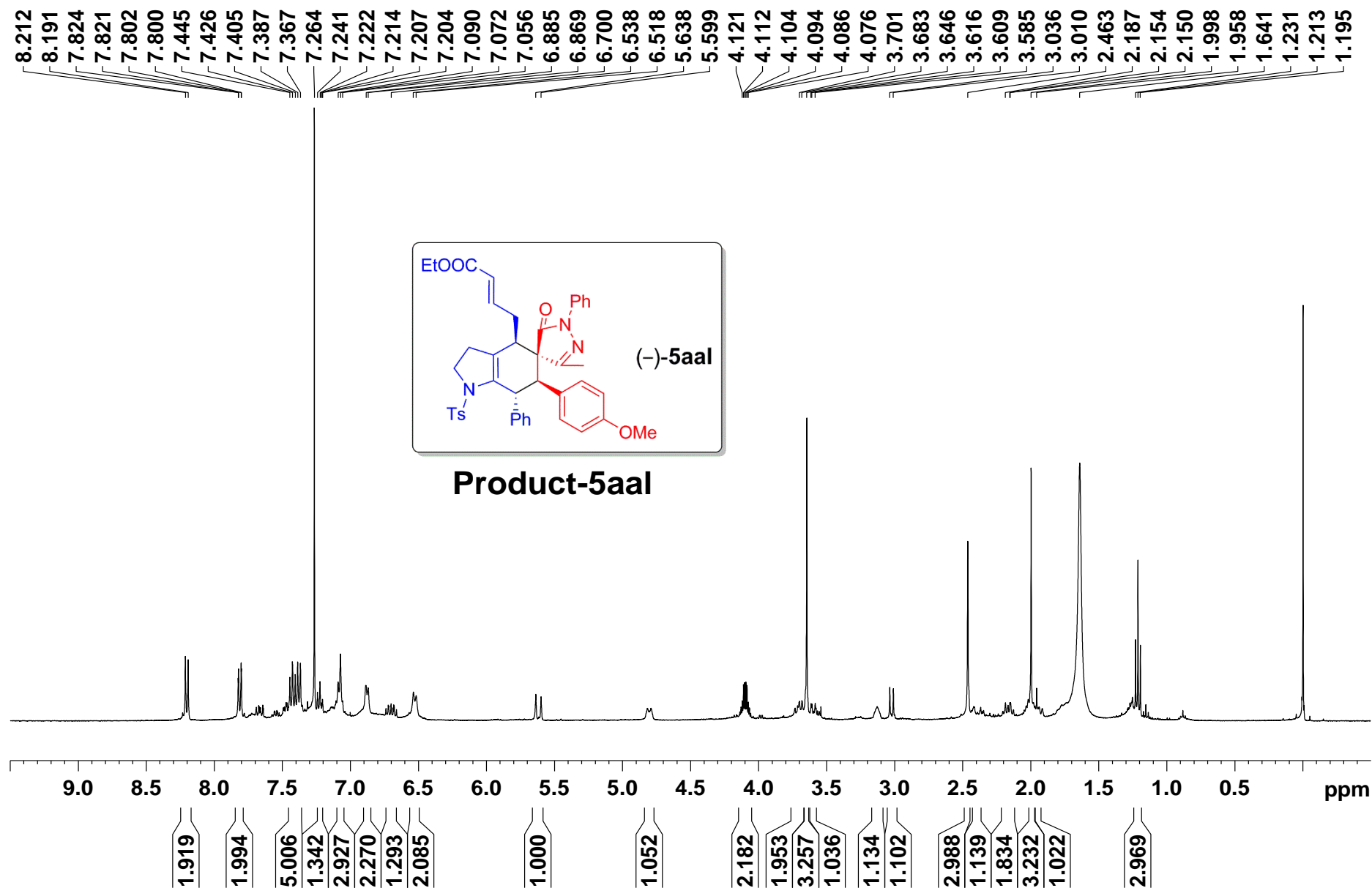


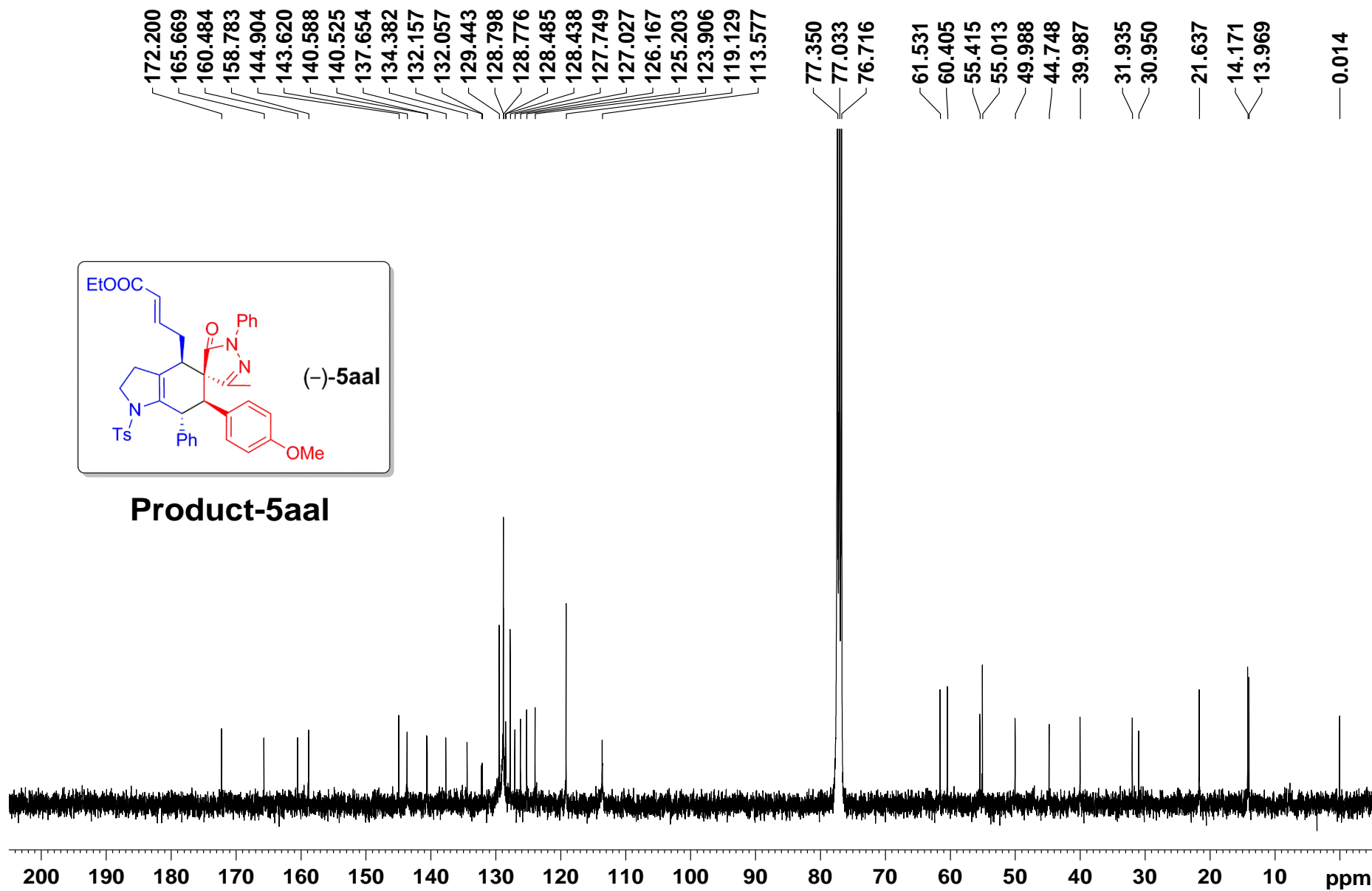


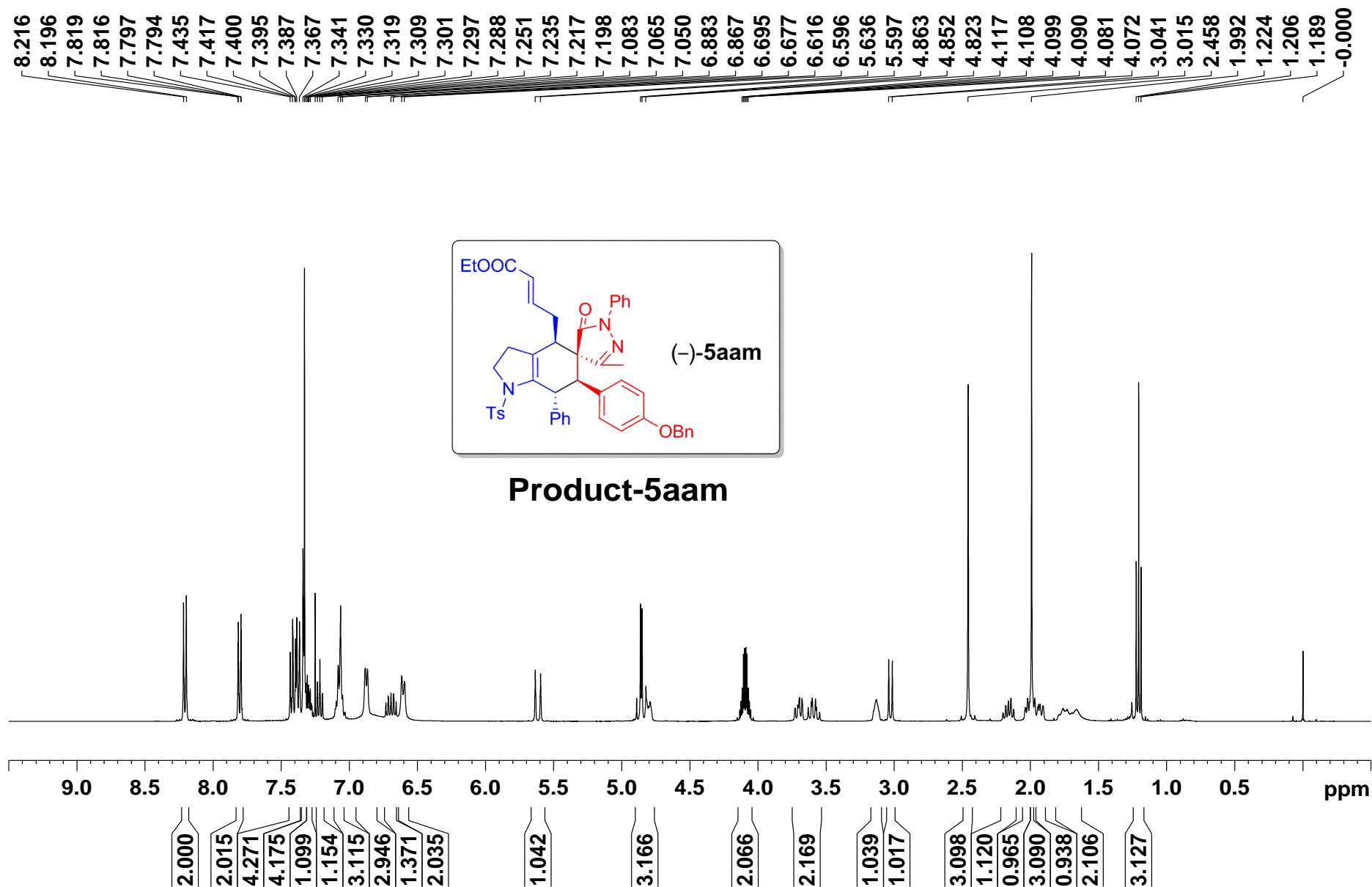


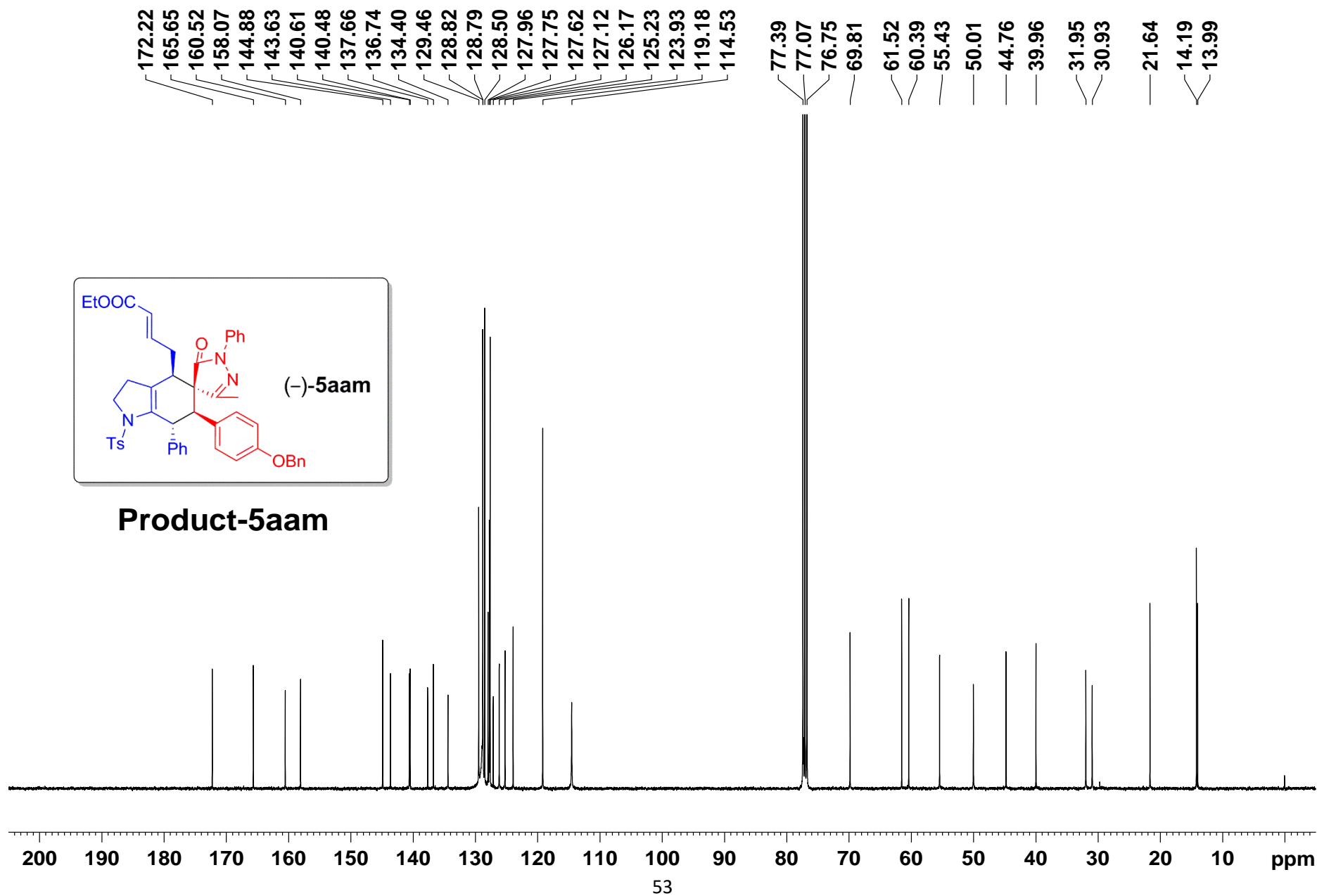


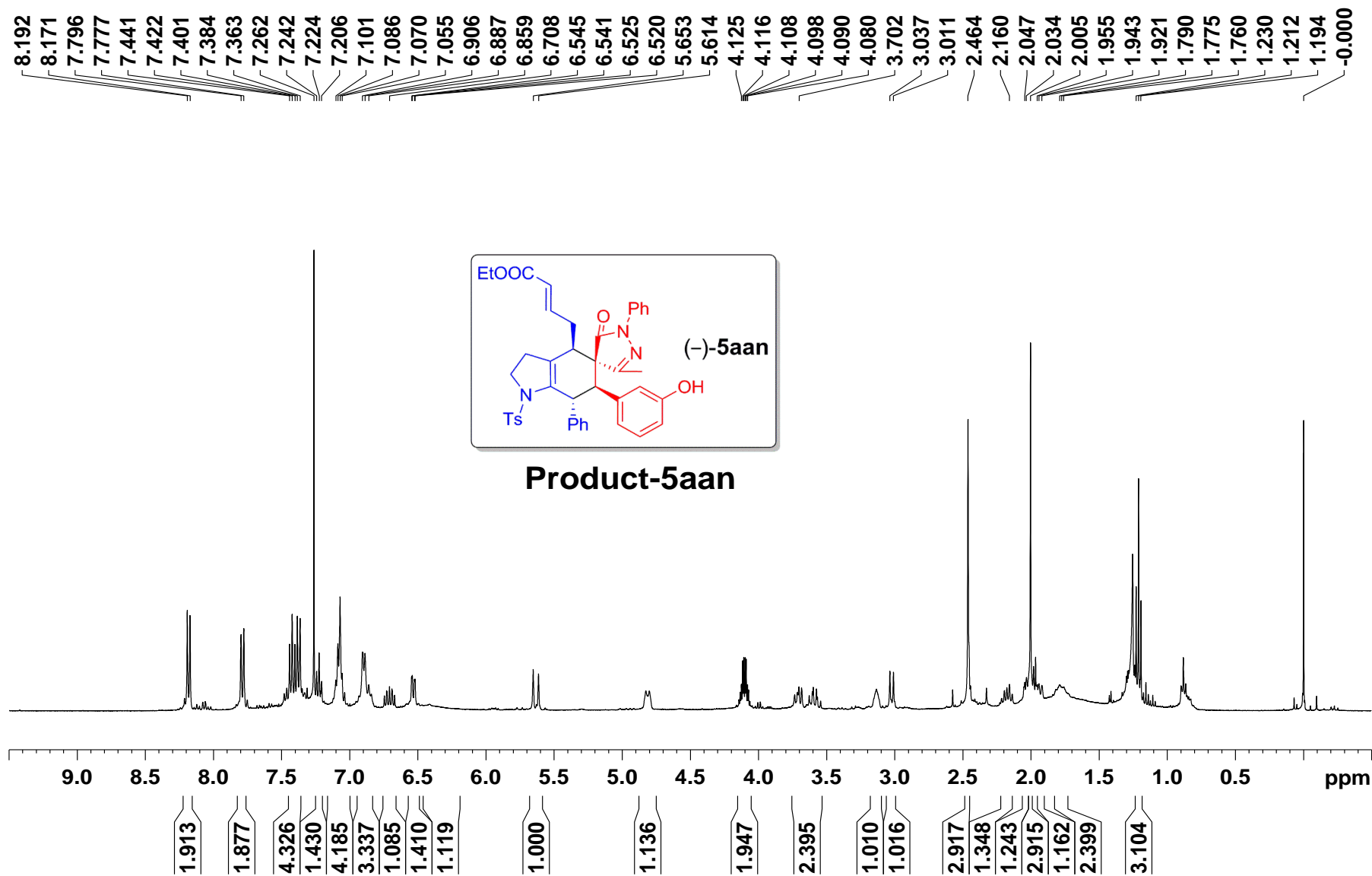


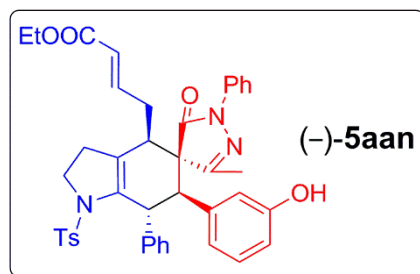




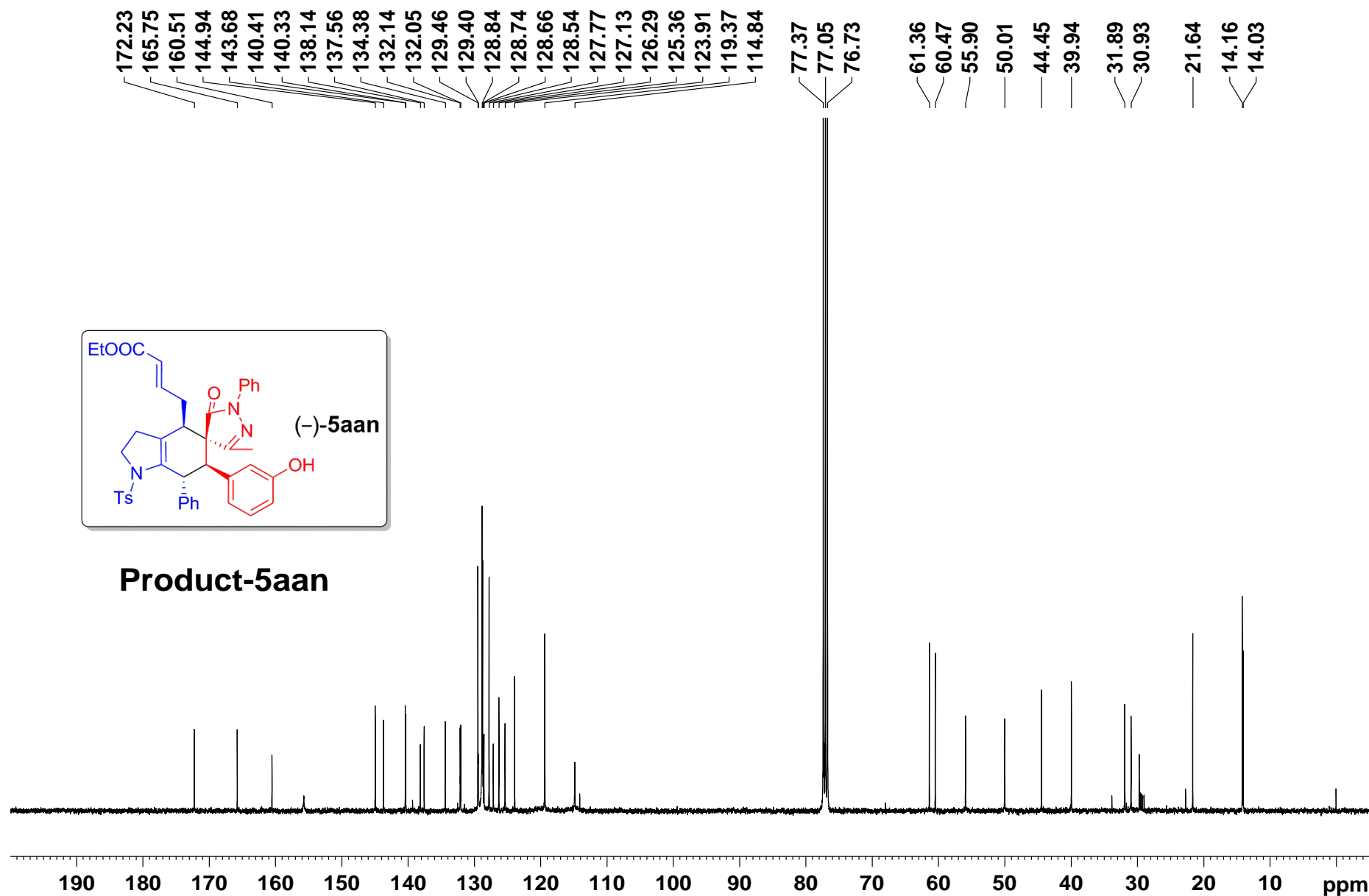


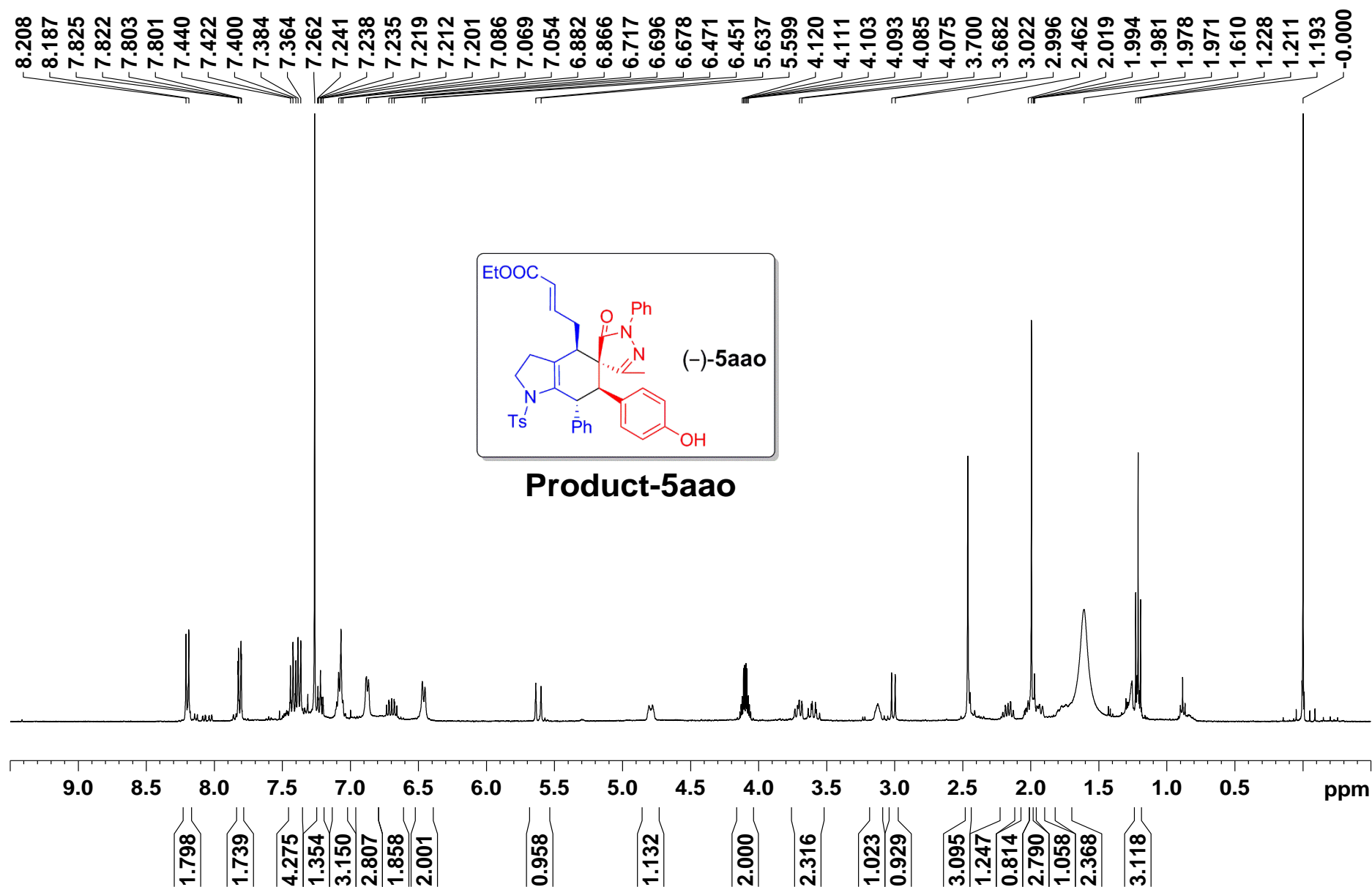


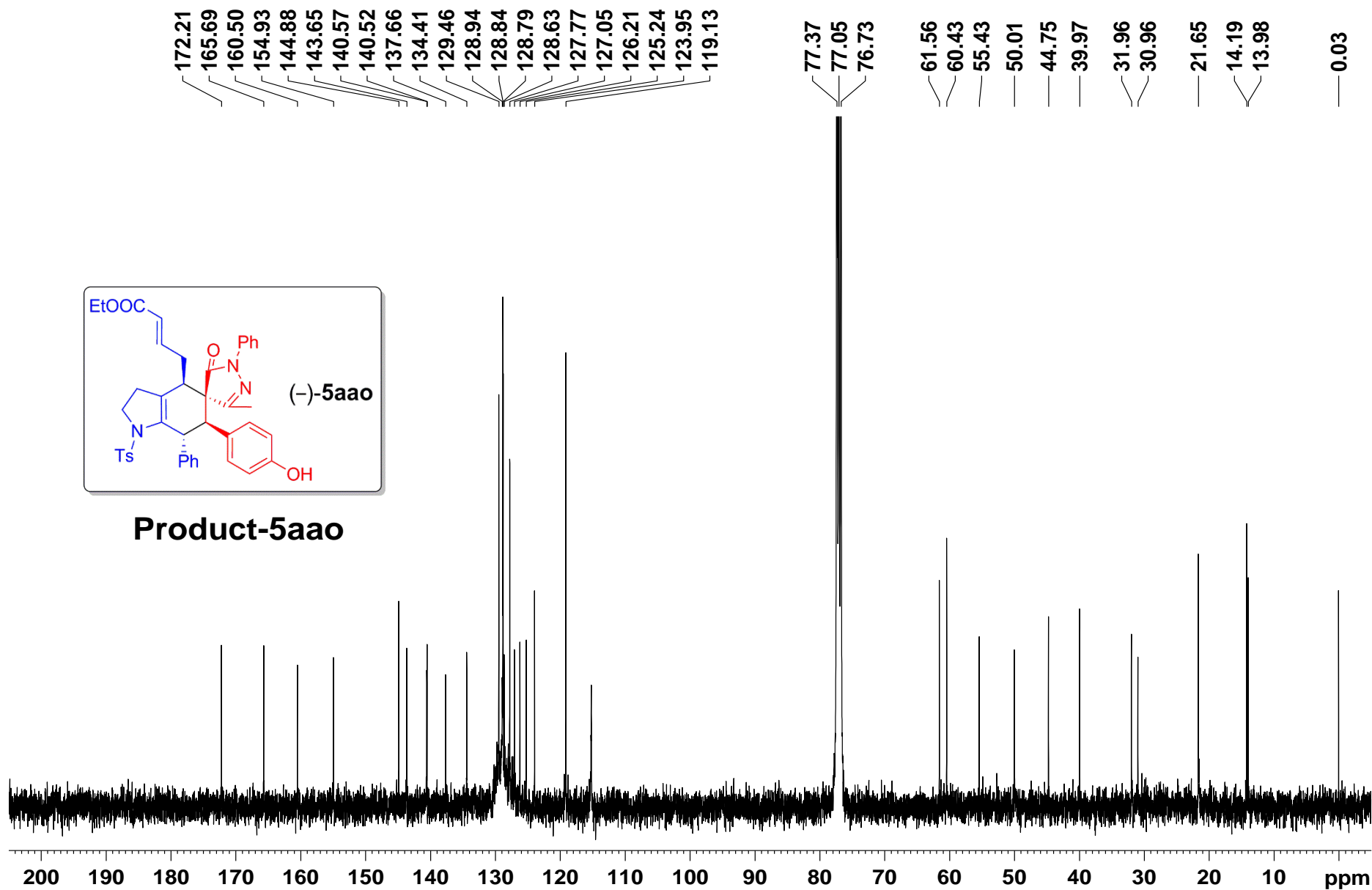


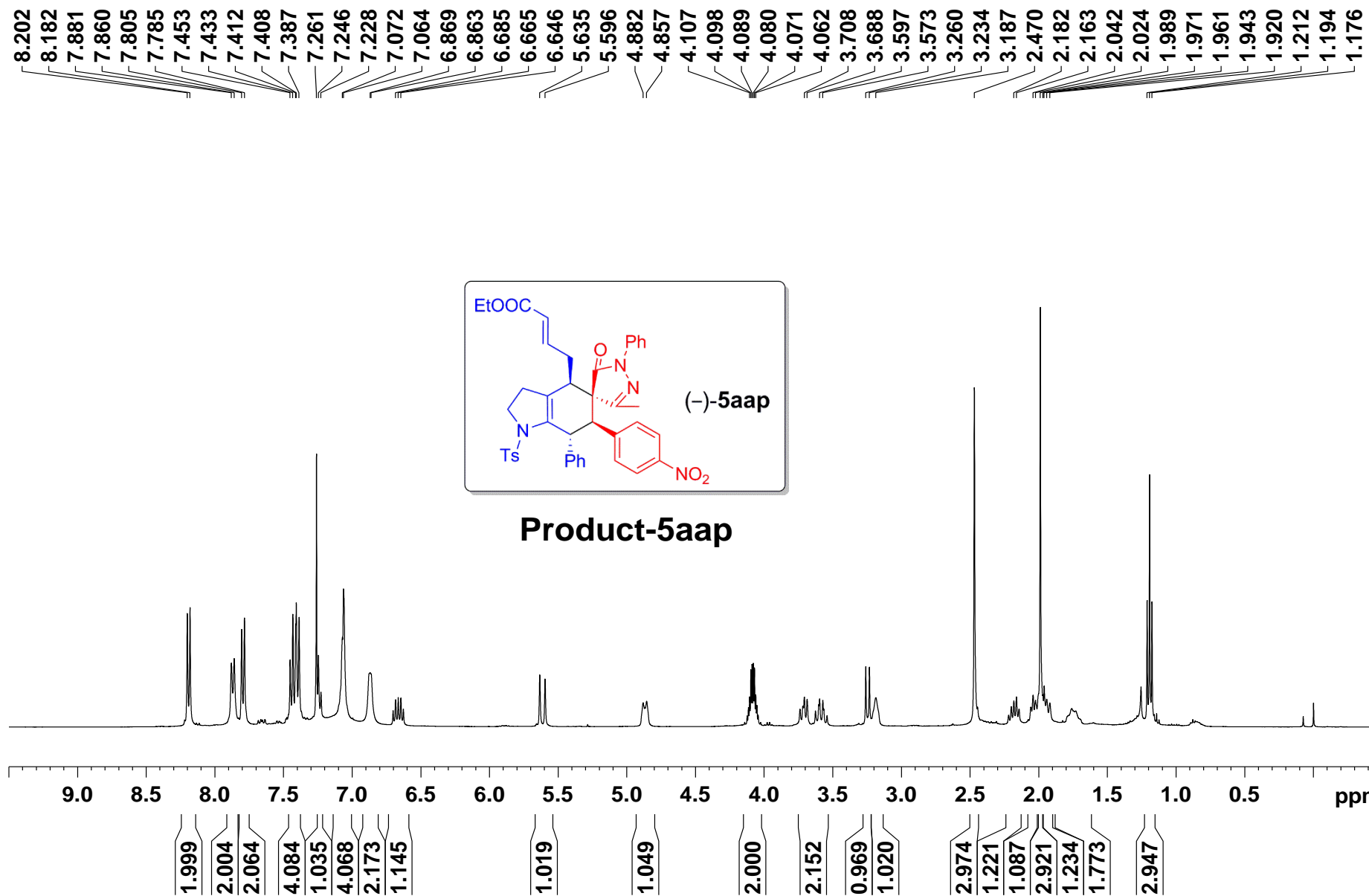


Product-5aan









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165.49
159.82
147.33
144.52
144.18
143.91
139.92
139.60
137.29
134.17
129.55
129.00
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76.75

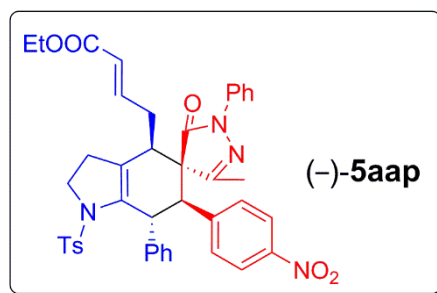
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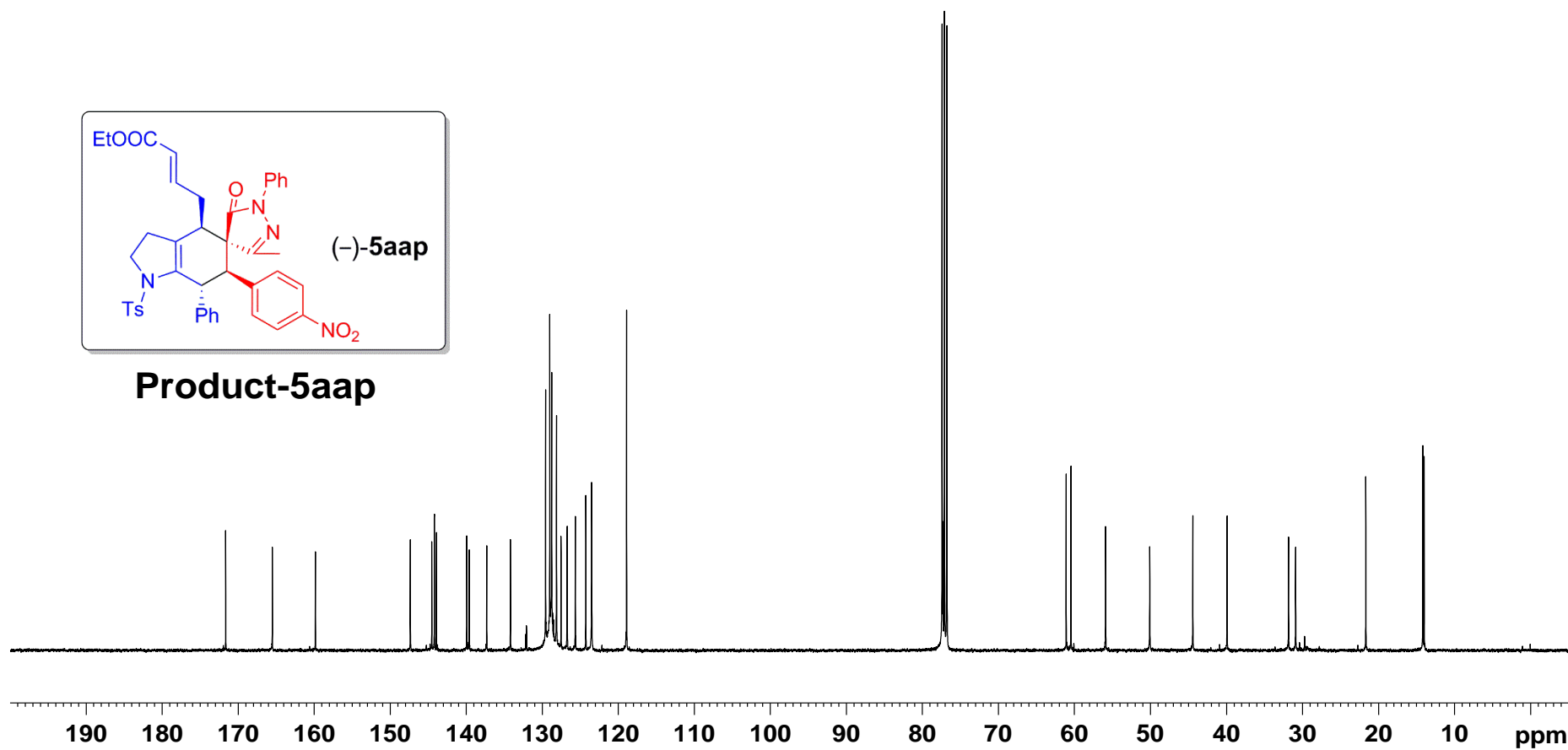
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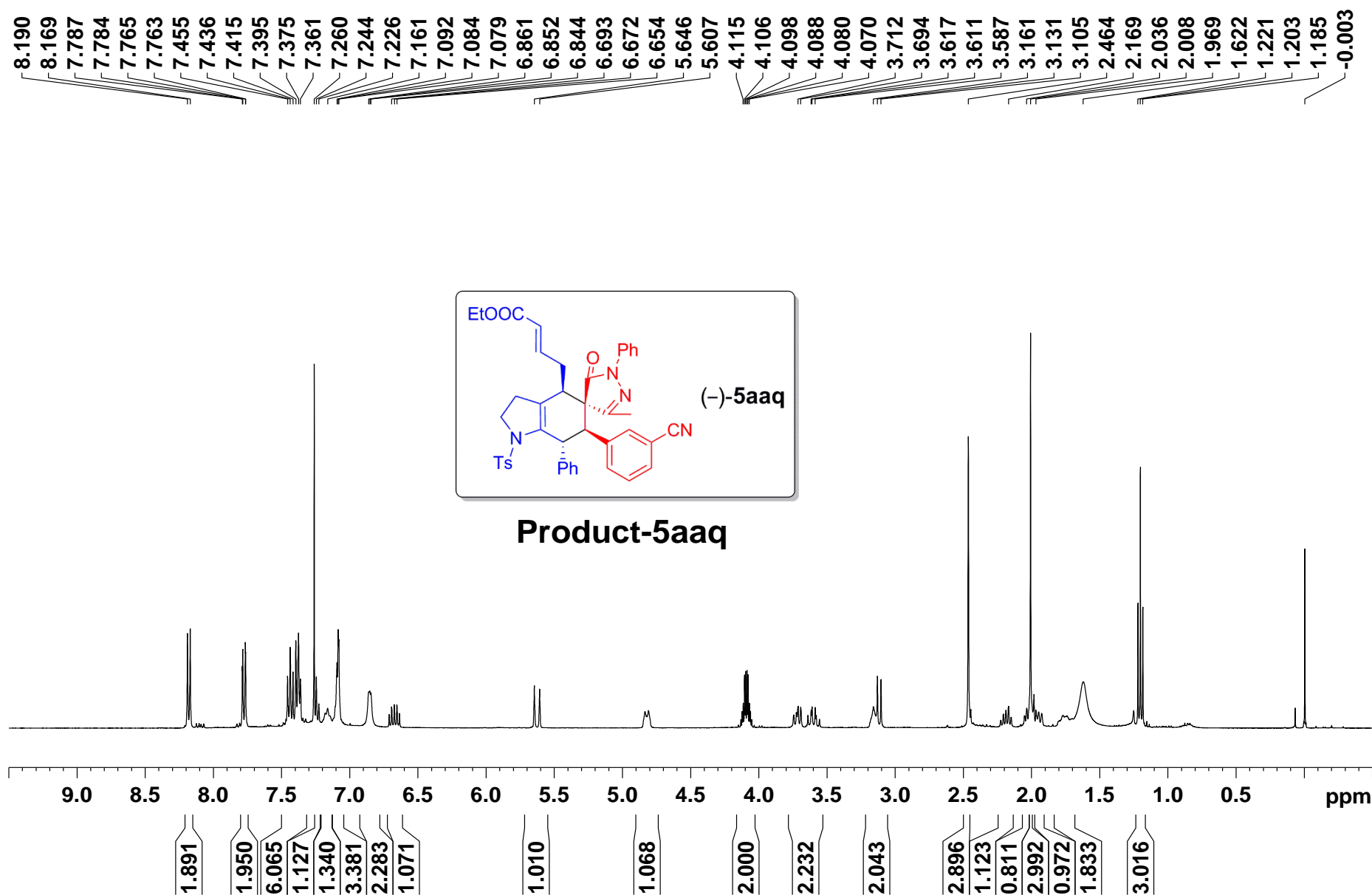
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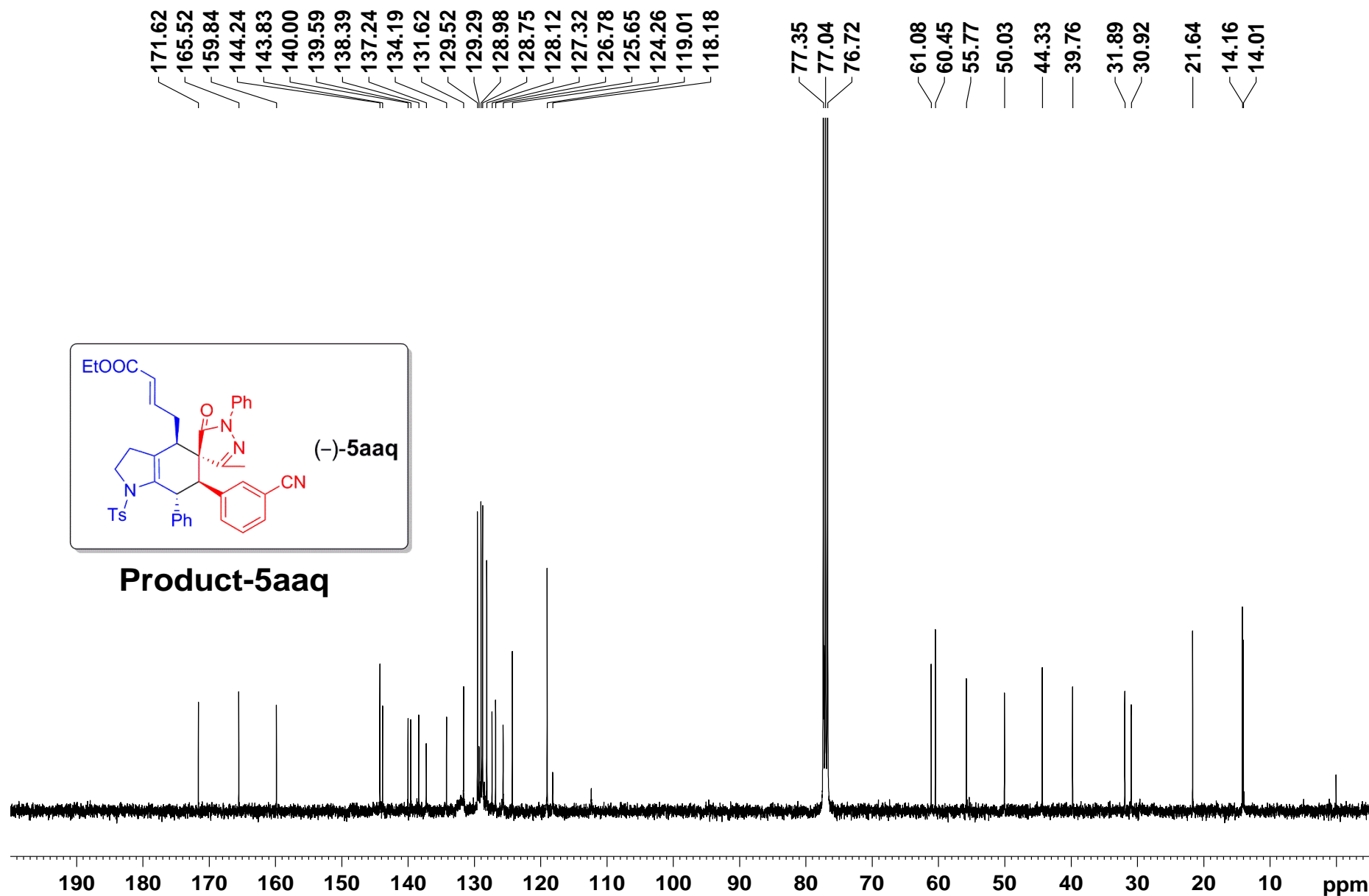
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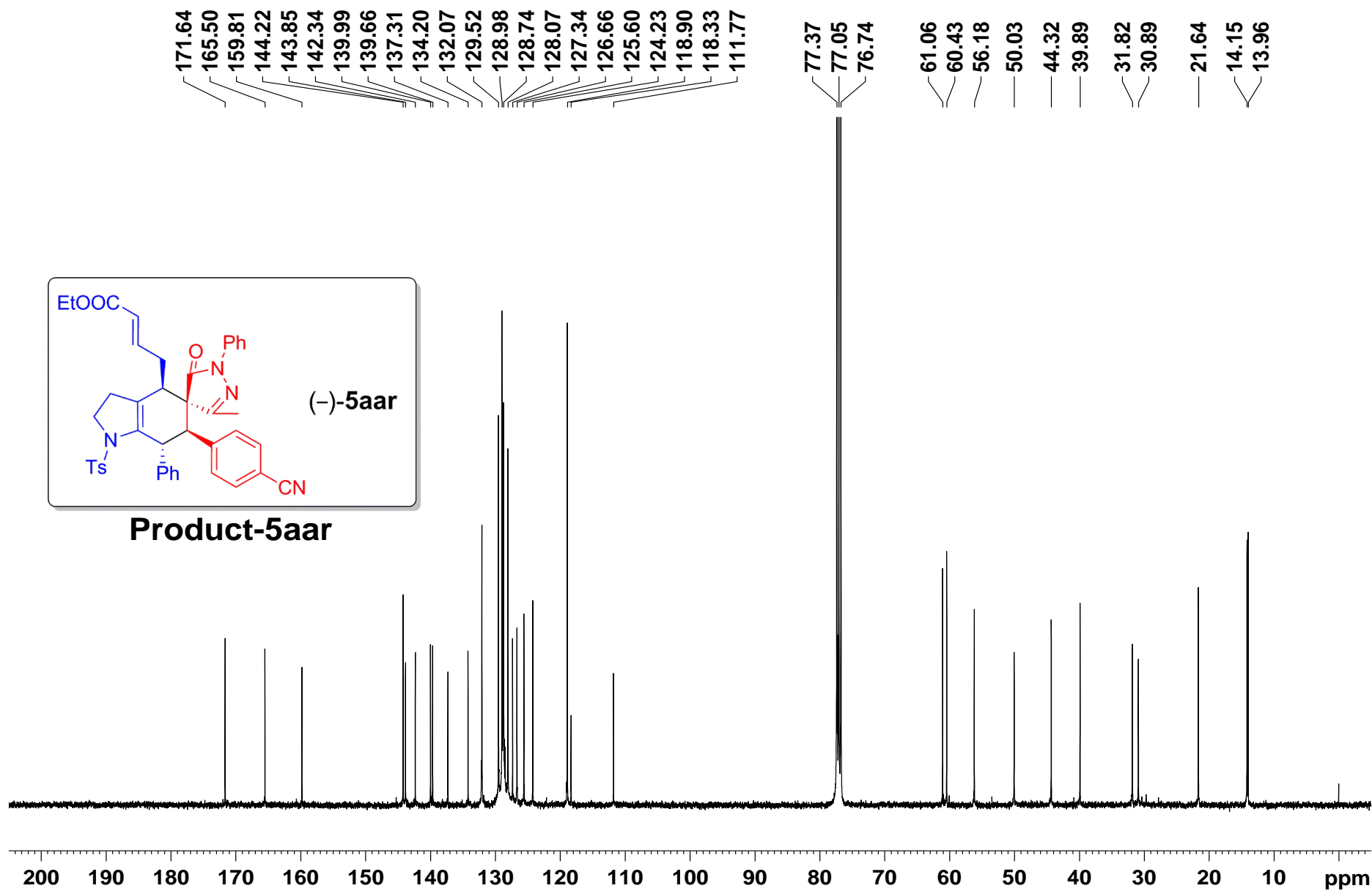


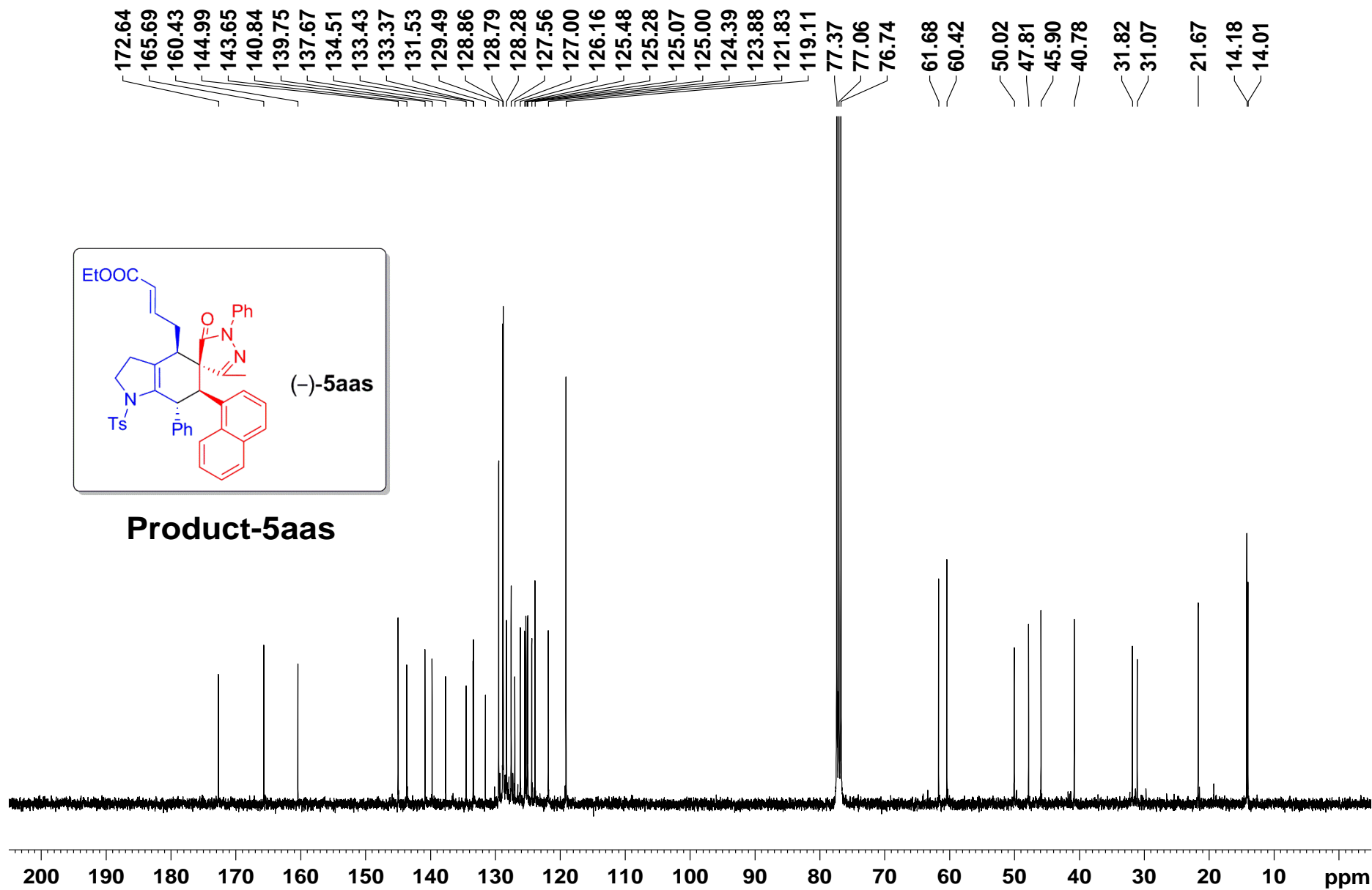
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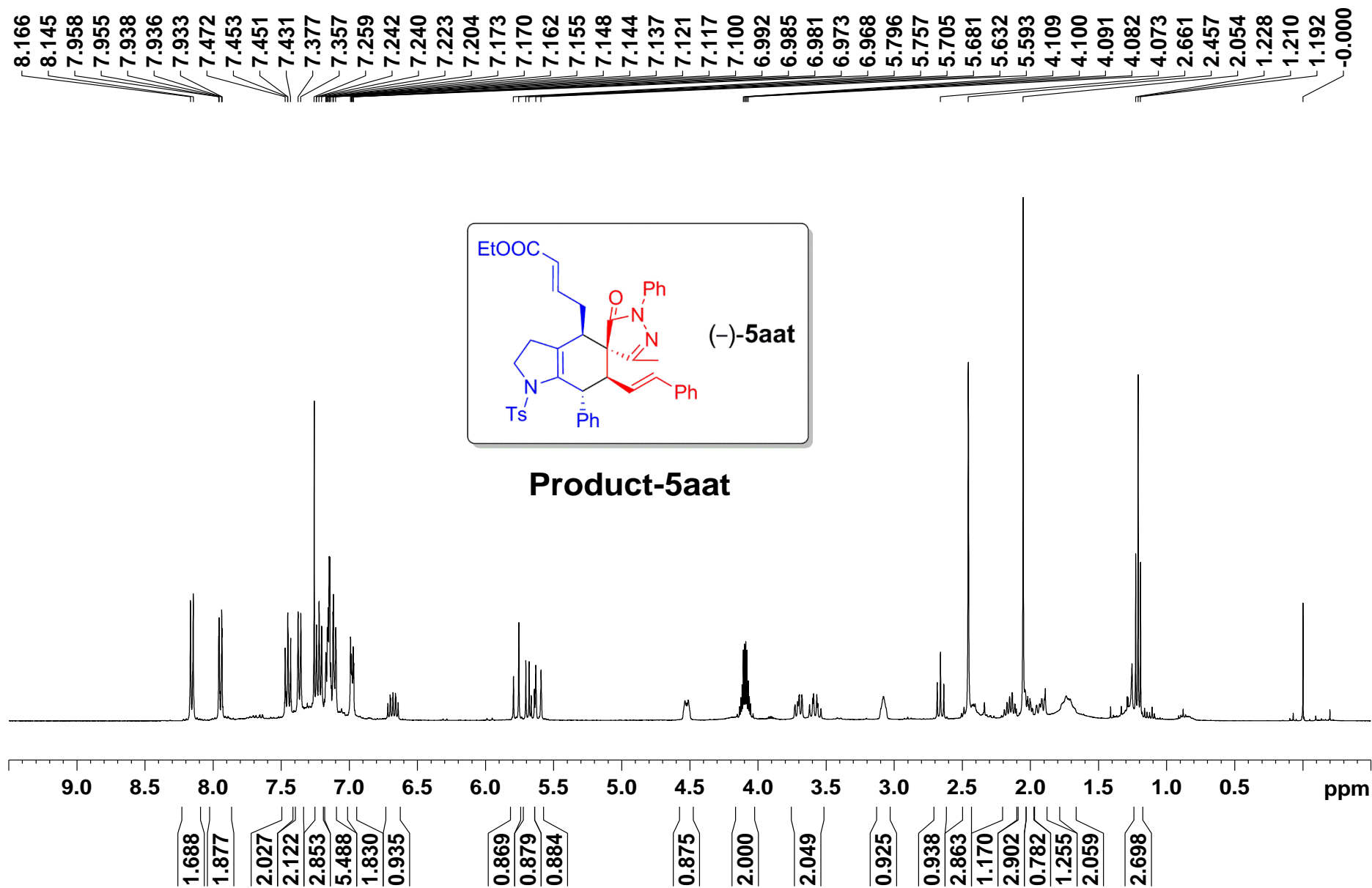


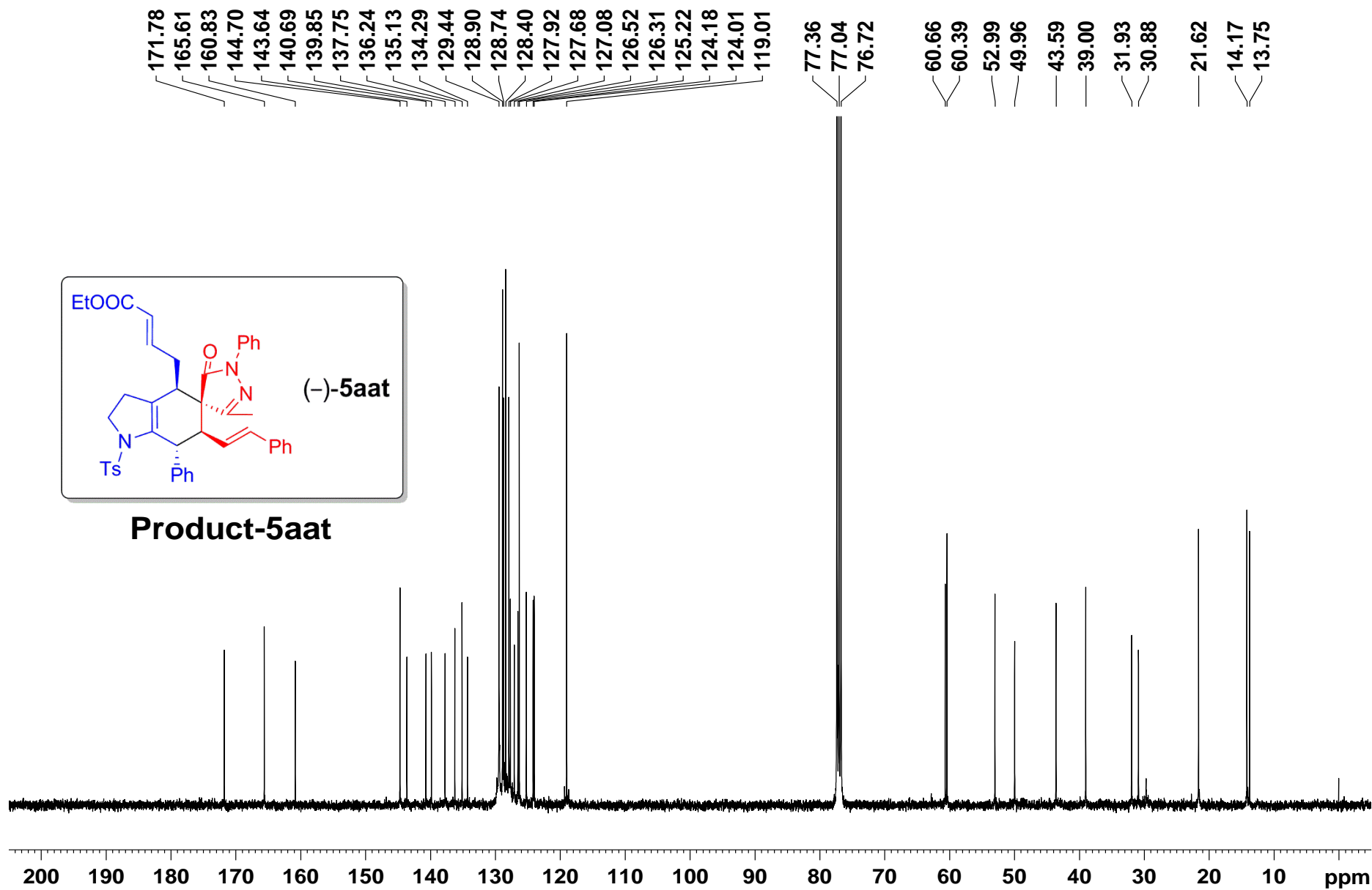


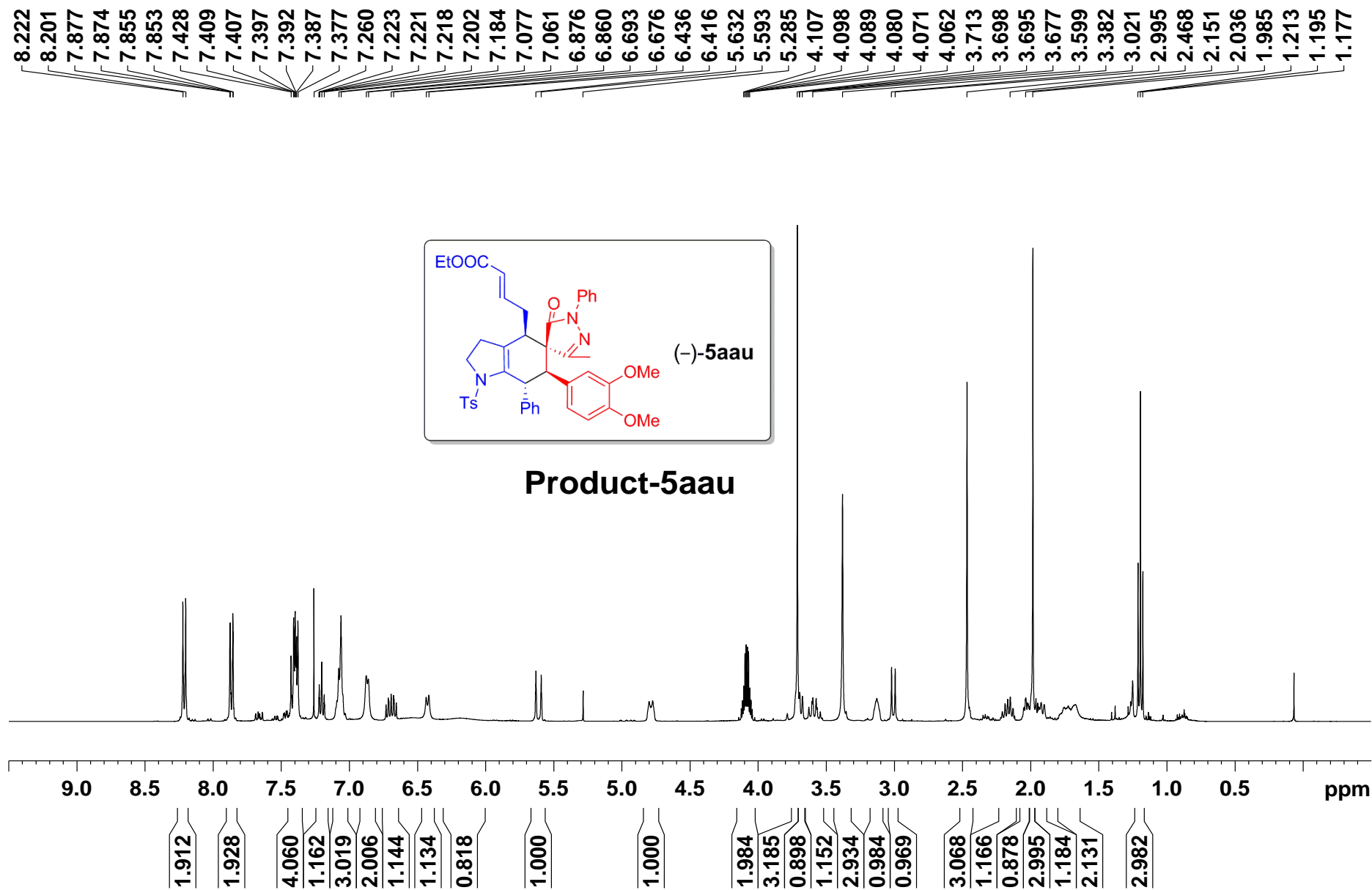


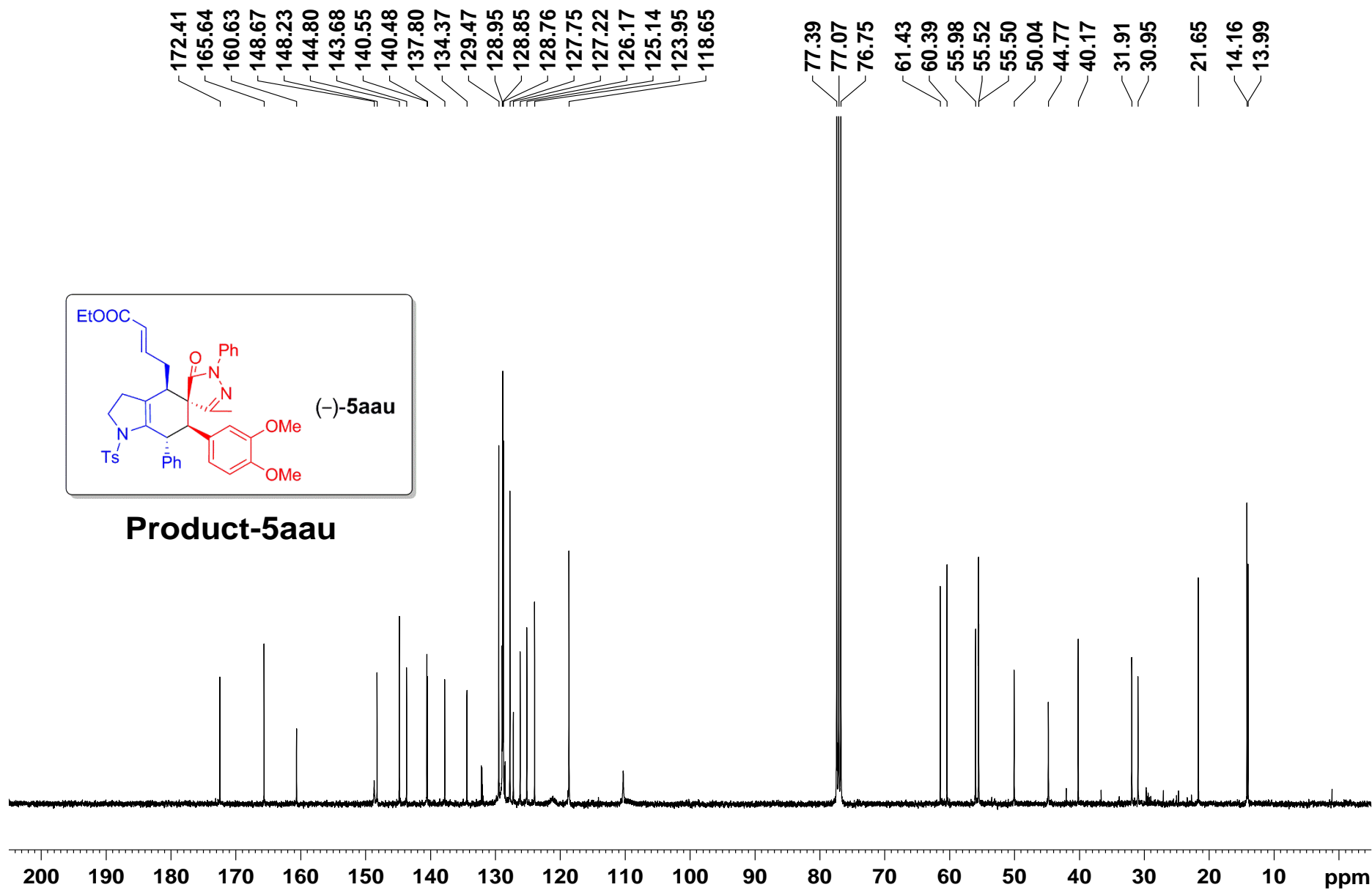


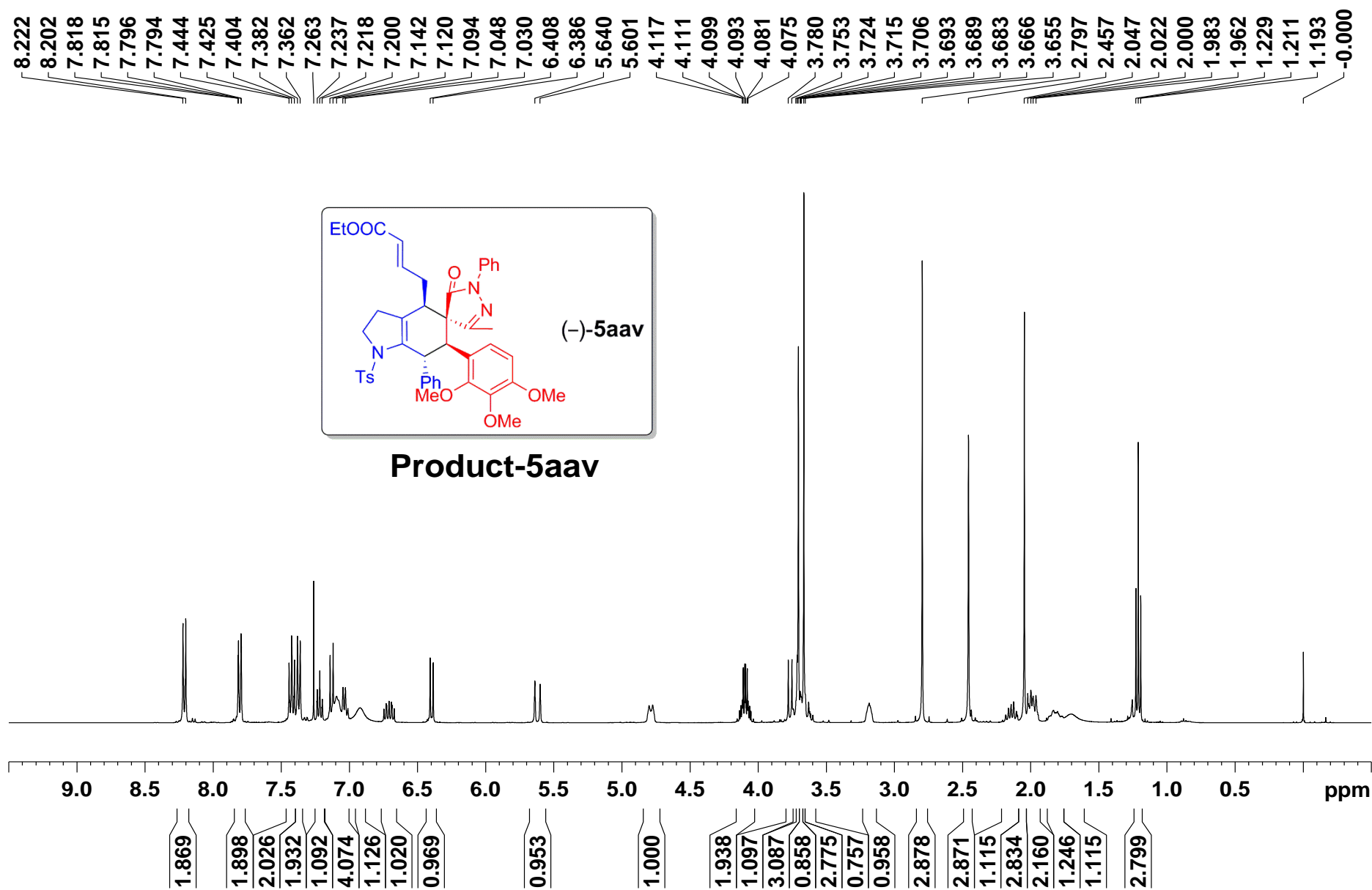


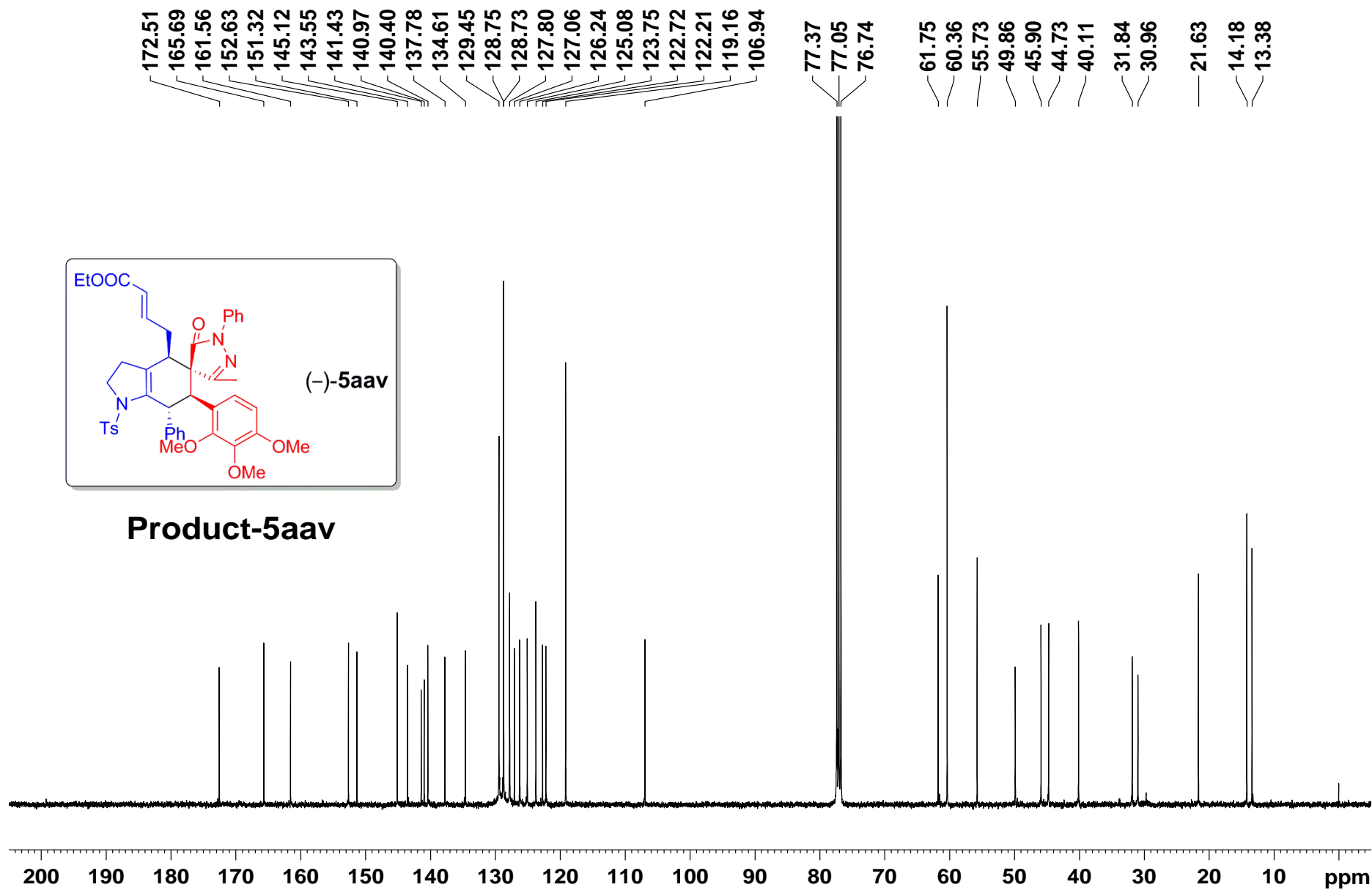


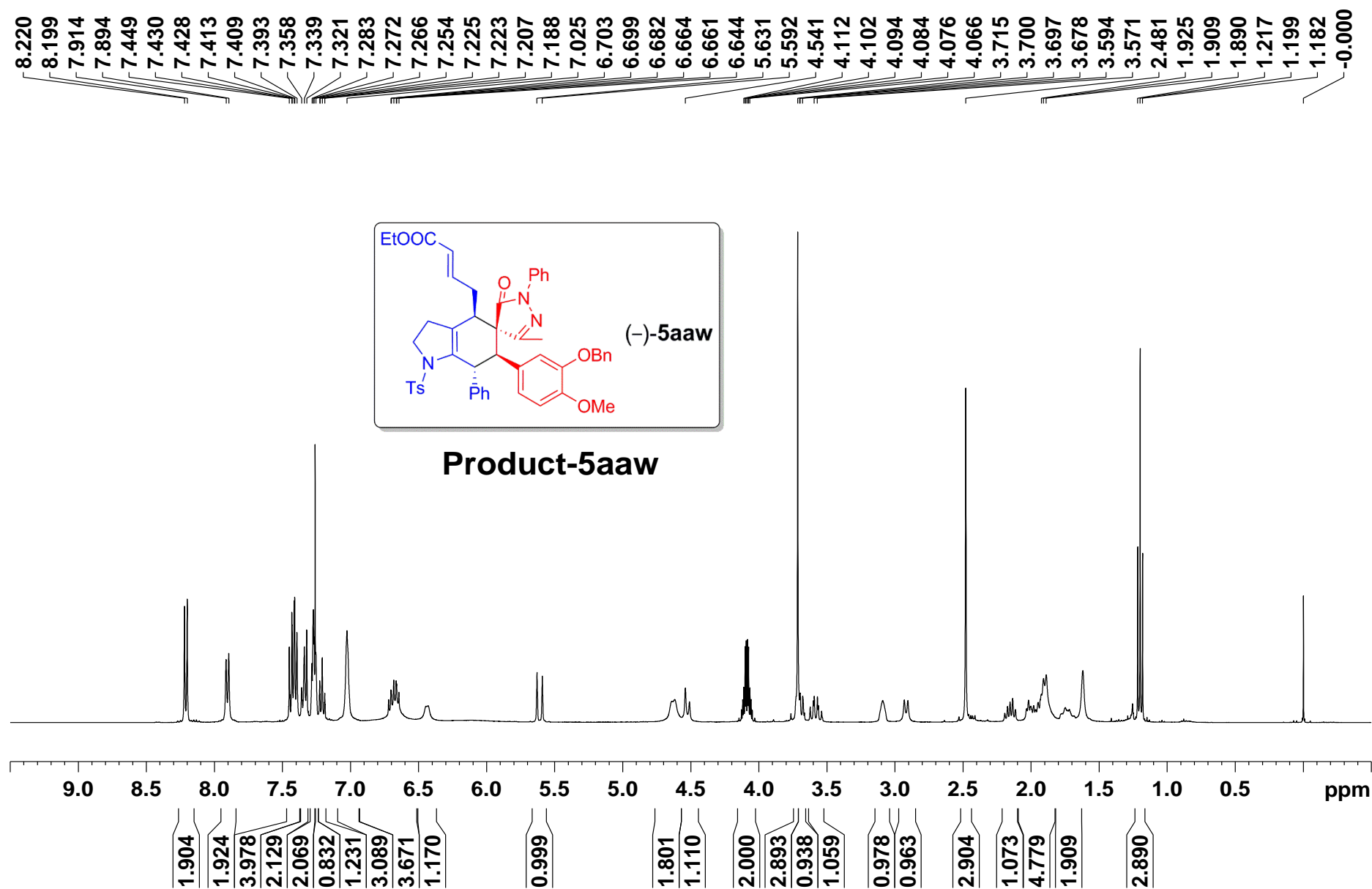


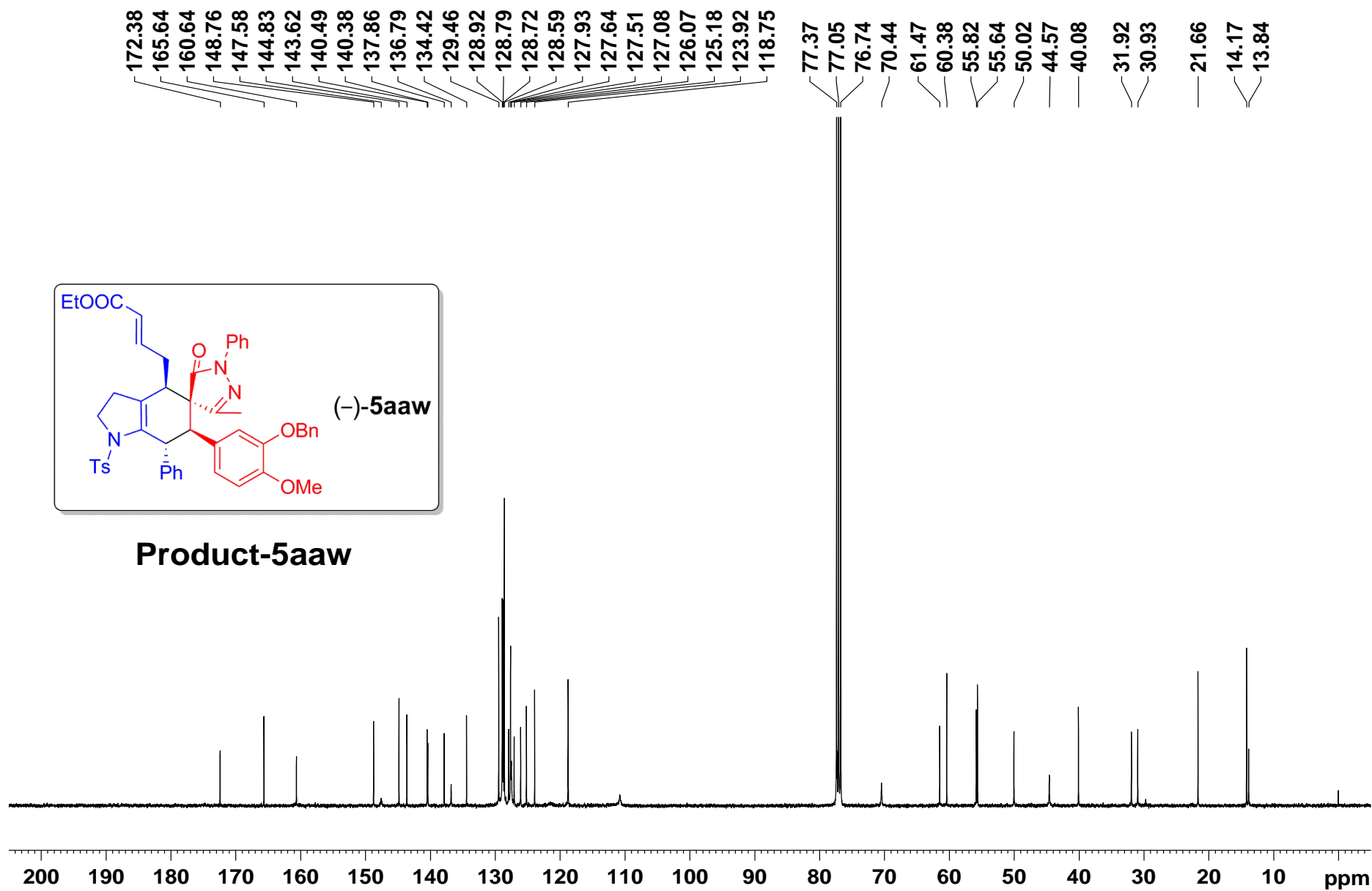


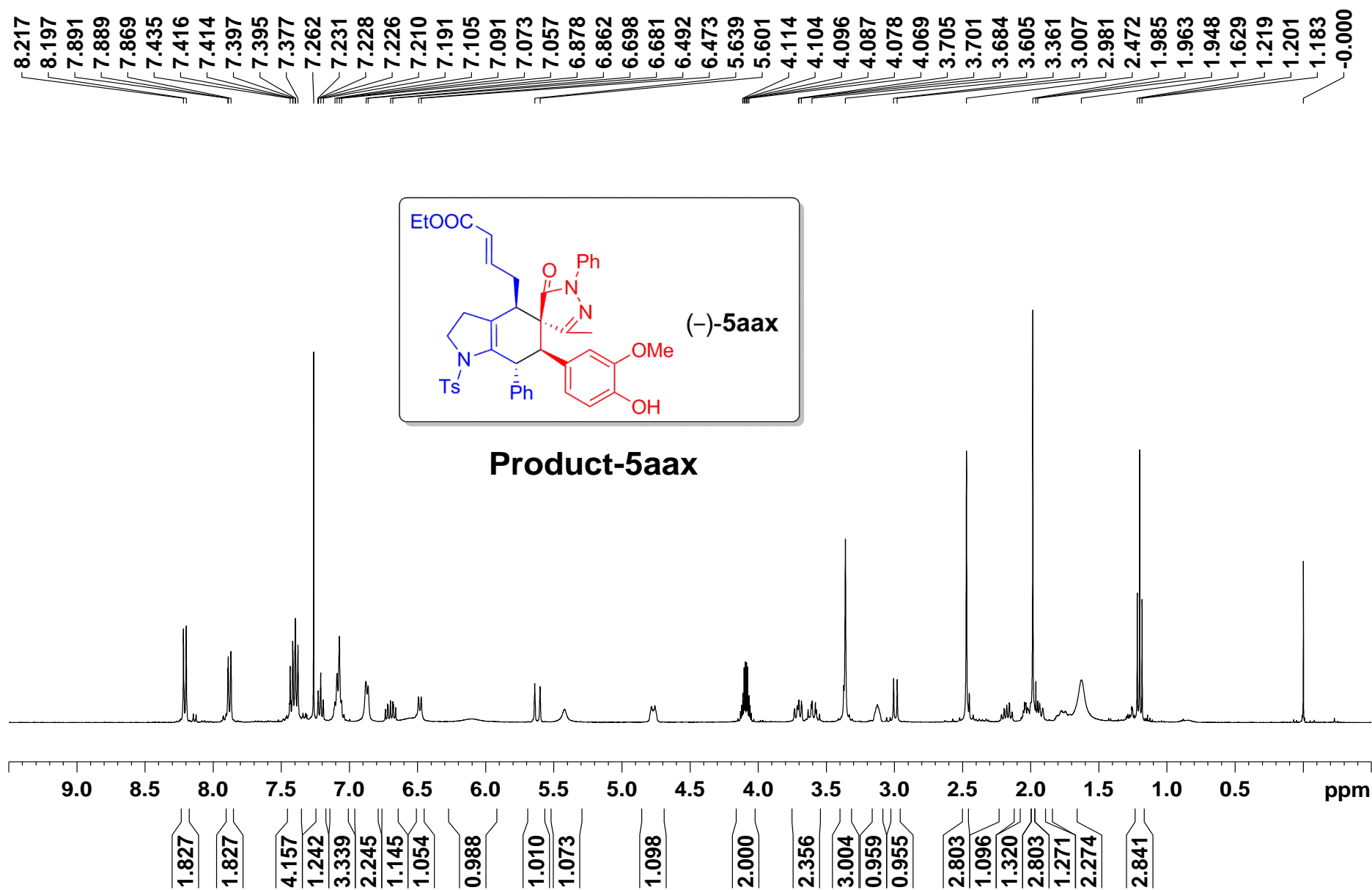


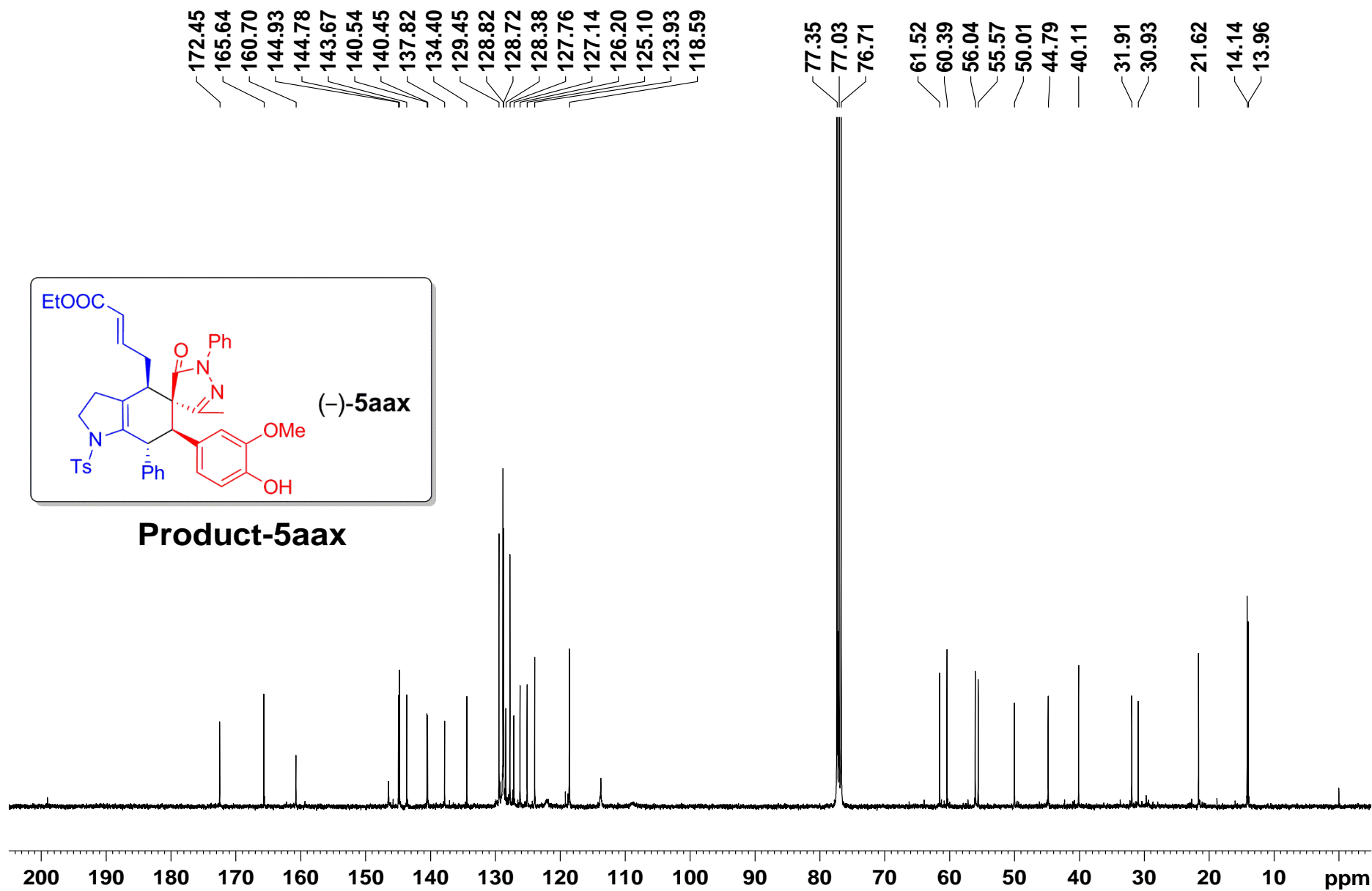


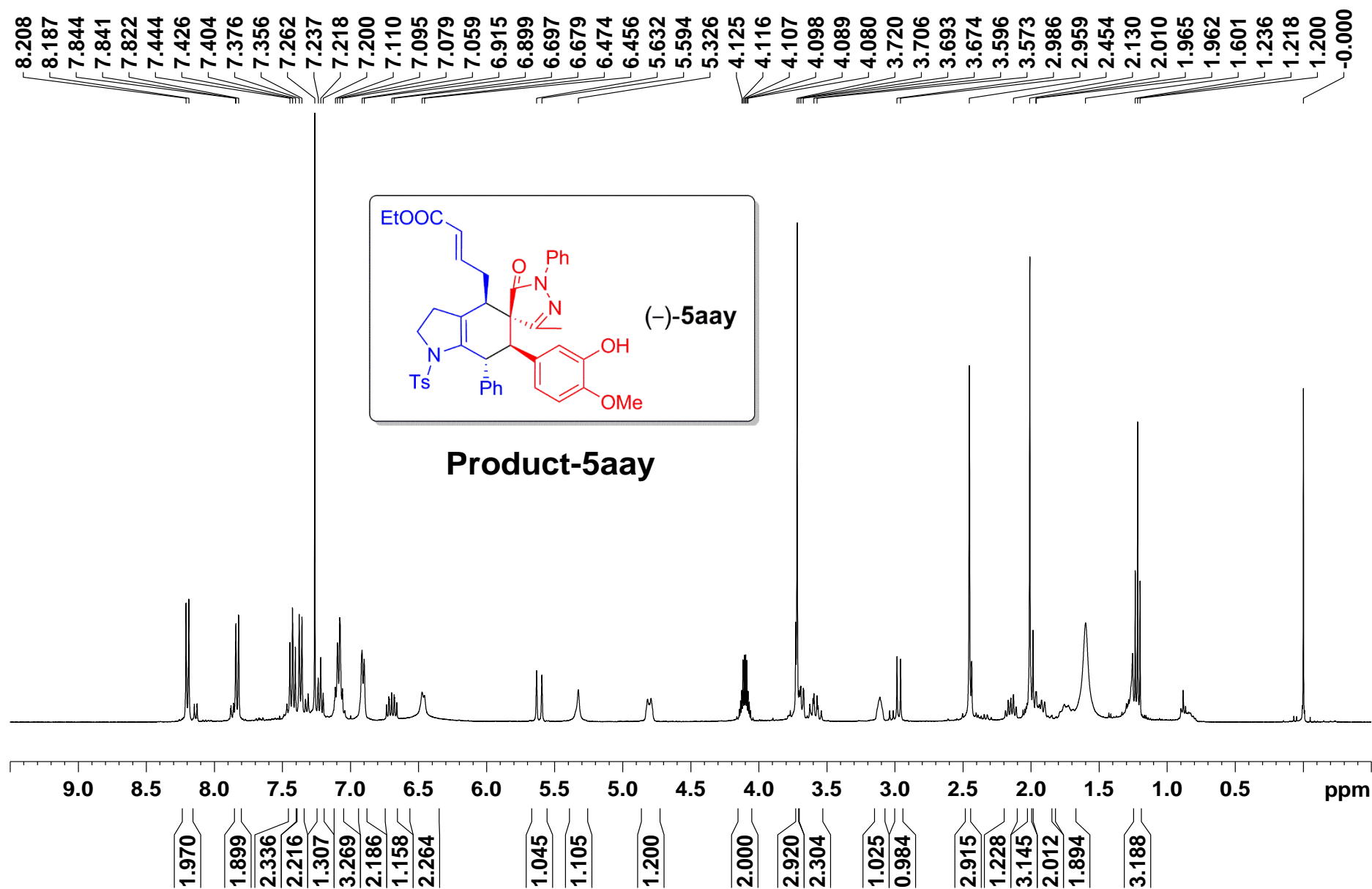


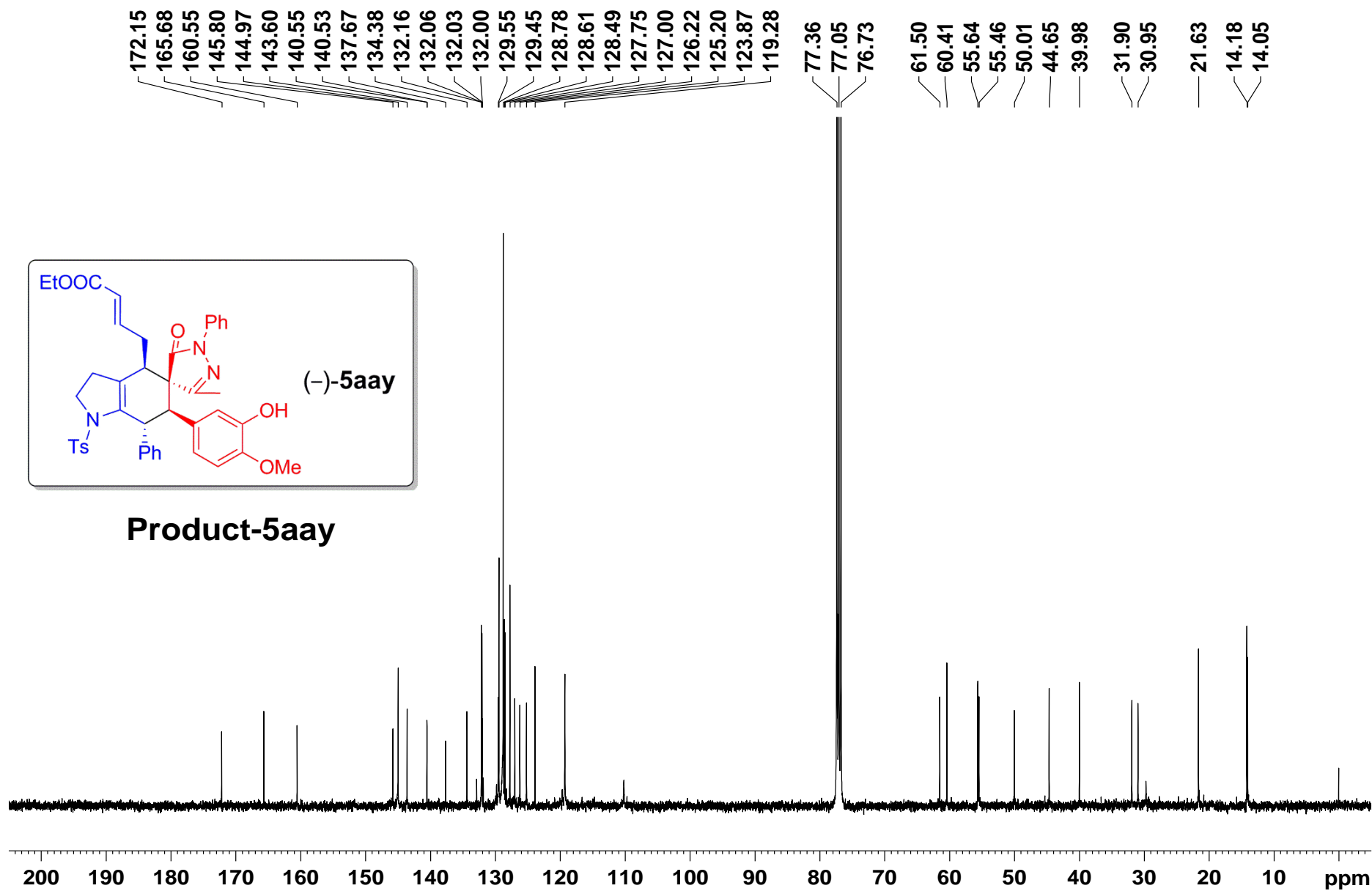


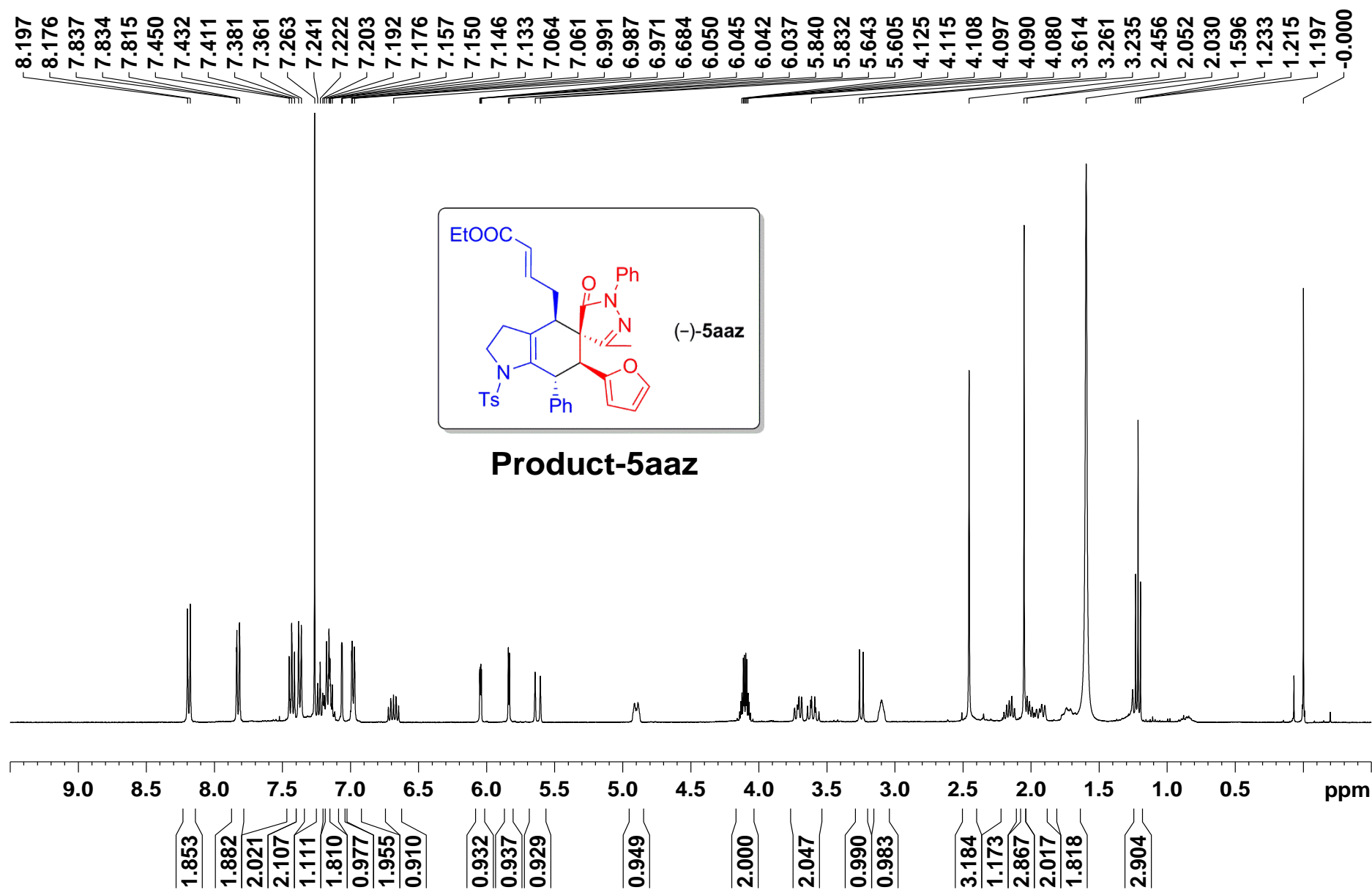


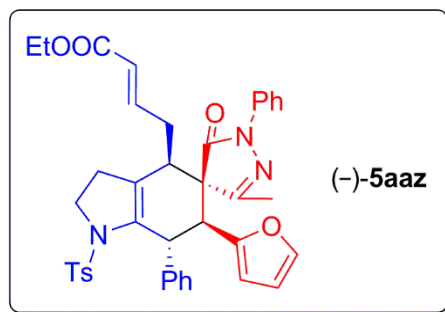




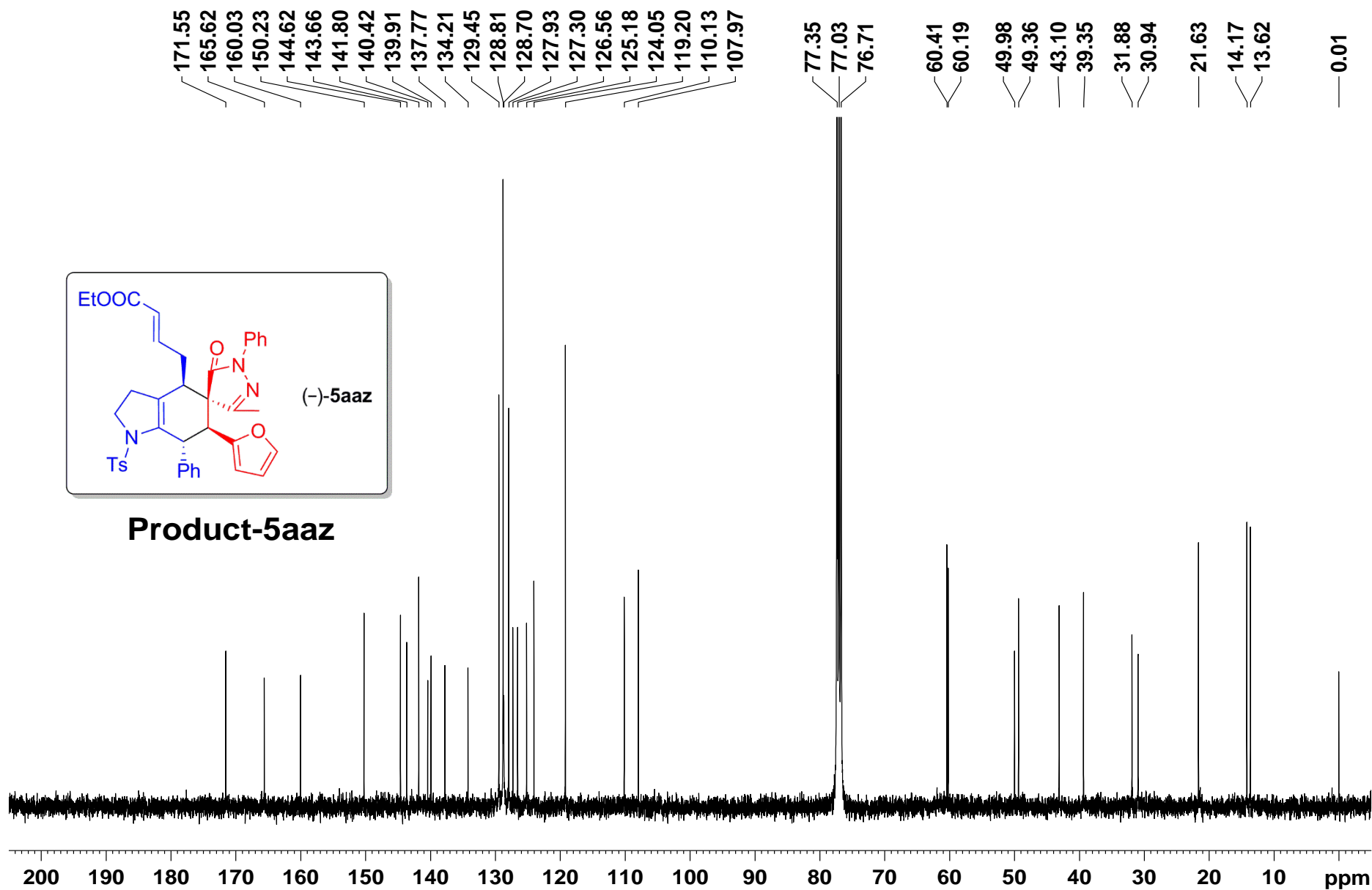


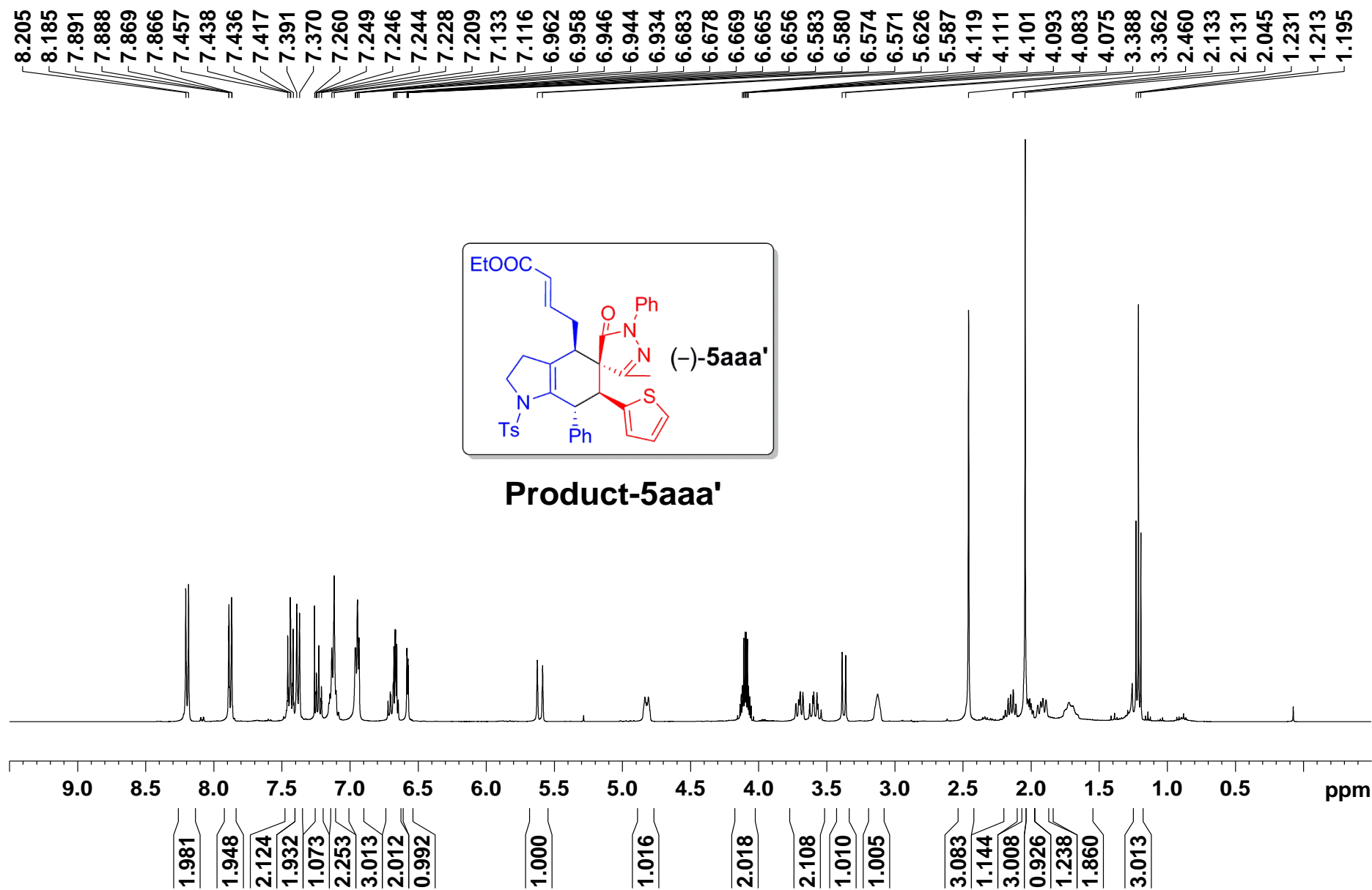


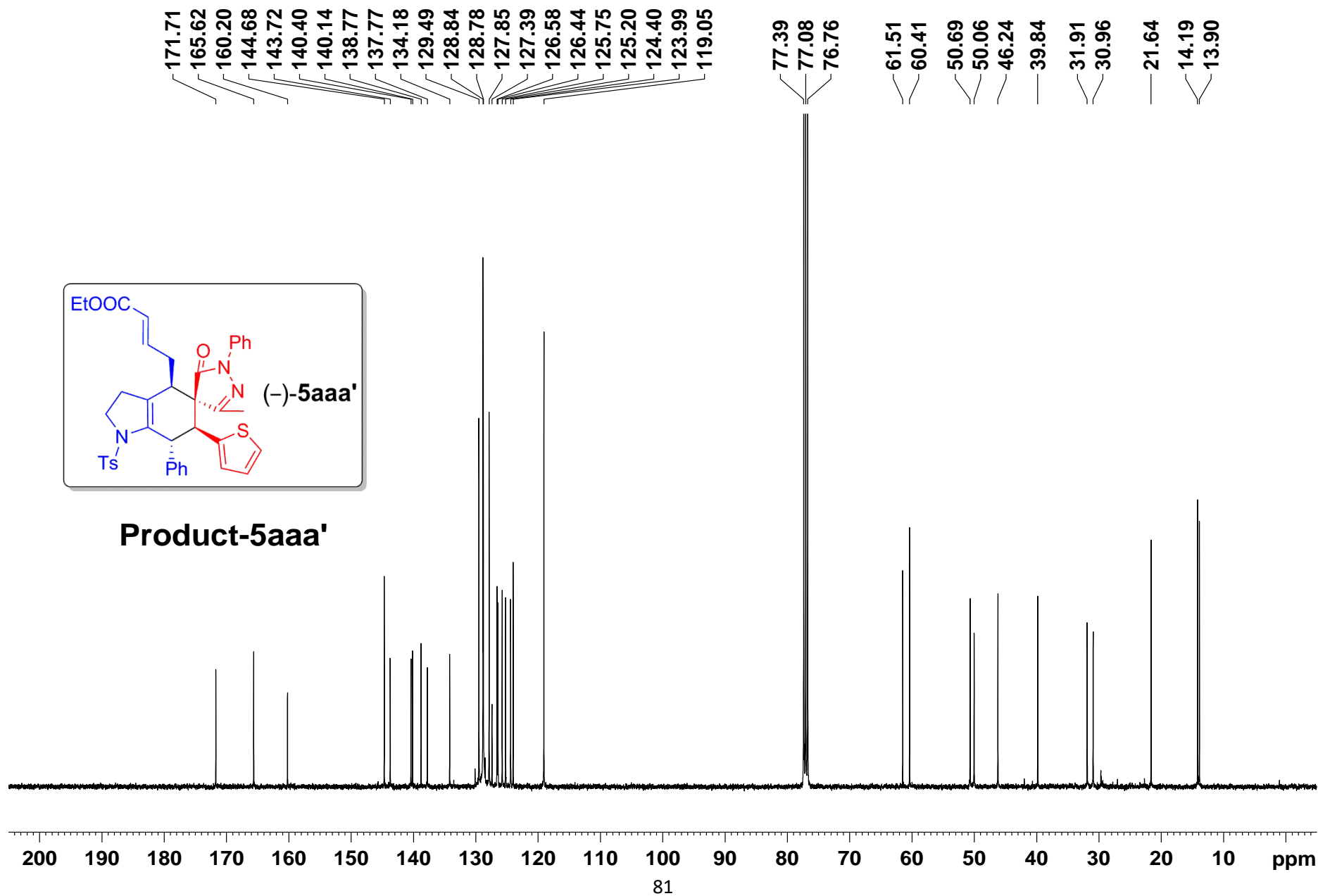


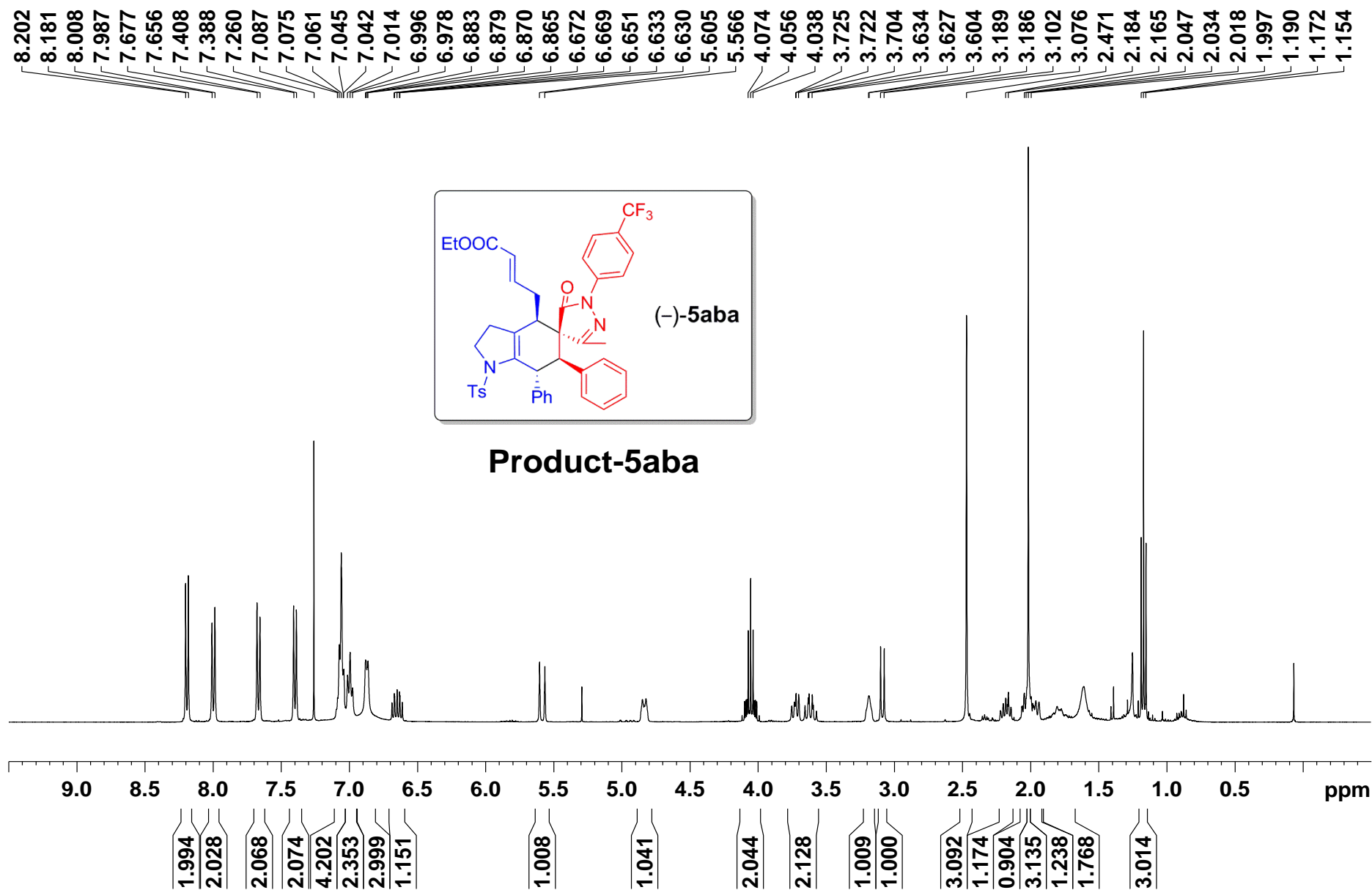


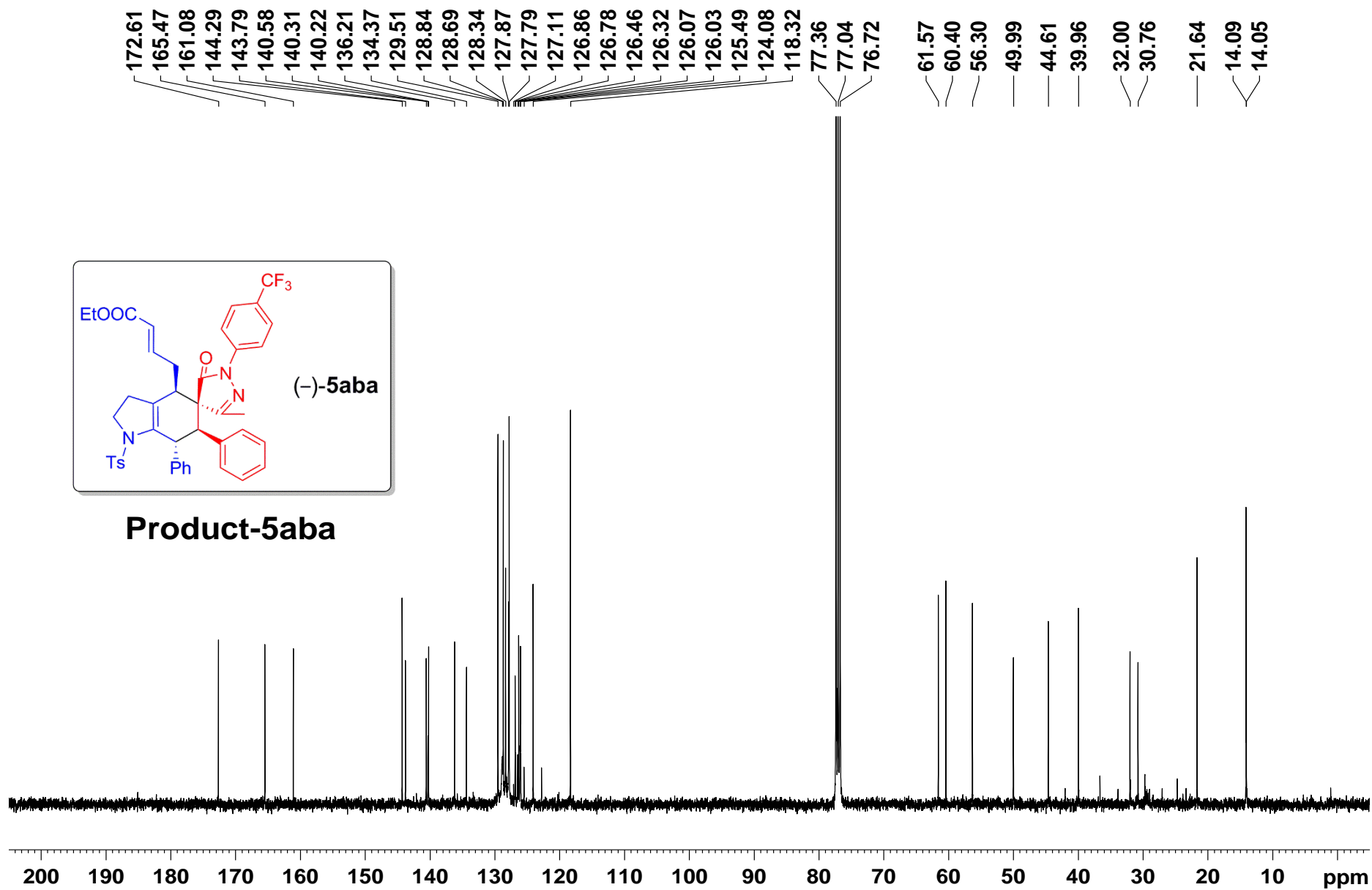
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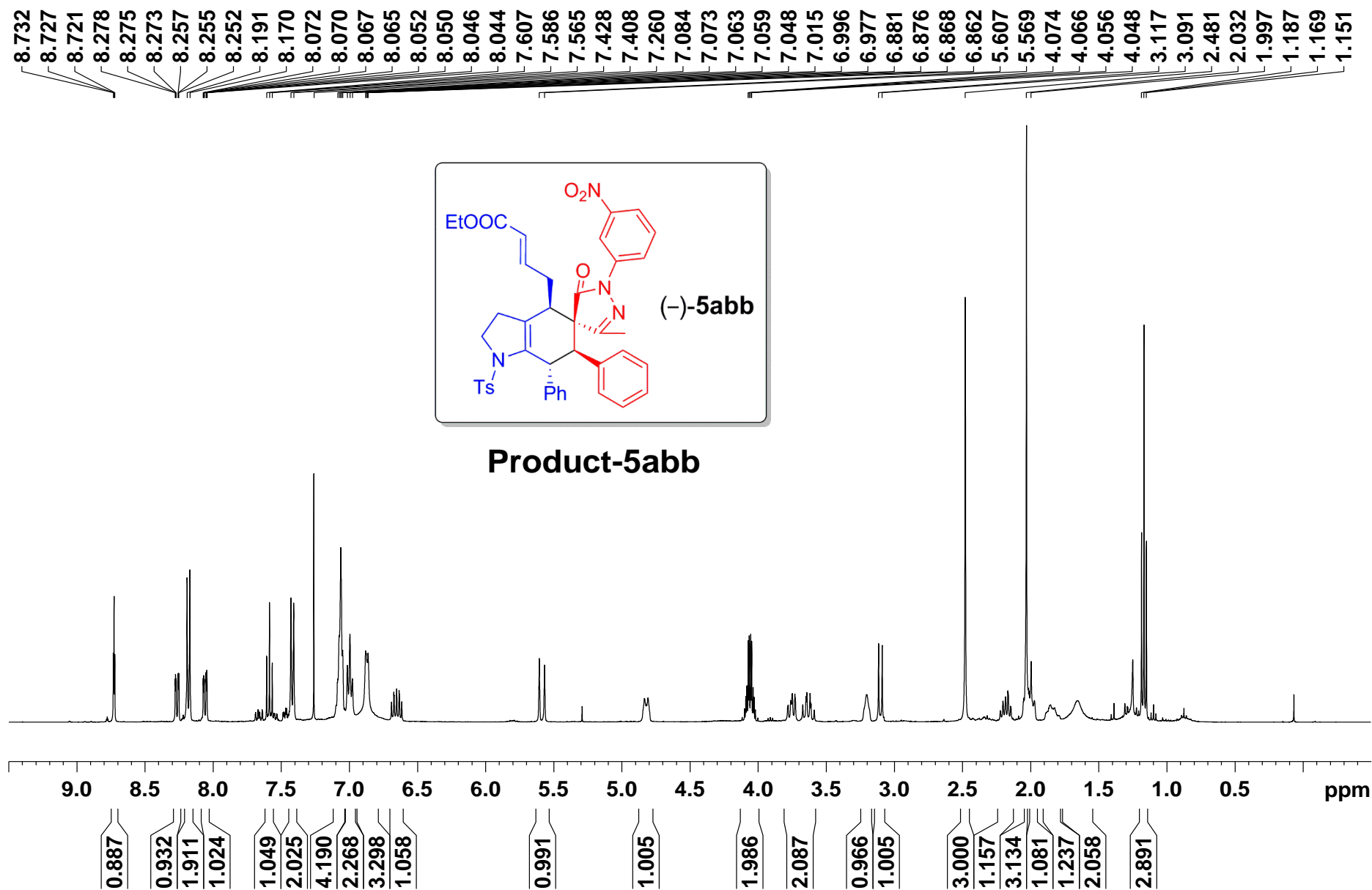


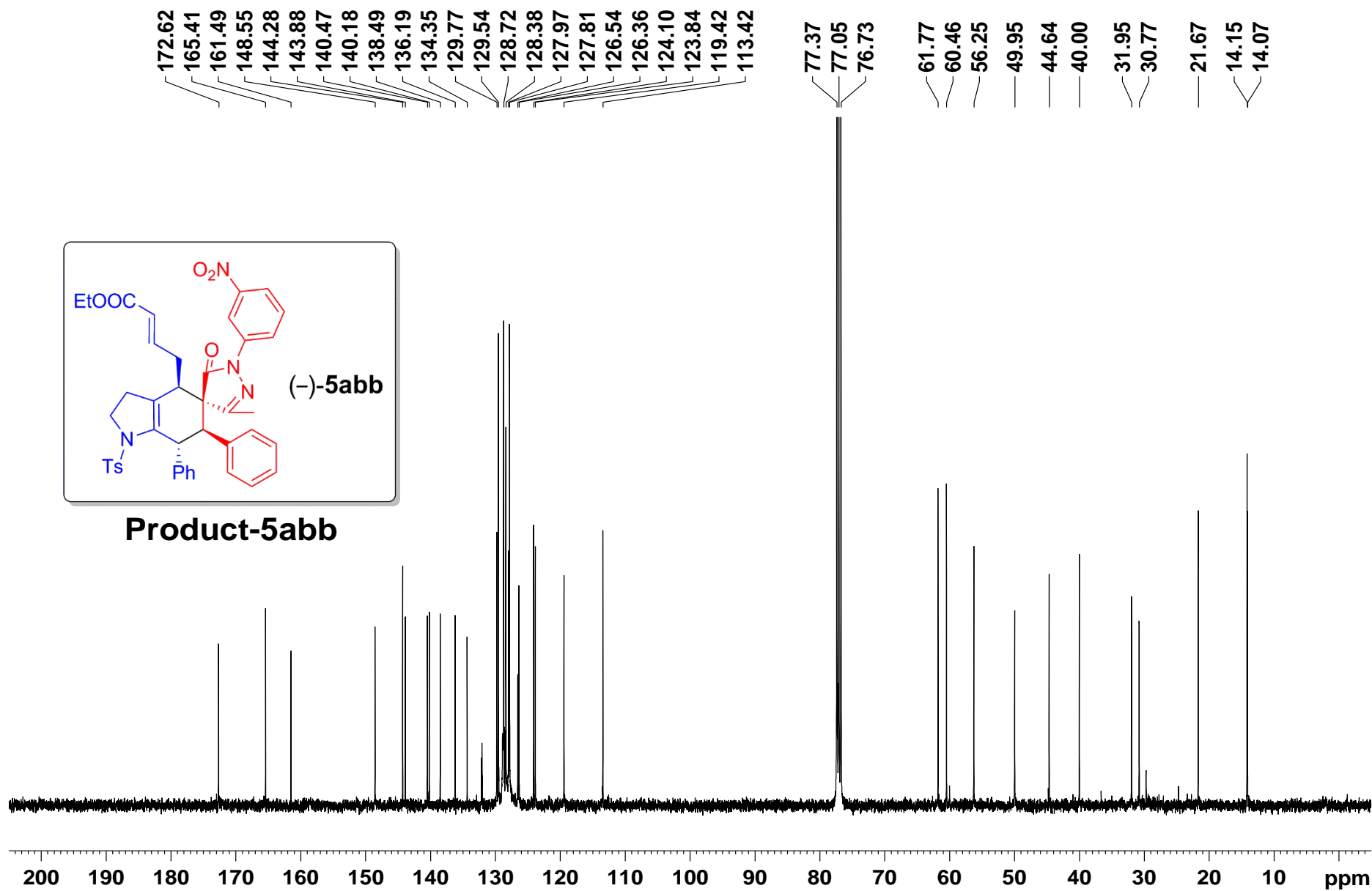


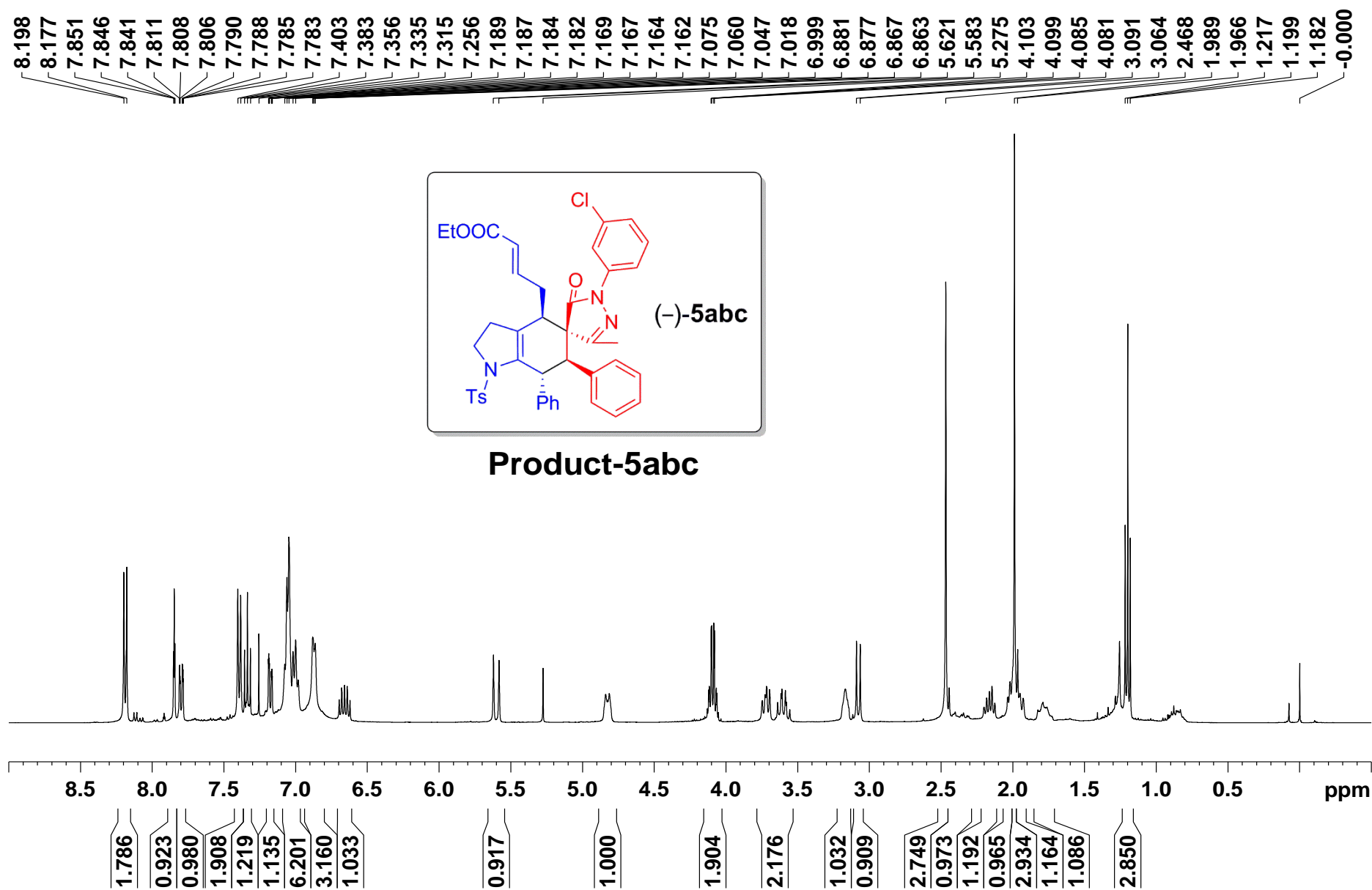












172.31
165.55
160.86
144.45
143.76
140.44
140.34
138.65
136.31
134.52
134.39
129.90
129.51
128.73
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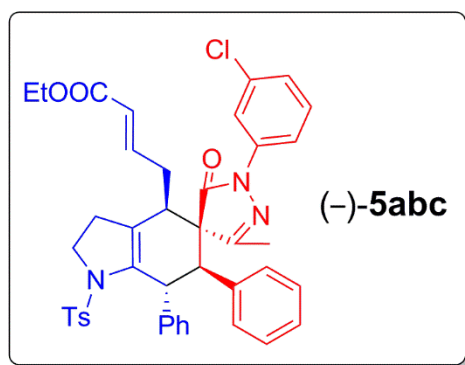
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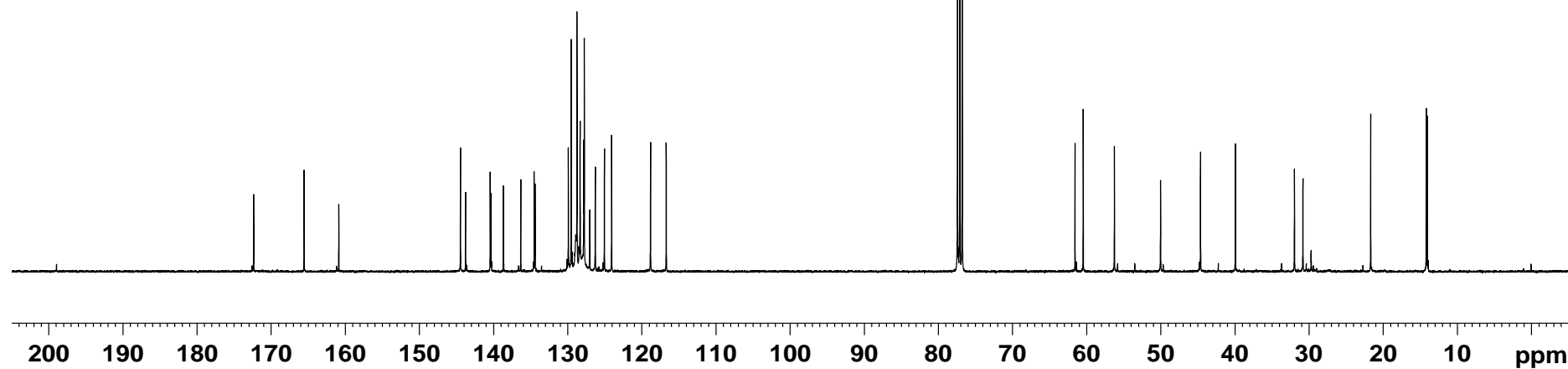
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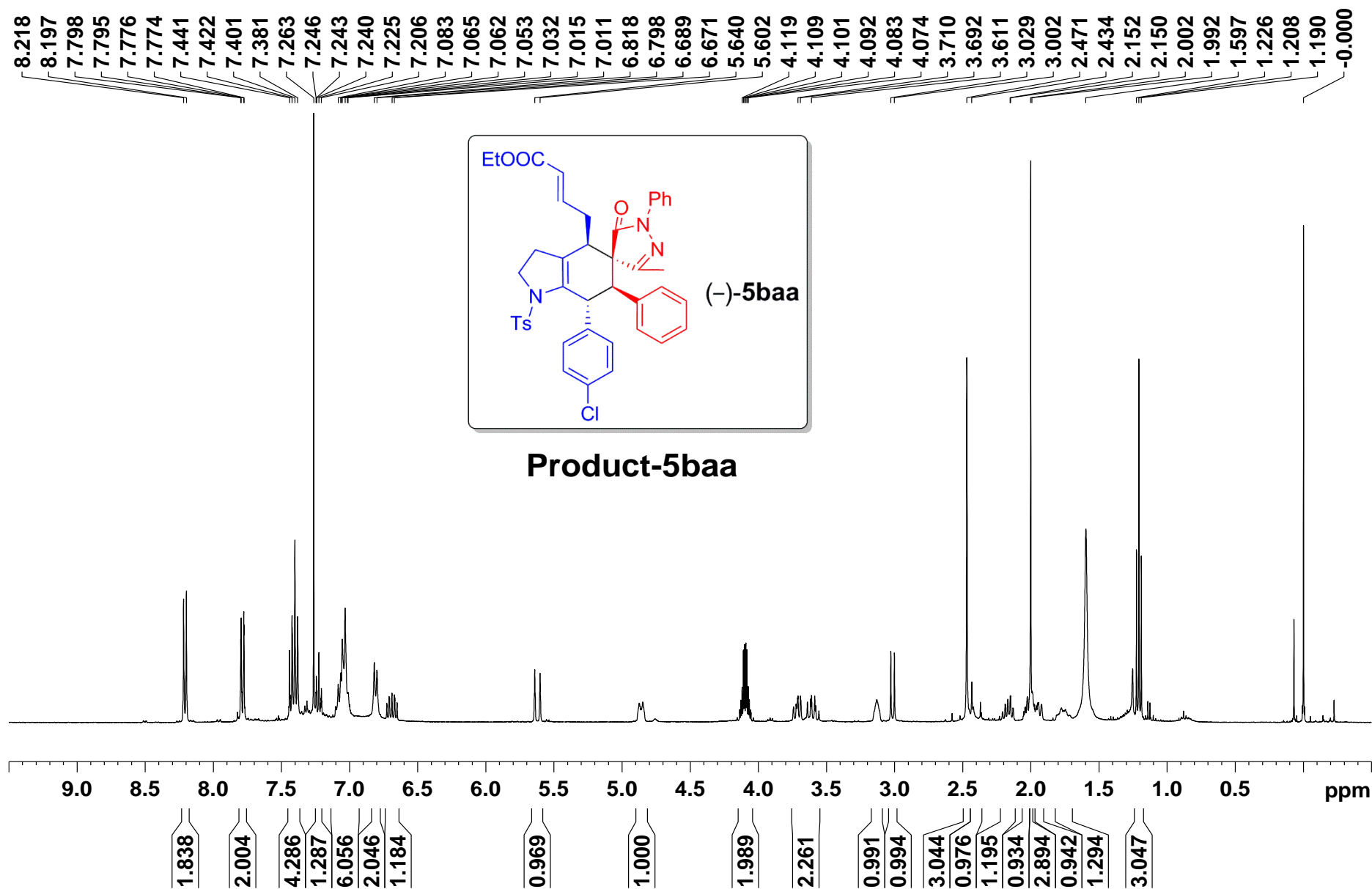
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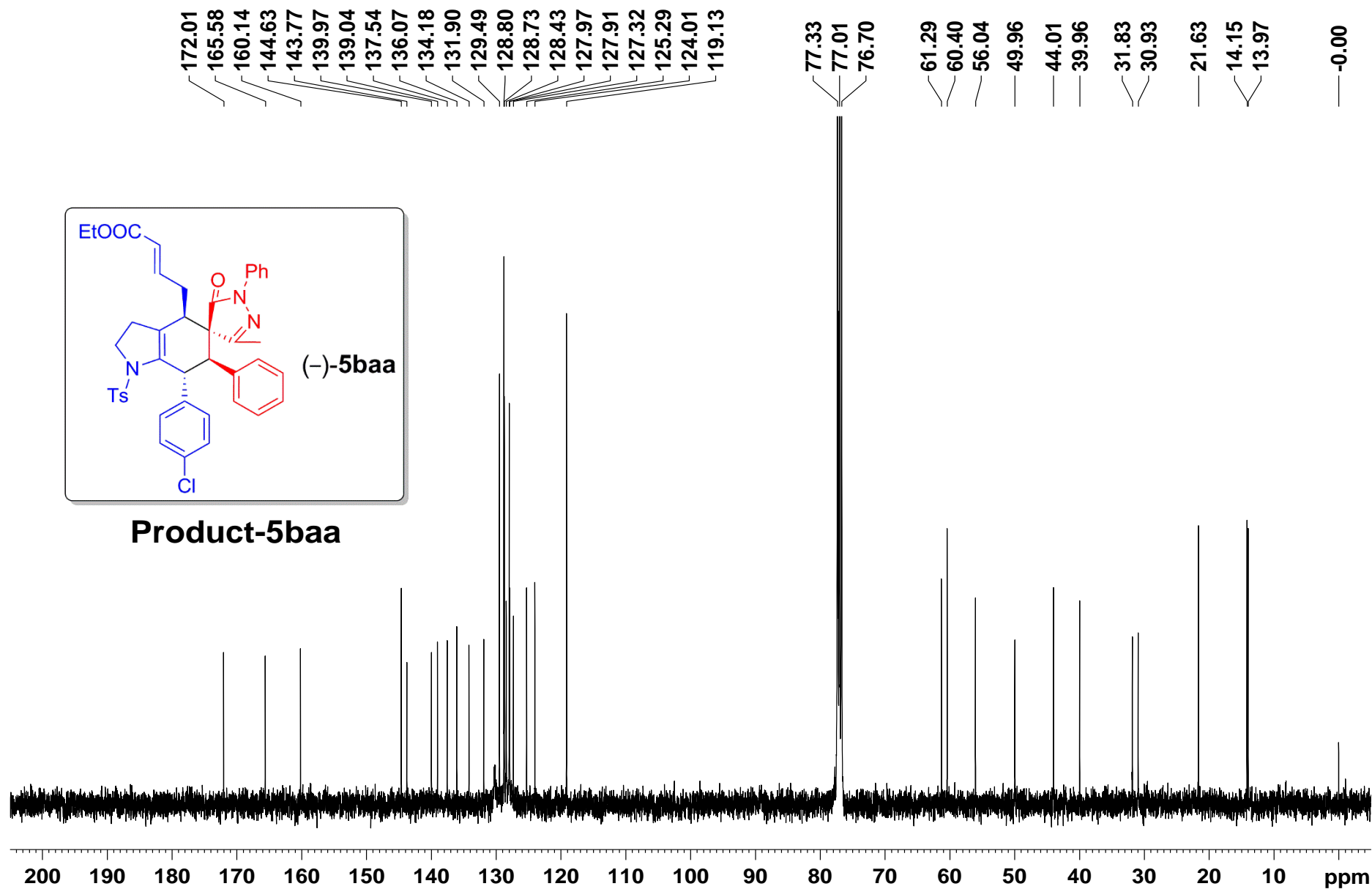
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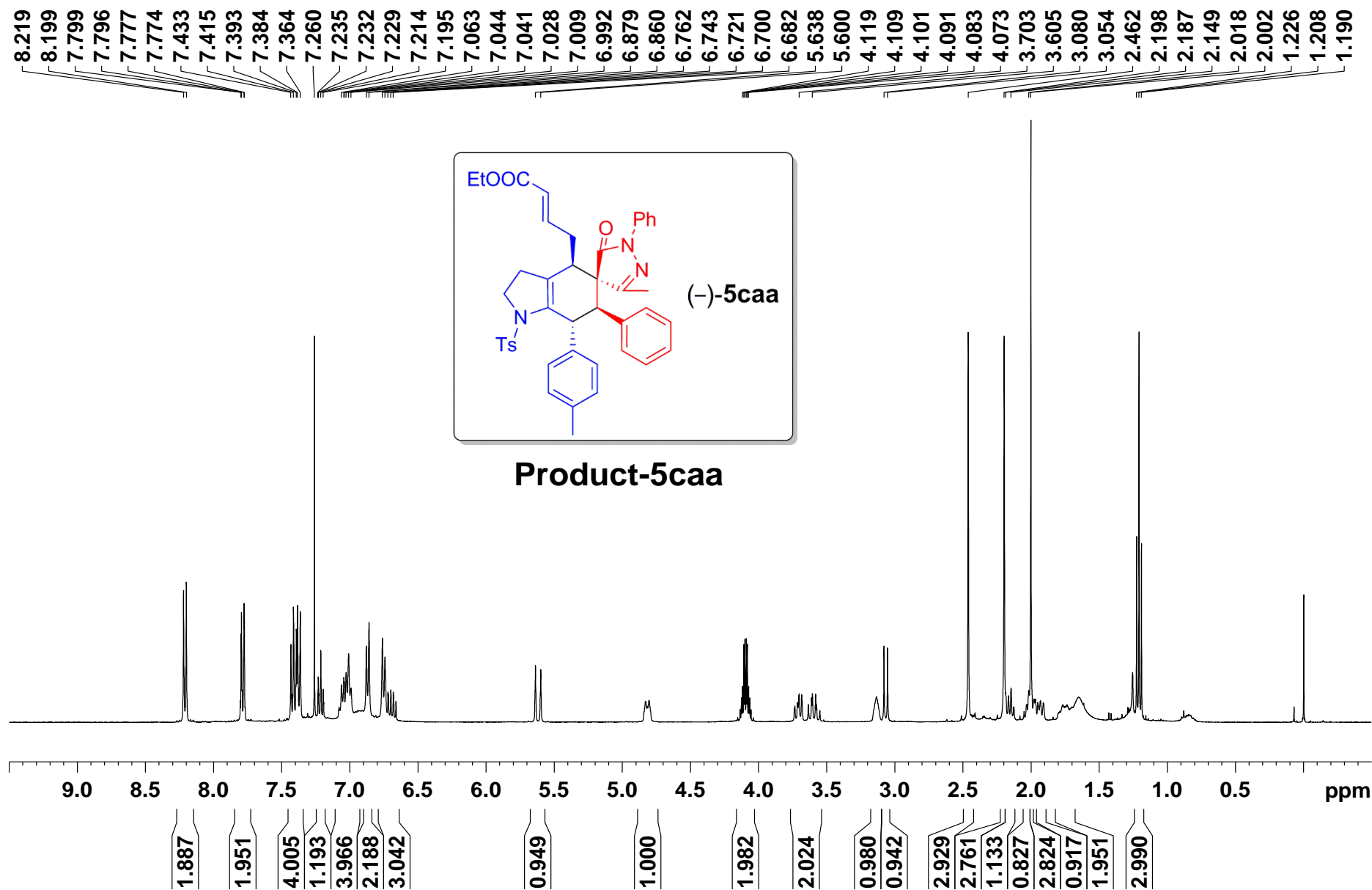


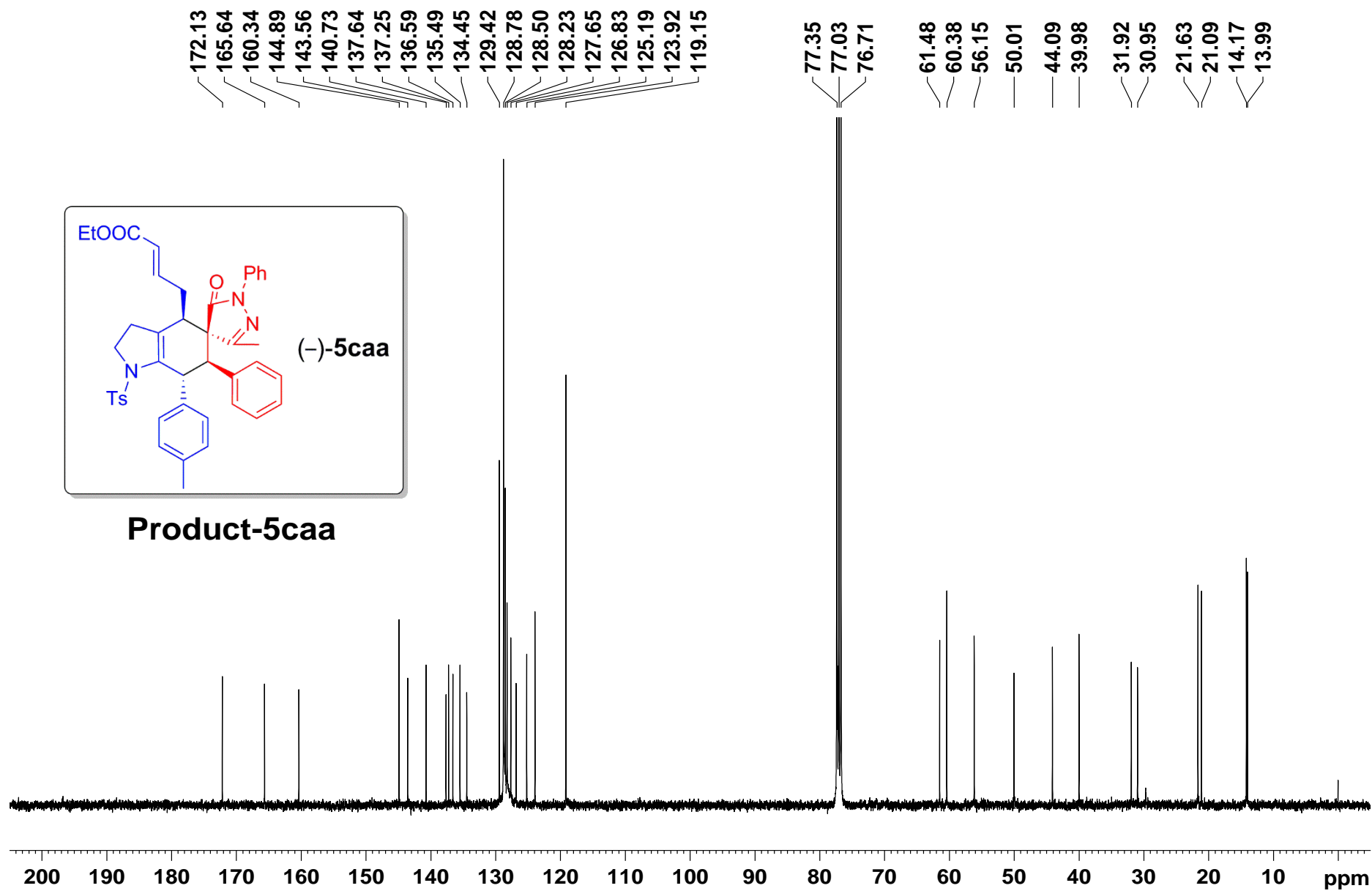
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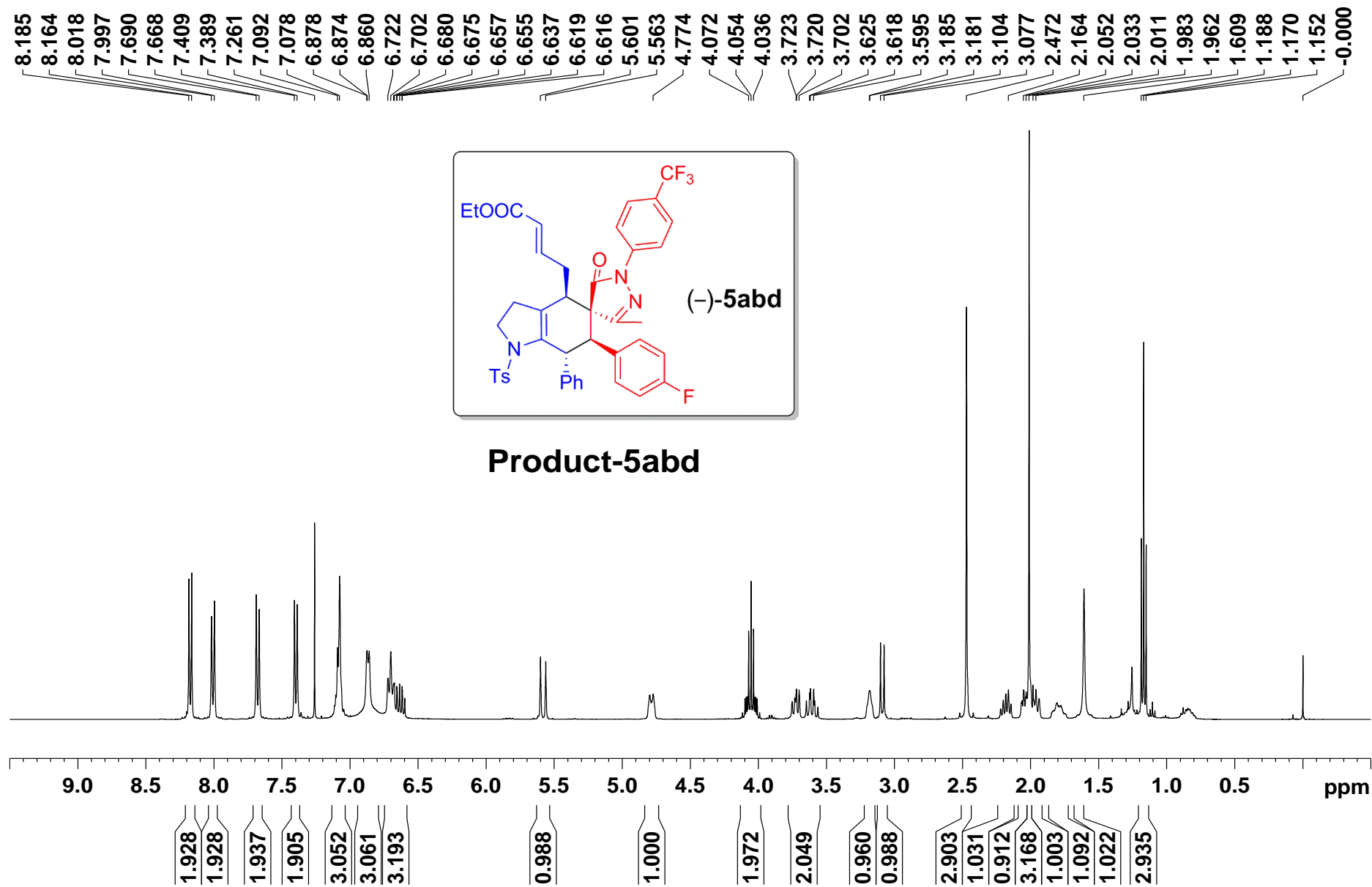


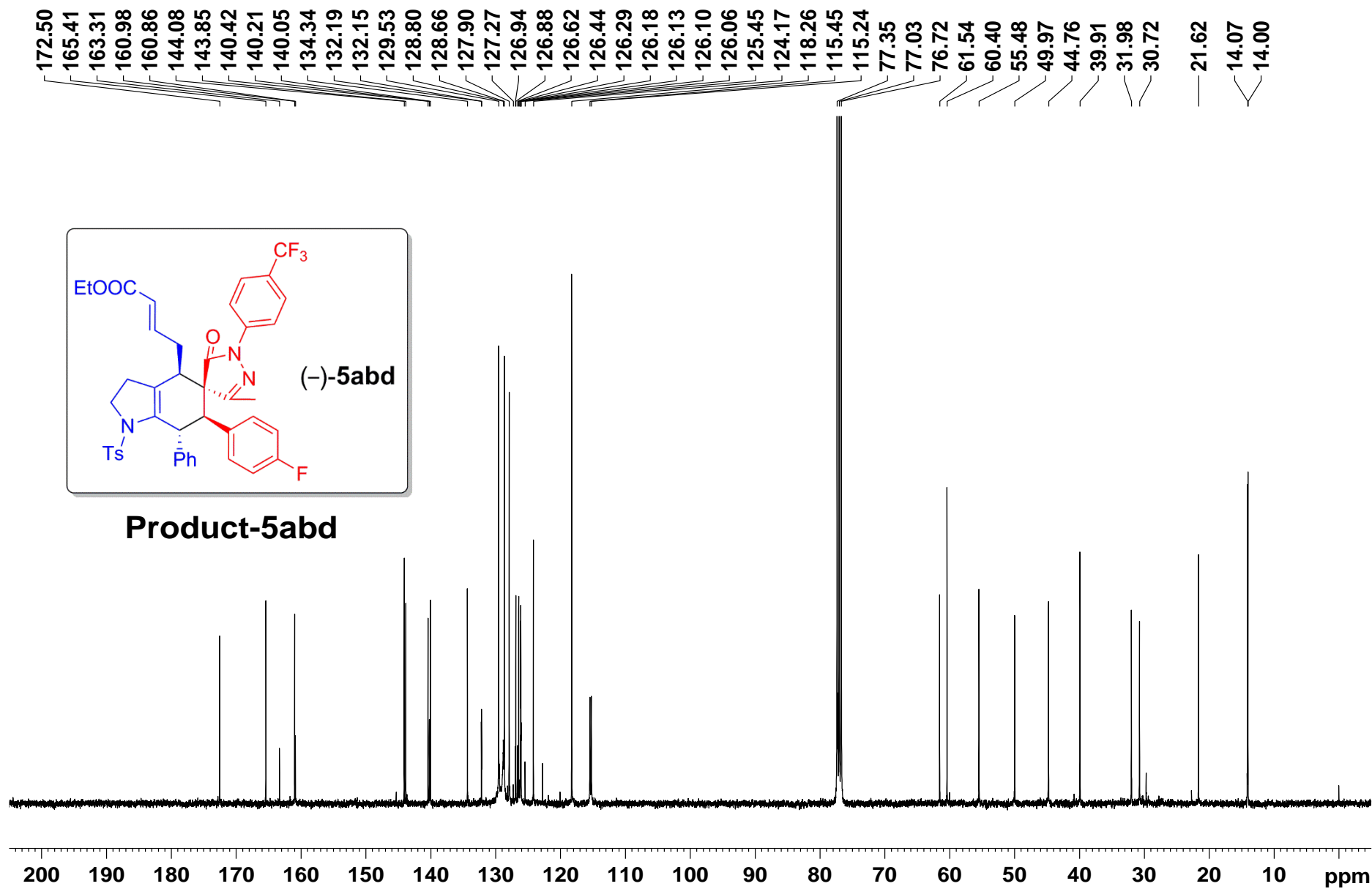


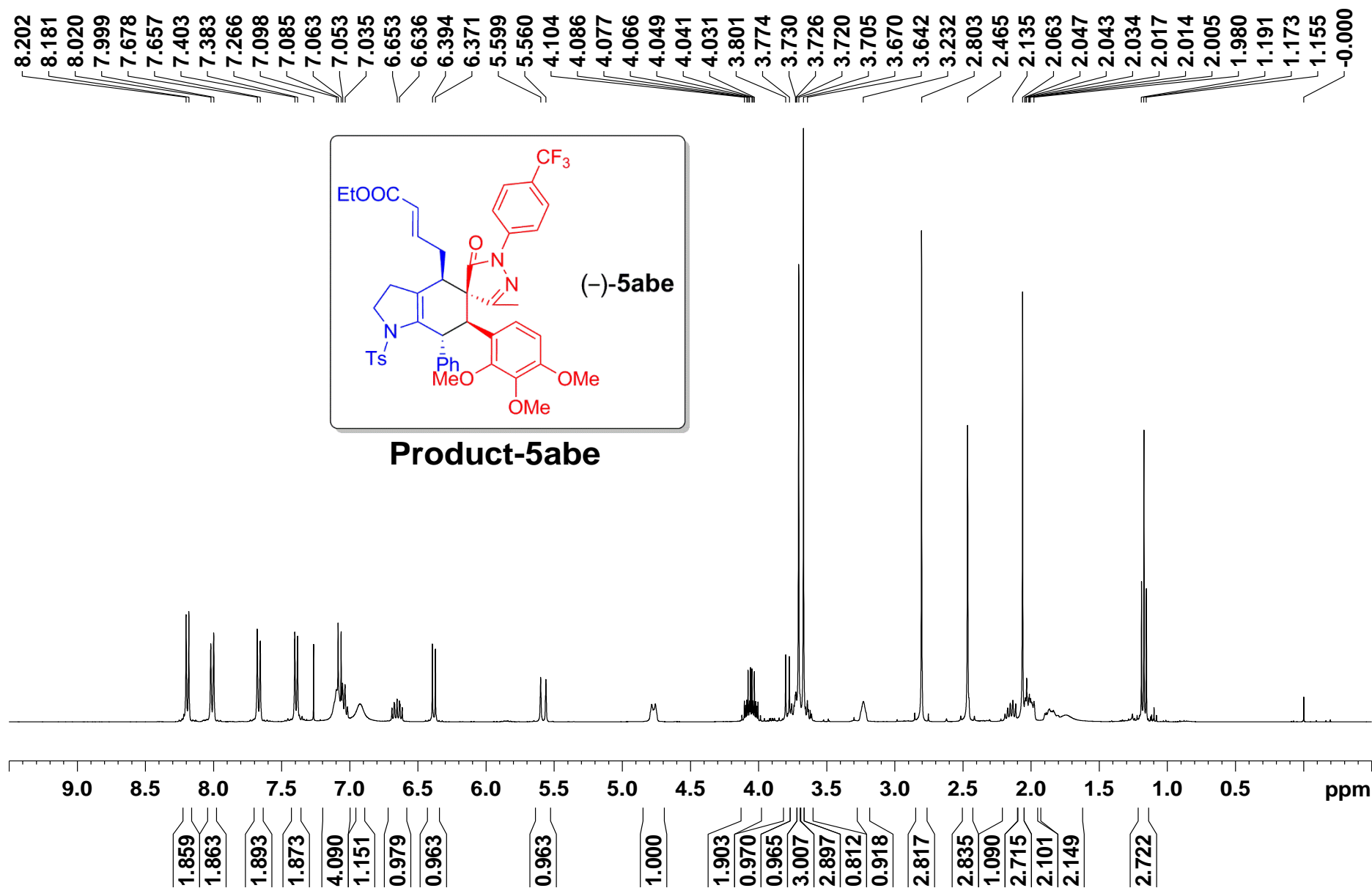


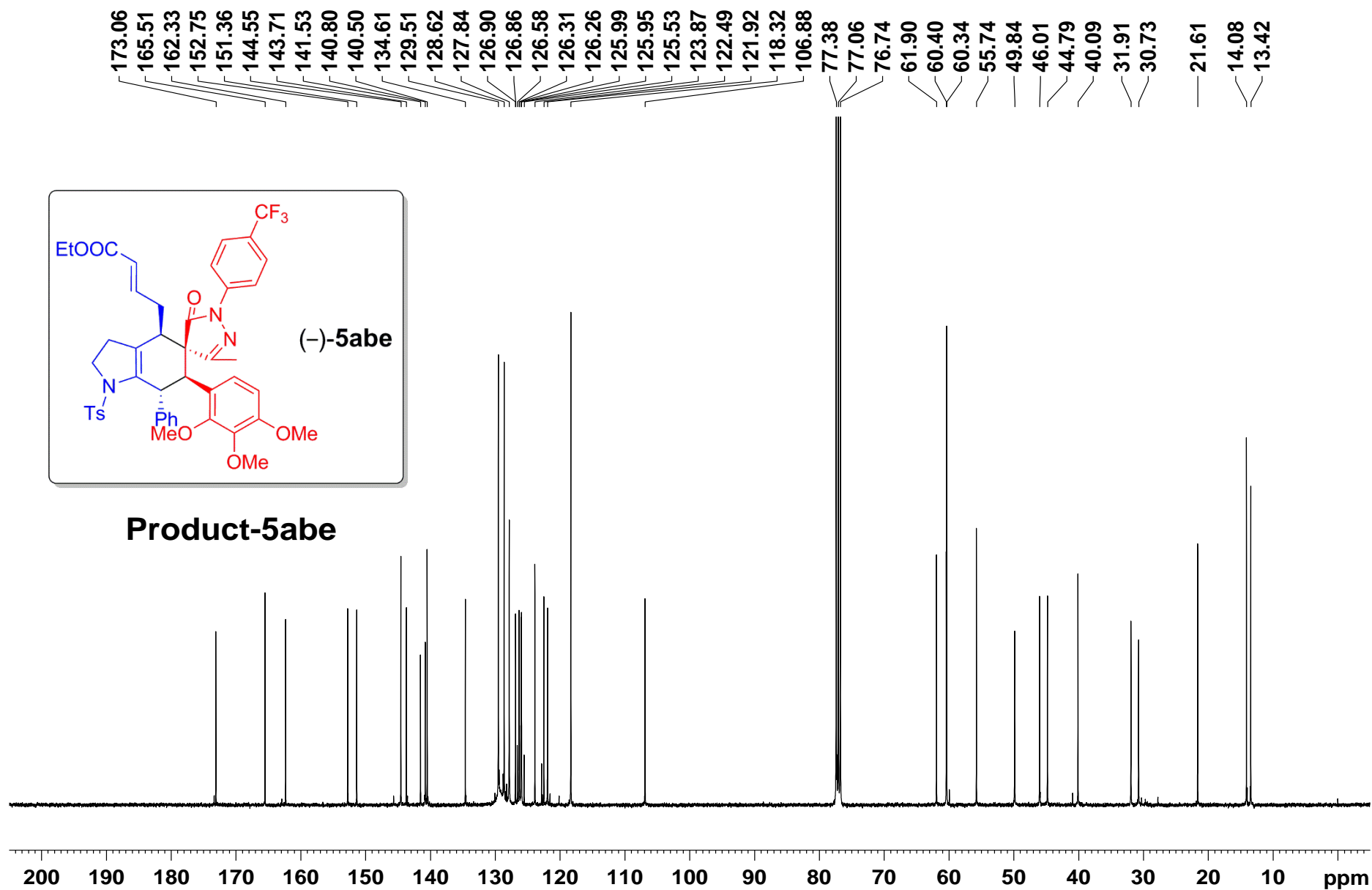


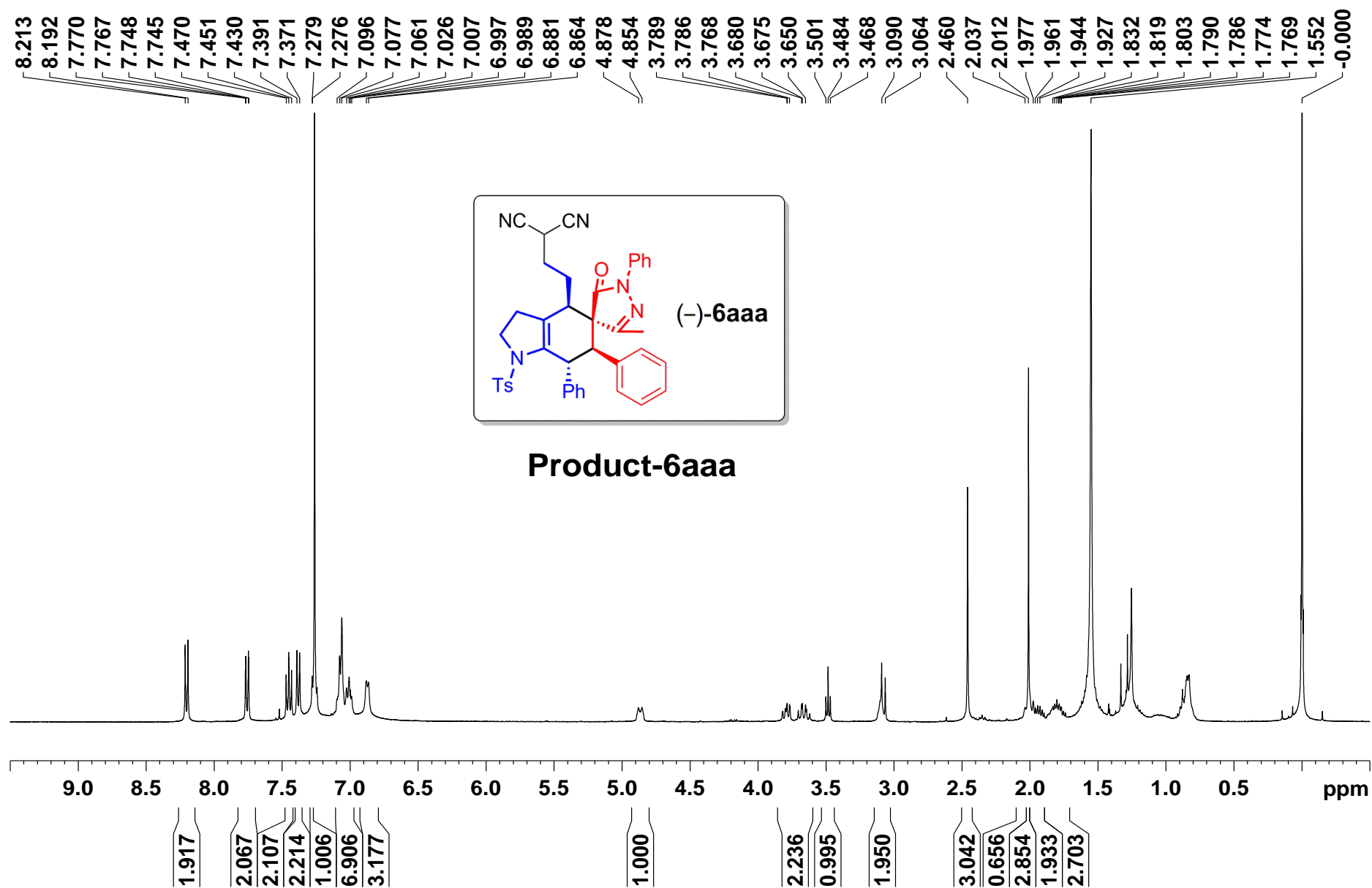


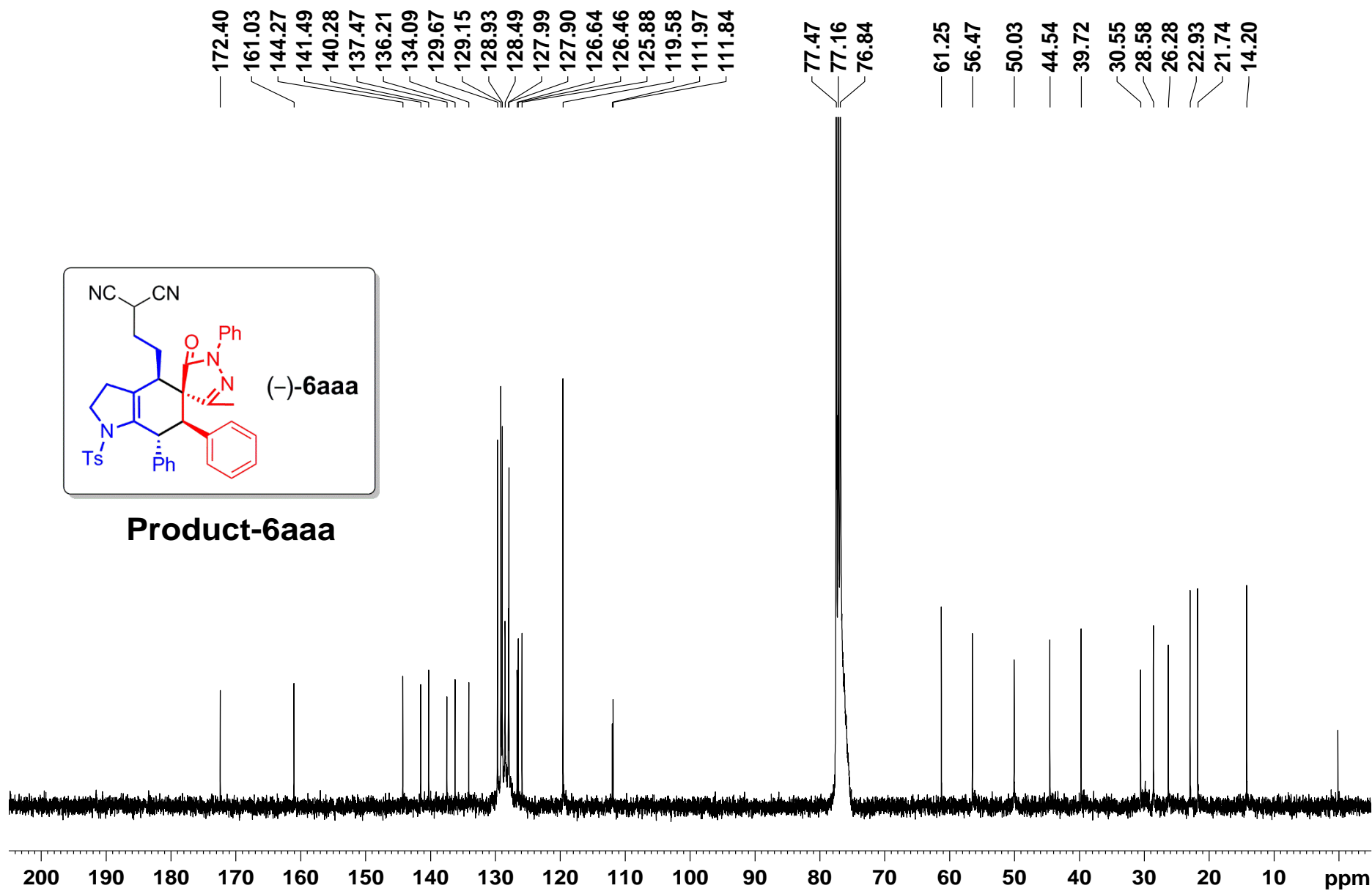


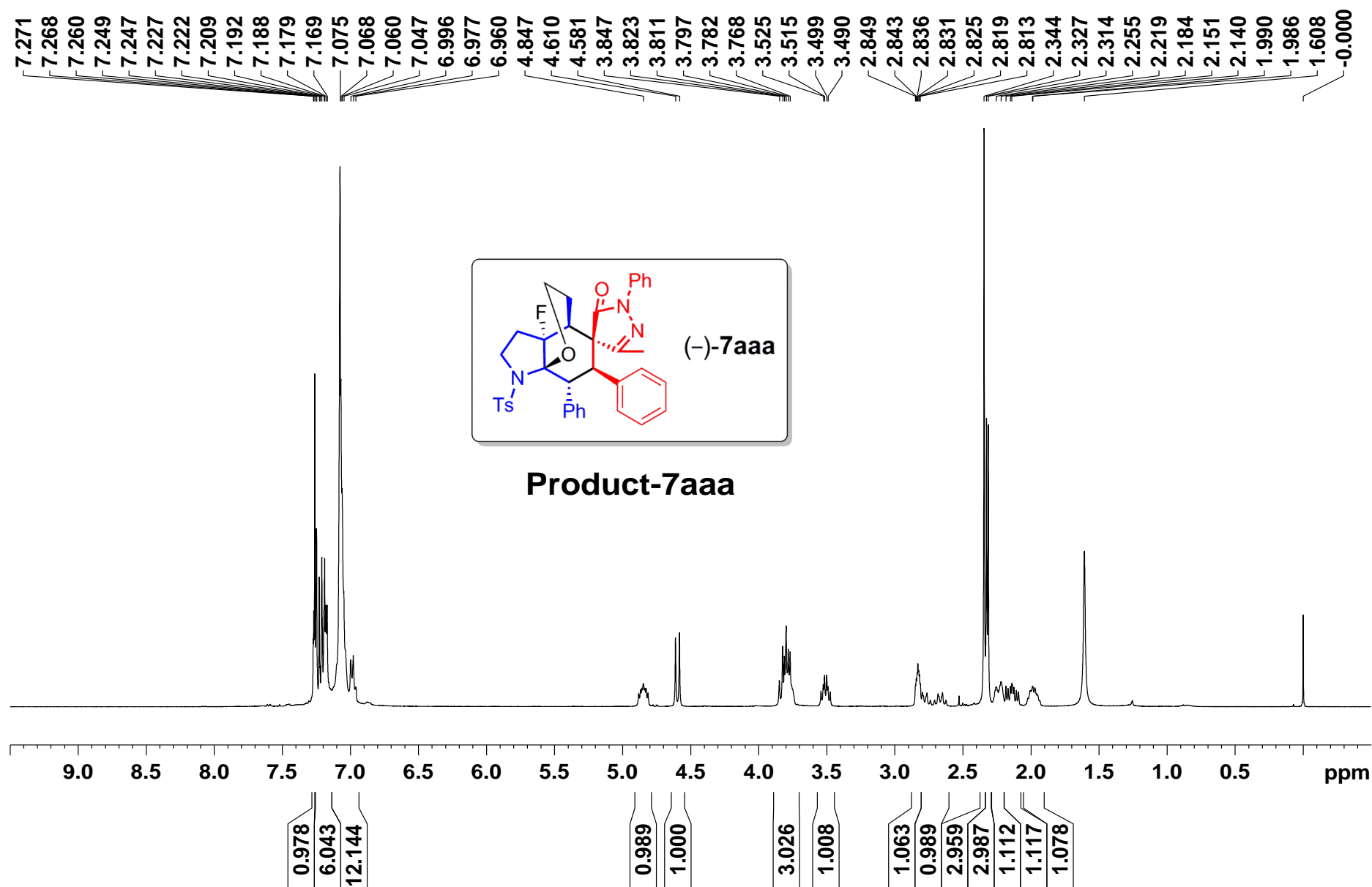


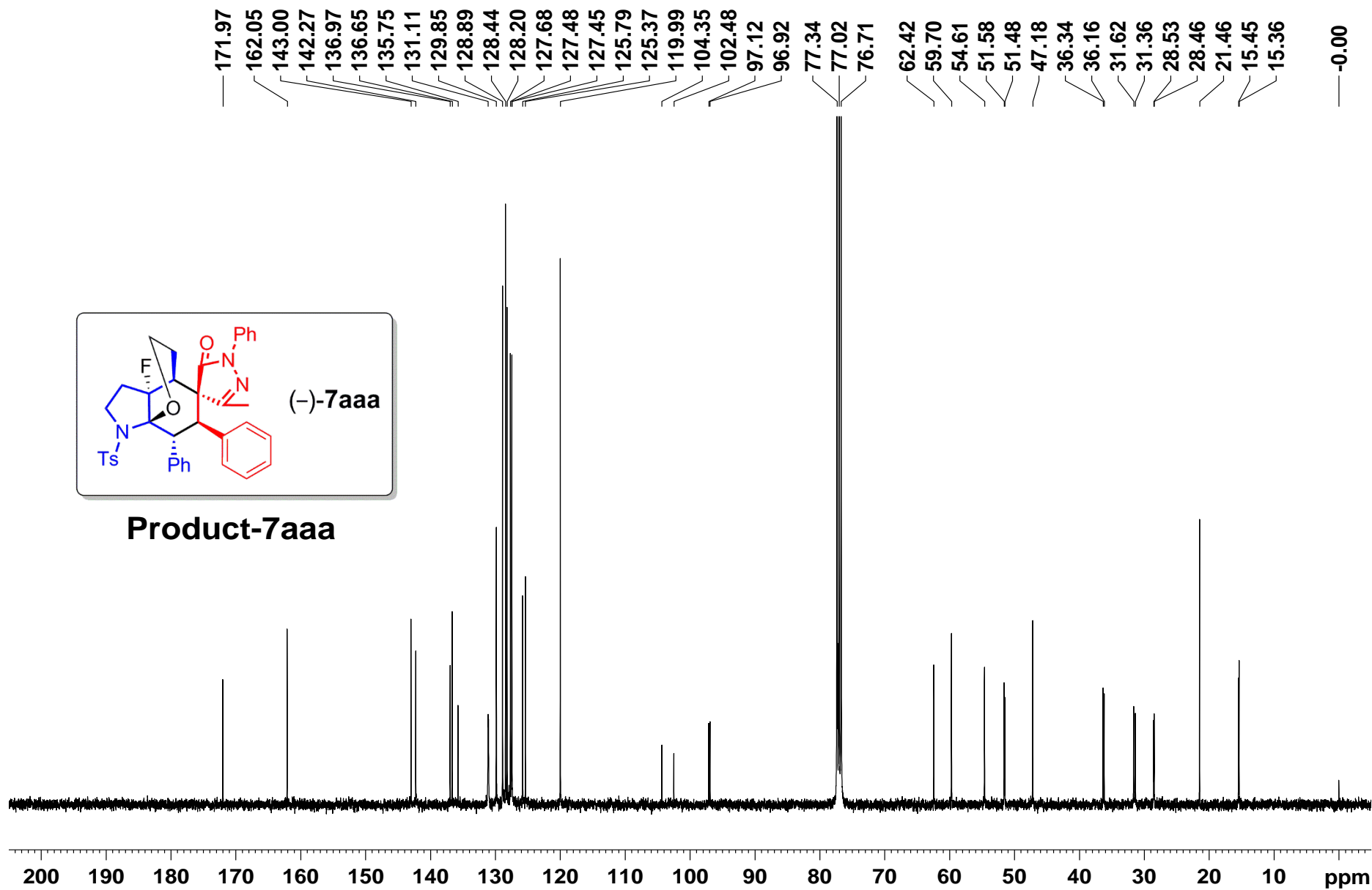


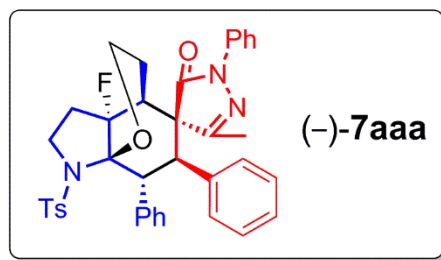












Product-7aaa

