

Regioisomeric and substituent effects upon the outcome of the reaction of 1-borodienes with nitrosoarene compounds.

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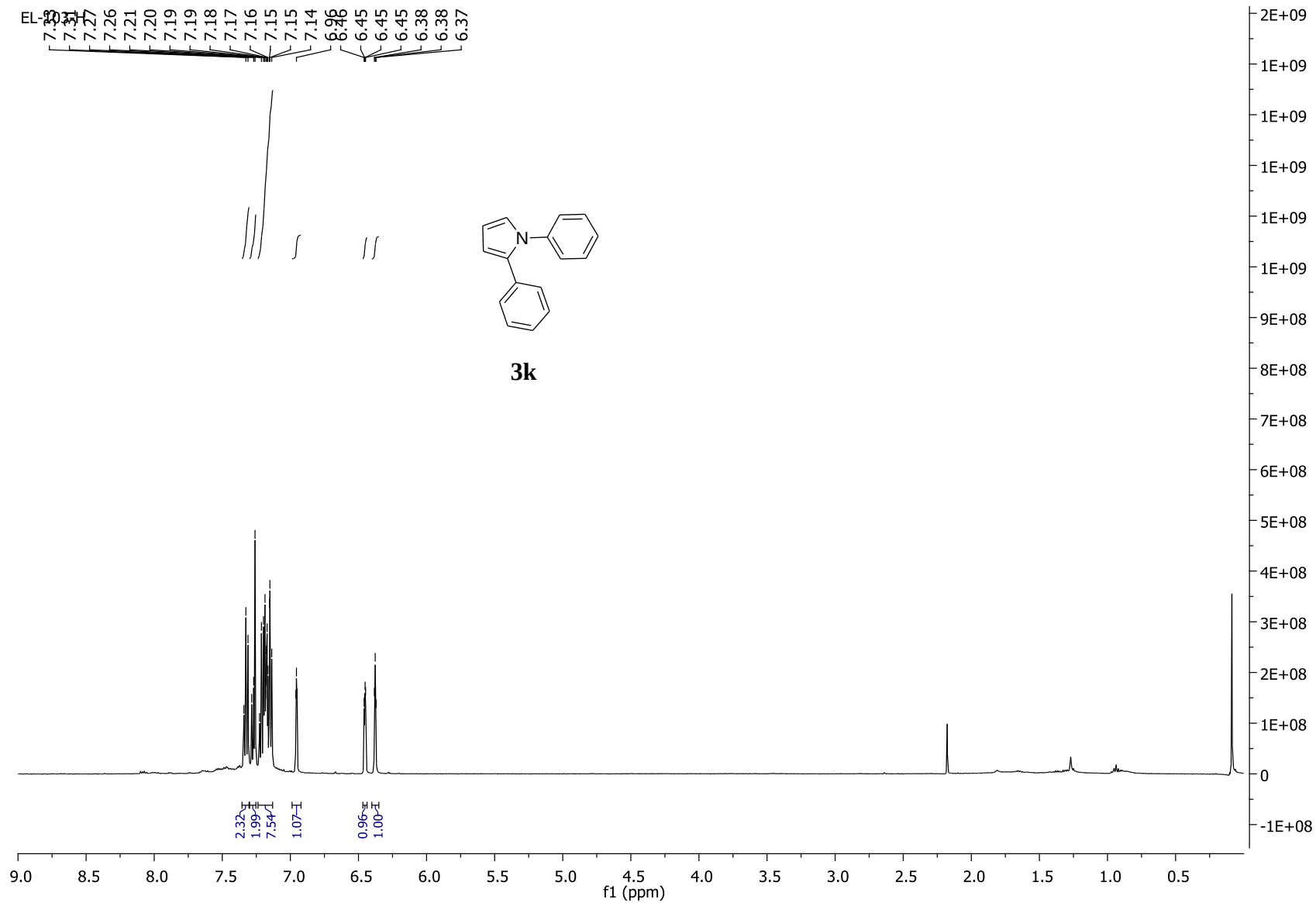
Email bertrand.carboni@univ-rennes1.fr

² Centre for Sustainable Chemical Processes, Department of Chemistry, Durham University, South Road, Durham DH1 3LE, U.K.

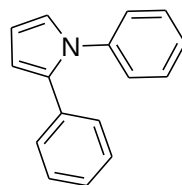
Email andy.whiting@durham.ac.uk

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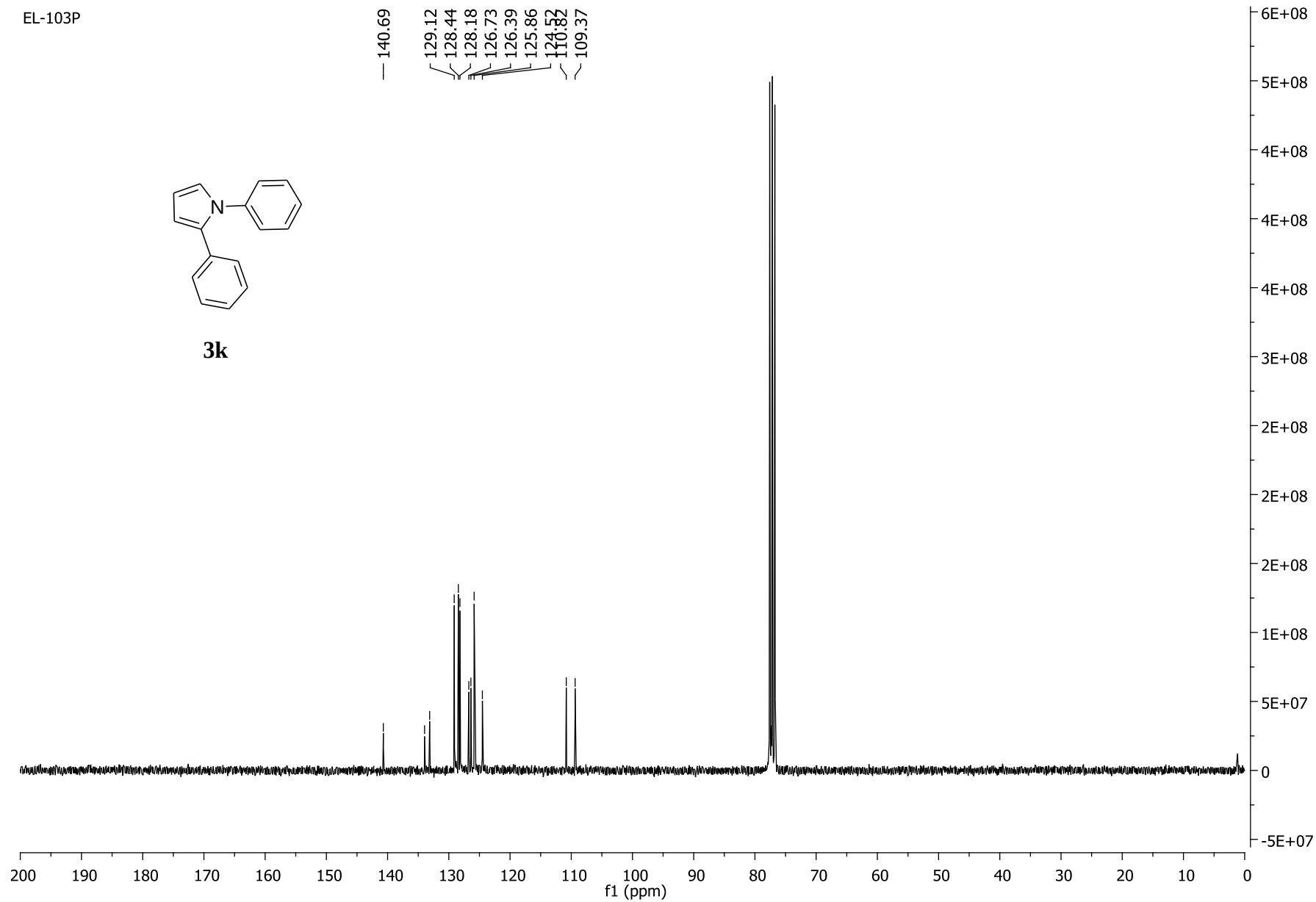
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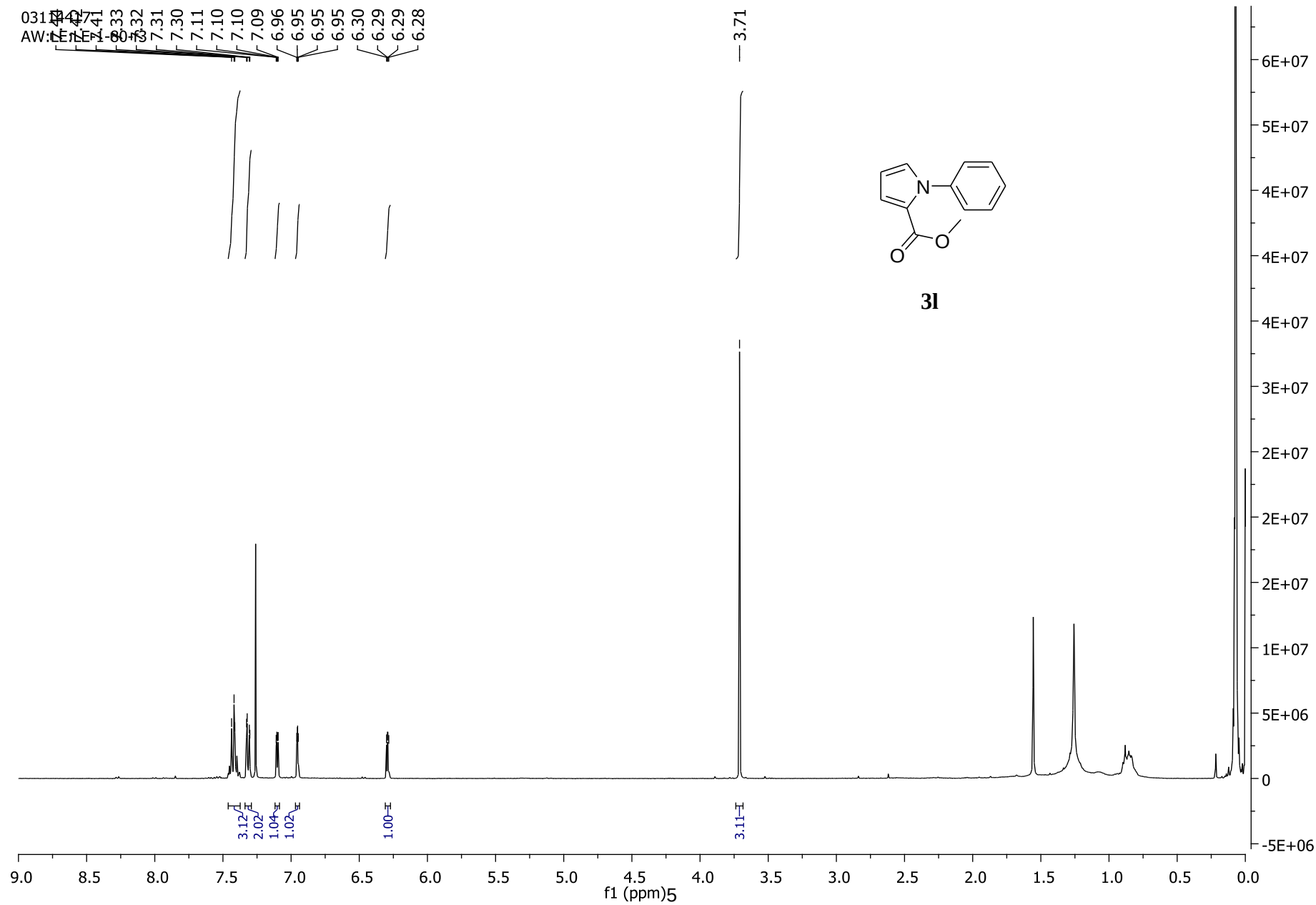


EL-103P



3k





CARBON_01
AW:LE:-1-80 f3

— 161.05

— 140.57

129.98

128.71

128.00

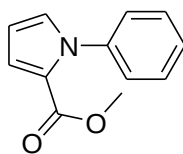
126.50

123.38

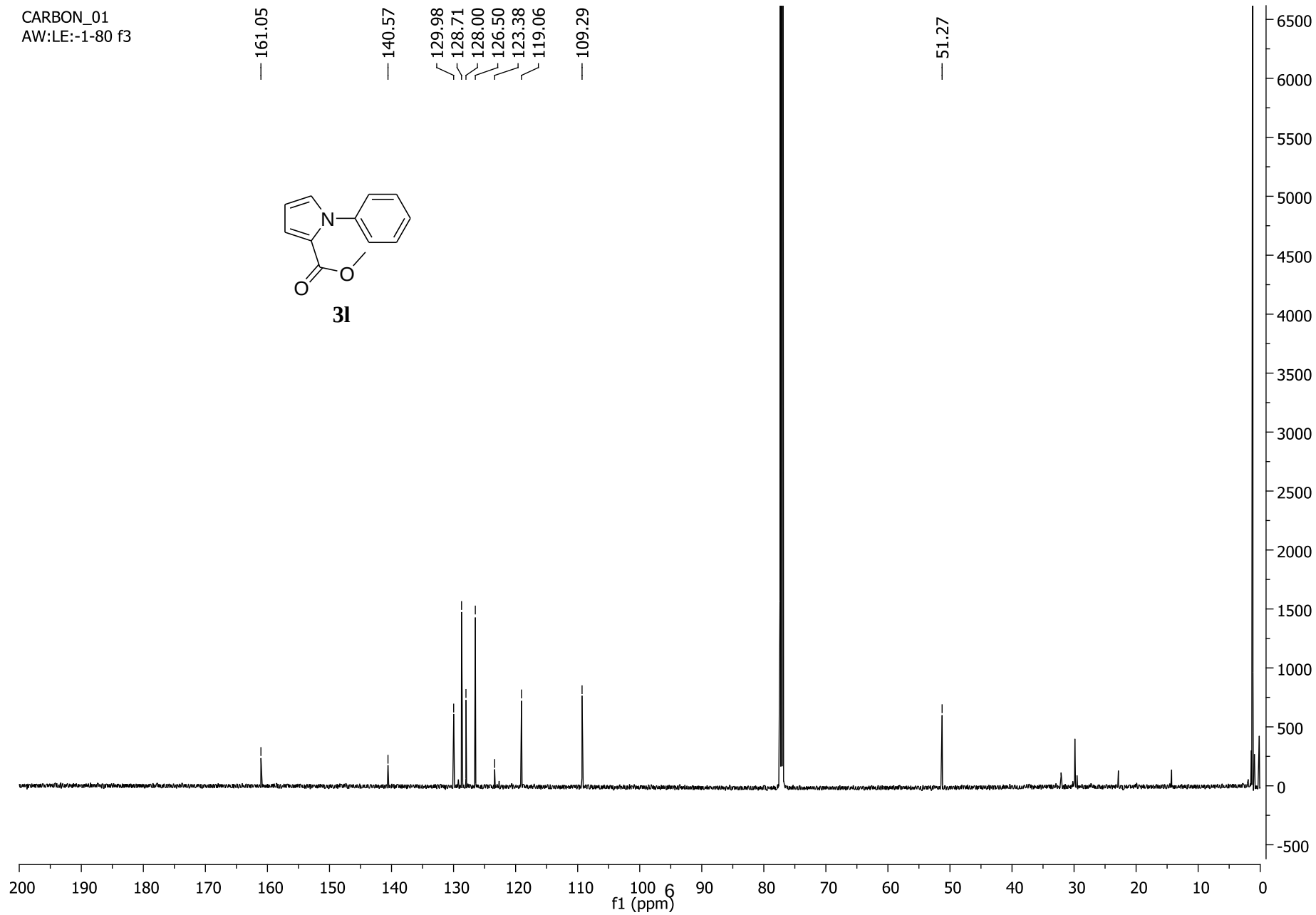
119.06

— 109.29

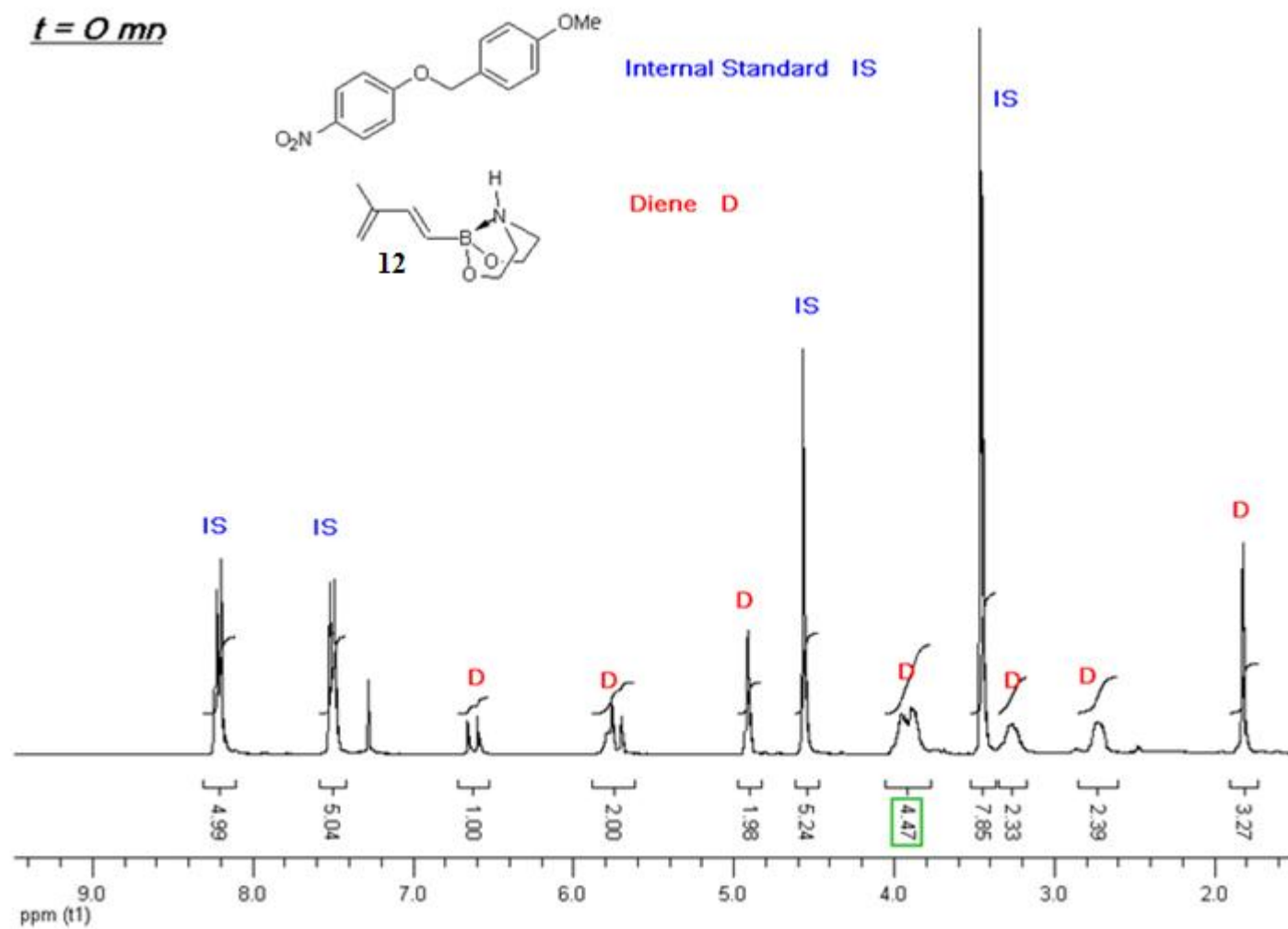
— 51.27



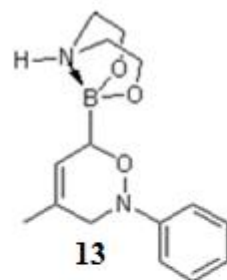
3l



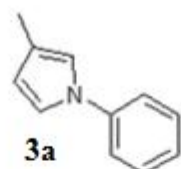
¹H NMR study of the reaction of diene 12 with nitrosobenzene



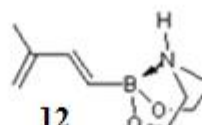
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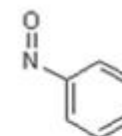
13
Cycloadduct CYC



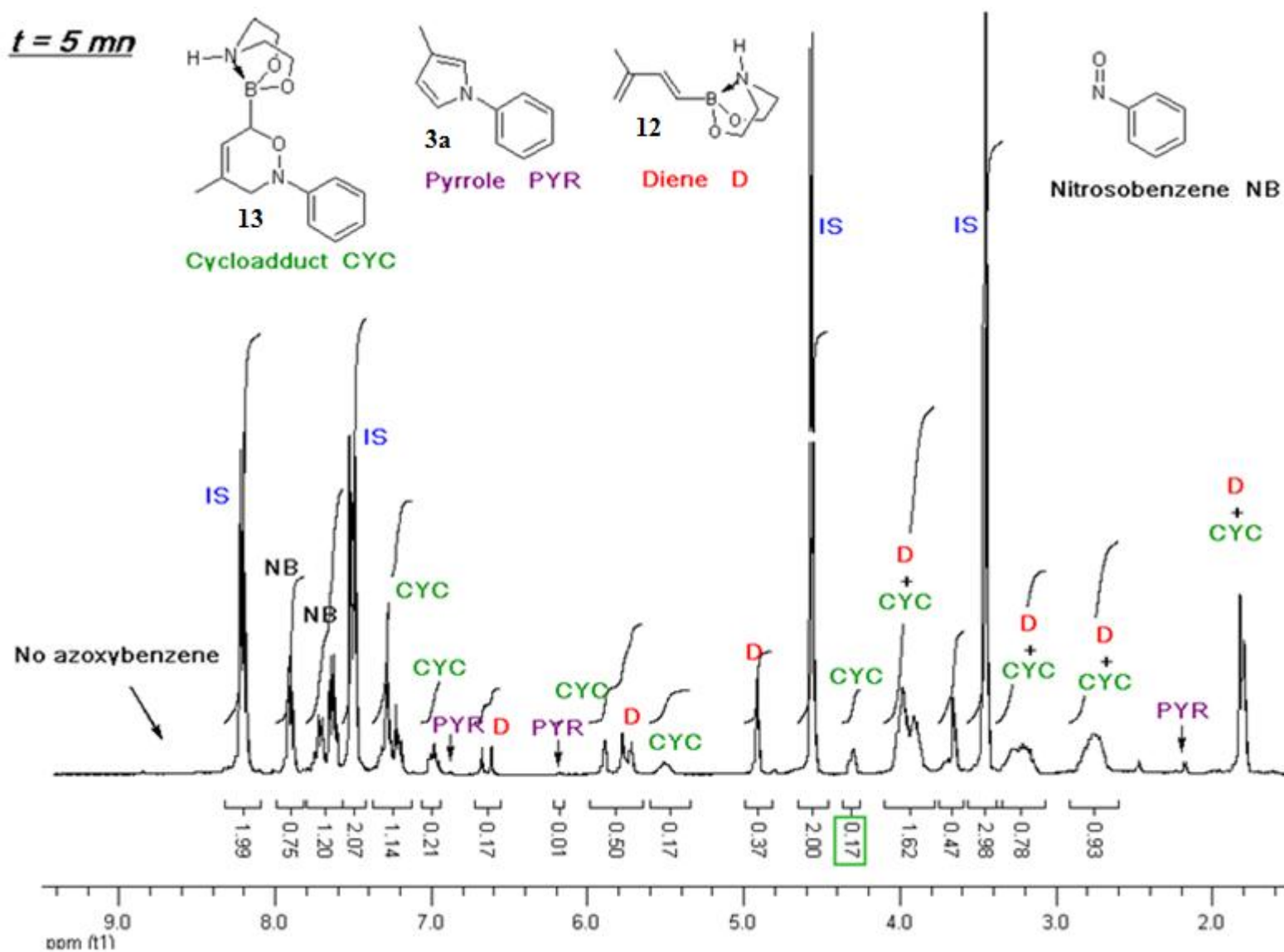
3a
Pyrrole PYR

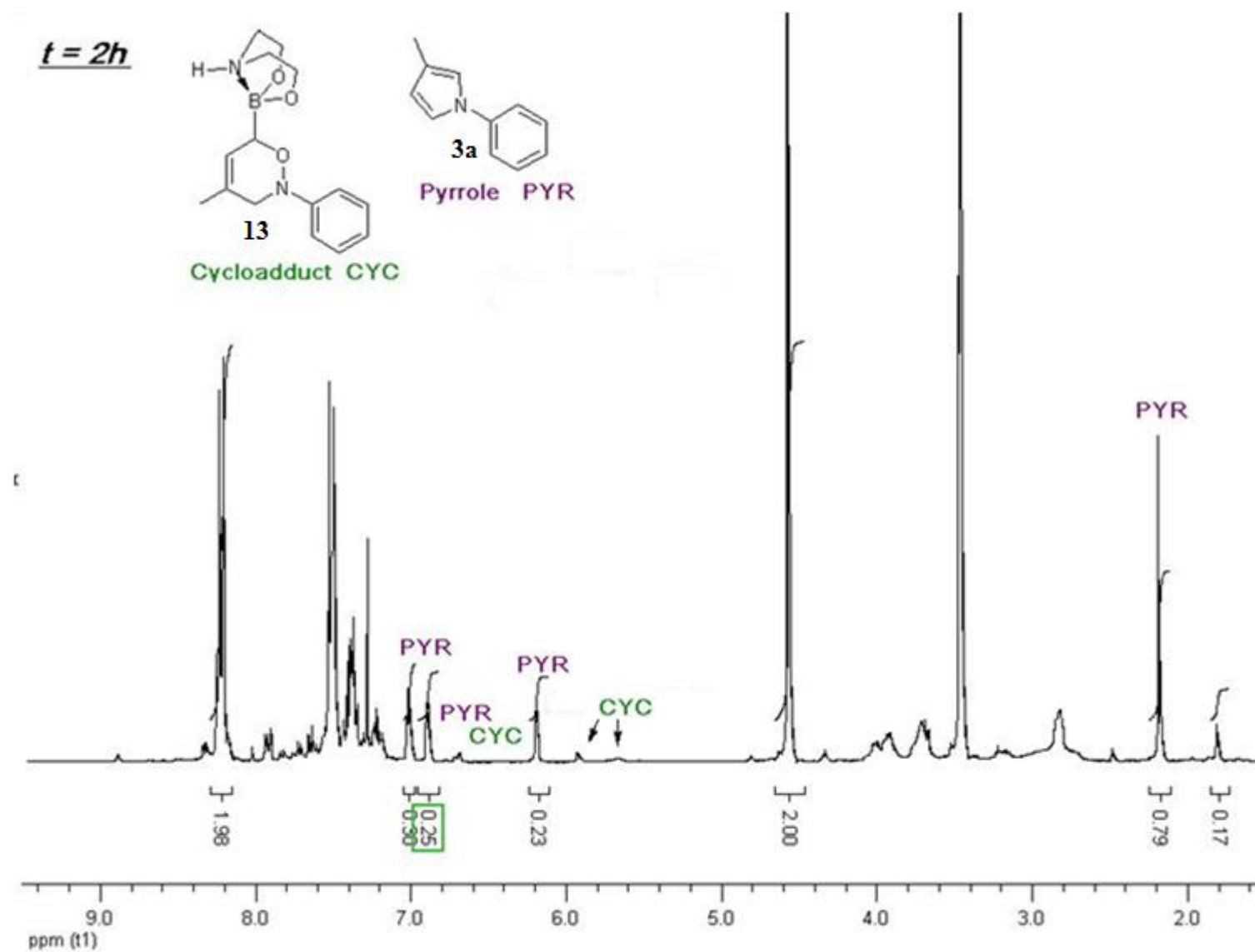


12
Diene D

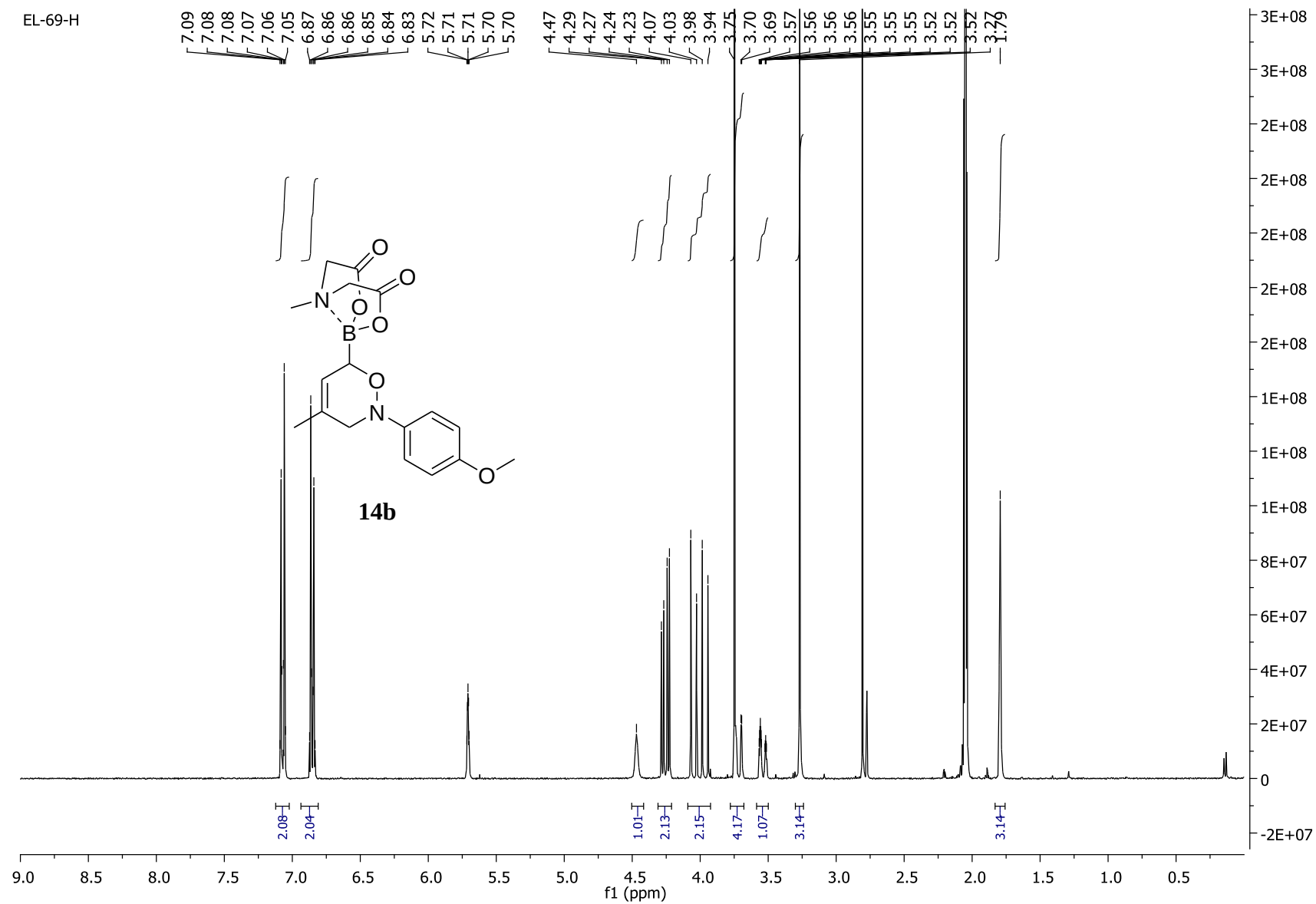


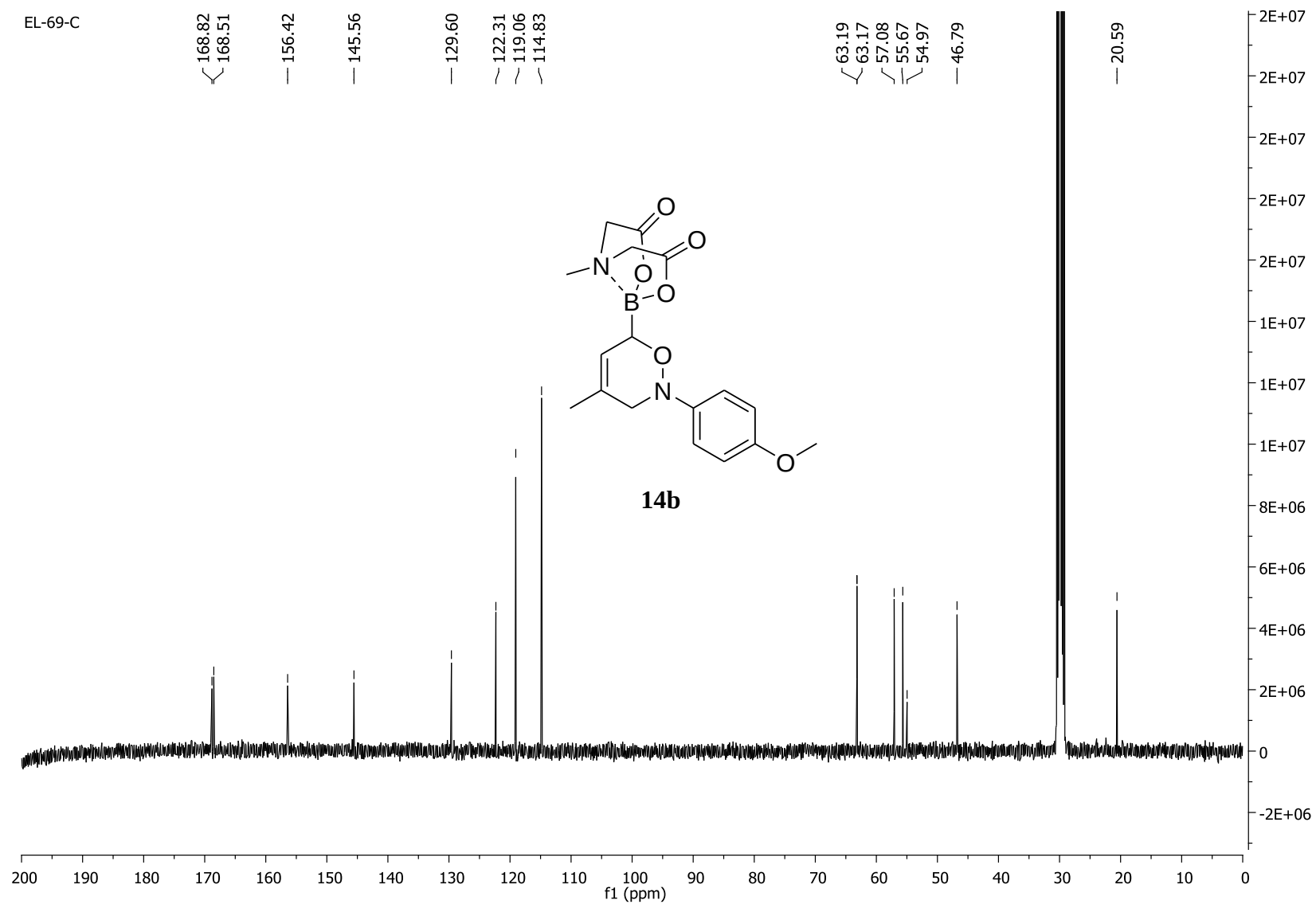
Nitrosobenzene NB

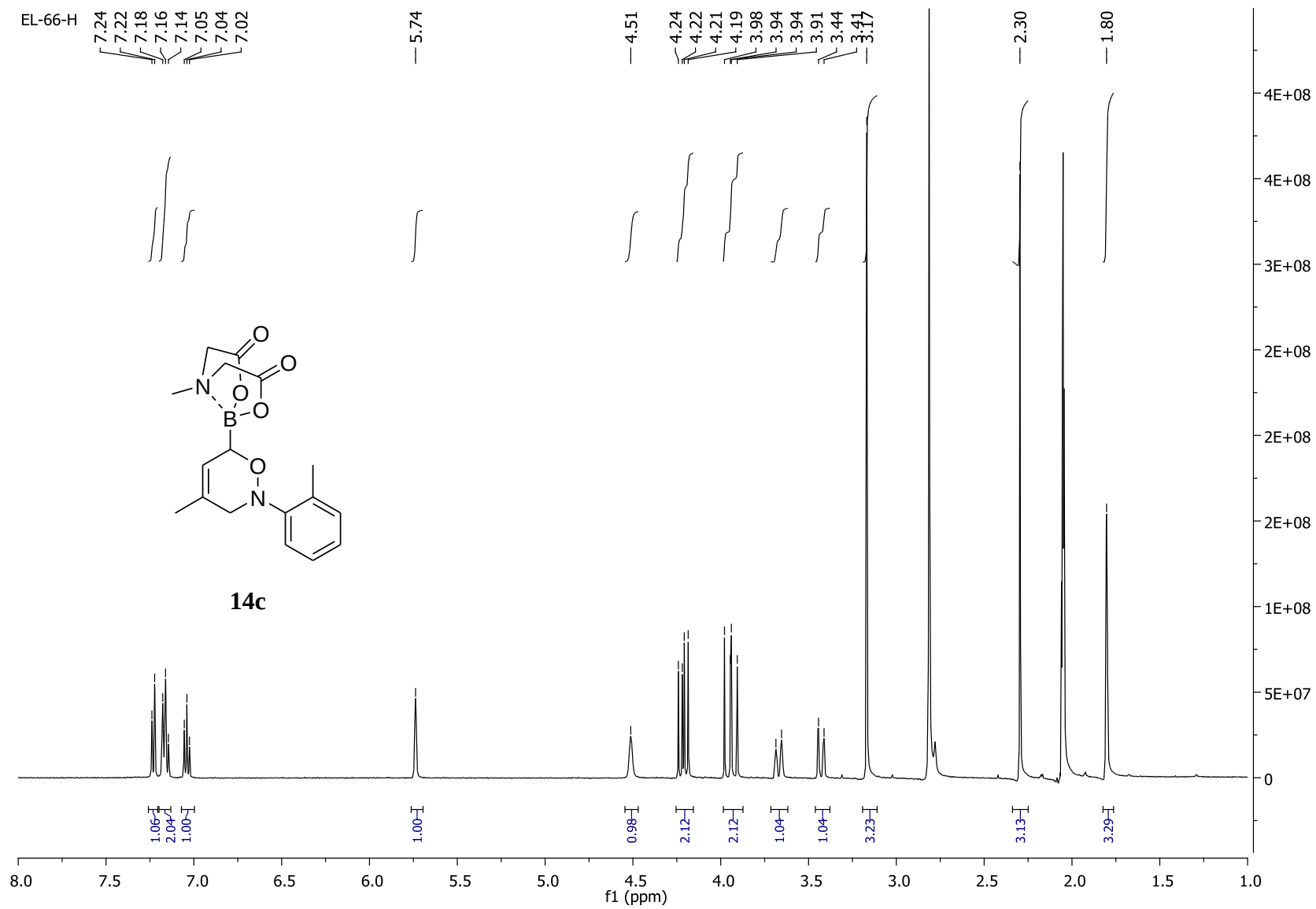




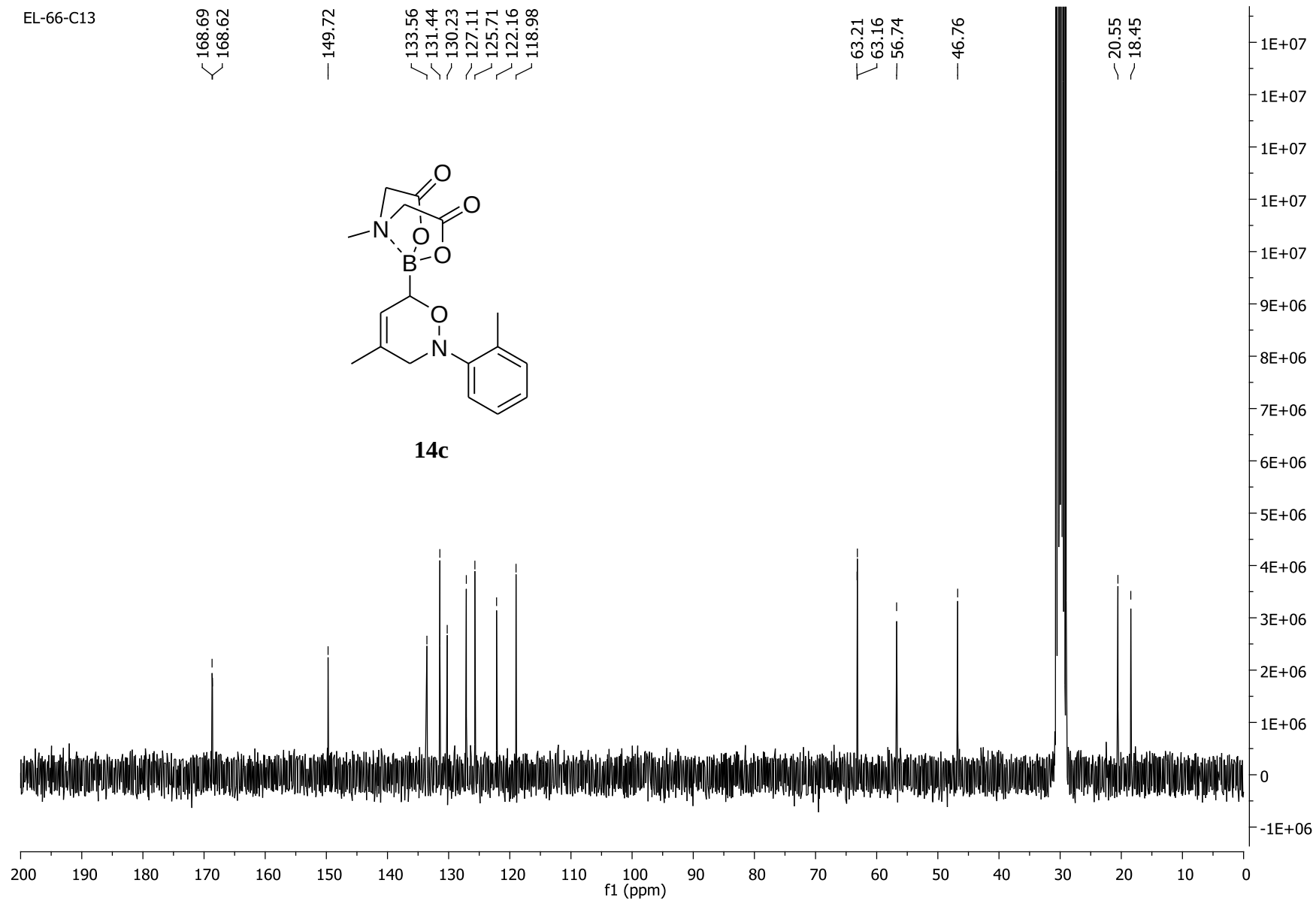
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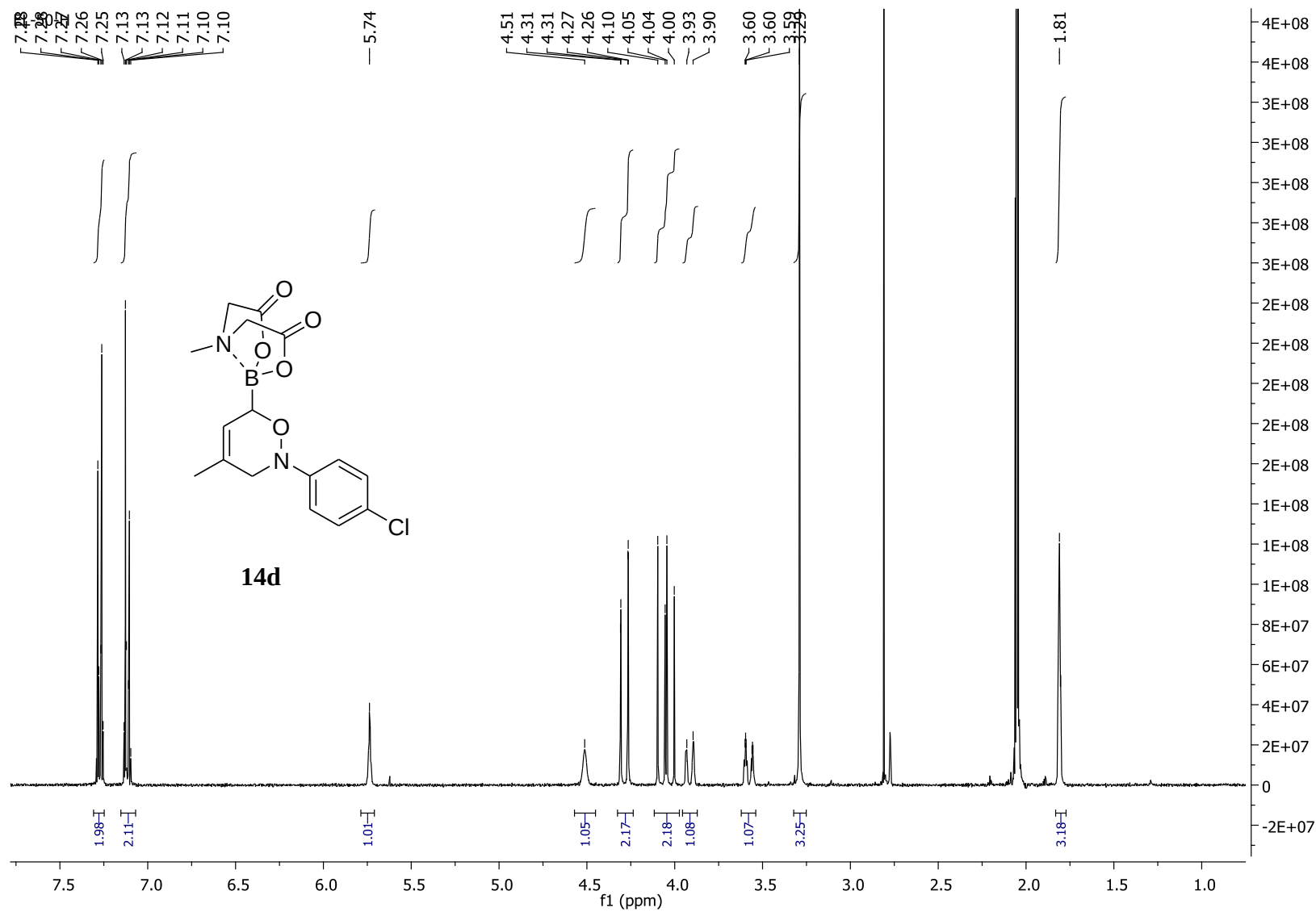






EL-66-C13





EL-50-C

168.73
168.53

150.64

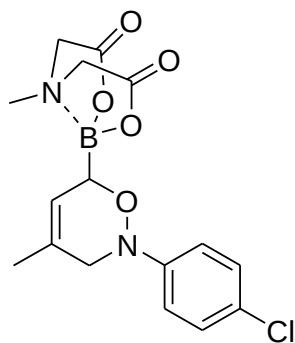
129.46
129.27
126.87
122.28
118.08

63.25
63.24

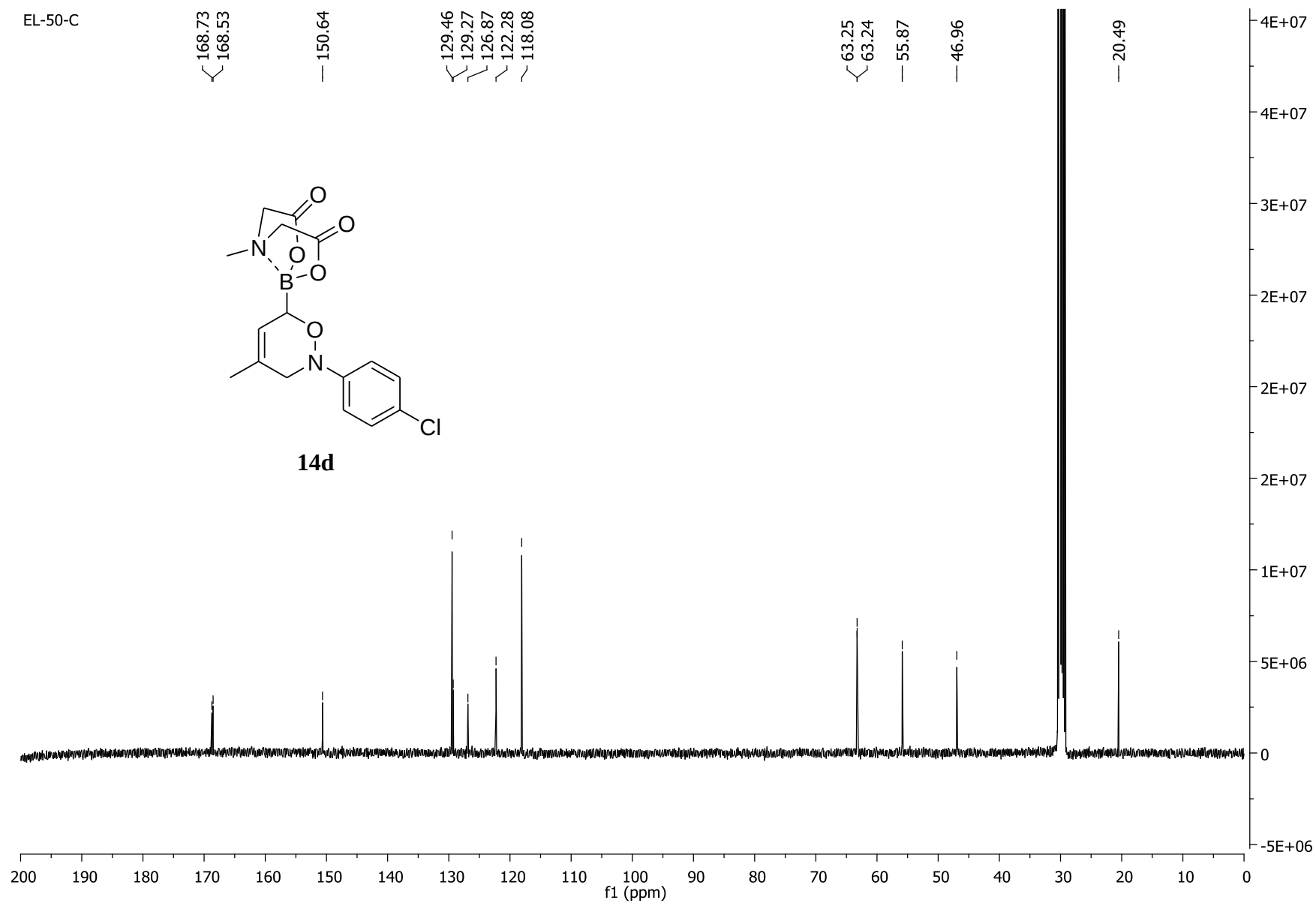
55.87

46.96

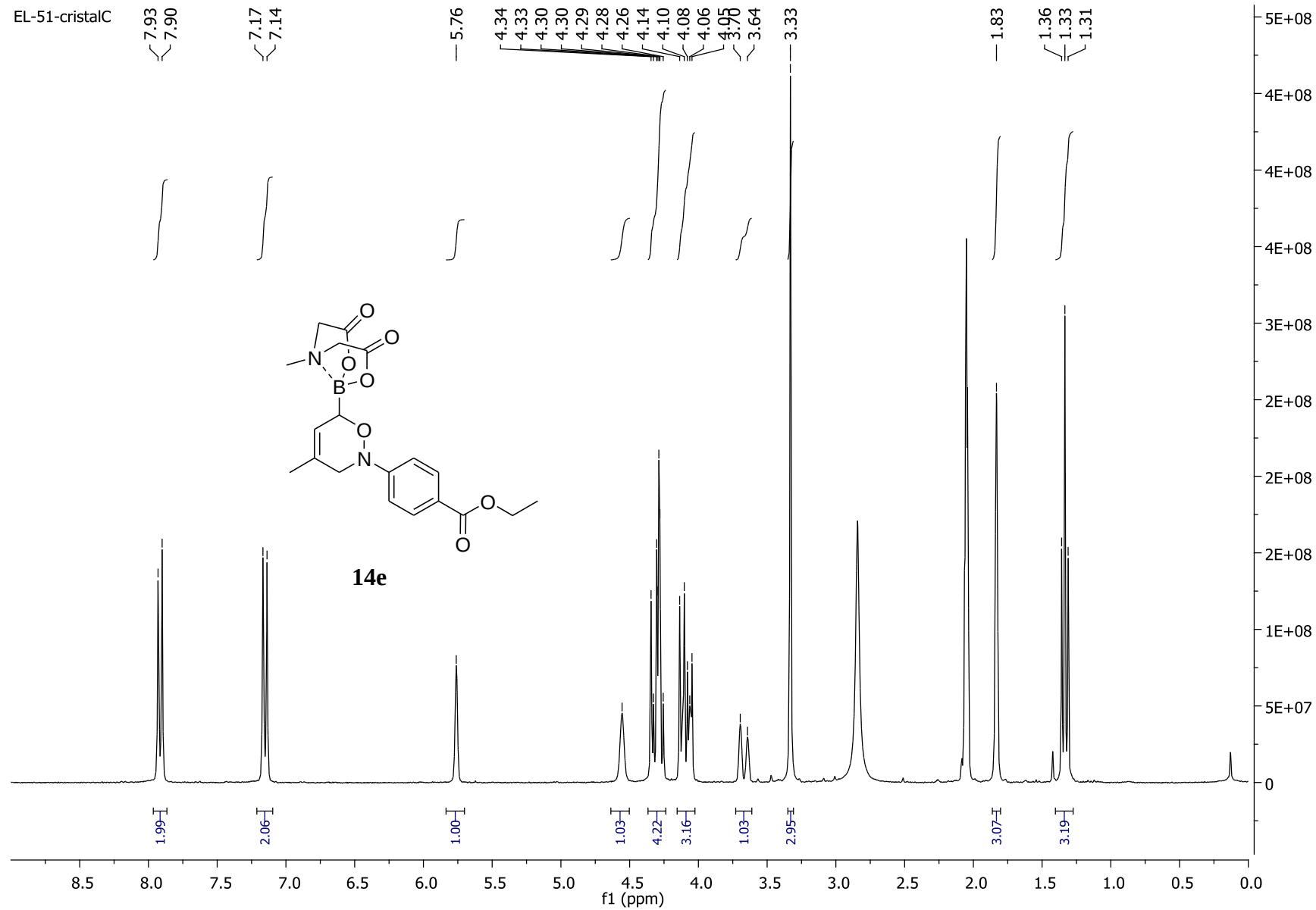
20.49



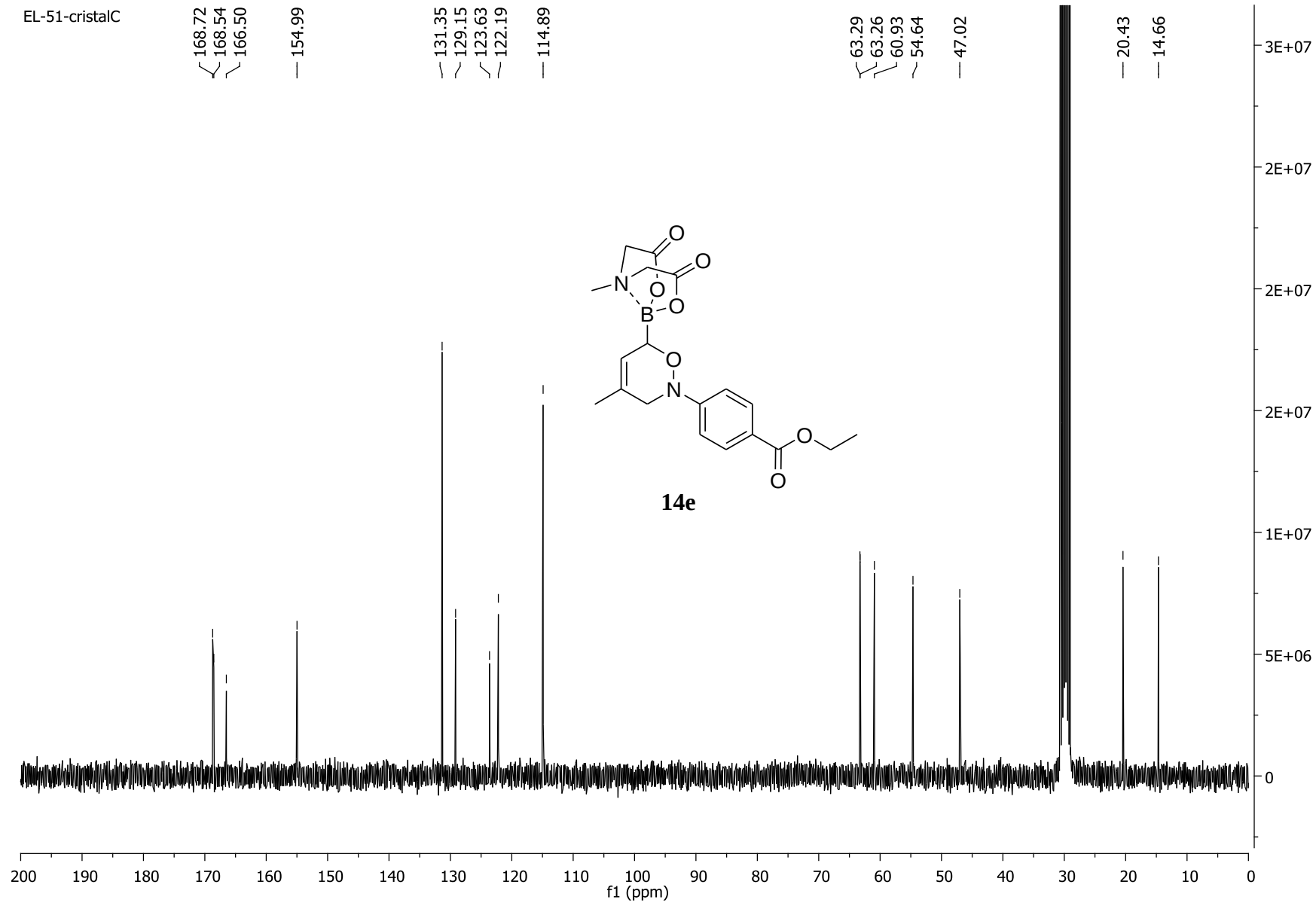
14d

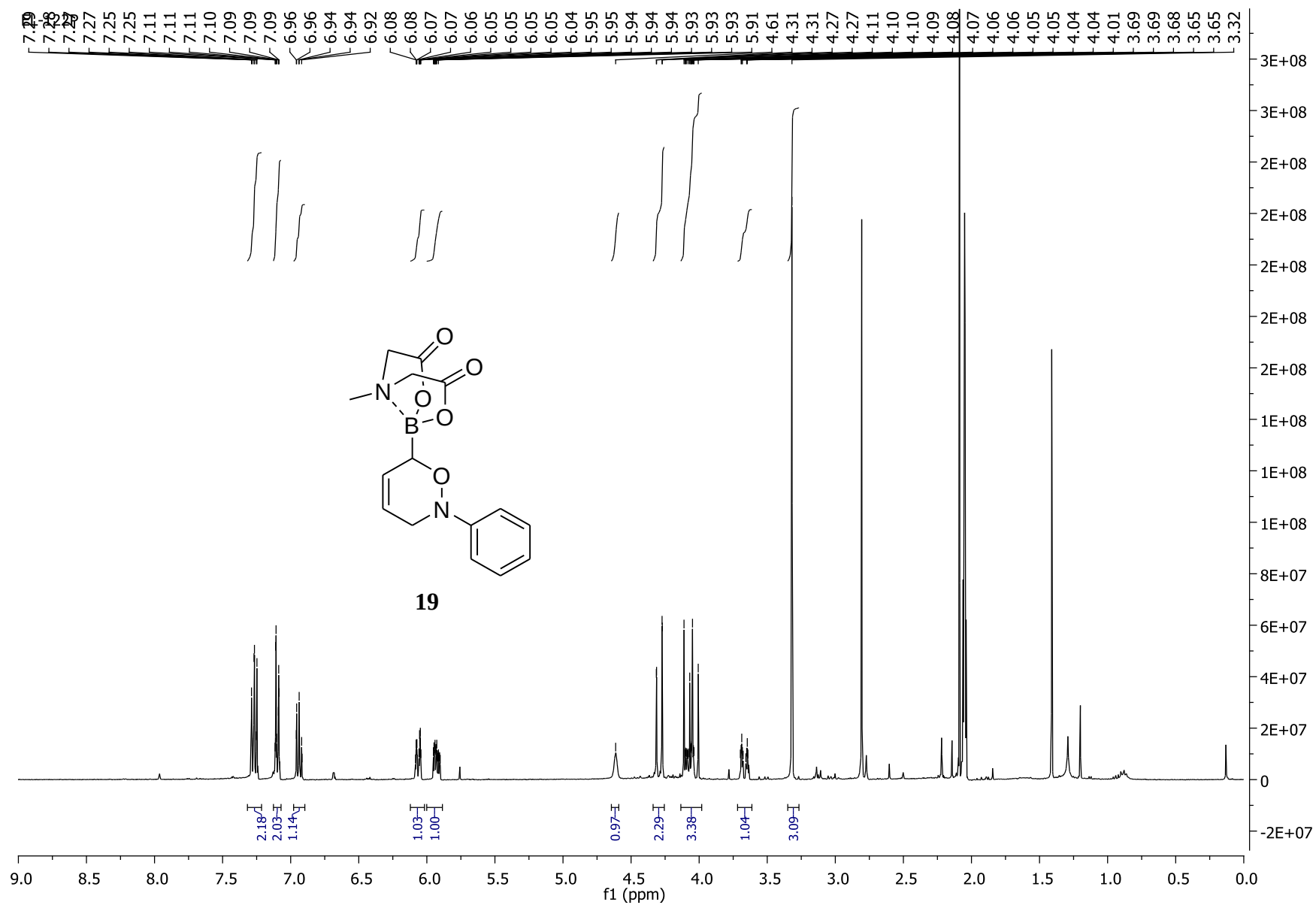


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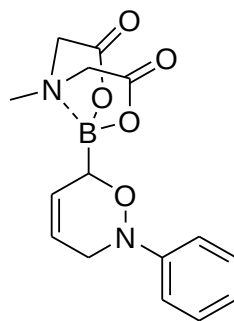


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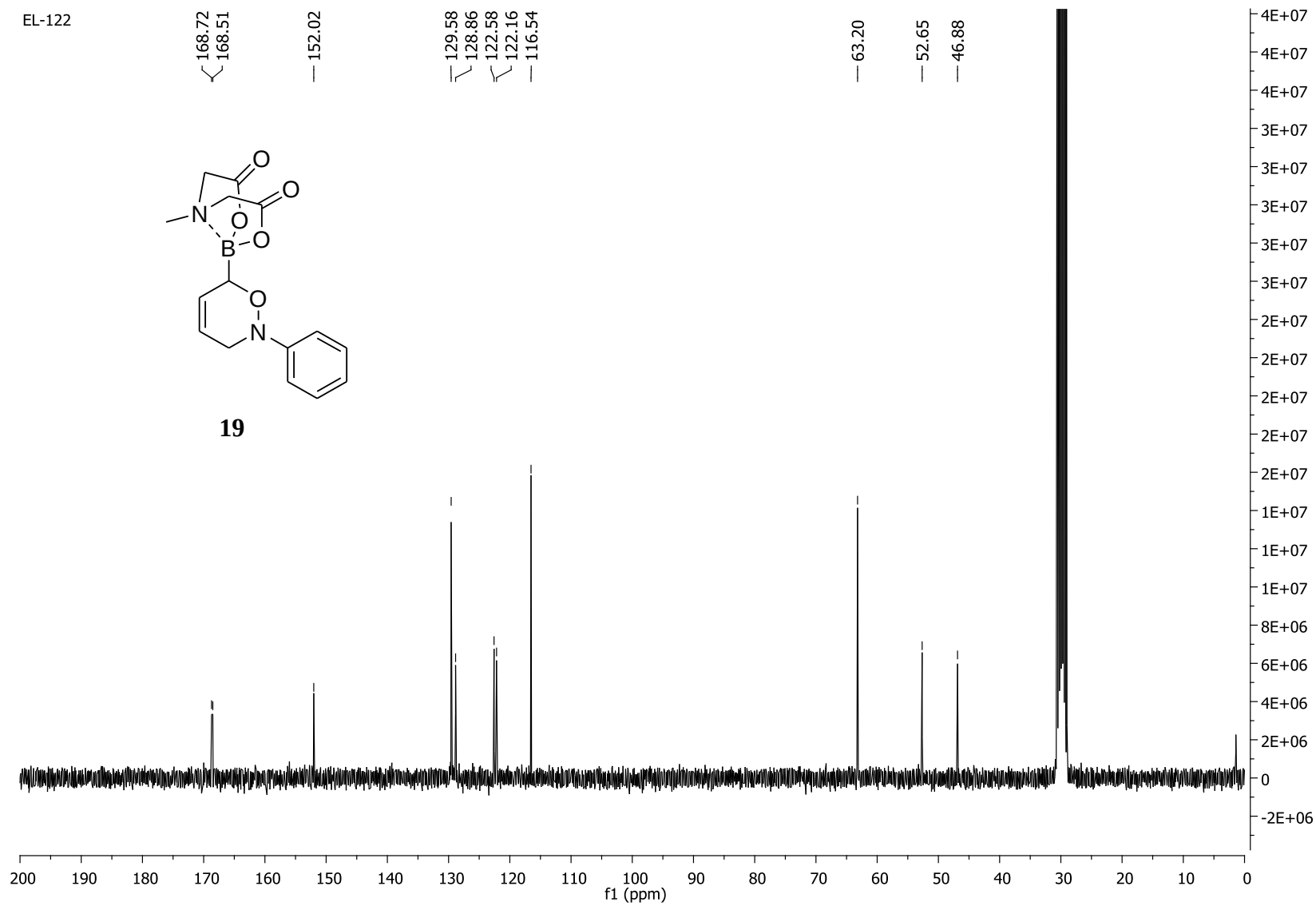


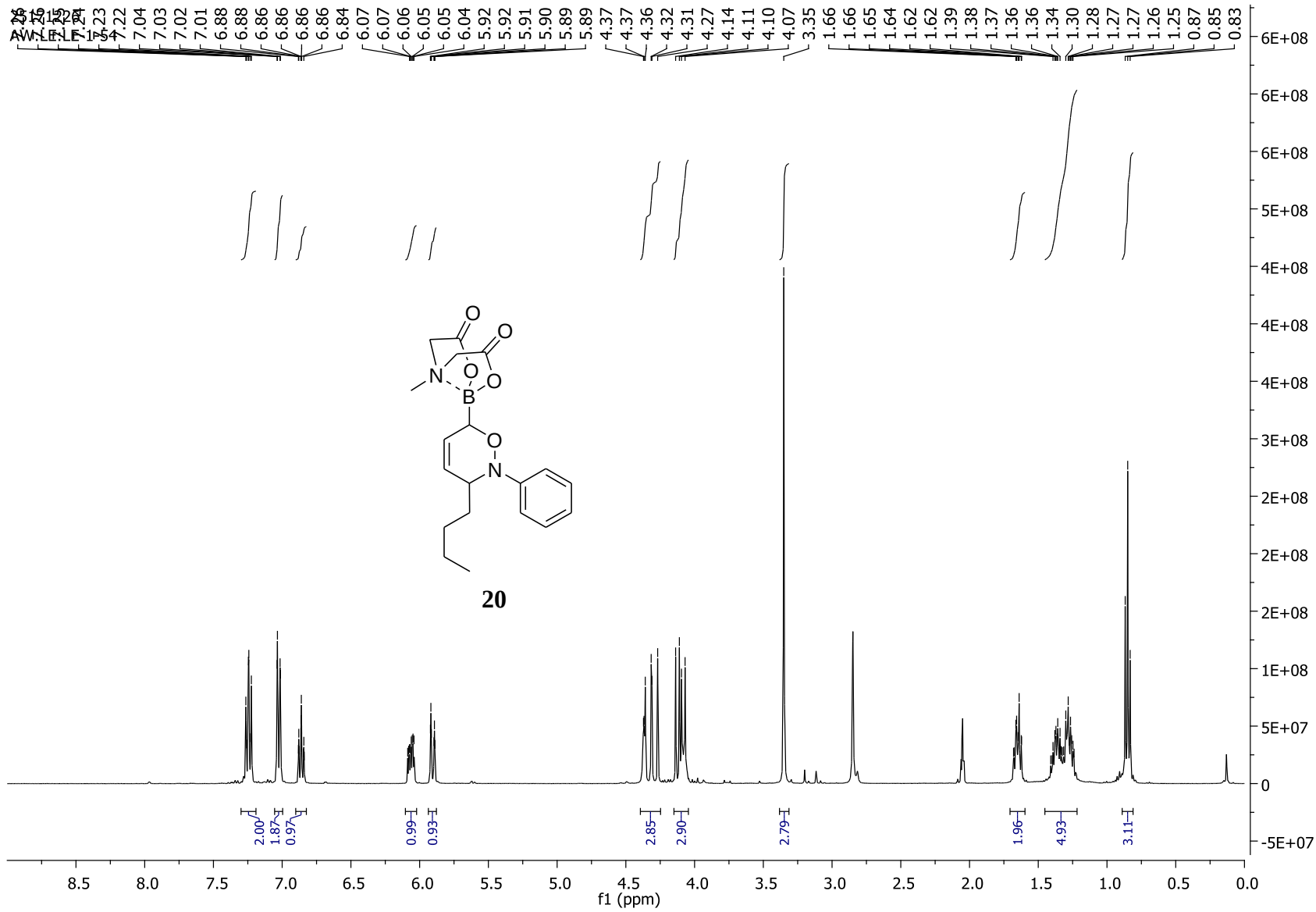


EL-122

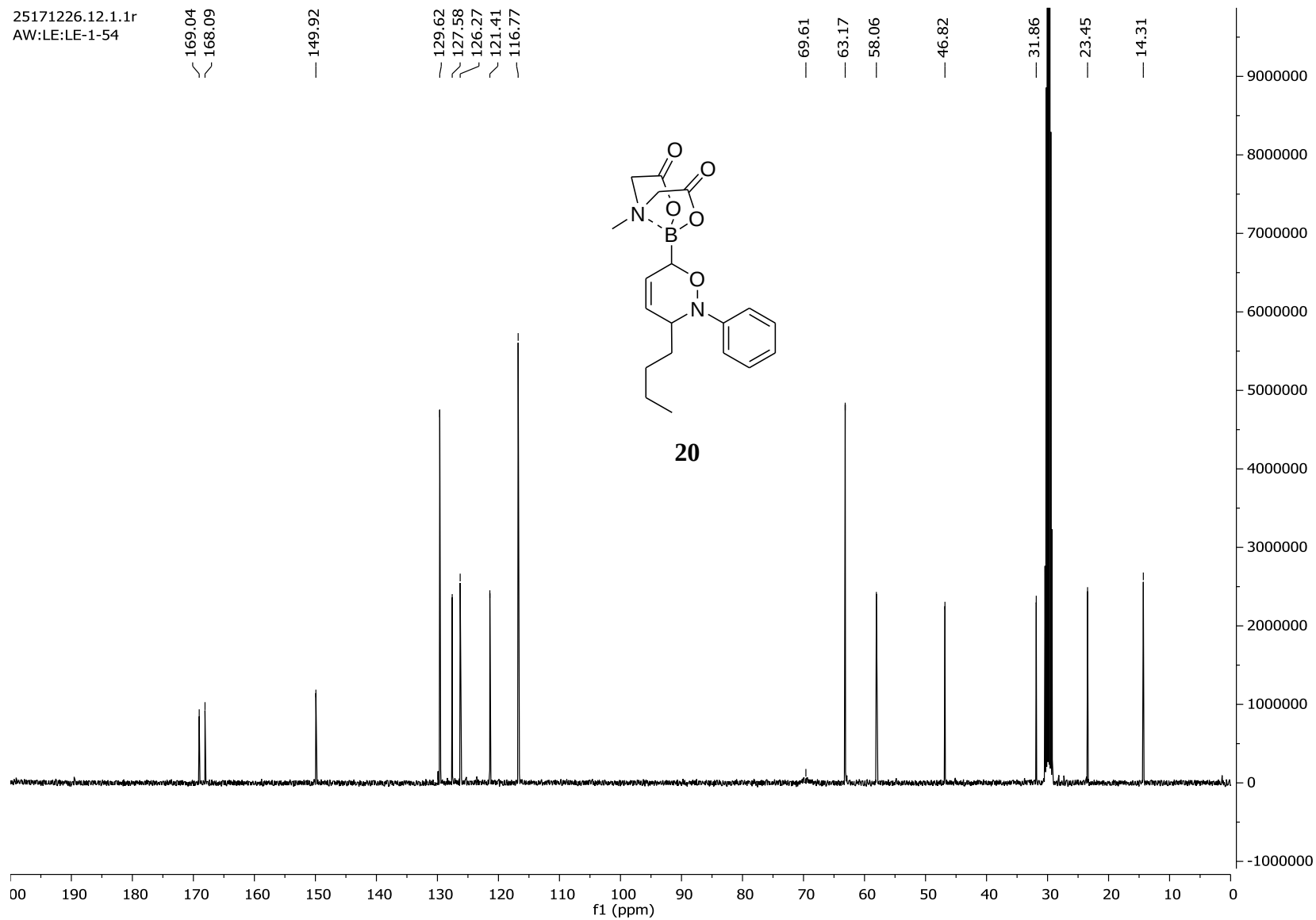


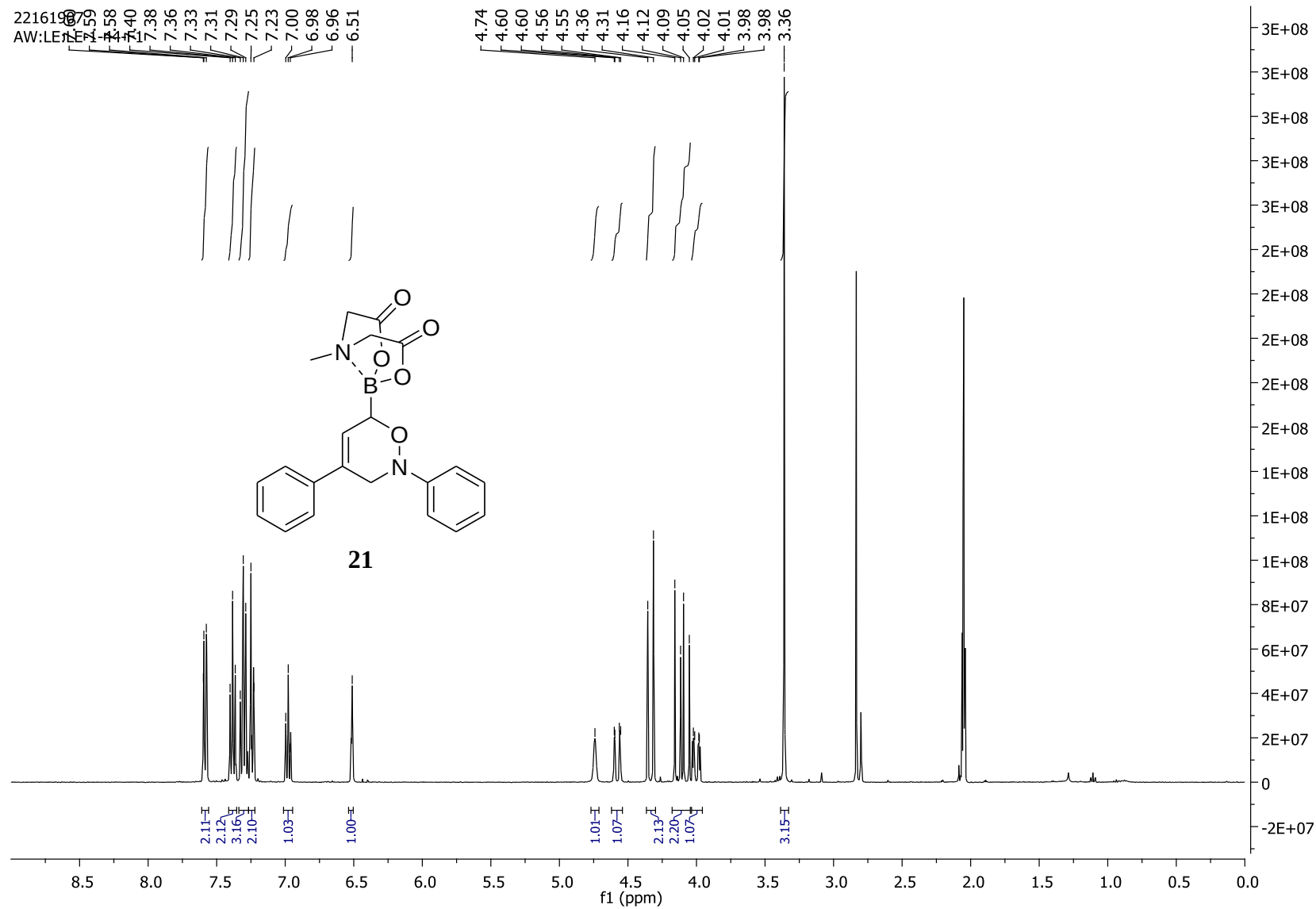
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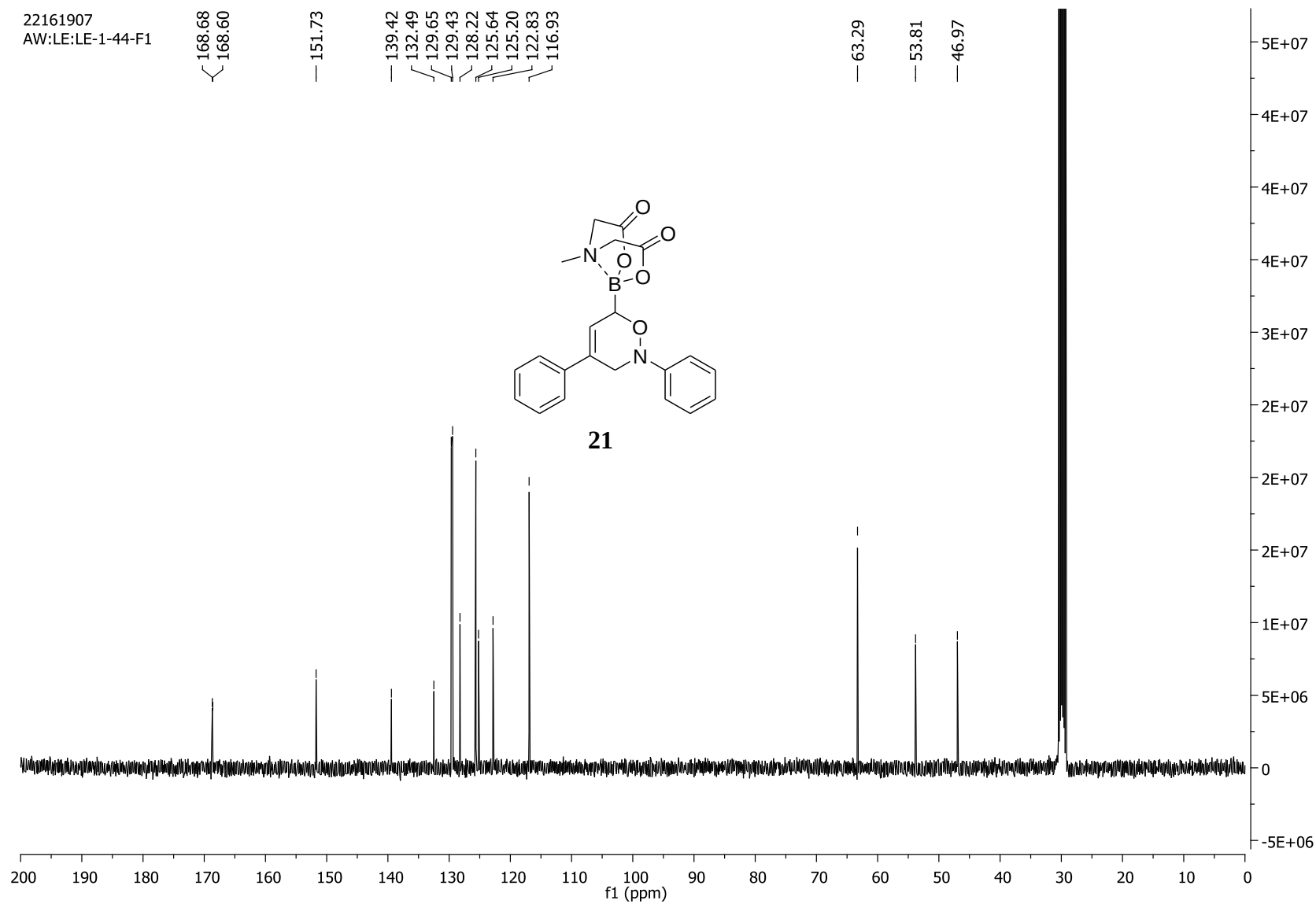


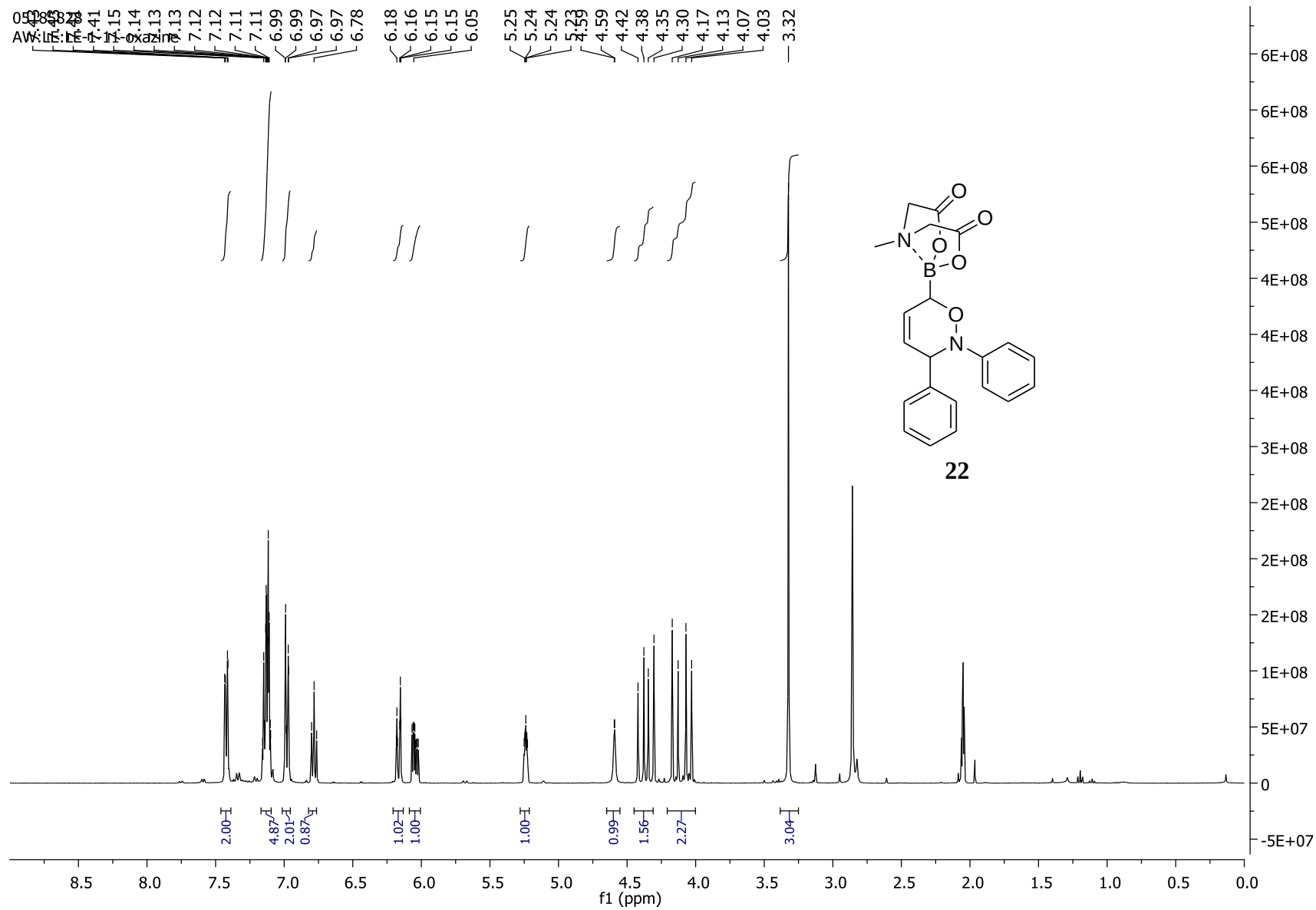
25171226.12.1.1r
AW:LE:LE-1-54



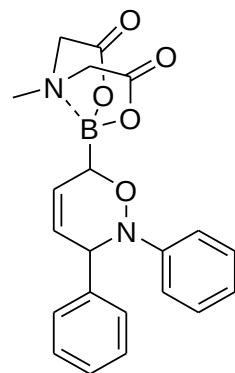


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AW:LE:LE-1-44-F1

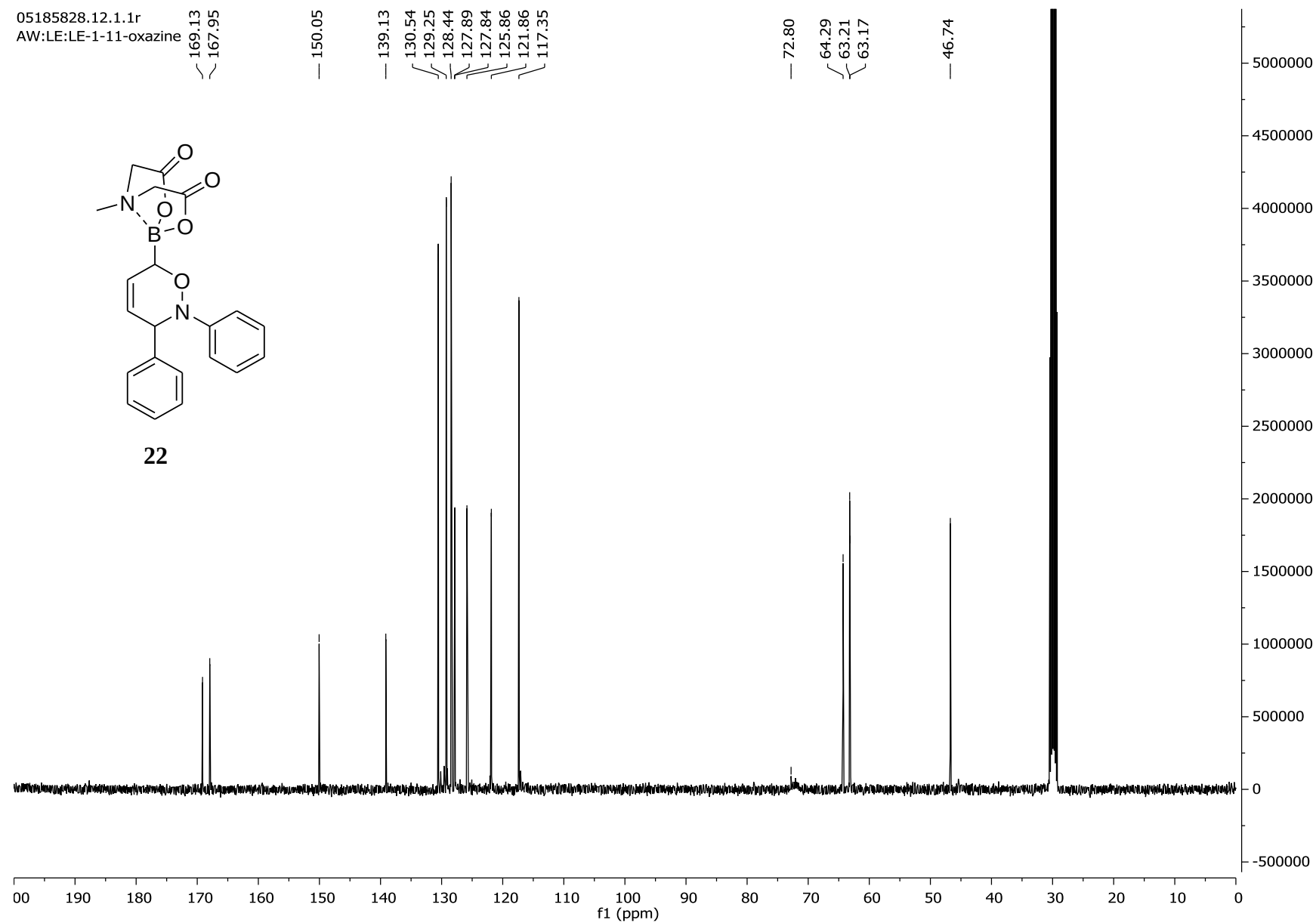


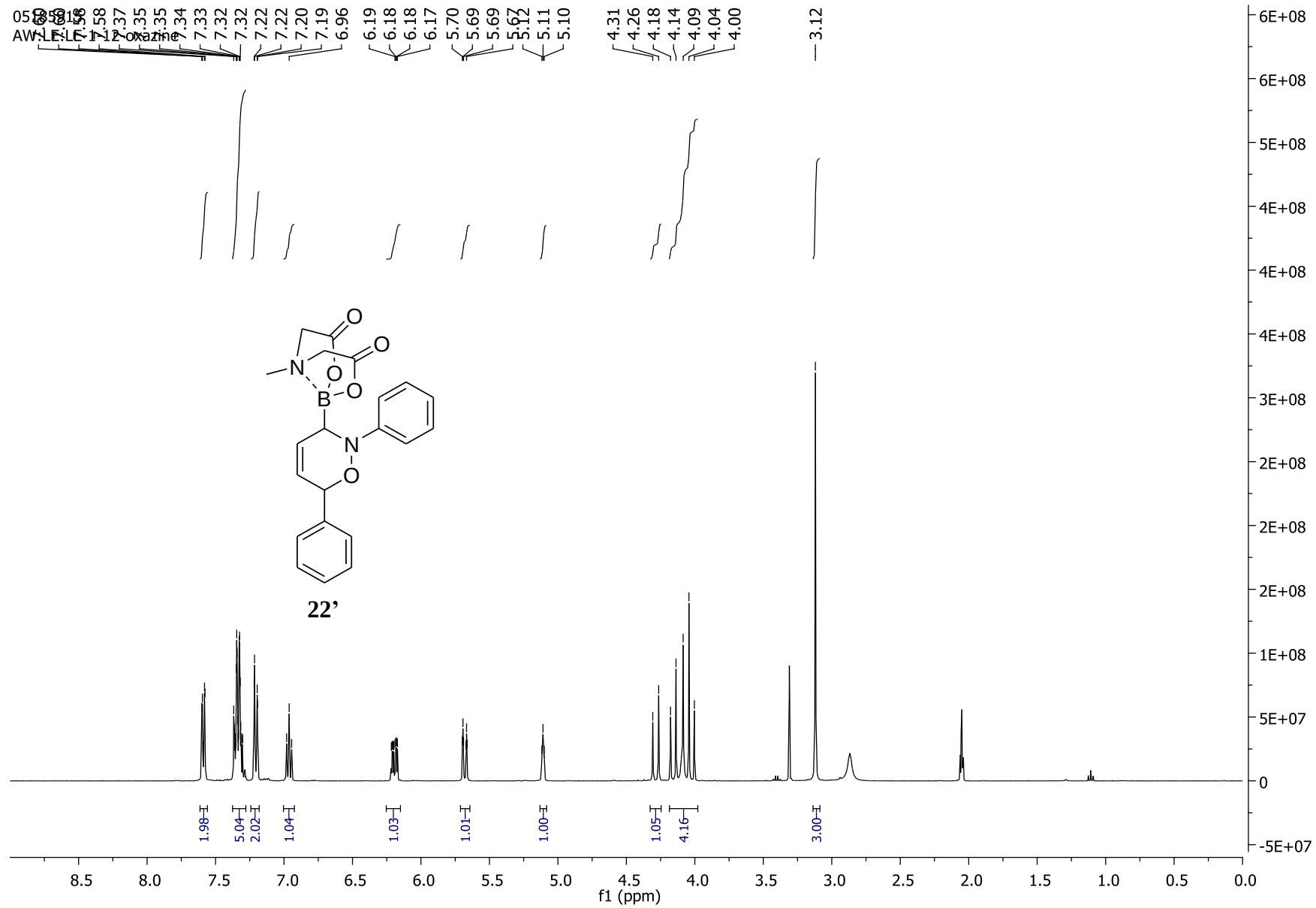


05185828.12.1.1r
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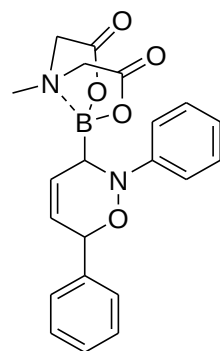


22

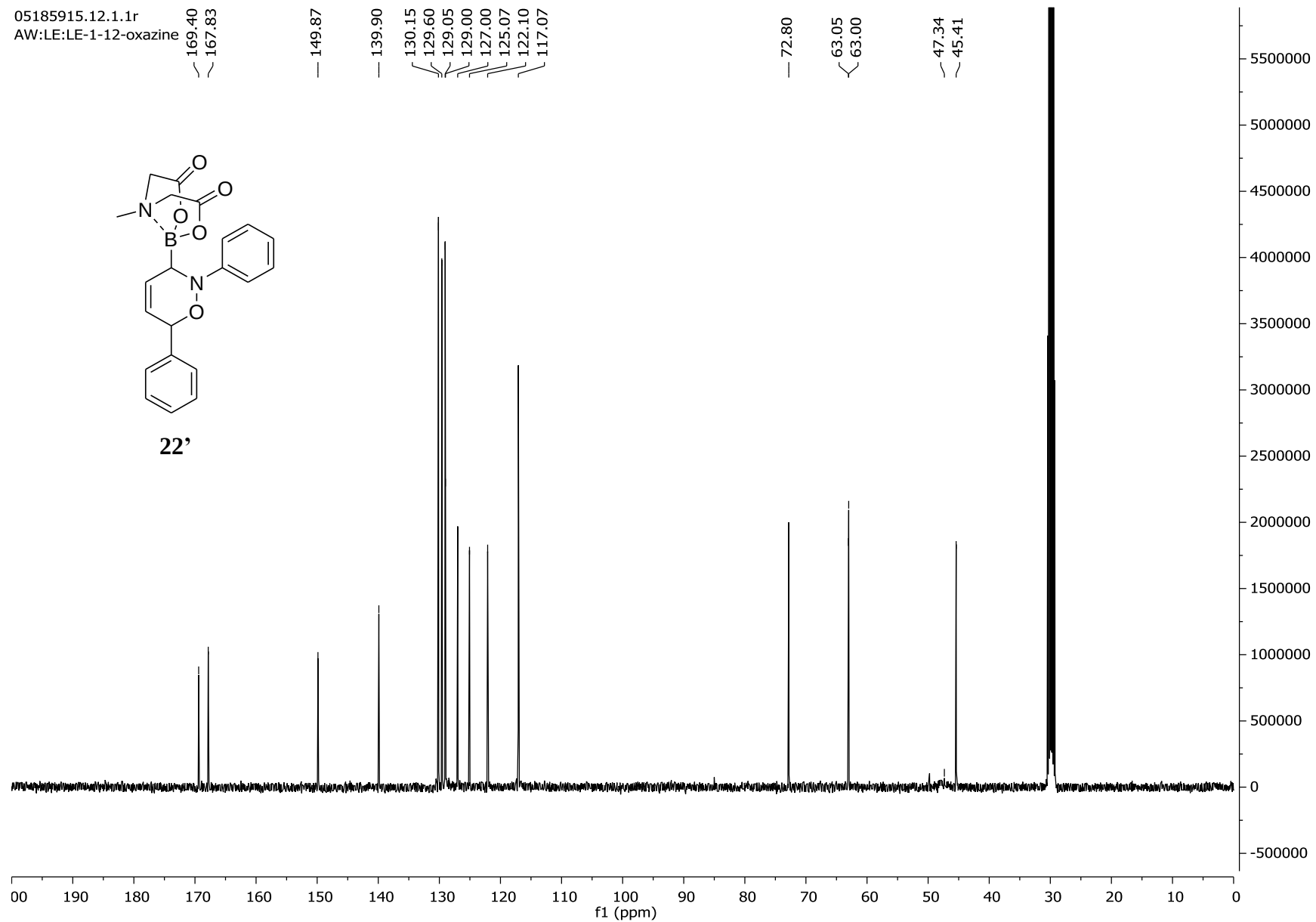




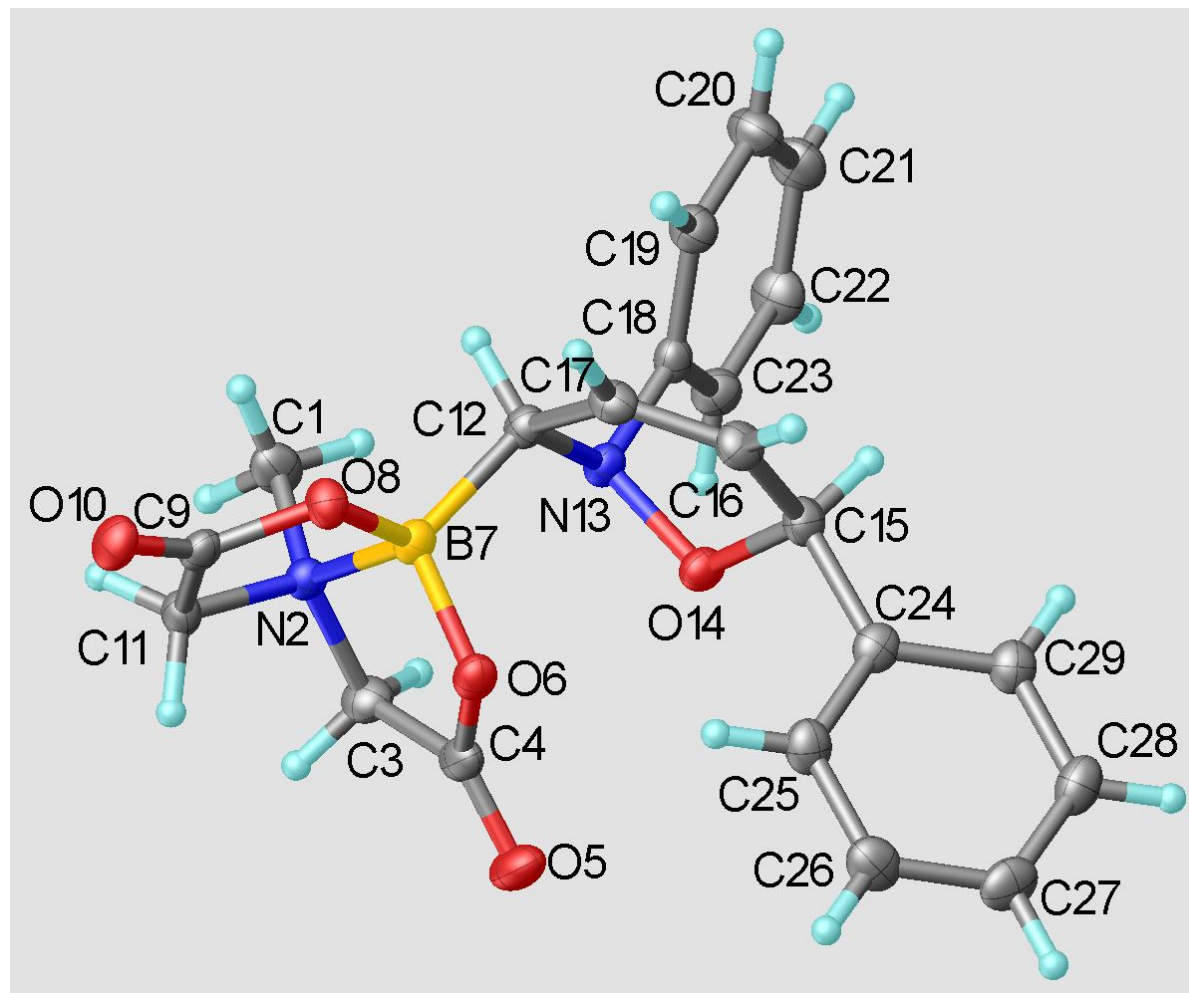
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AW:LE:LE-1-12-oxazine



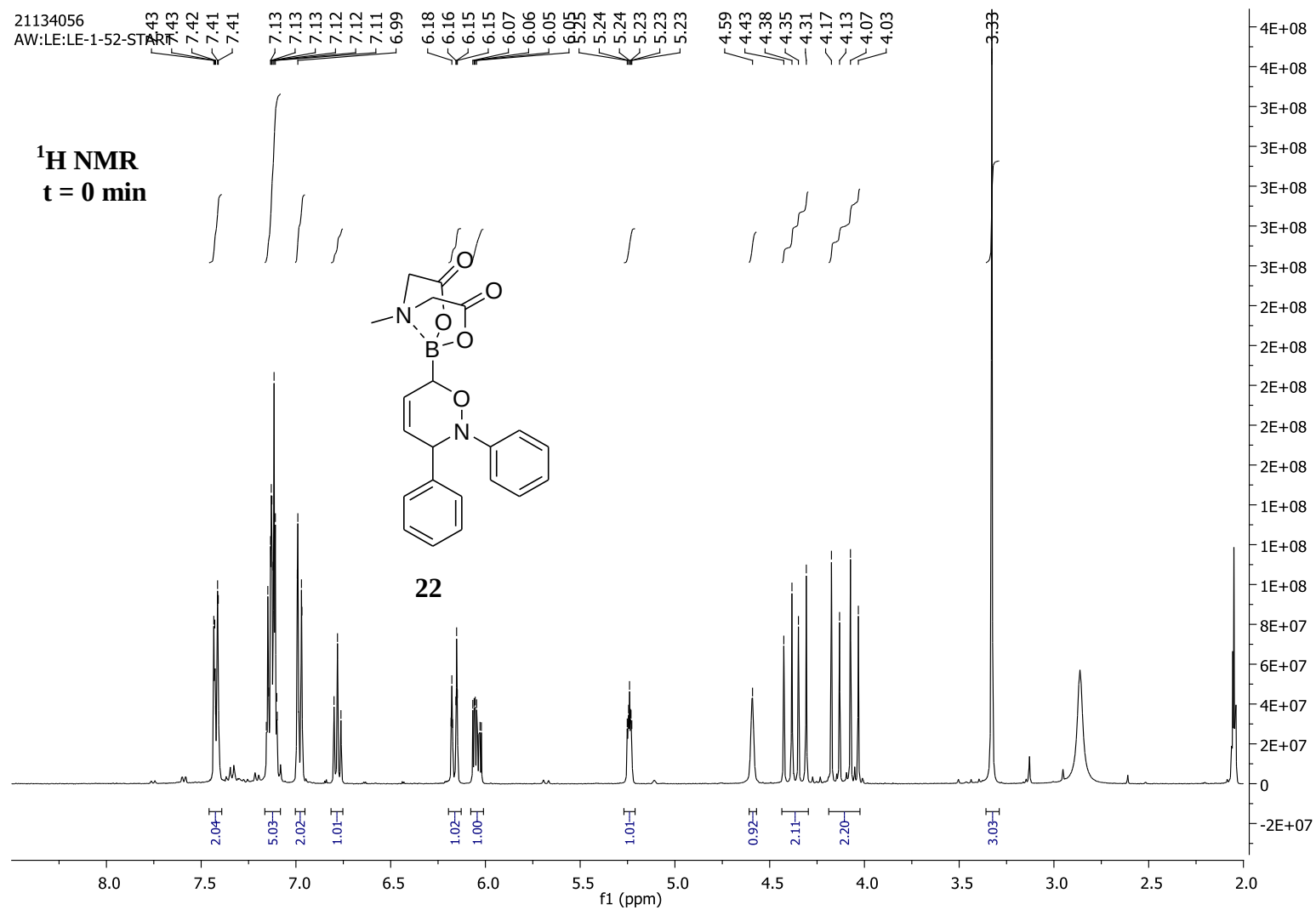
22'



Single crystal X-ray molecular structure of 22'



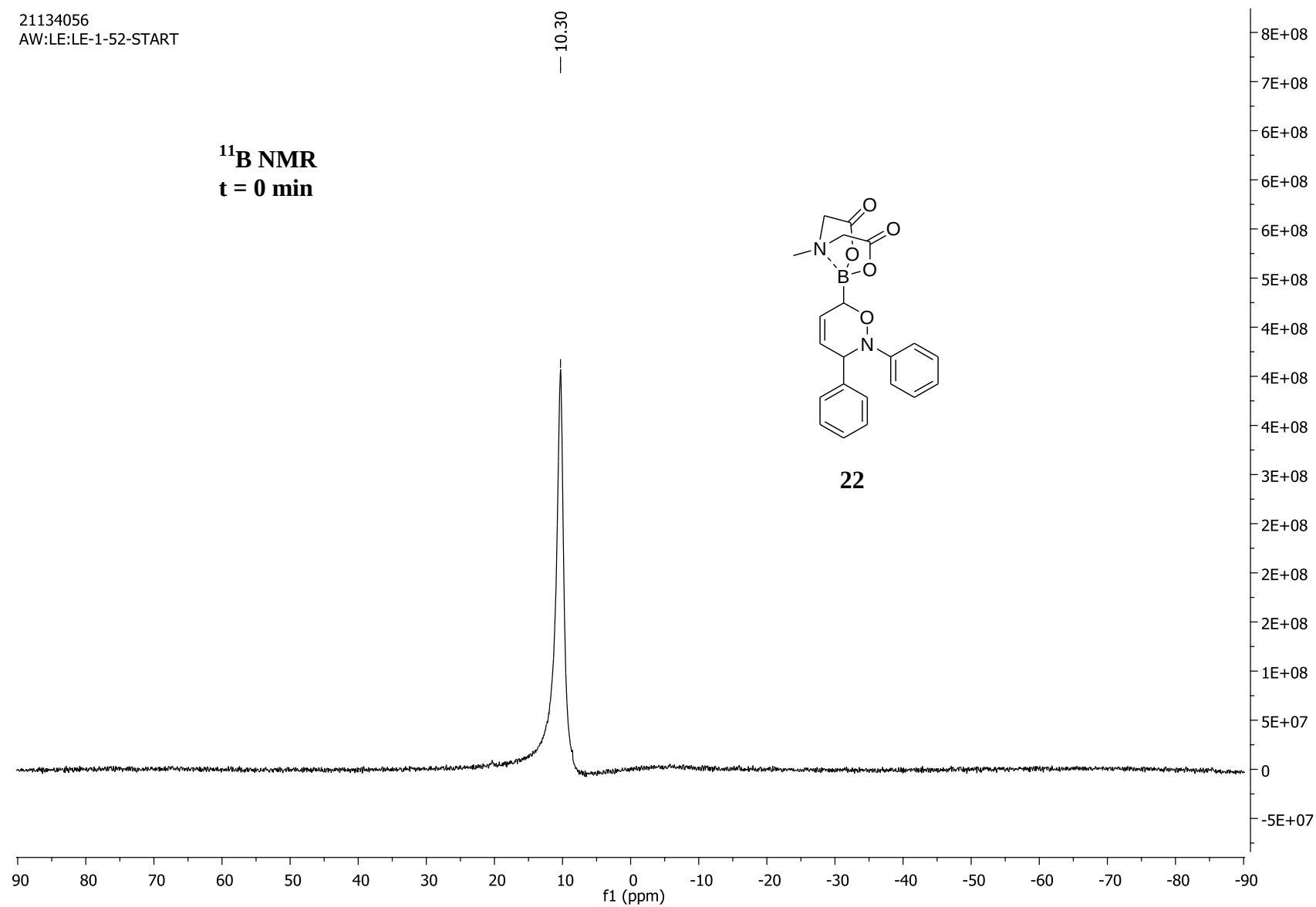
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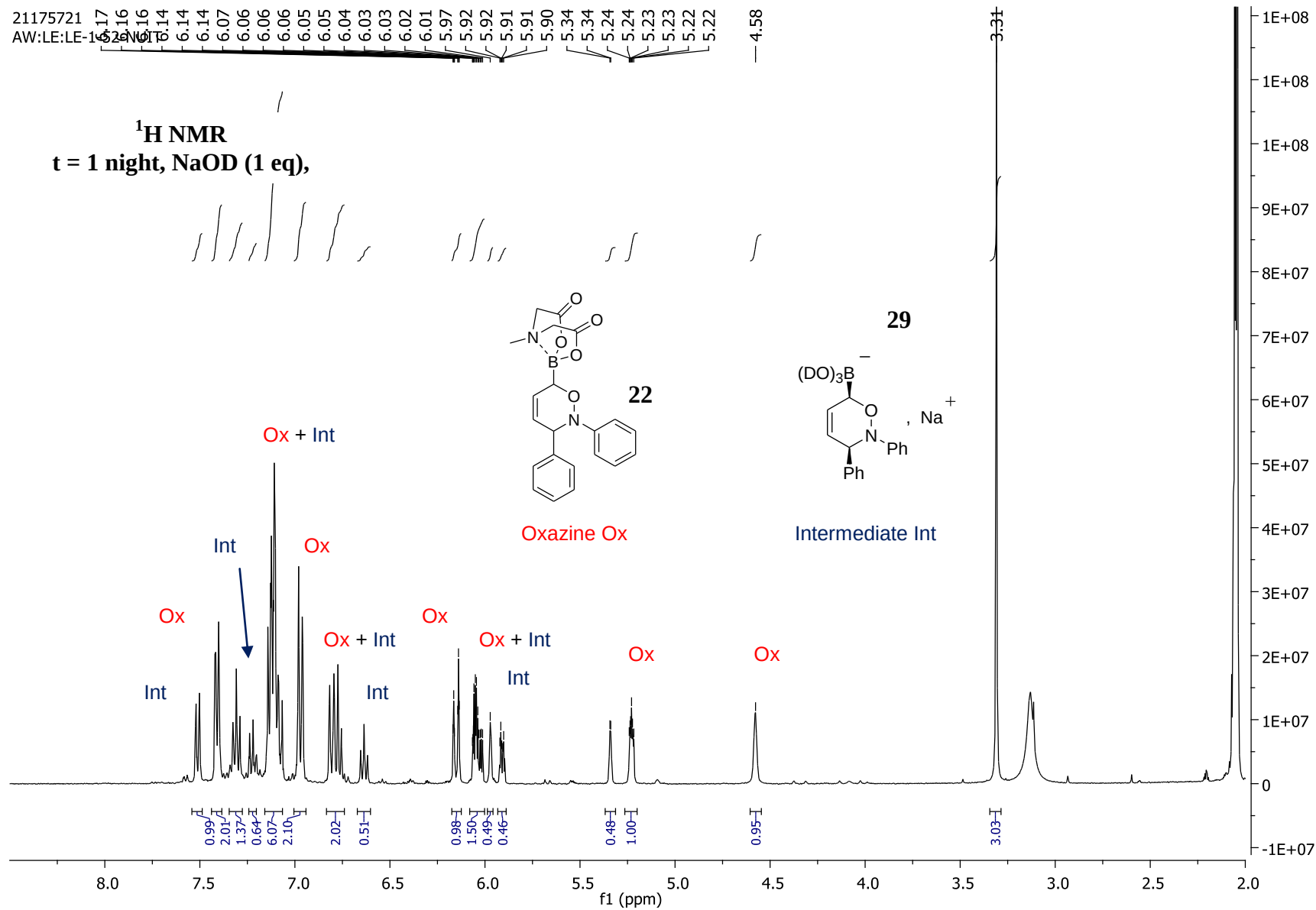


21134056
AW:LE:LE-1-52-START

— 10.30

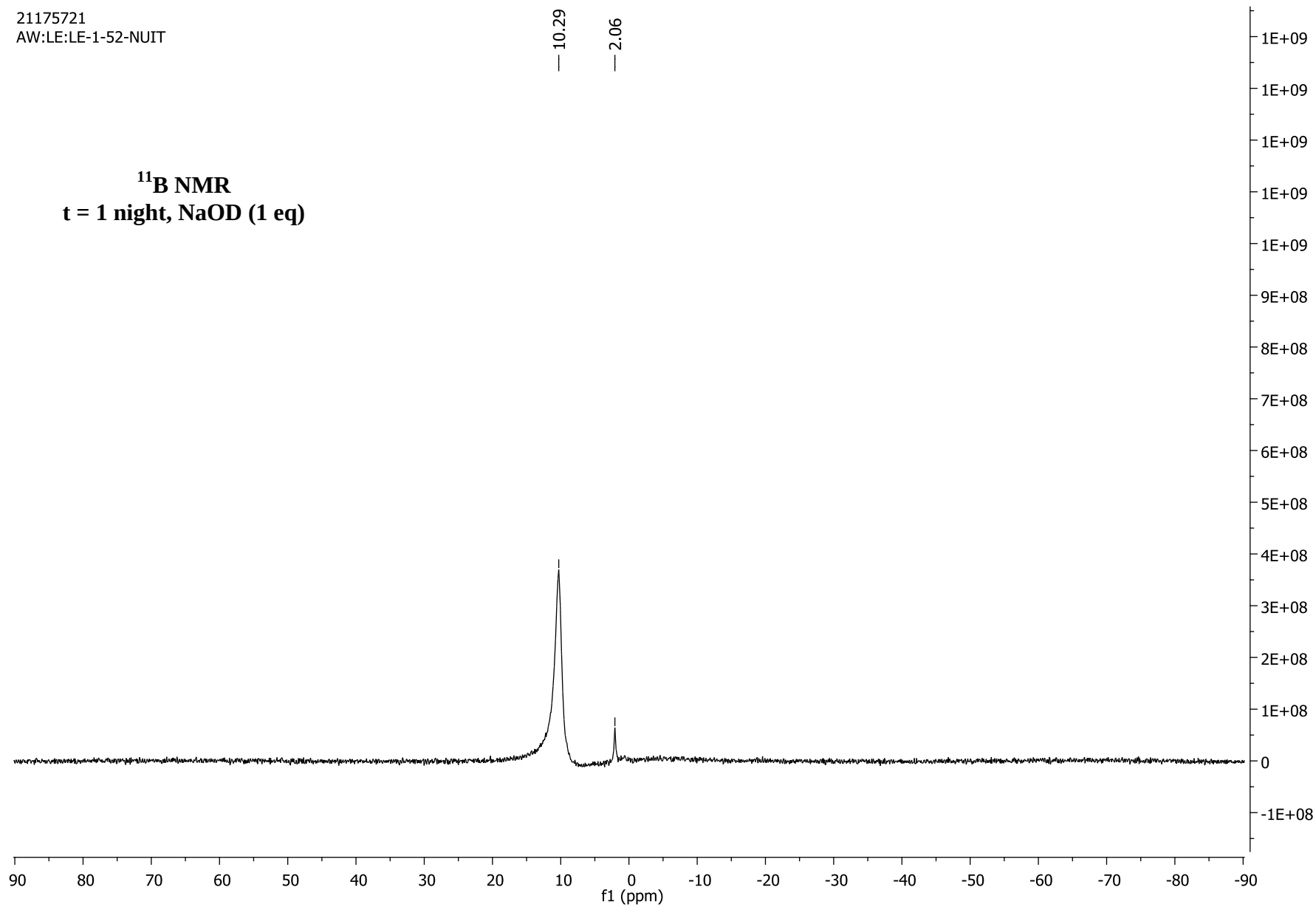
^{11}B NMR
t = 0 min

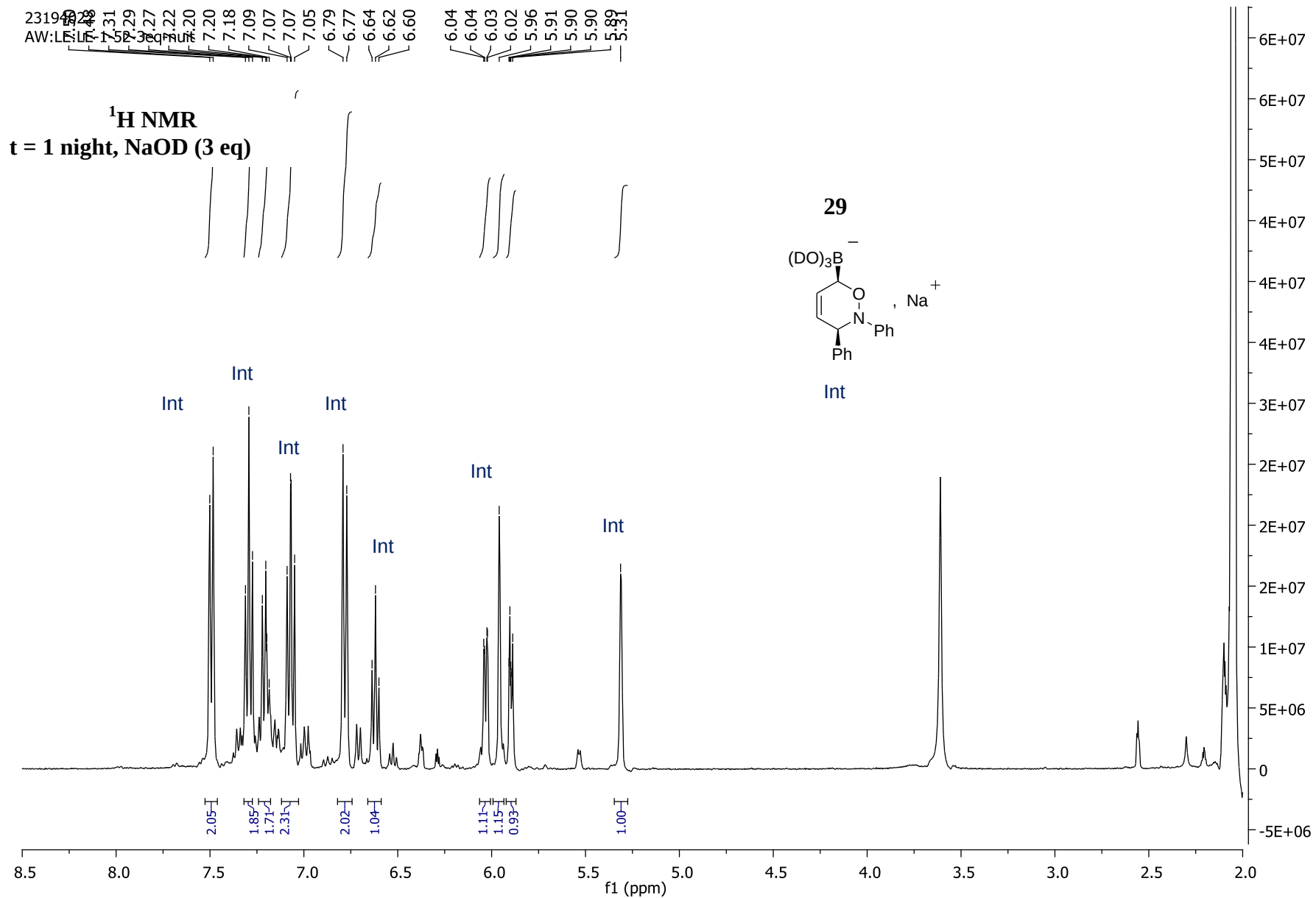




21175721
AW:LE:LE-1-52-NUIT

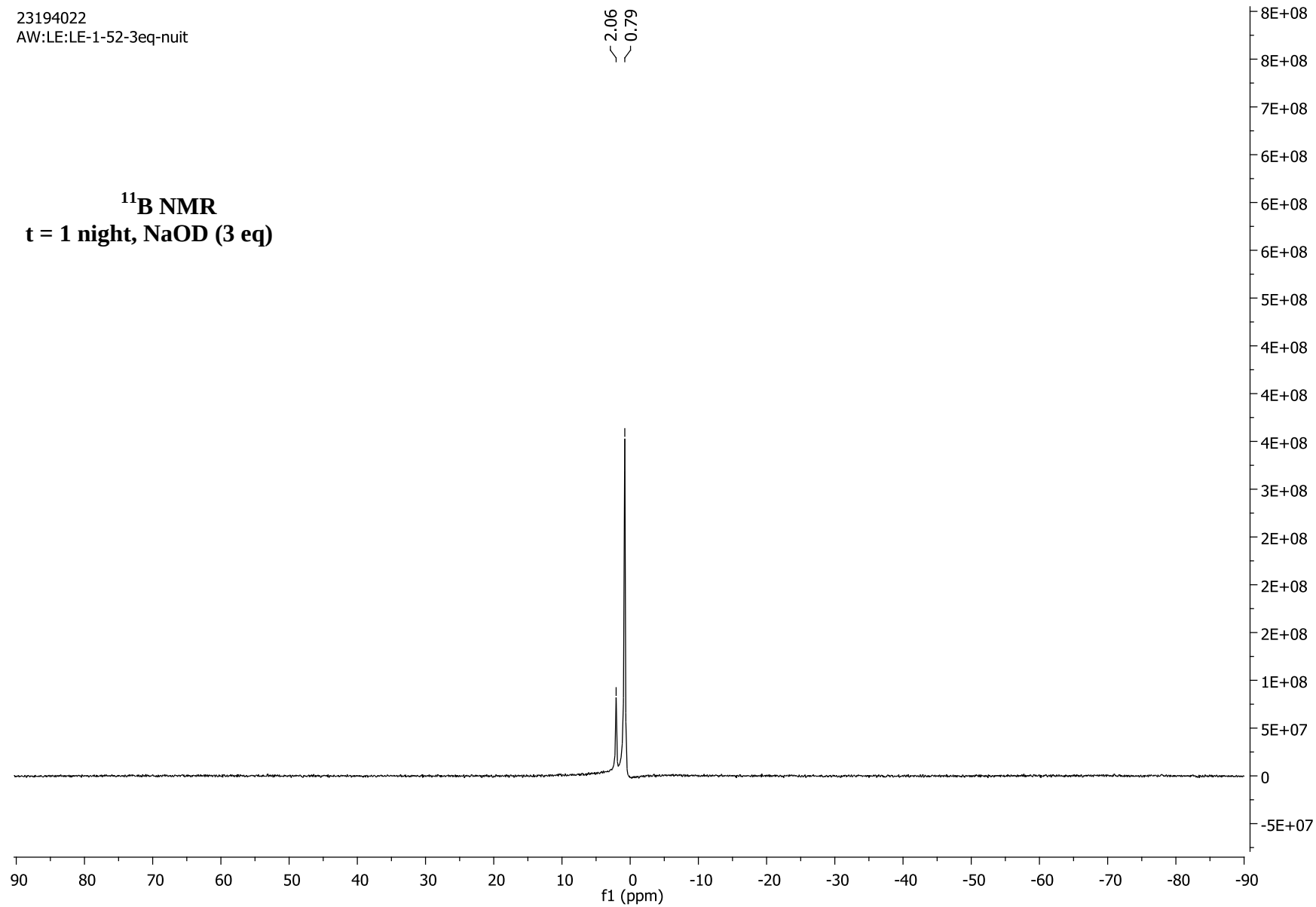
^{11}B NMR
t = 1 night, NaOD (1 eq)

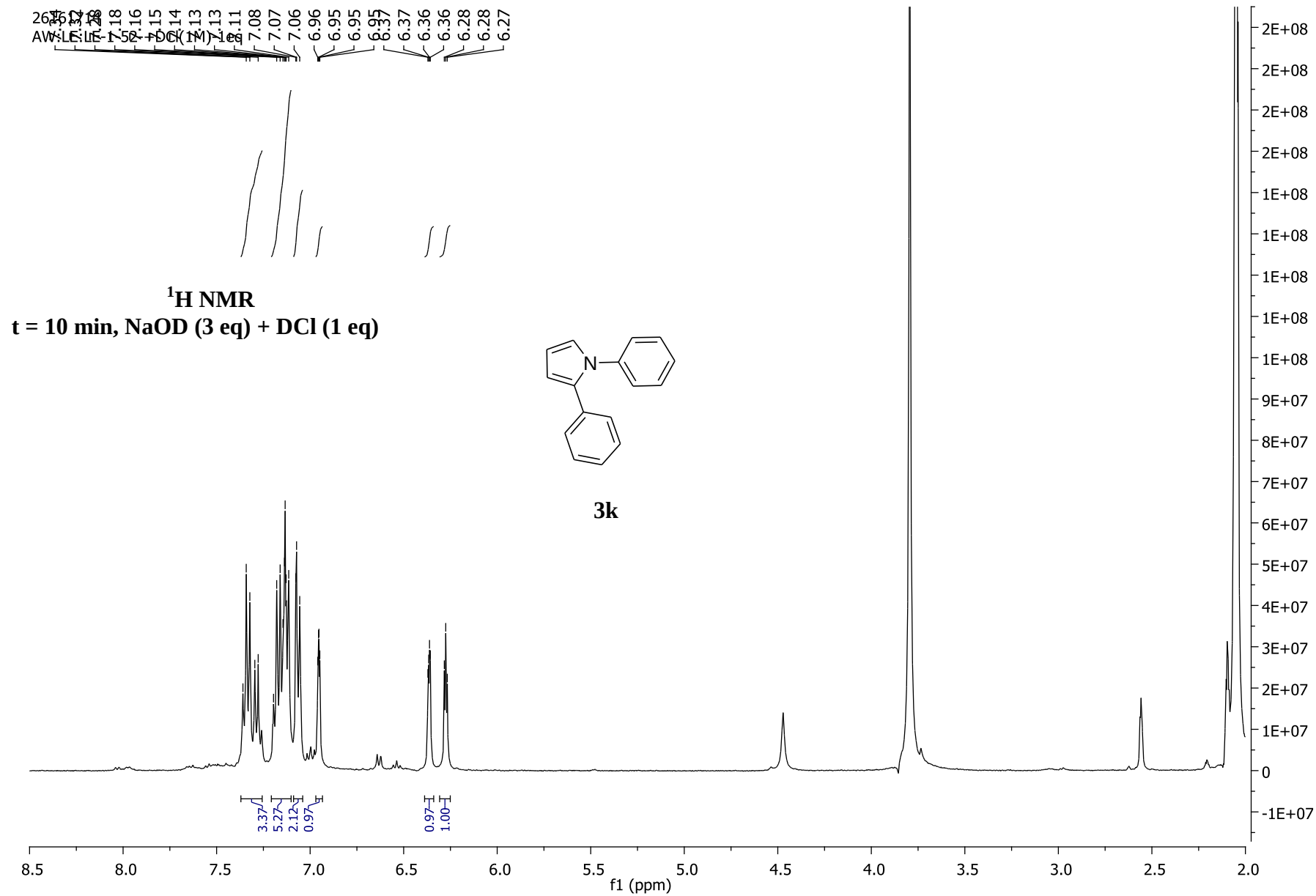




23194022
AW:LE:LE-1-52-3eq-nuit

^{11}B NMR
t = 1 night, NaOD (3 eq)

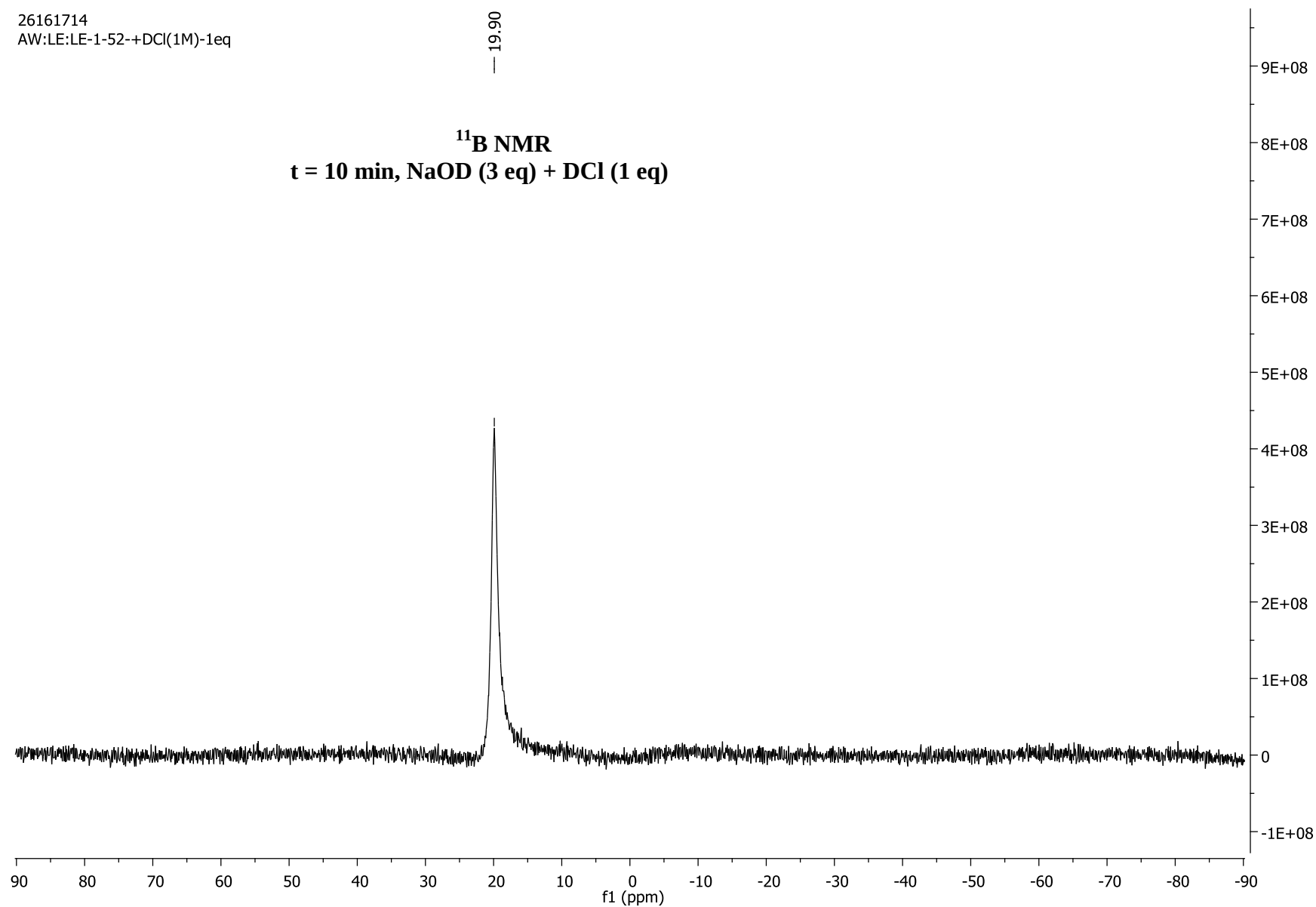




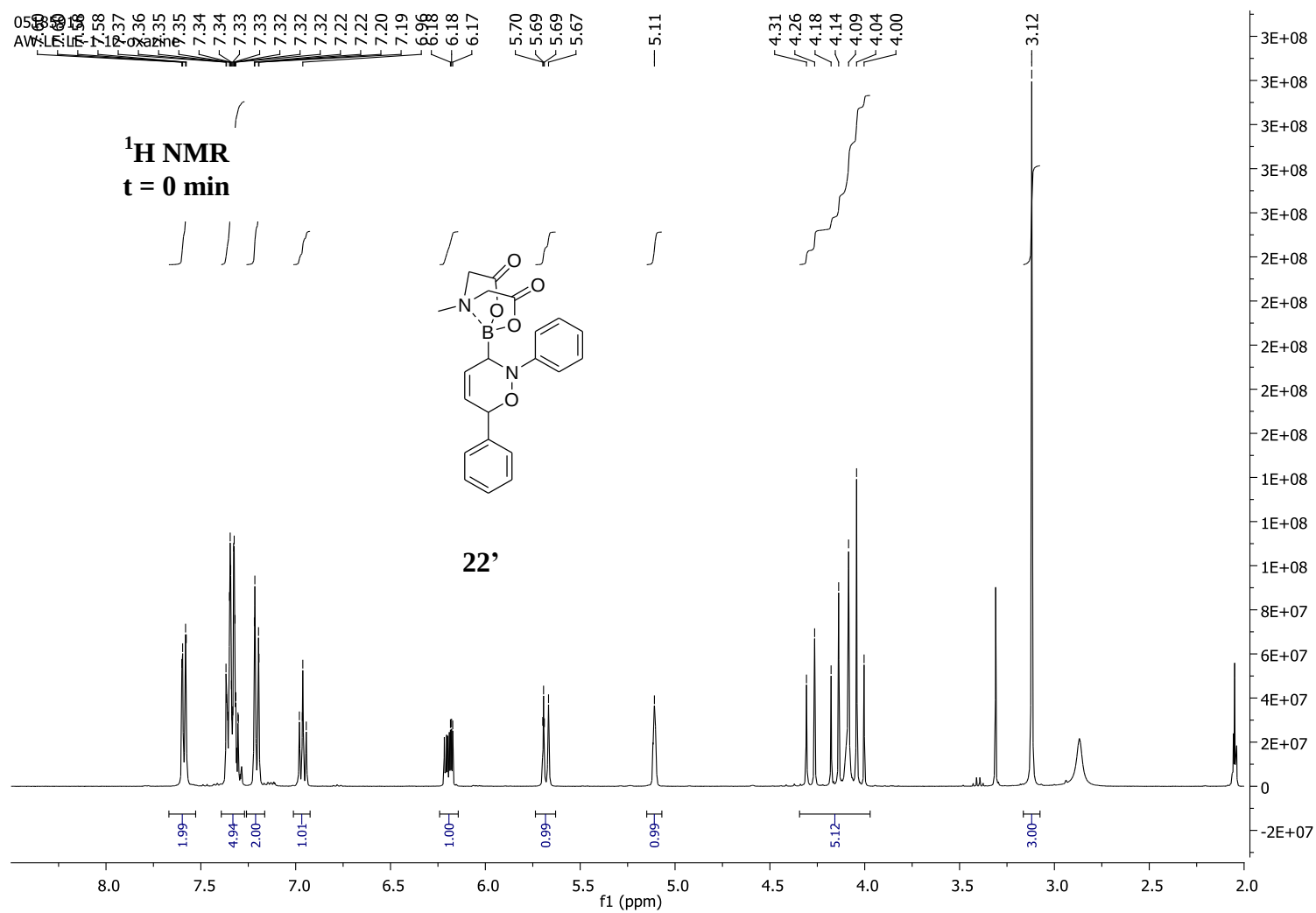
26161714
AW:LE:LE-1-52-+DCl(1M)-1eq

— 19.90

^{11}B NMR
t = 10 min, NaOD (3 eq) + DCl (1 eq)

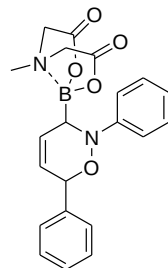


***In situ* ^1H and ^{11}B NMR study of the transformation of oxazine 22' in acid condition**

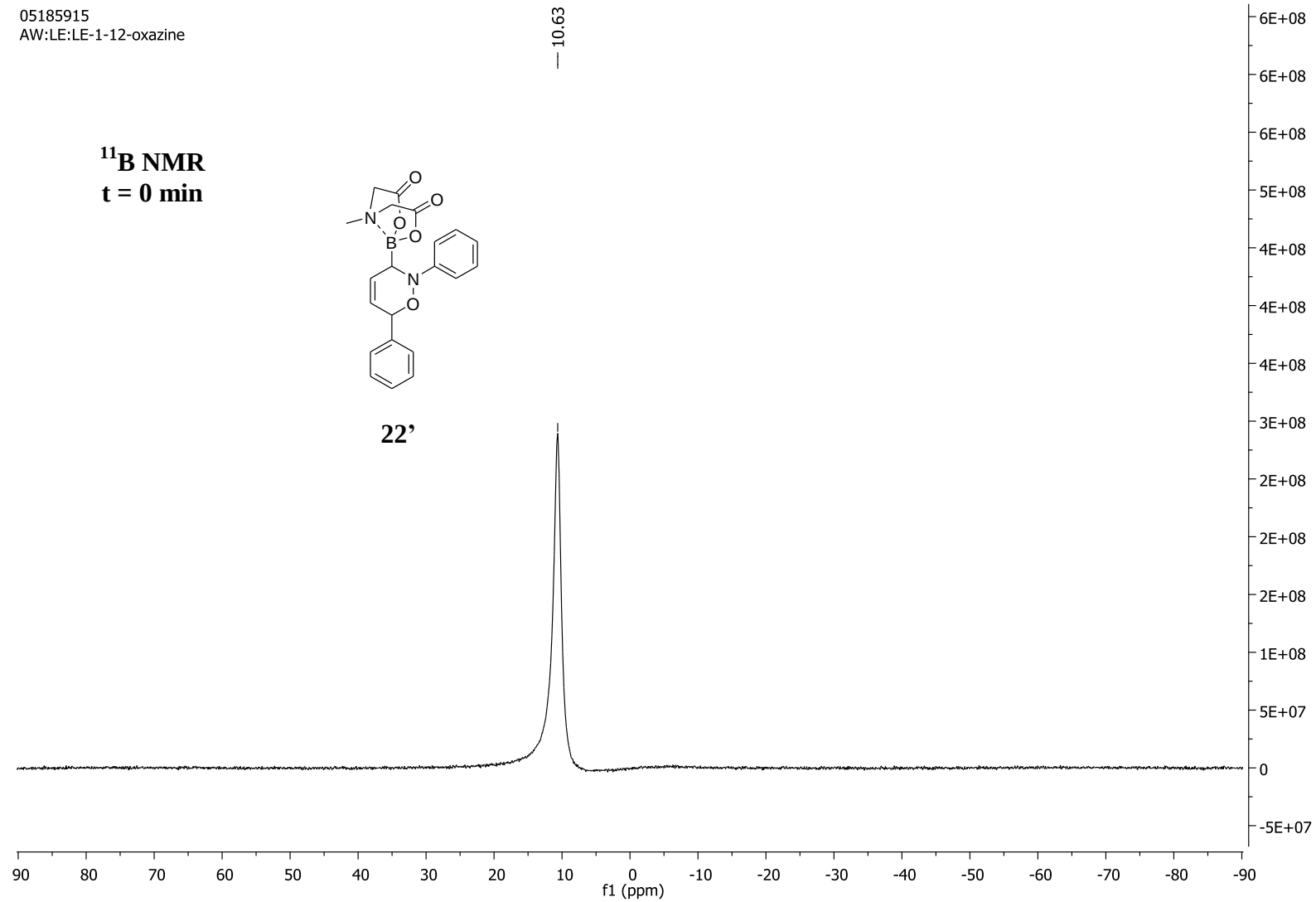


05185915
AW:LE:LE-1-12-oxazine

^{11}B NMR
t = 0 min

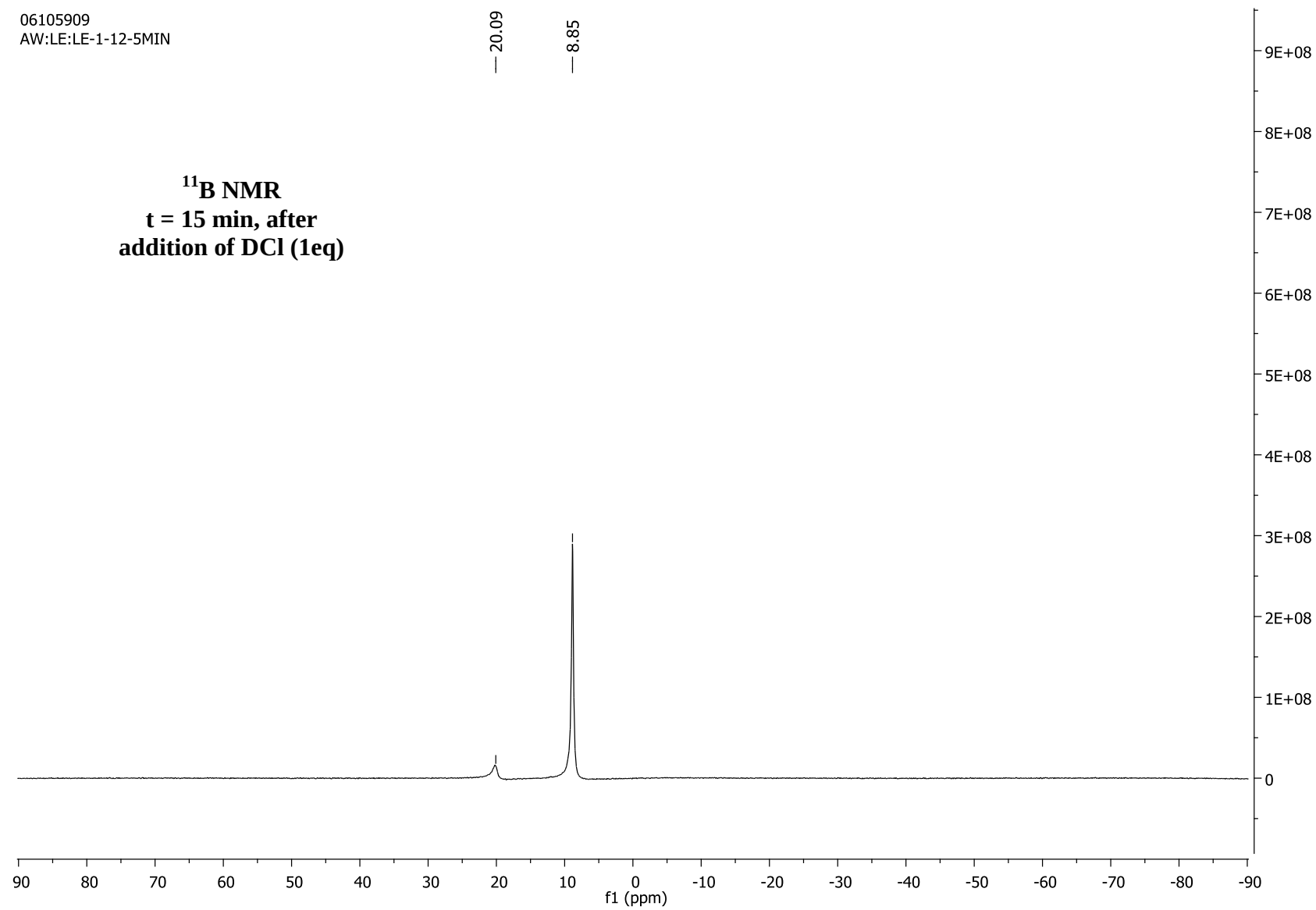


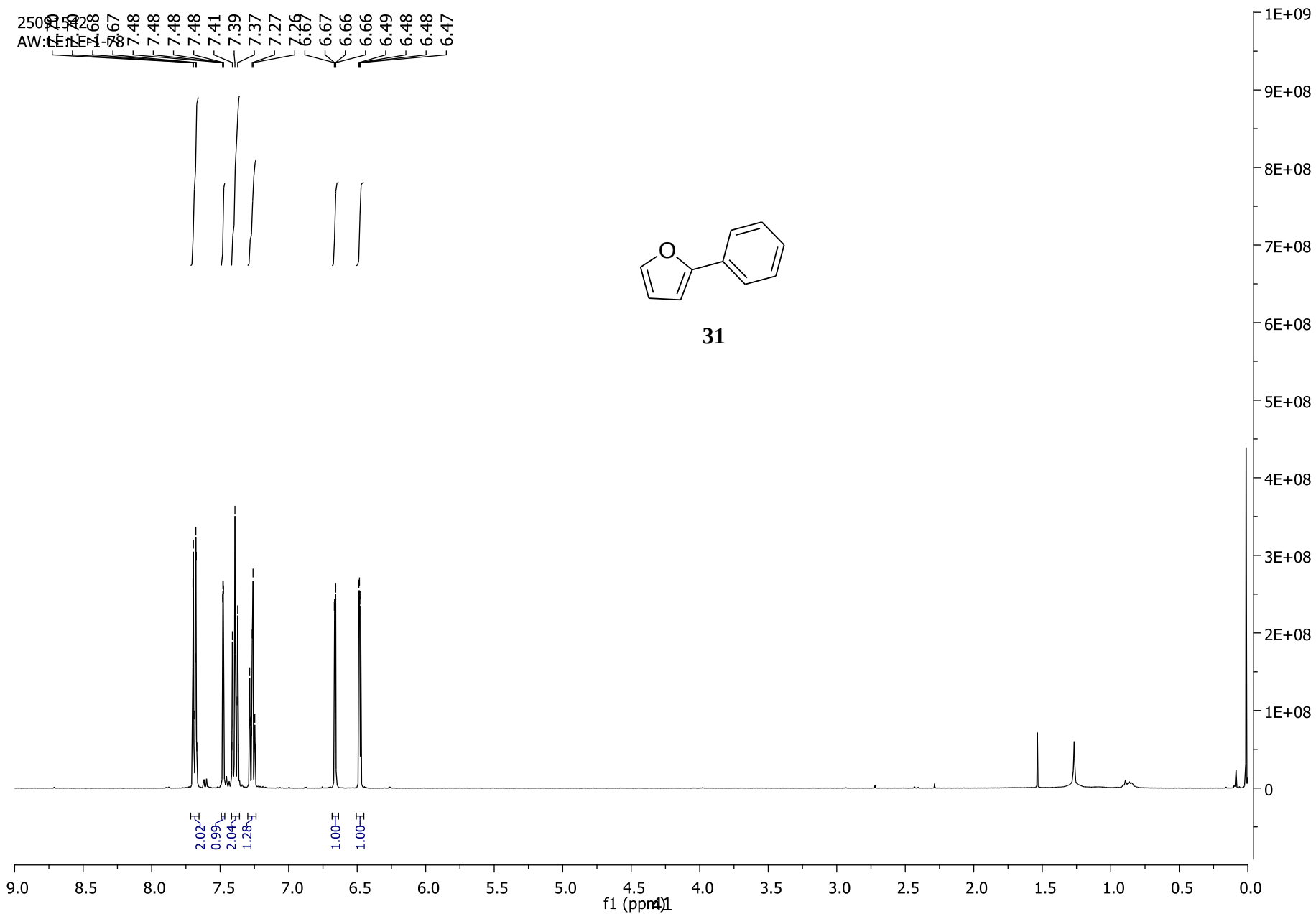
22'



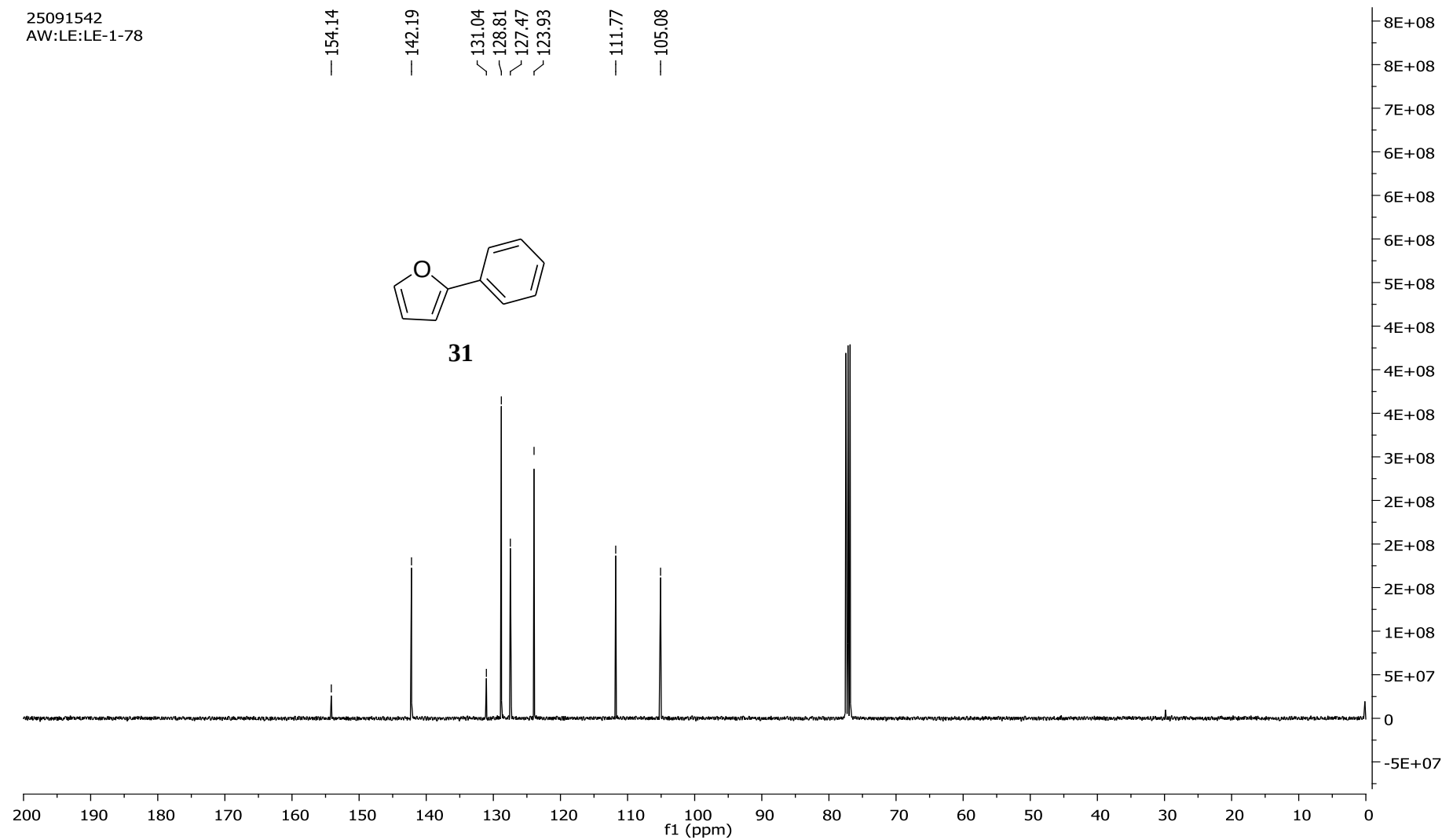
06105909
AW:LE:LE-1-12-5MIN

^{11}B NMR
t = 15 min, after
addition of DCl (1eq)

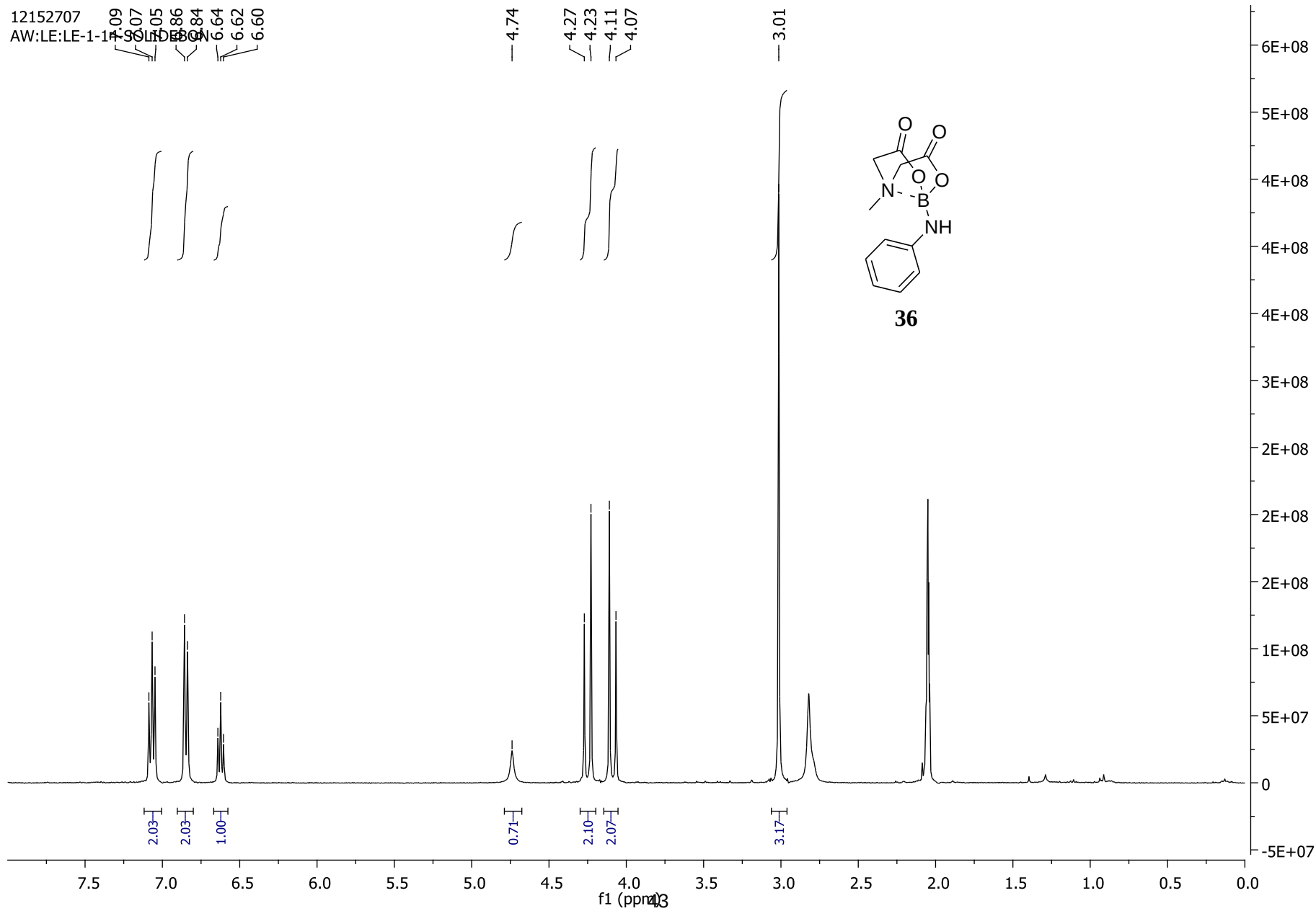




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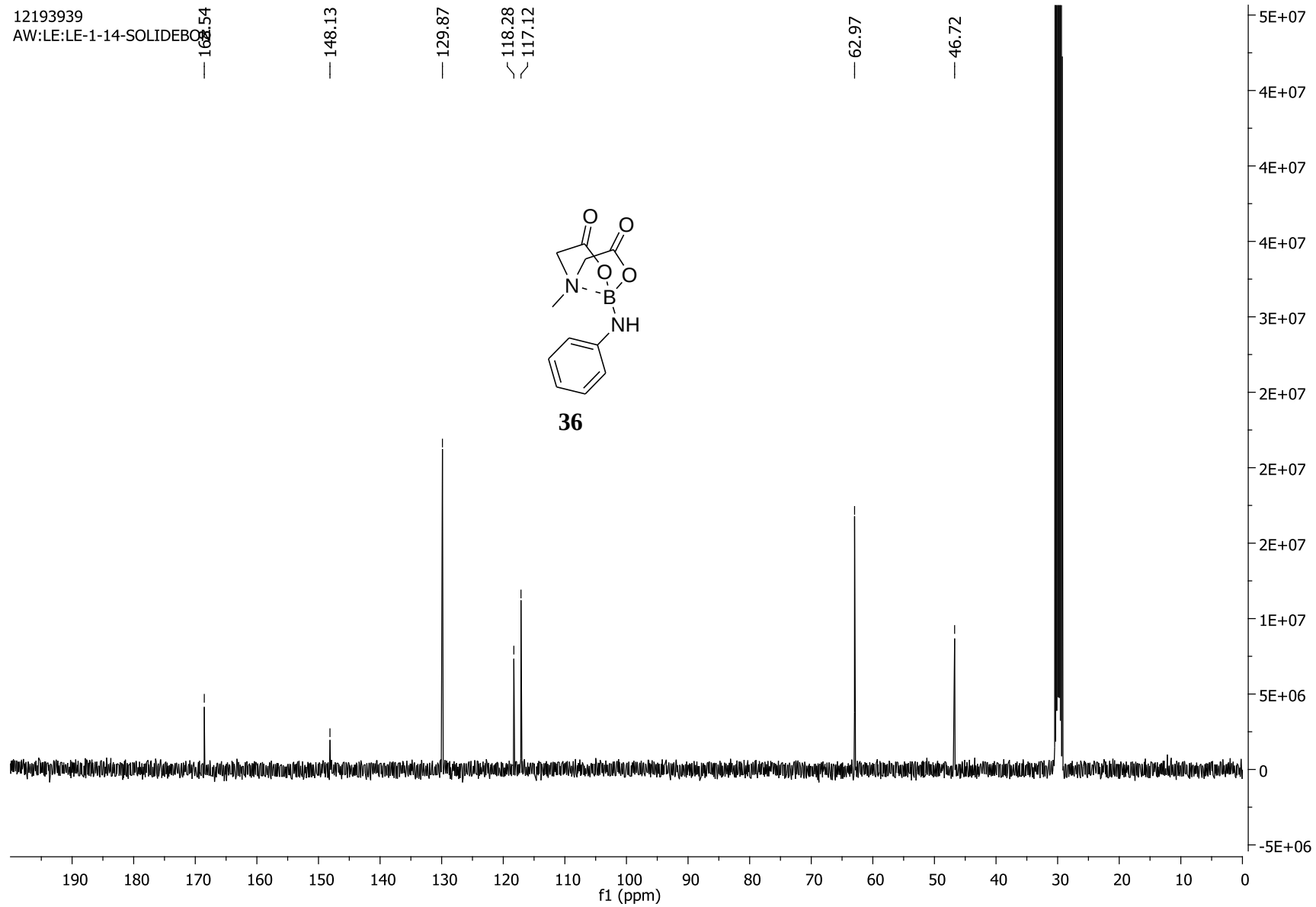


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AW:LE:LE-1-1

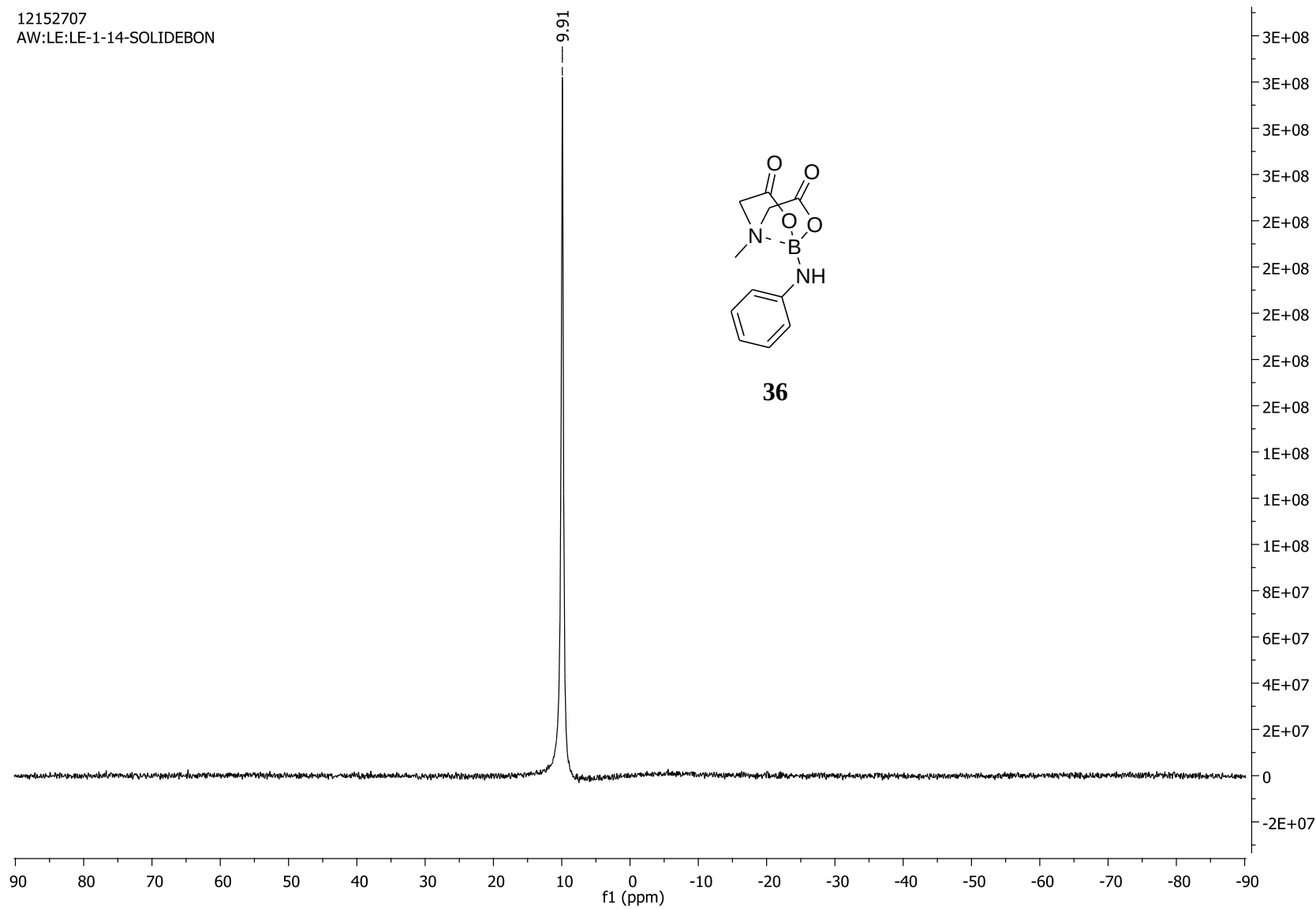


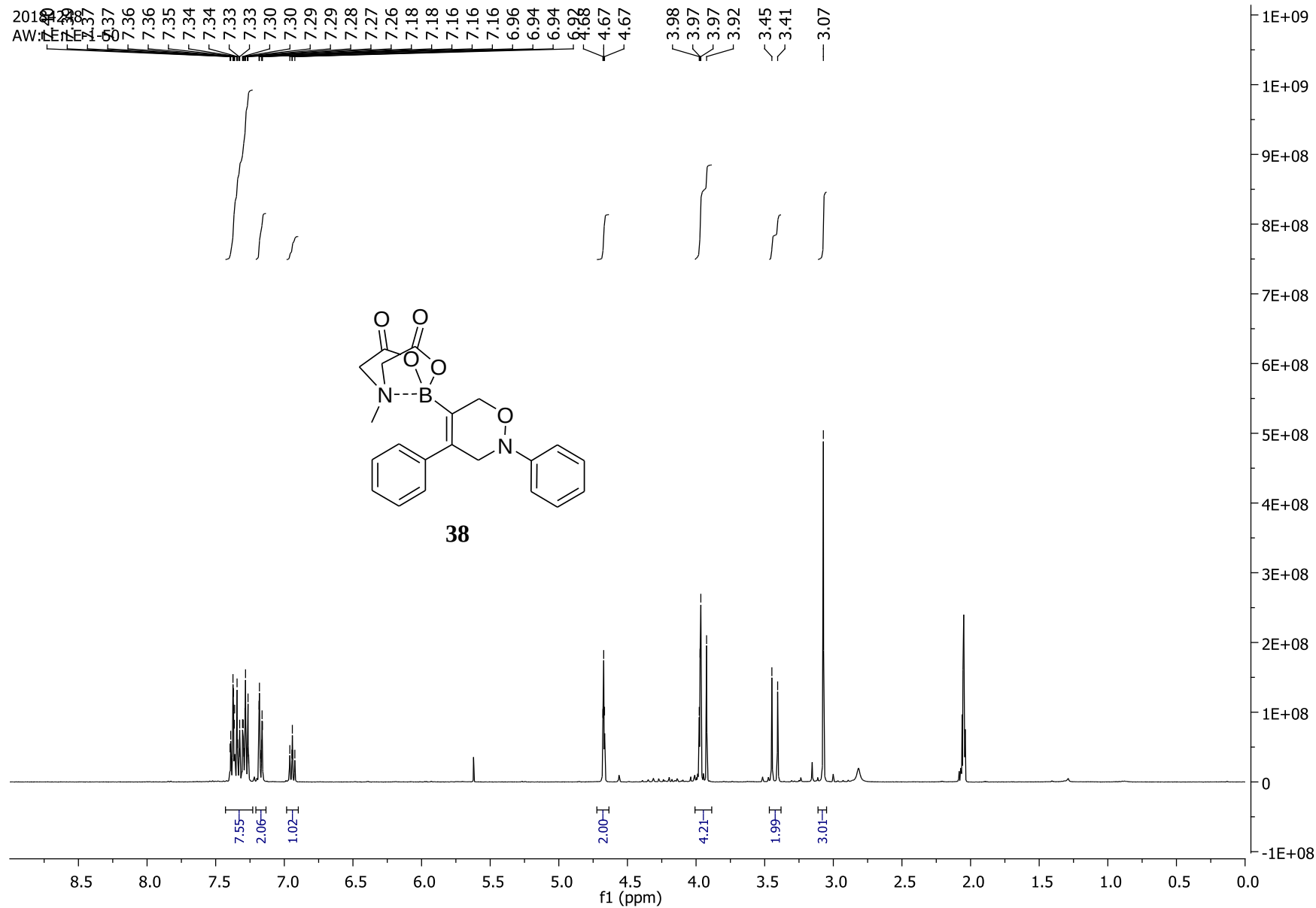
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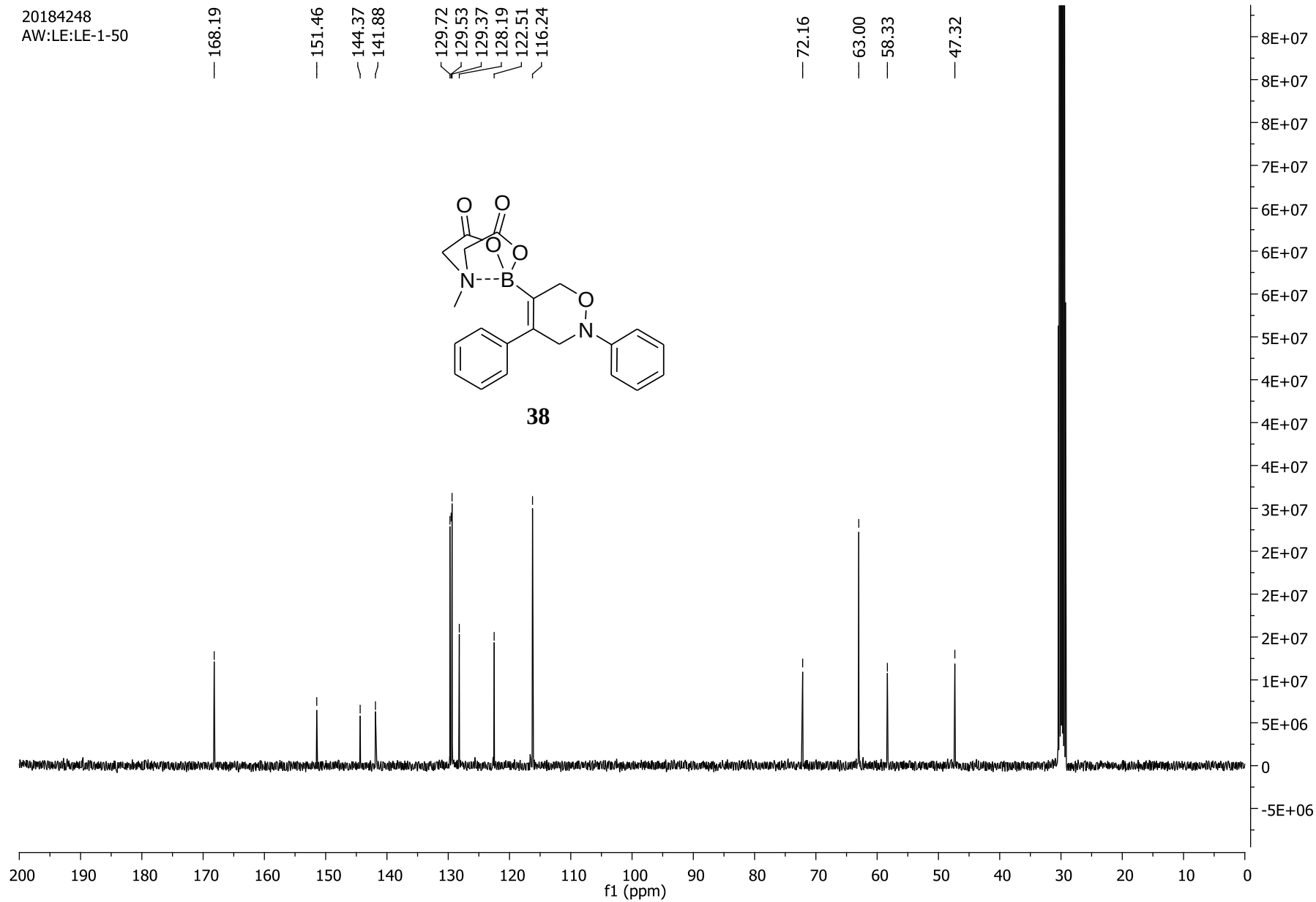


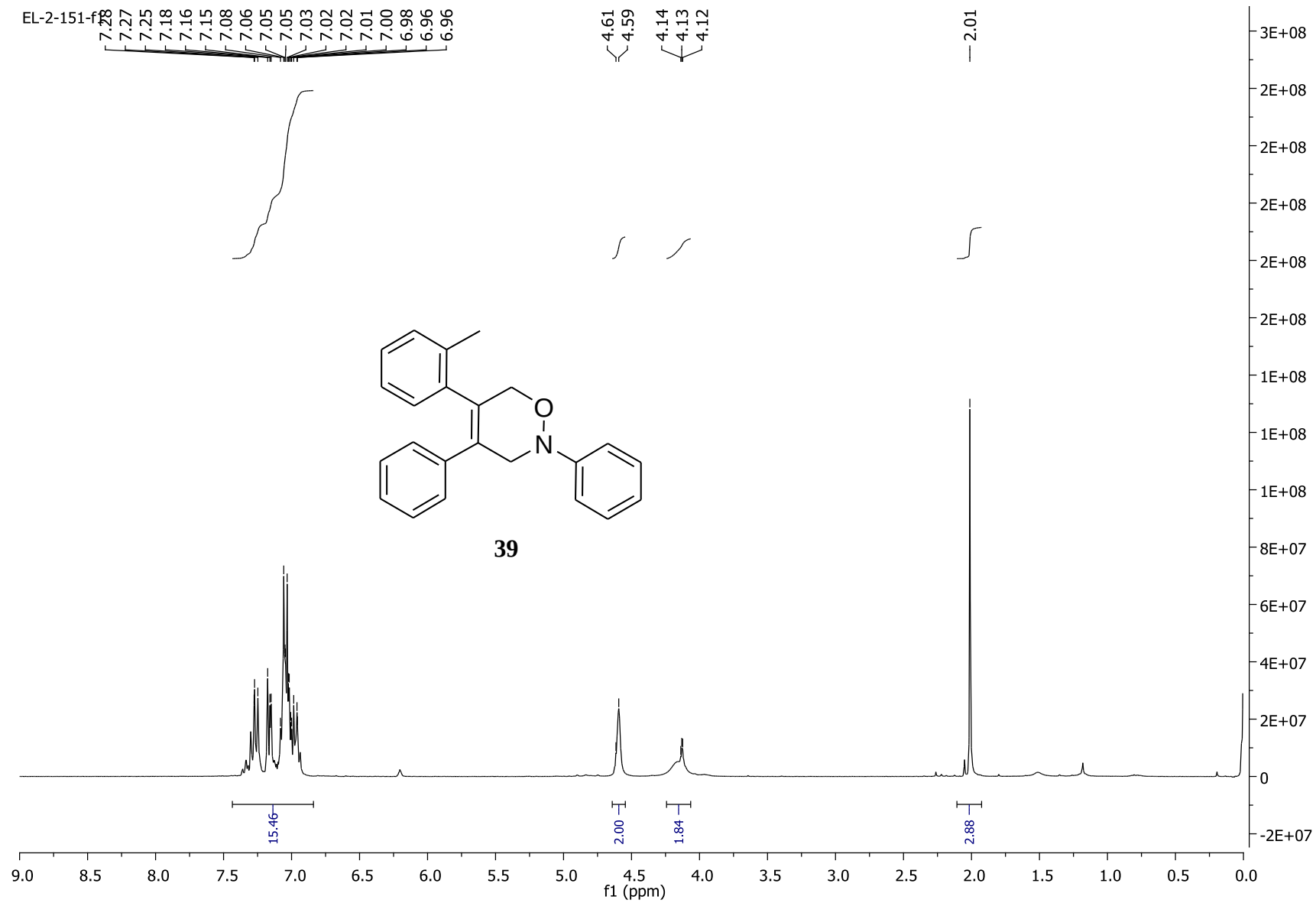
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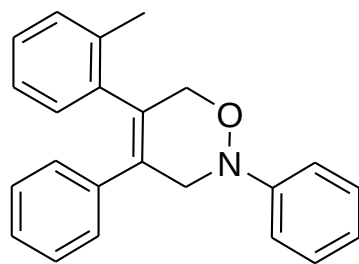


20184248
AW:LE:LE-1-50





EL-2-151-f1.10.1.1r



39

150.24
138.86
137.07
136.15
134.09
130.96
130.33
129.86
129.08
129.05
128.18
128.10
127.61
127.23
125.81
122.79
— 116.24

— 71.96

— 55.37

— 19.73

