

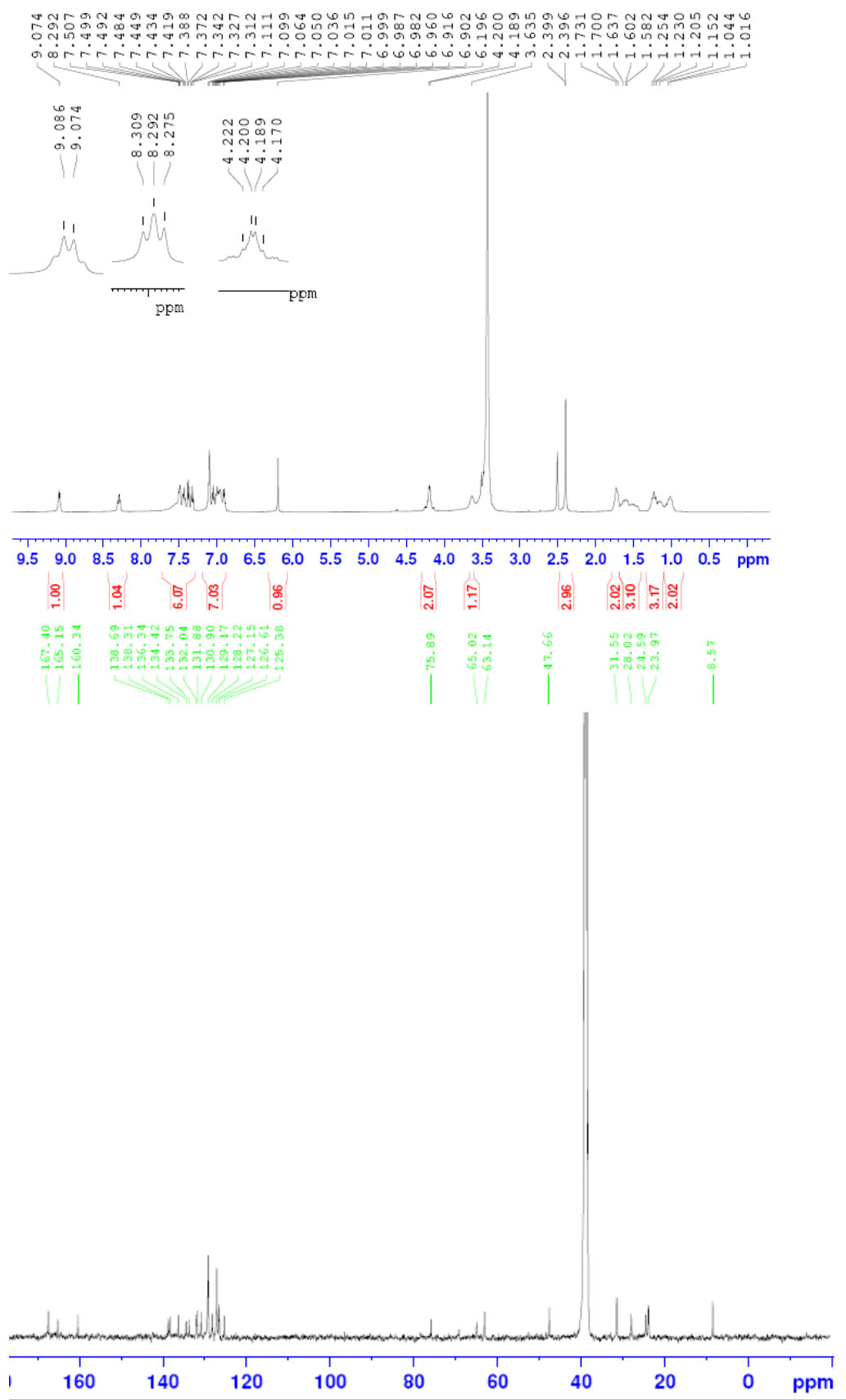
Synthesis of Highly Functionalized Macrocyclics by Tandem Multicomponent Reactions and Intramolecular Sonogashira Cross-Coupling

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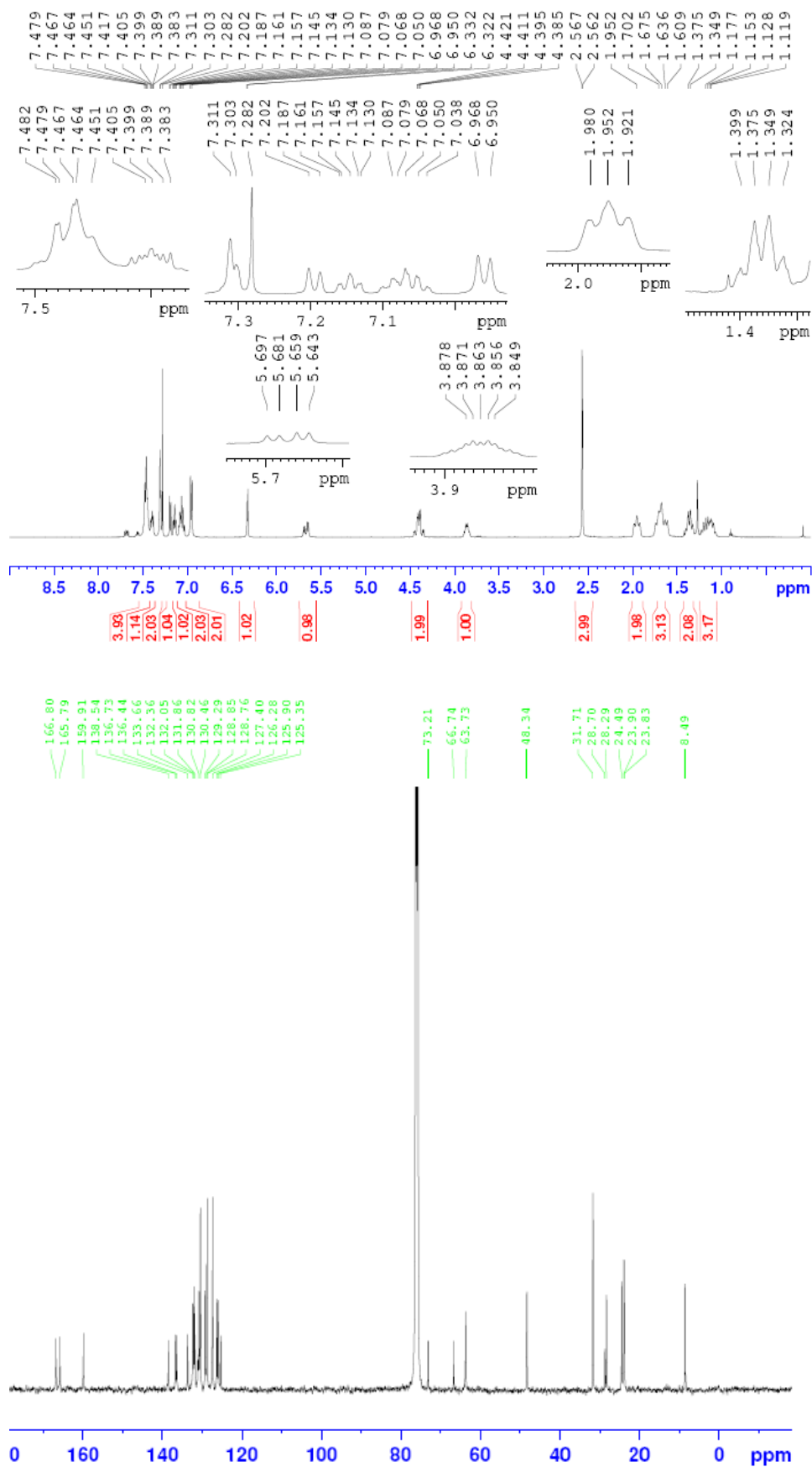
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Nanjing, 210094, P. R. *China*.

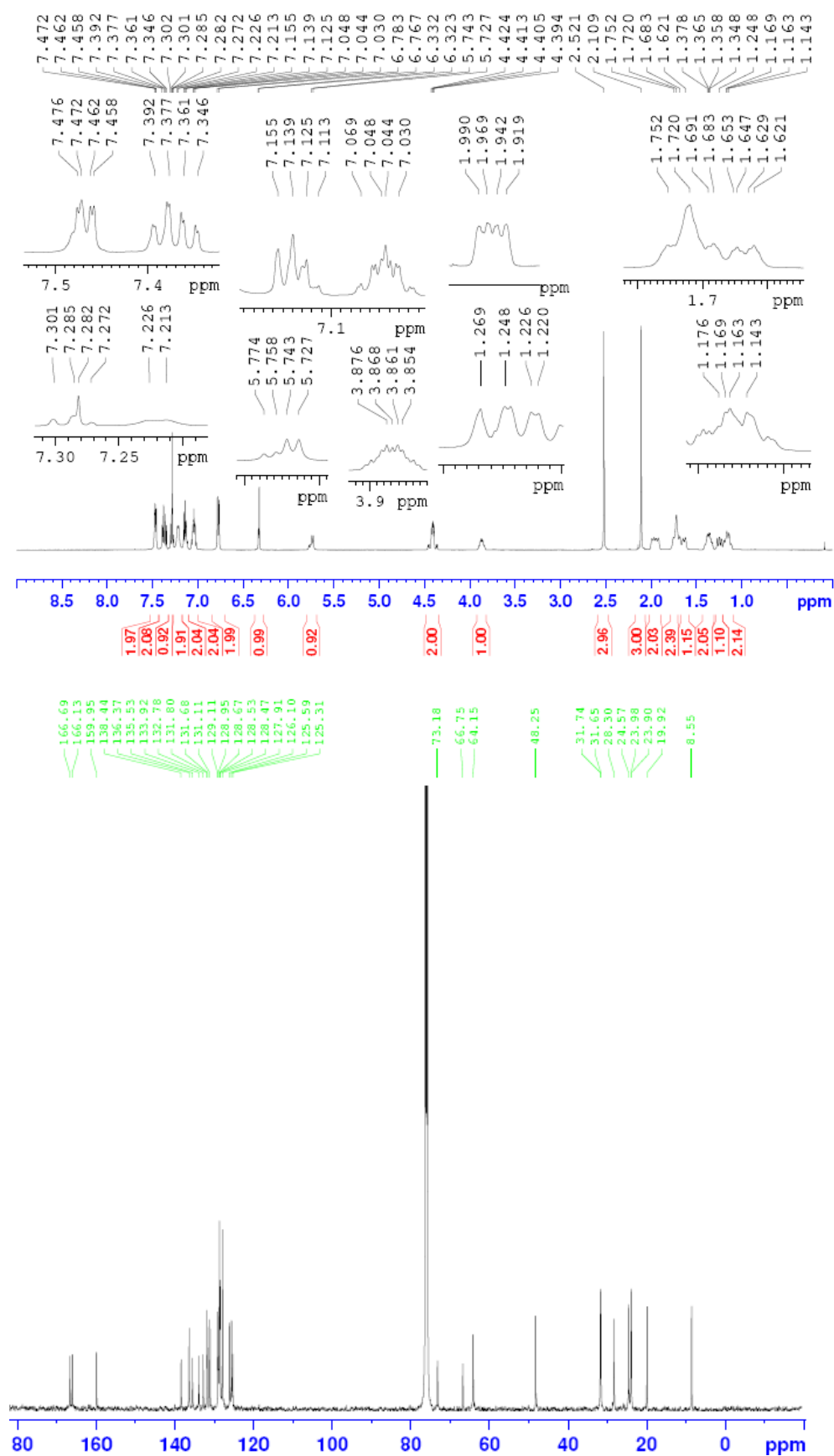
8a



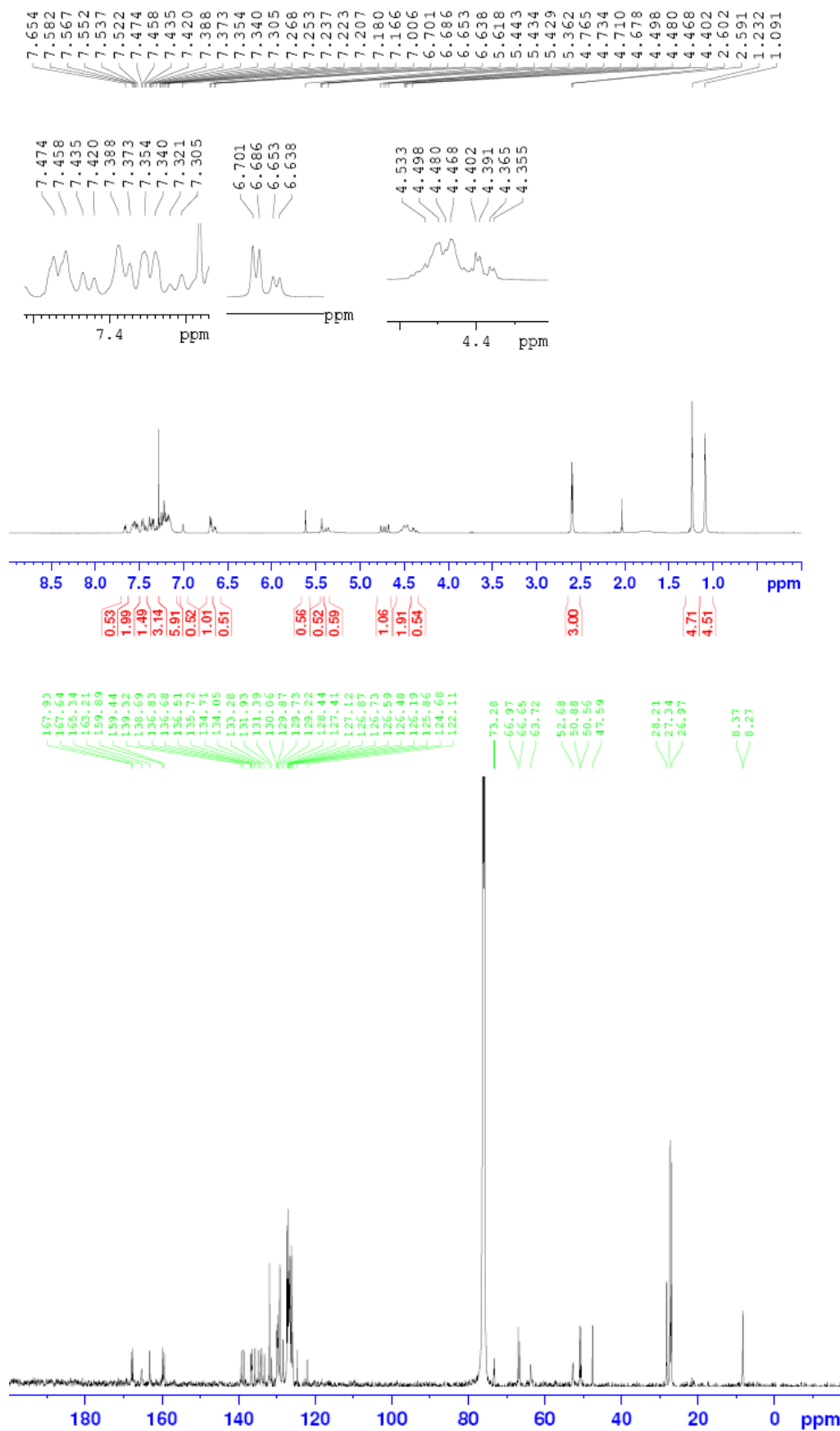
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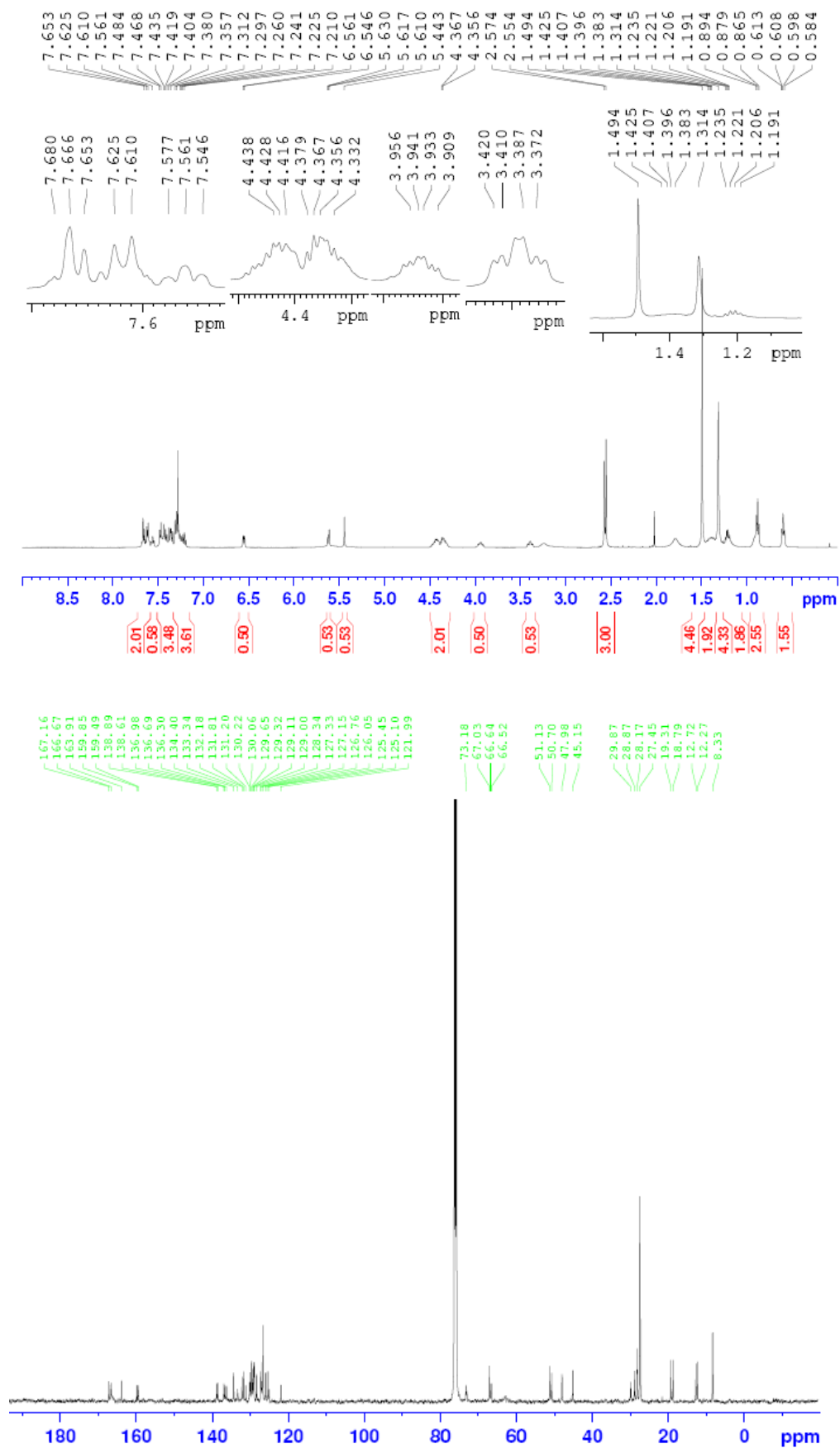
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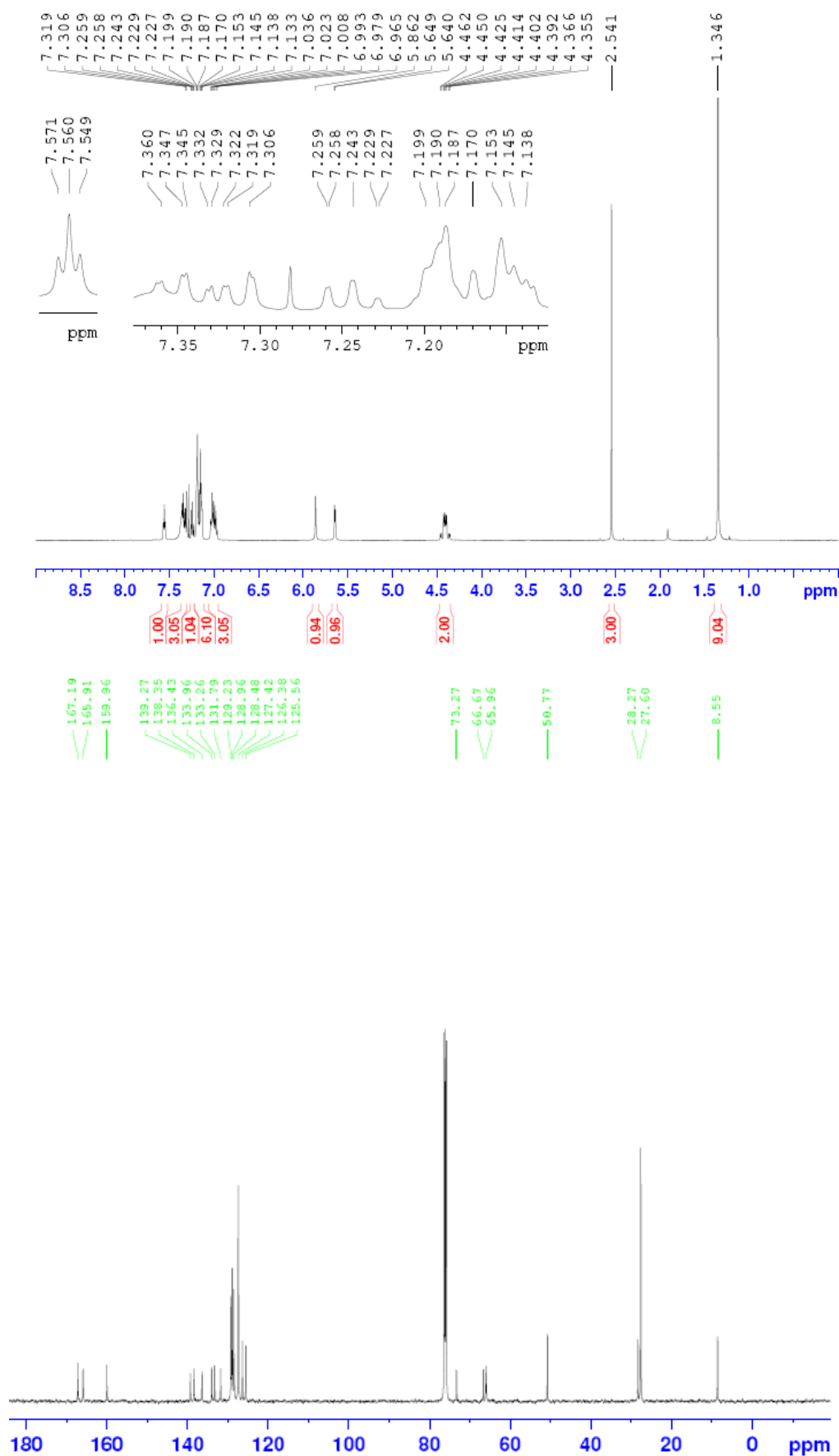
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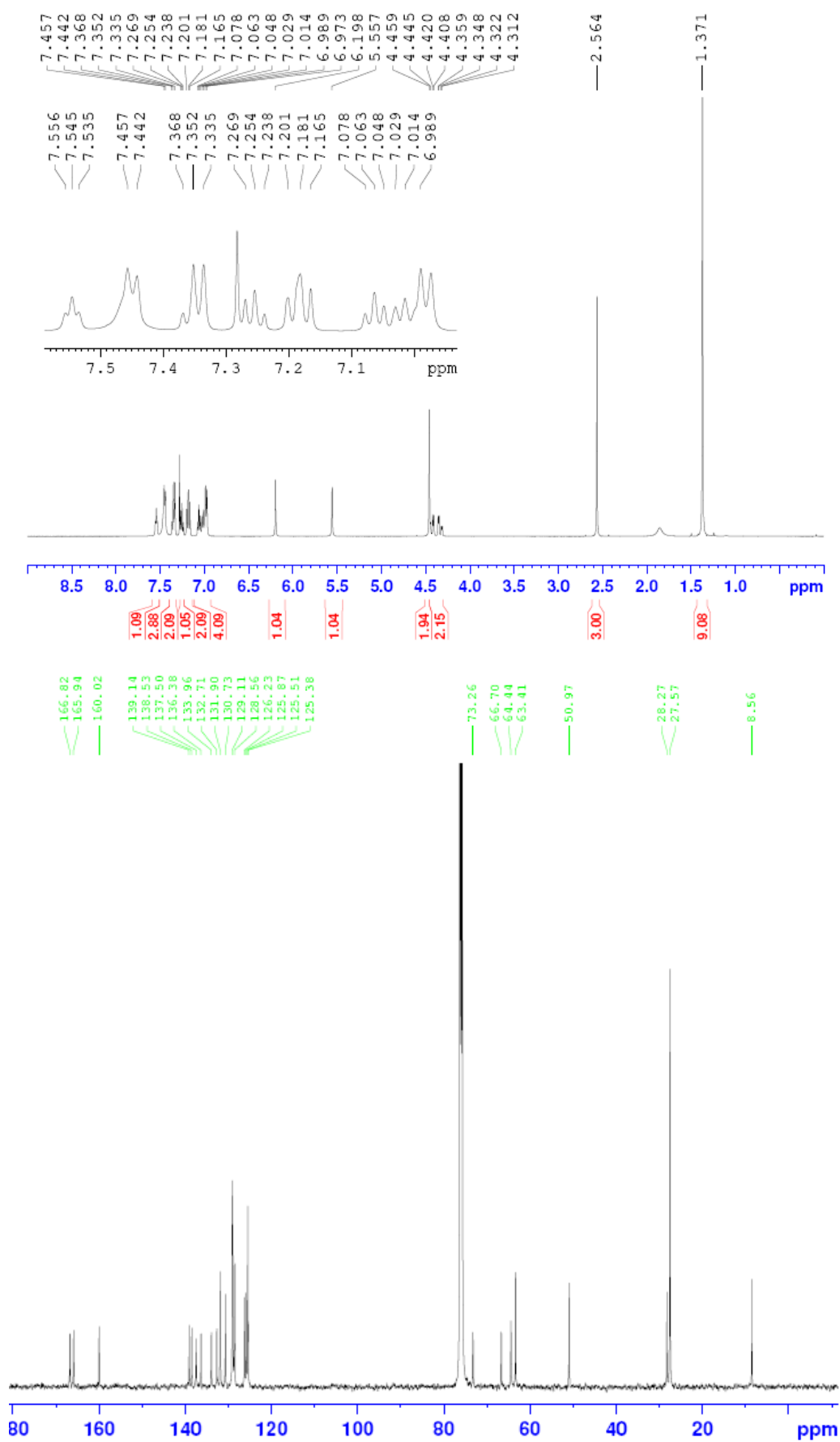
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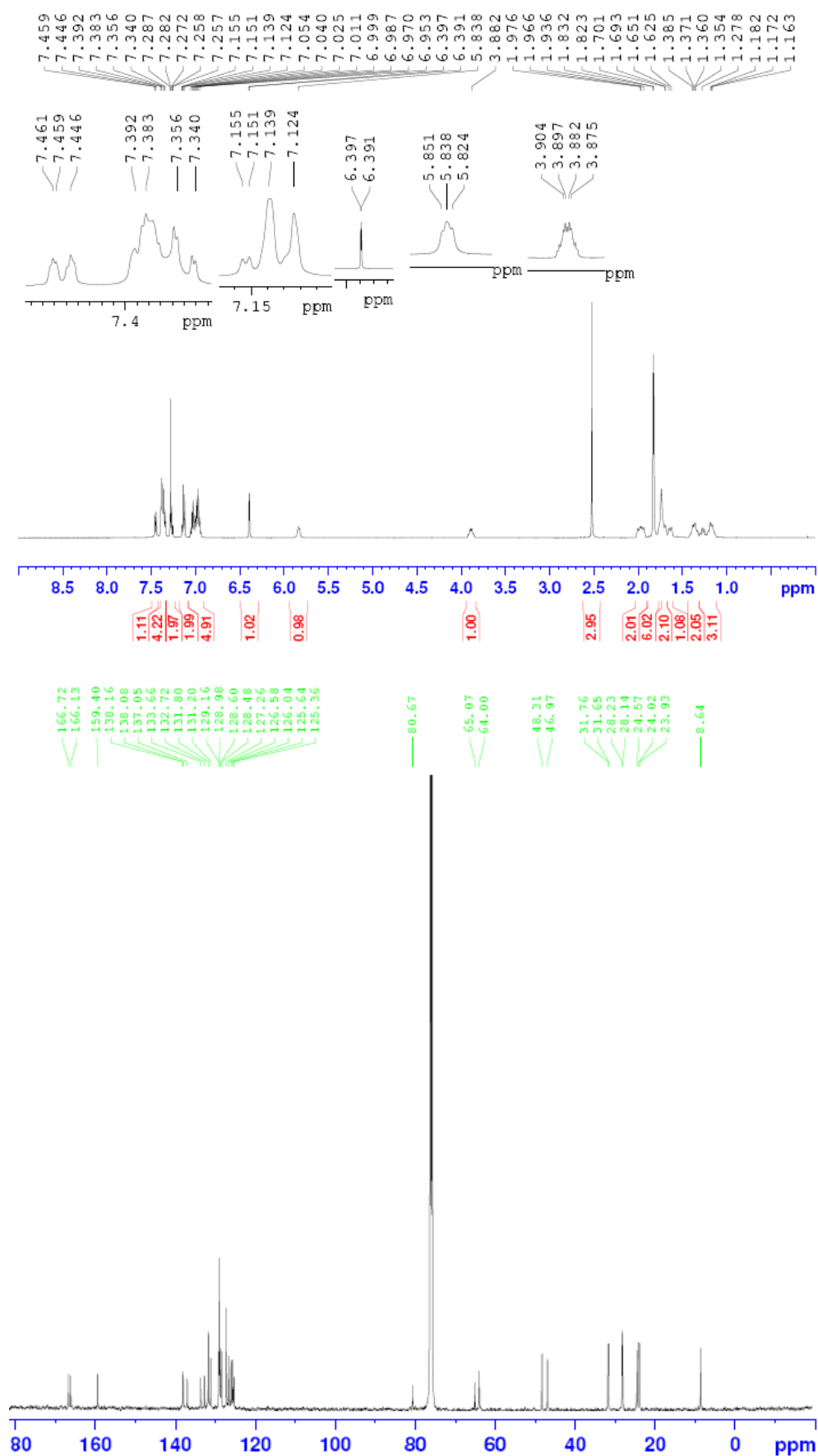
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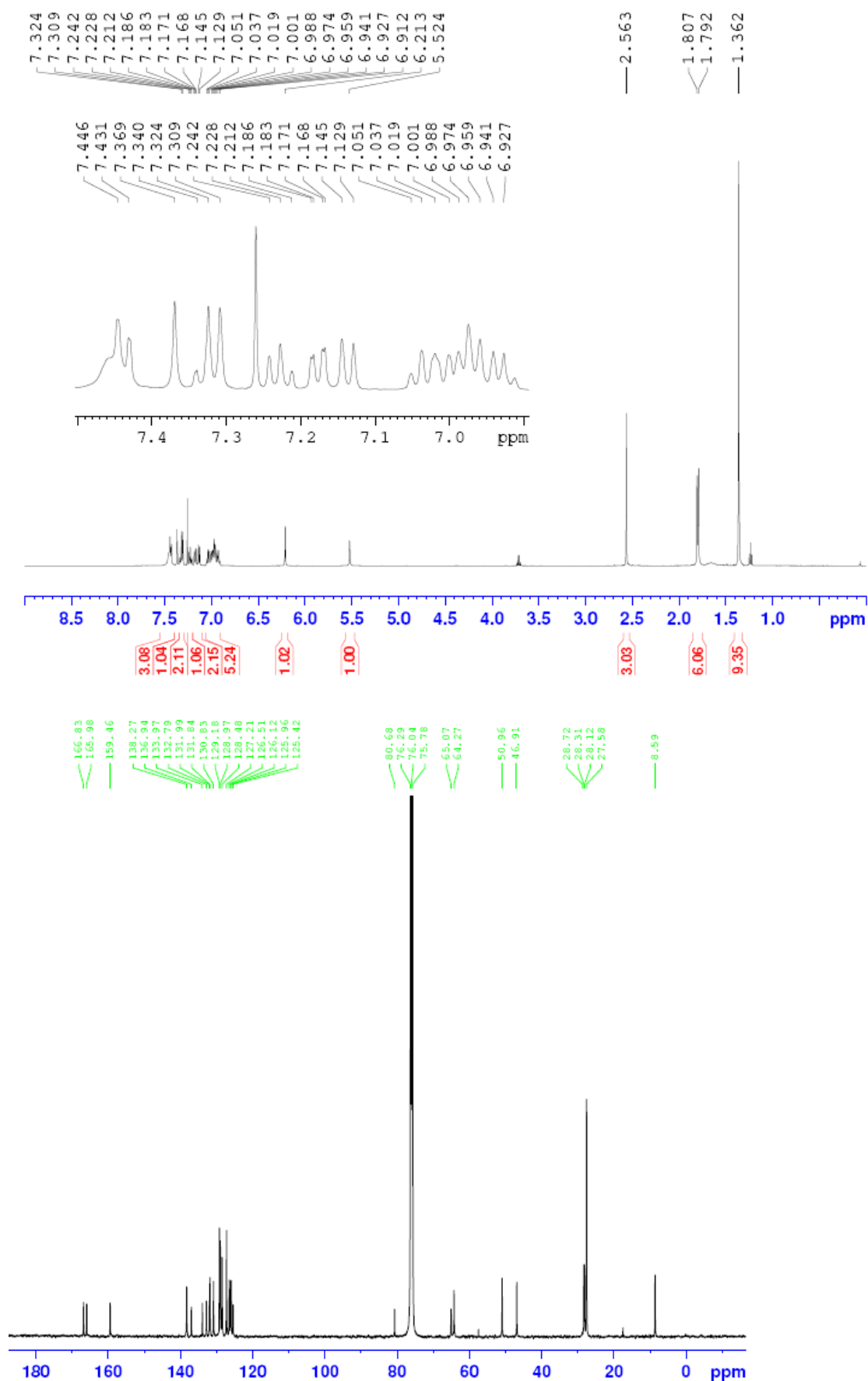
10g



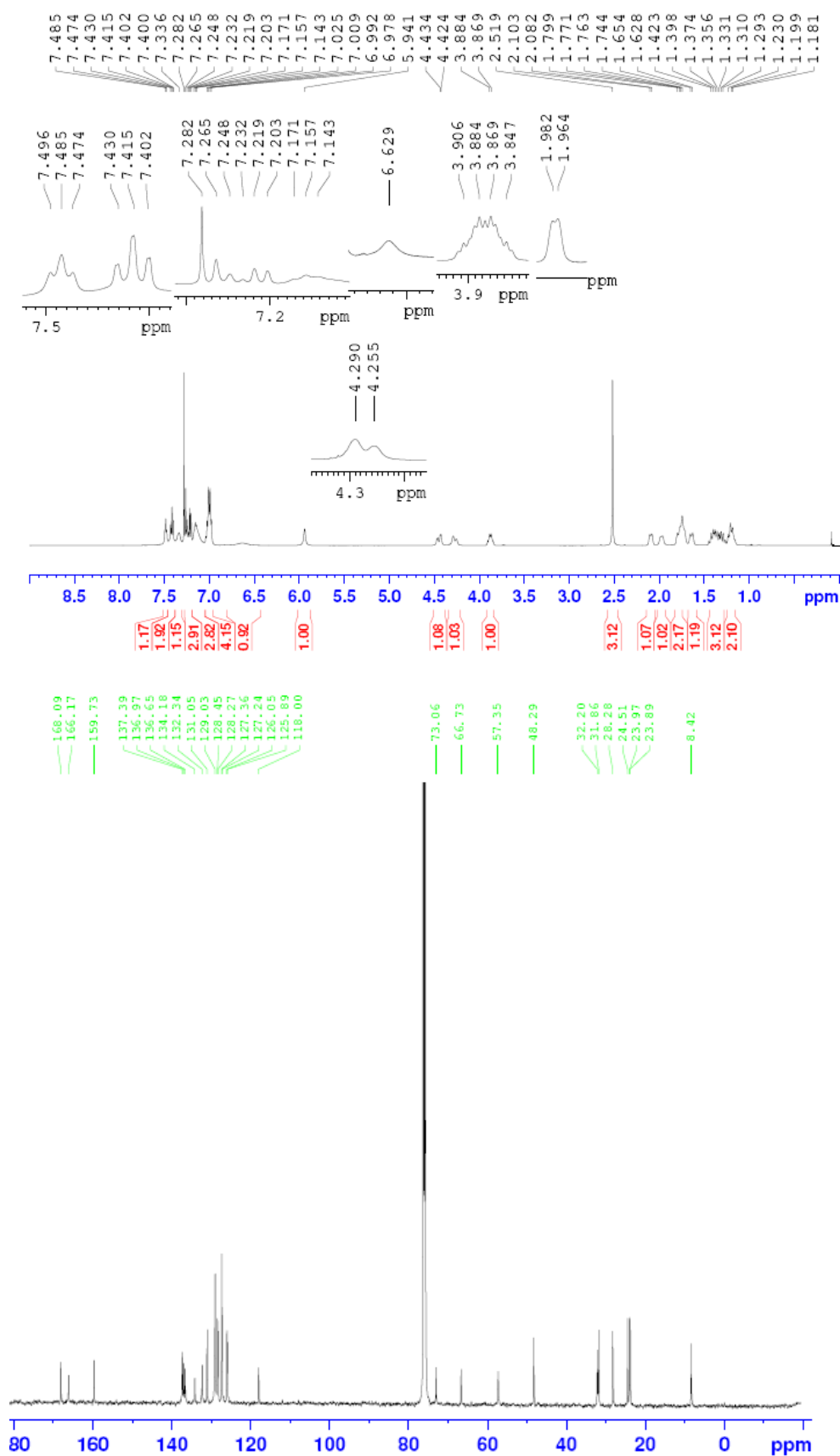
10h



8i



14a



The figure displays two NMR spectra for compound 1. The top spectrum is the ^1H NMR spectrum, recorded in CDCl_3 , showing peaks in the aromatic region (6.7–7.5 ppm) and aliphatic region (1.4–2.6 ppm). The bottom spectrum is the ^{13}C NMR spectrum, recorded in CDCl_3 , showing peaks from 8.4 to 168.3 ppm. Integration values are provided for the ^1H NMR peaks, and the solvent peak for CDCl_3 is visible in both spectra.

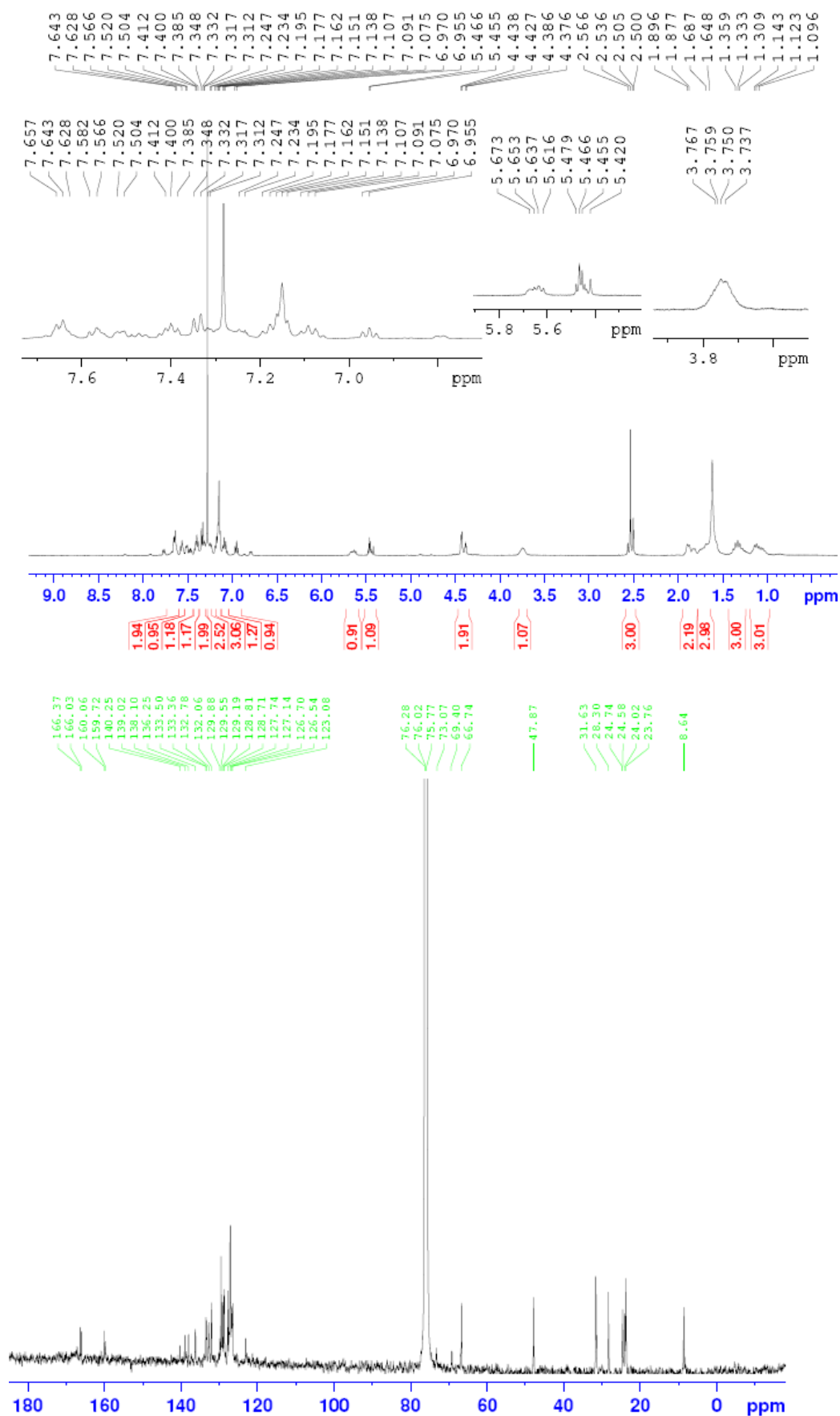
^1H NMR Data (ppm):

- 7.500, 7.489, 7.478, 7.428, 7.413, 7.250, 7.205, 7.190, 7.167, 7.281, 7.263, 7.250, 7.153, 7.139, 7.139, 7.008, 7.167, 7.153, 6.992, 6.990, 6.977, 6.974, 6.974, 6.786, 6.770, 6.667, 5.824, 4.460, 4.449, 4.424, 4.413, 4.279, 4.245
- 2.508, 2.139, 1.436

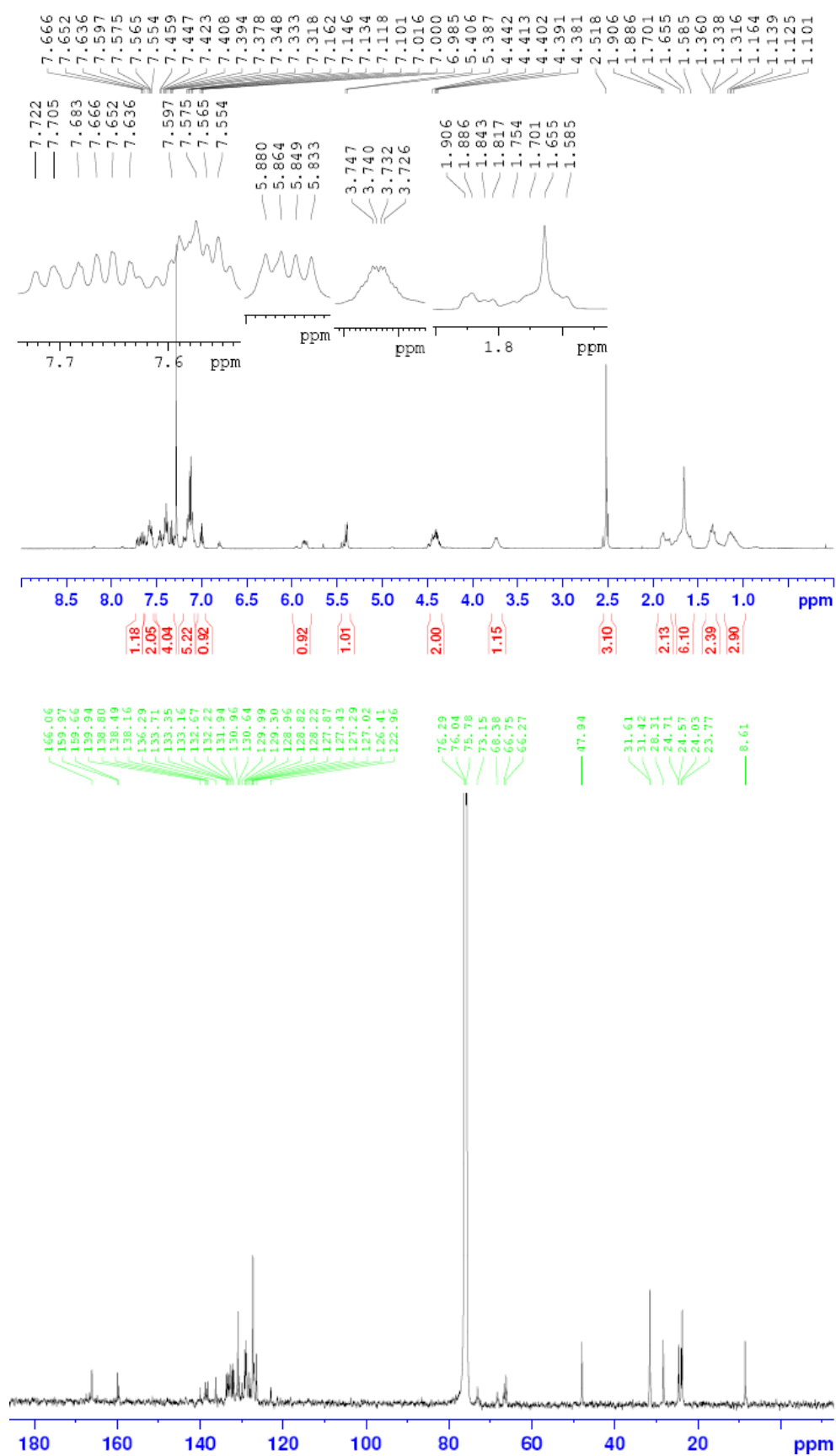
^{13}C NMR Data (ppm):

- 168.31, 166.31, 159.79, 137.35, 137.13, 136.92, 136.80, 134.55, 134.19, 132.51, 131.22, 131.05, 128.90, 128.79, 128.22, 128.00, 125.94, 125.86, 118.07, 73.07, 66.72, 57.39, 51.05, 28.26, 27.74, 20.00, 8.41

18a



18b



18c

