

*Supporting information*

**Pyrimethanil ionic liquids paired with various natural organic acid anions for reducing its adverse impacts on the environment**

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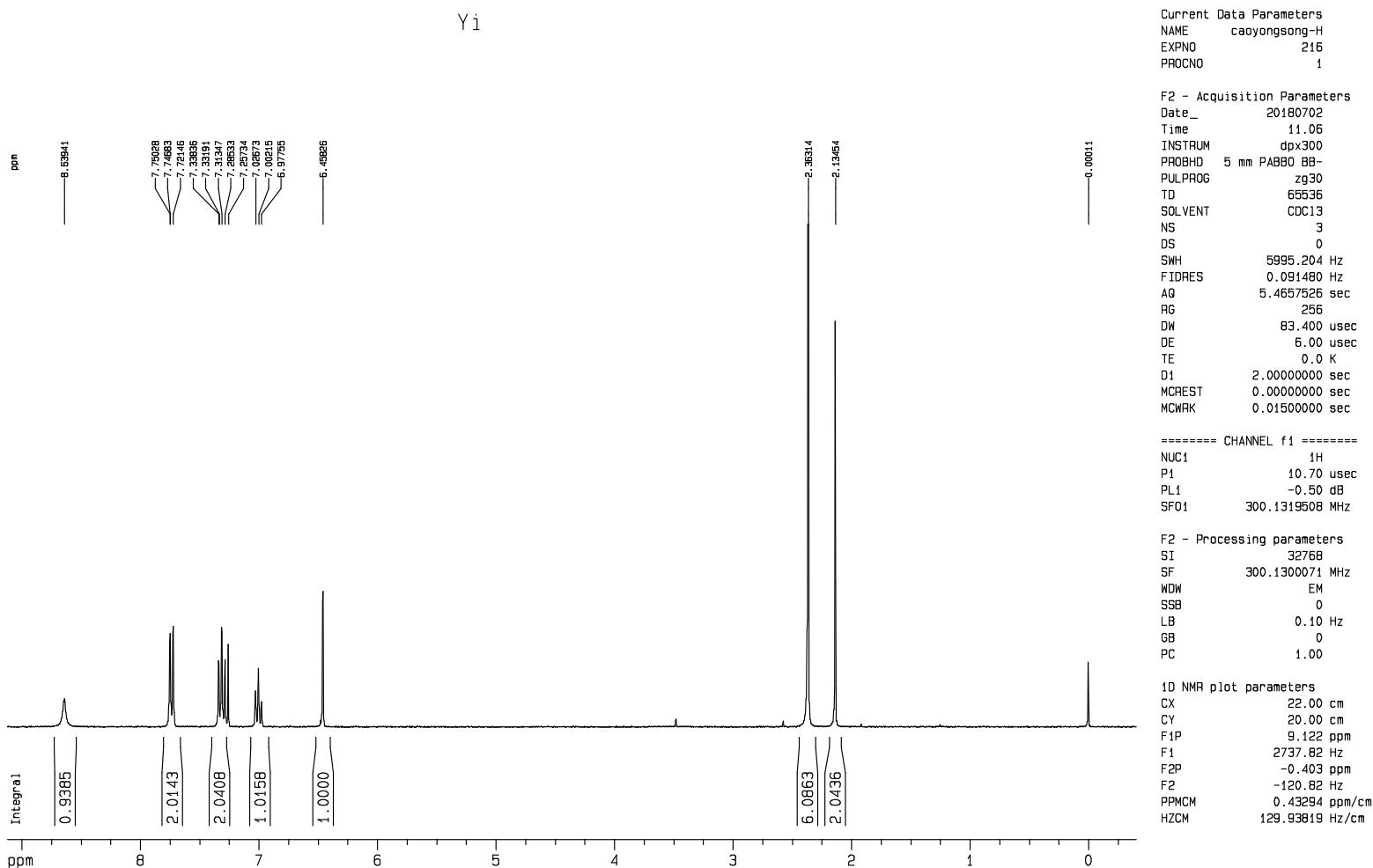
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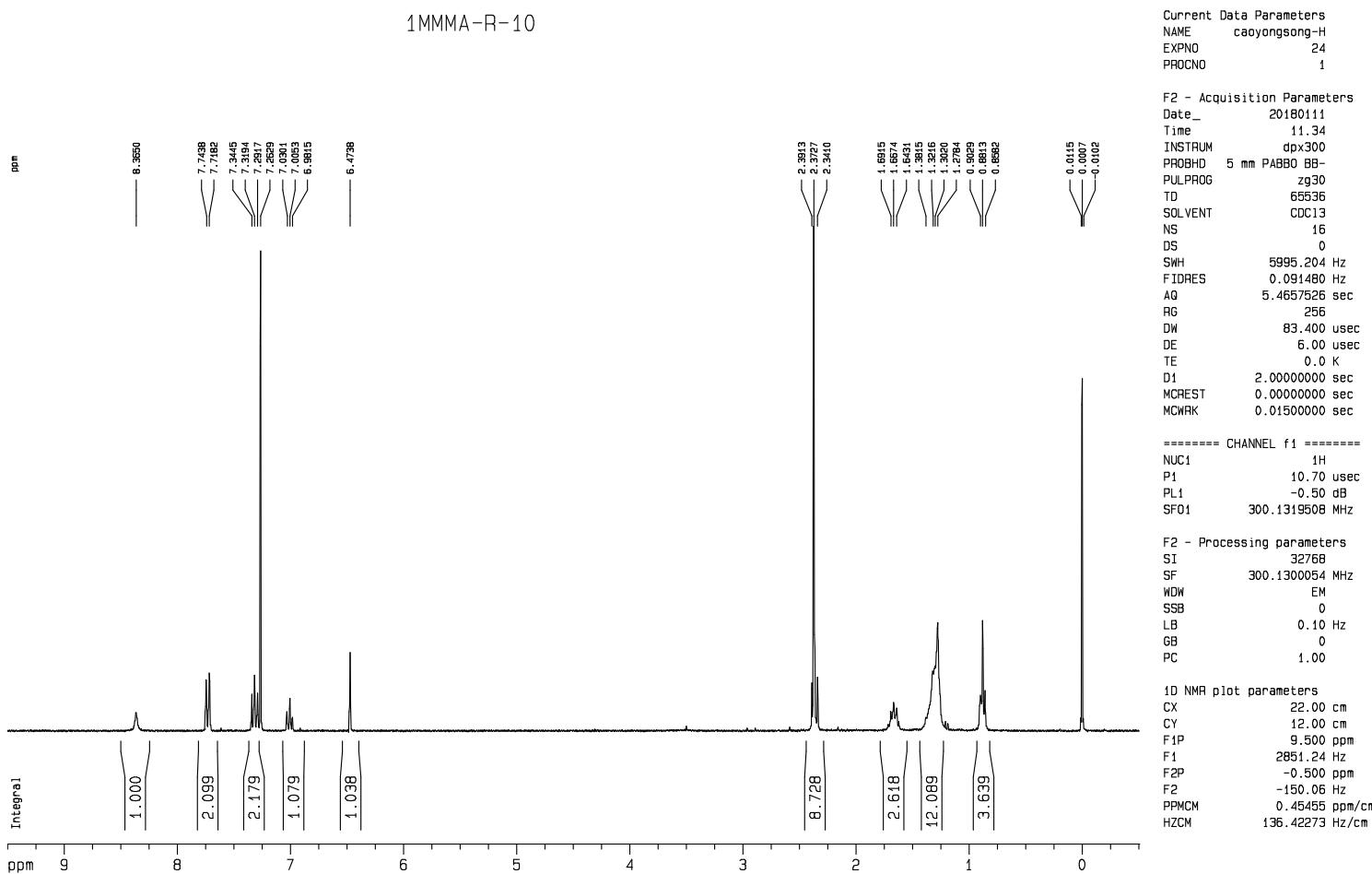
<sup>†</sup>The first two authors (Rong Tang and Tao Tang) contributed equally to this paper

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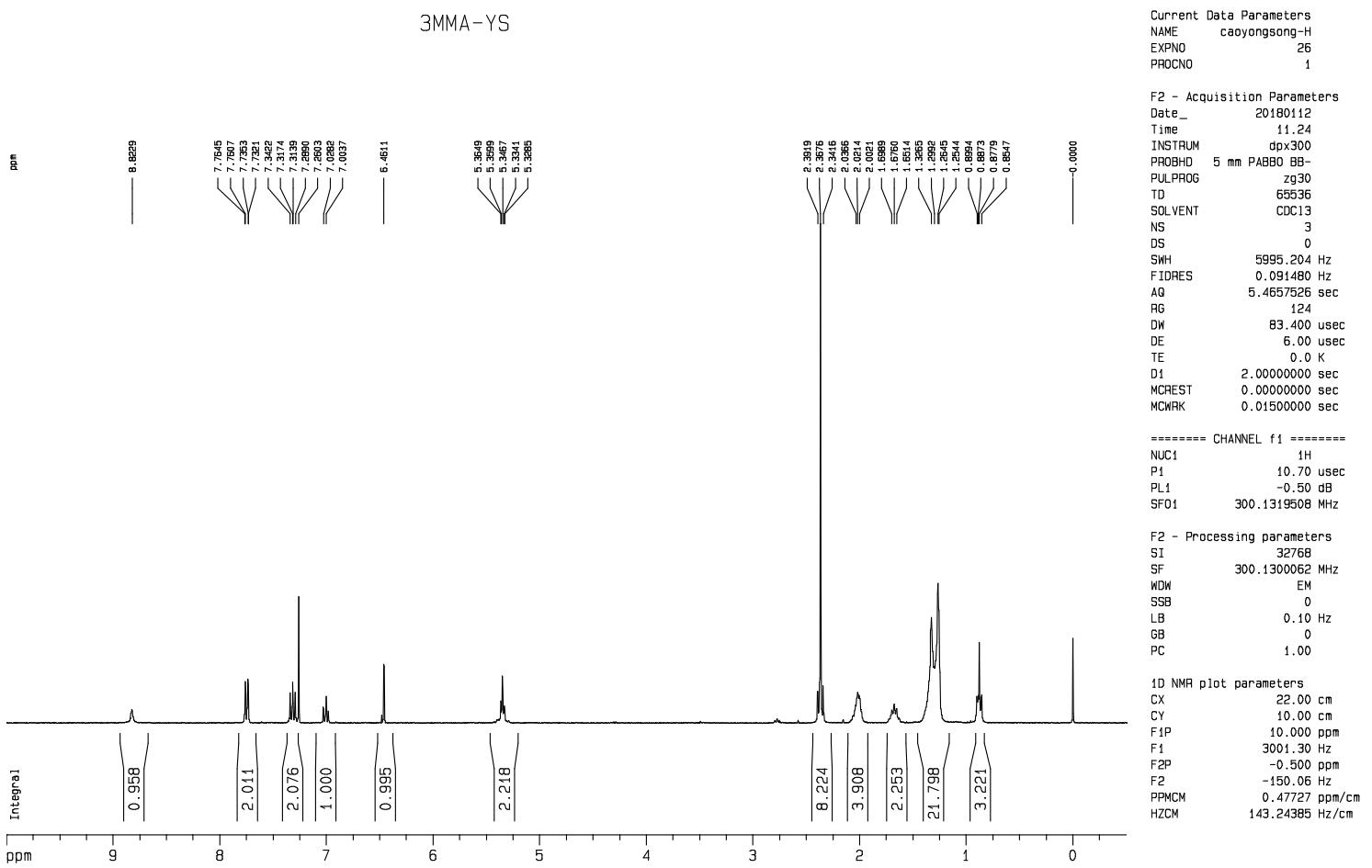
1. **Fig. S1**  $^1\text{H}$  NMR (300.13 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL1** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium acetate)
2. **Fig. S2**  $^1\text{H}$  NMR (300.13 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL2** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium nonanoate)
3. **Fig. S3**  $^1\text{H}$  NMR (300.13 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL3** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium (E)-octadec-8-enoate)
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8. **Fig. S8**  $^1\text{H}$  NMR (300.13 MHz; DMSO; Me4Si) of **PIL8** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium nicotinate)
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10. **Fig. S10**  $^{13}\text{C}$  NMR (75.47 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL1** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium acetate)
11. **Fig. S11**  $^{13}\text{C}$  NMR (75.47 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL2** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium nonanoate)
12. **Fig. S12**  $^{13}\text{C}$  NMR (75.47 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL3** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium (E)-octadec-8-enoate)
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16. **Fig. S16**  $^{13}\text{C}$  NMR (75.47 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL7** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium 2-hydroxybenzoate)
17. **Fig. S17**  $^{13}\text{C}$  NMR (75.47 MHz; DMSO; Me4Si) of **PIL8** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium nicotinate)
18. **Fig. S18**  $^{13}\text{C}$  NMR (75.47 MHz;  $\text{CDCl}_3$ ; Me4Si) of **PIL9** (4,6-Dimethyl-N-phenylpyrimidin-2-aminium 4-(1H-indol-3-yl)butanoate)



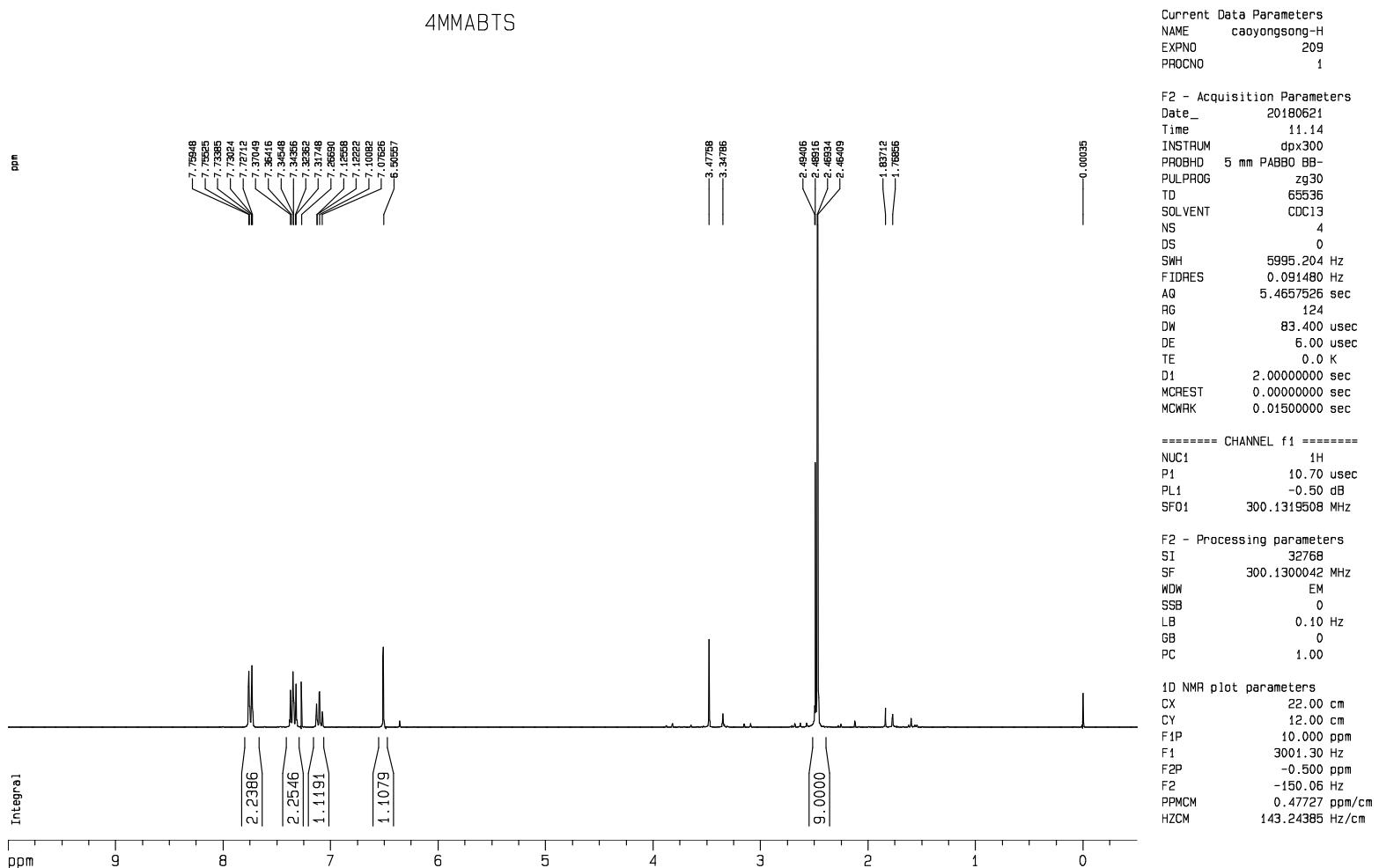
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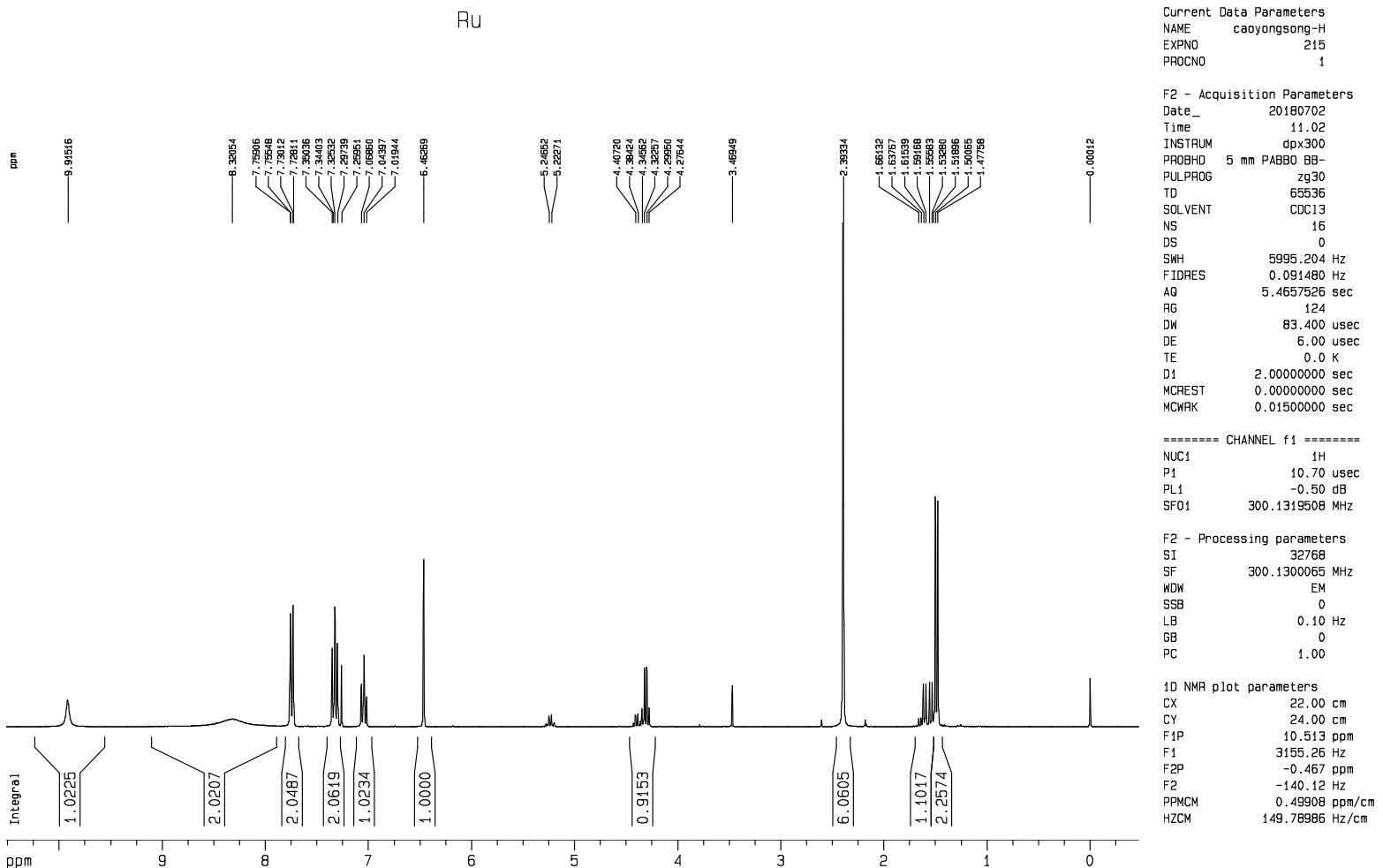
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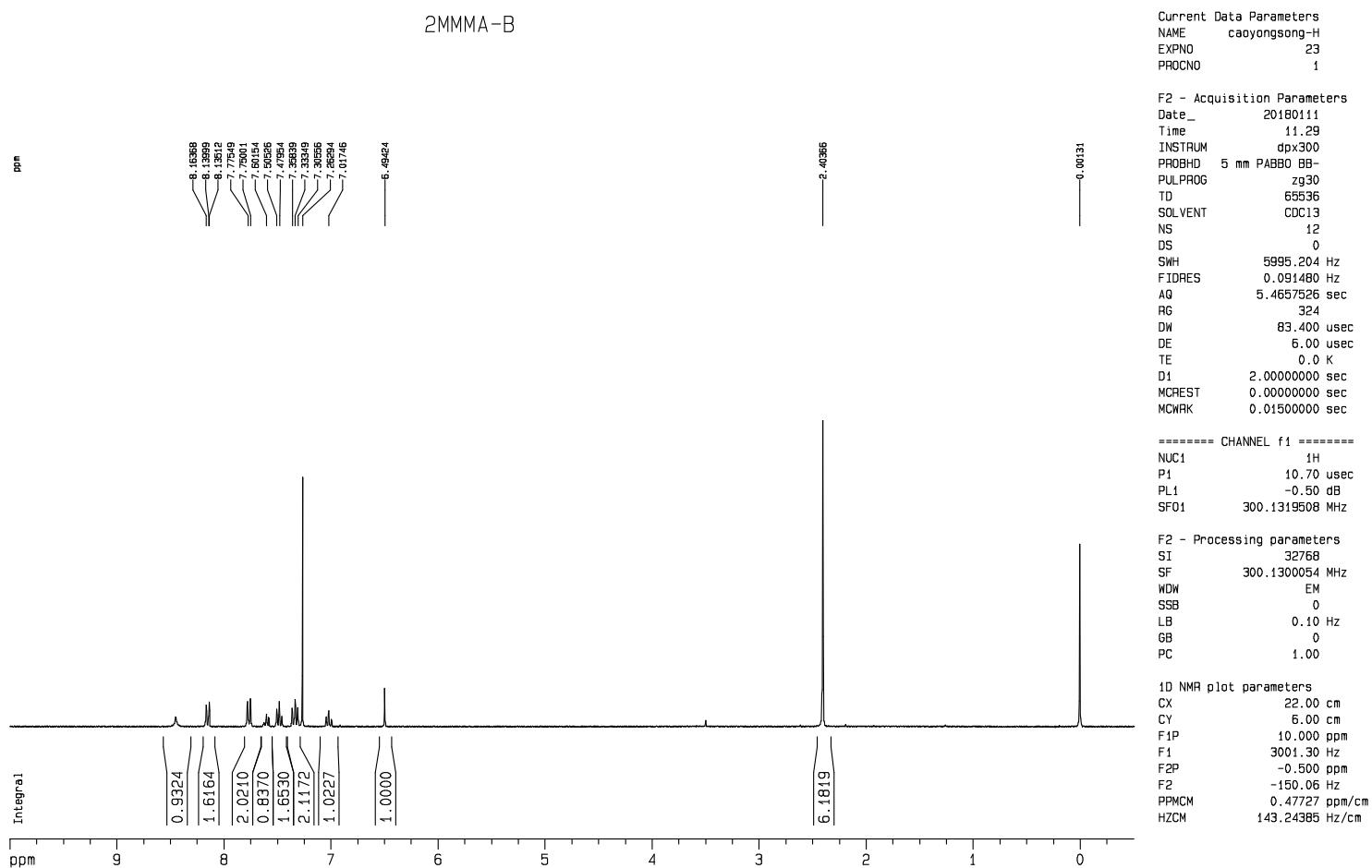
3. Fig. S3 <sup>1</sup>H NMR (300.13 MHz; CDCl<sub>3</sub>; Me<sub>4</sub>Si) of PIL3 (4, 6-dimethyl-N-phenylpyrimidin-2-aminium (E)-octadec-8-enate)



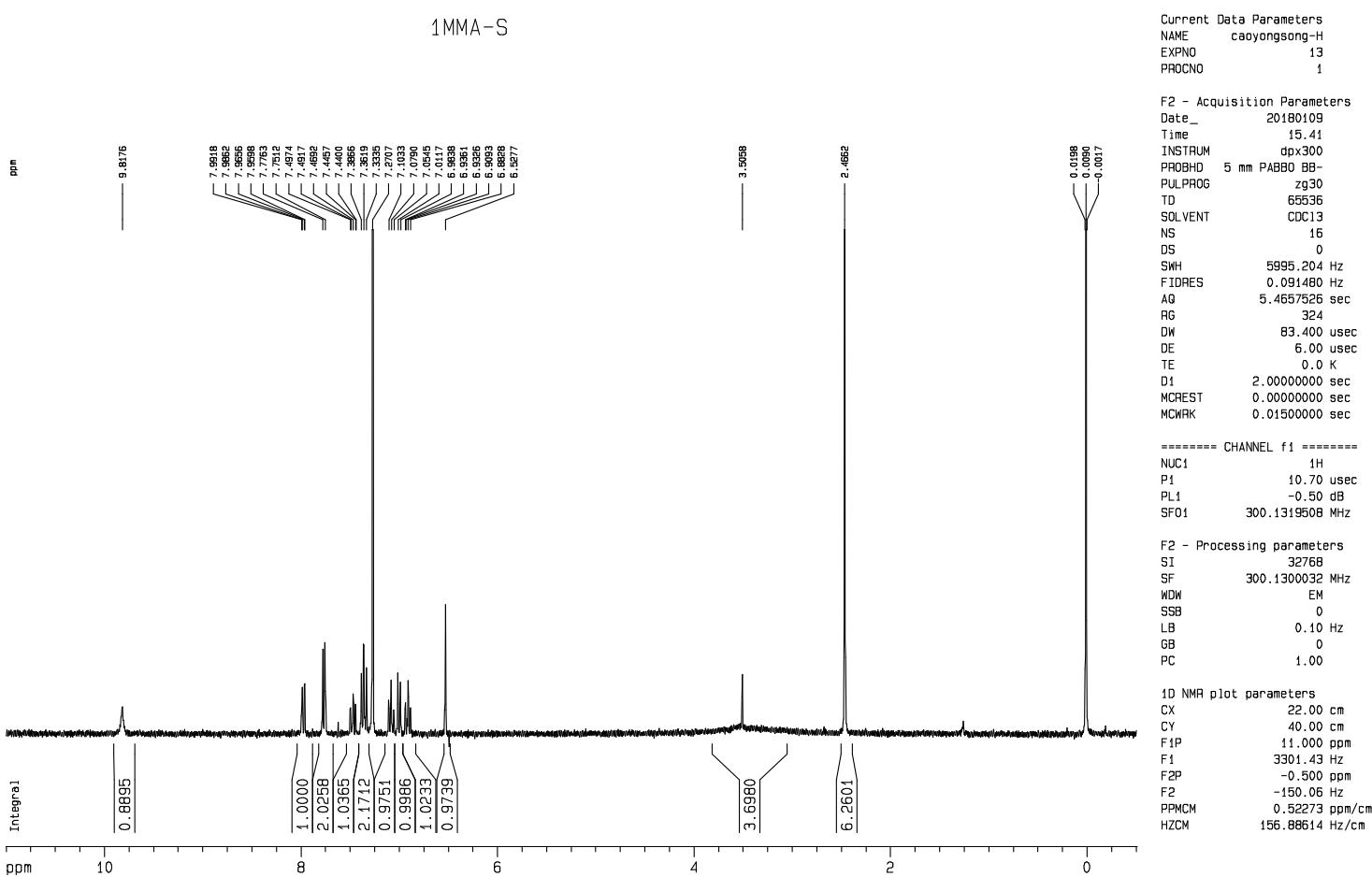
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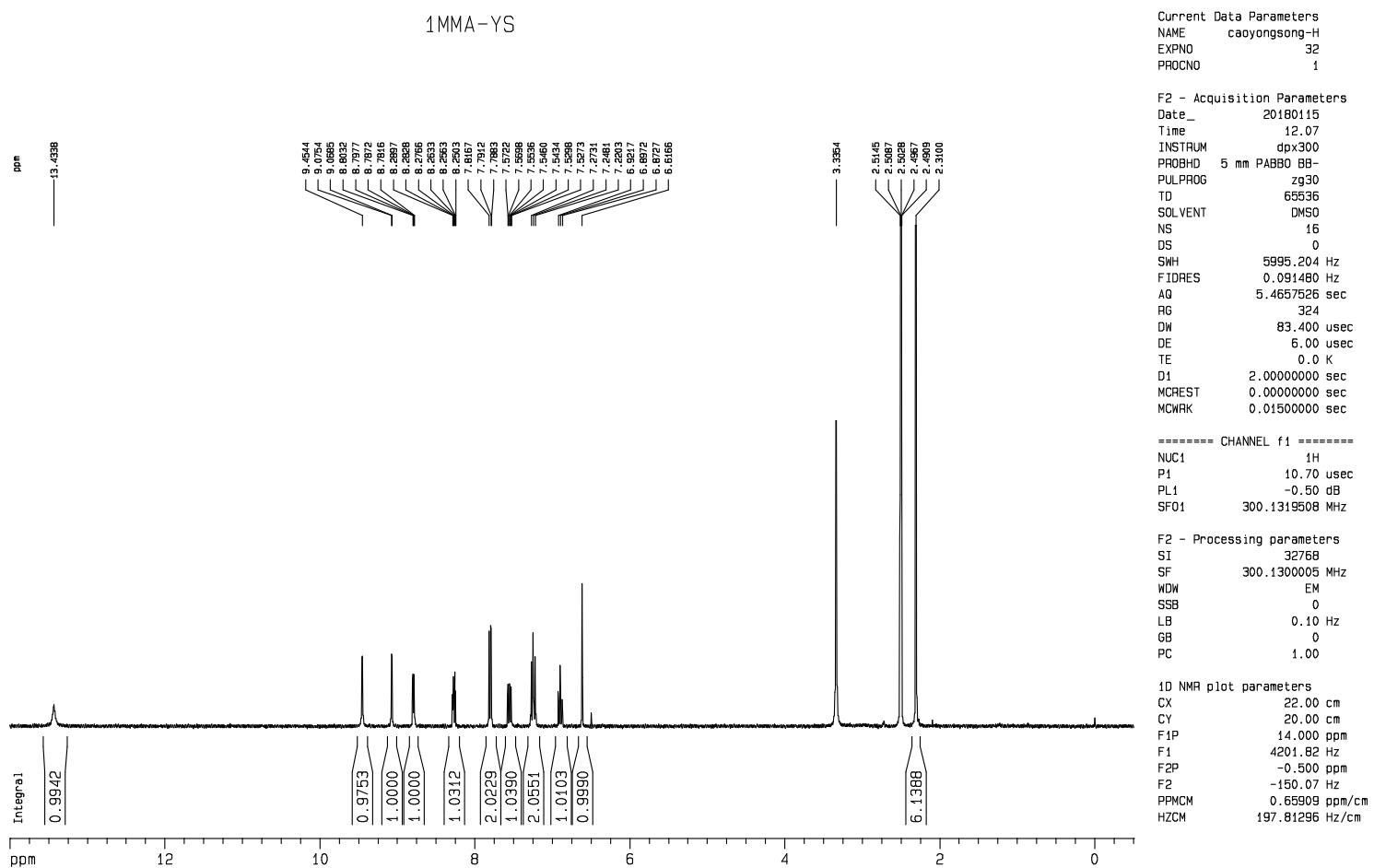
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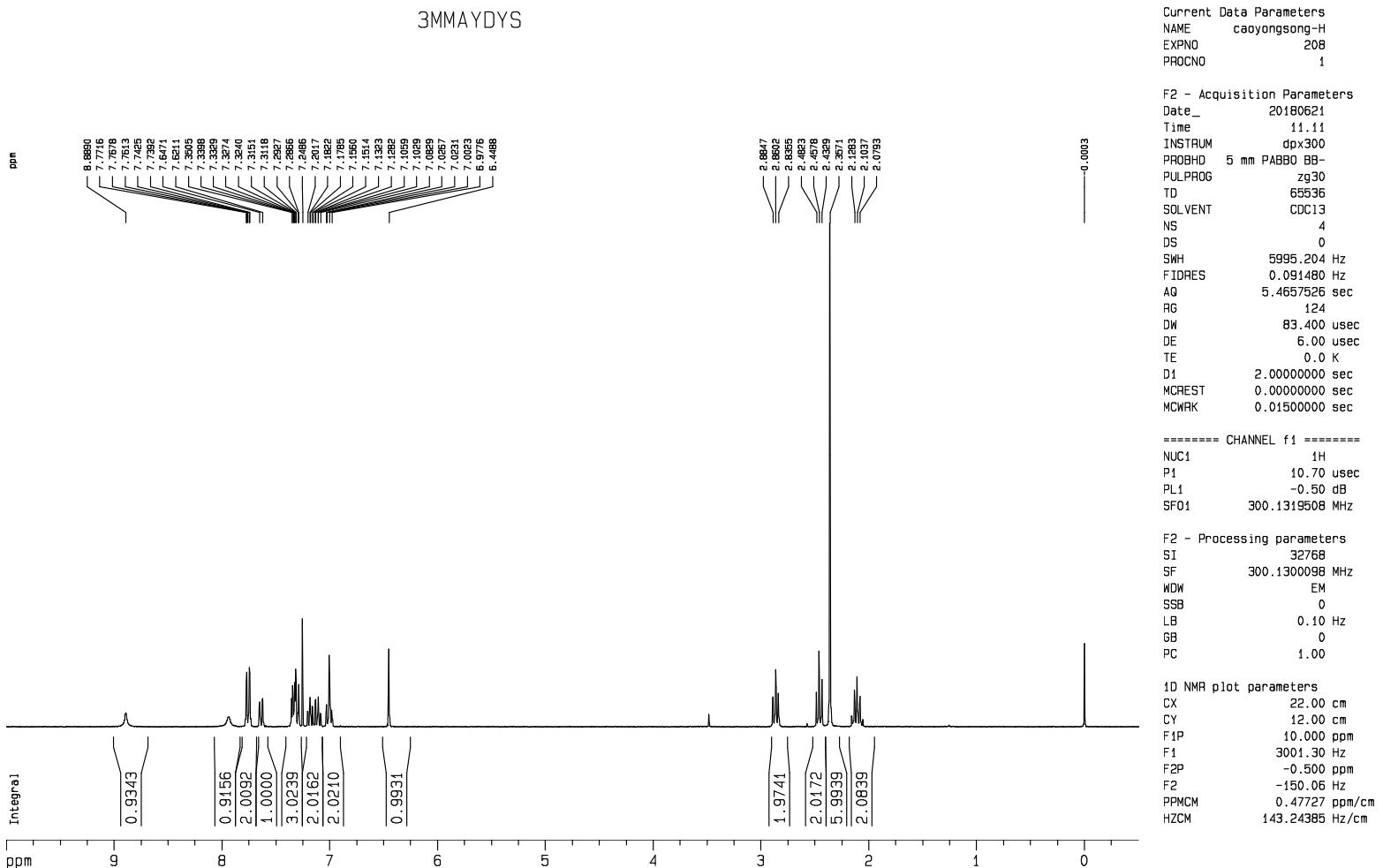
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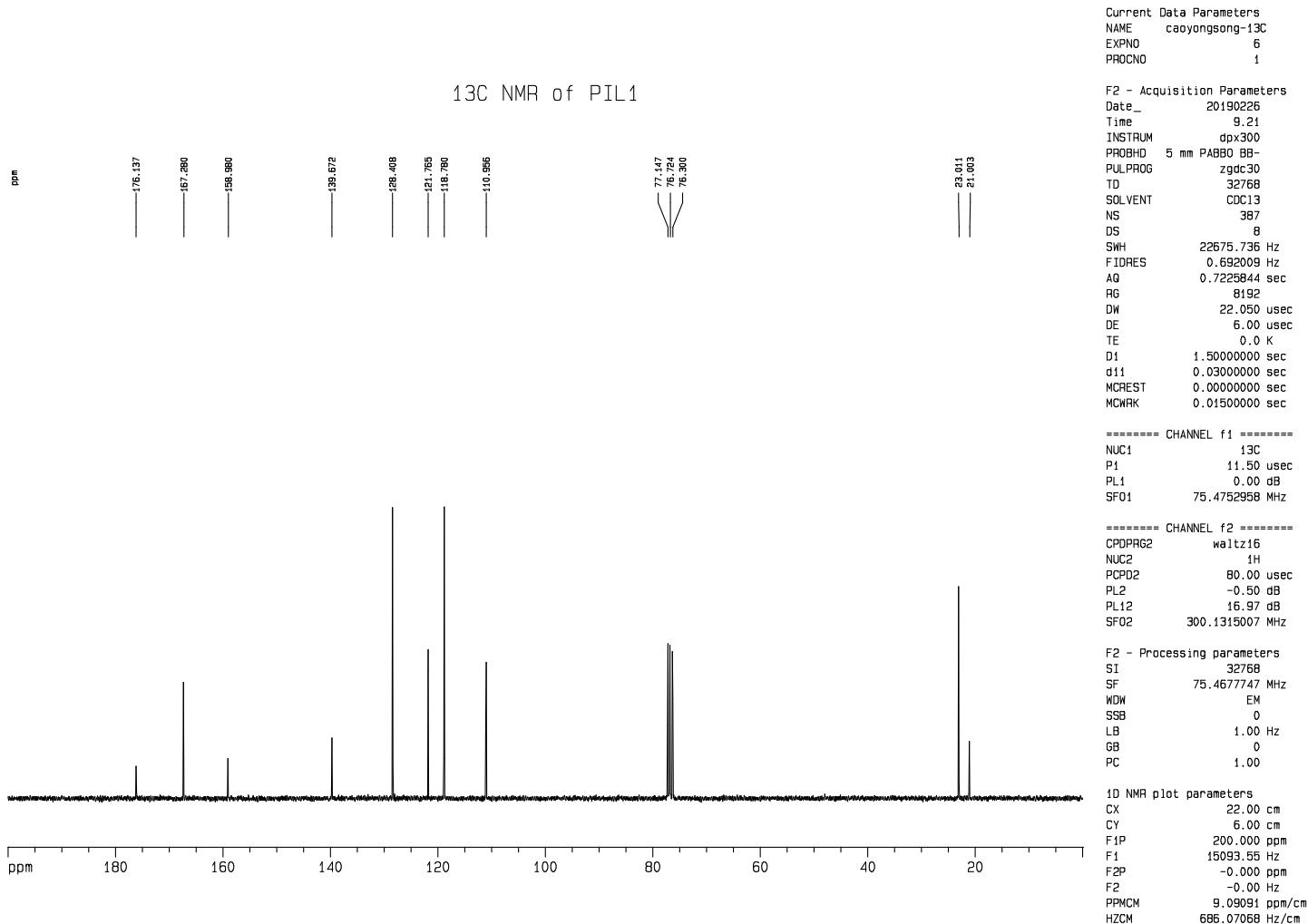
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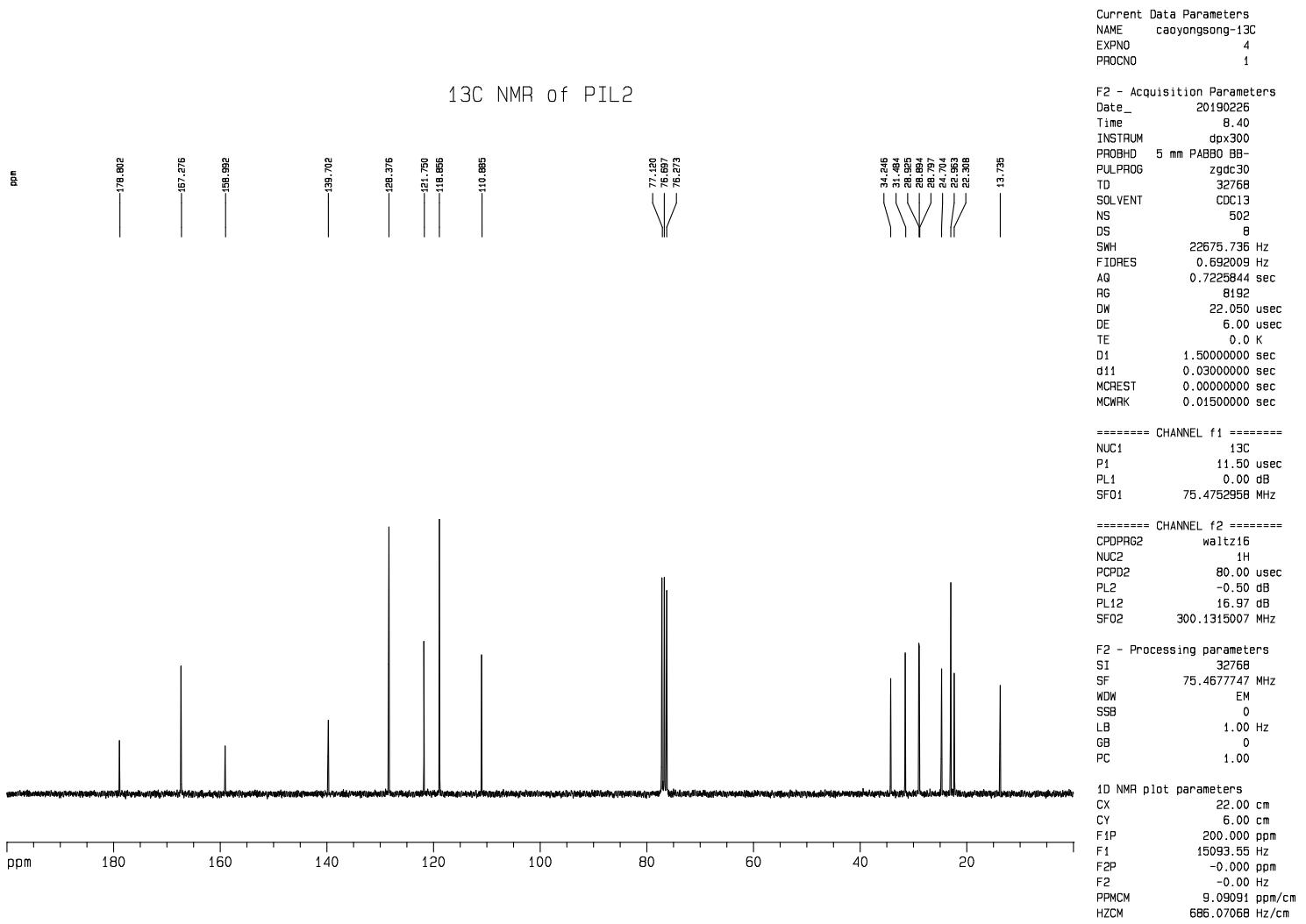
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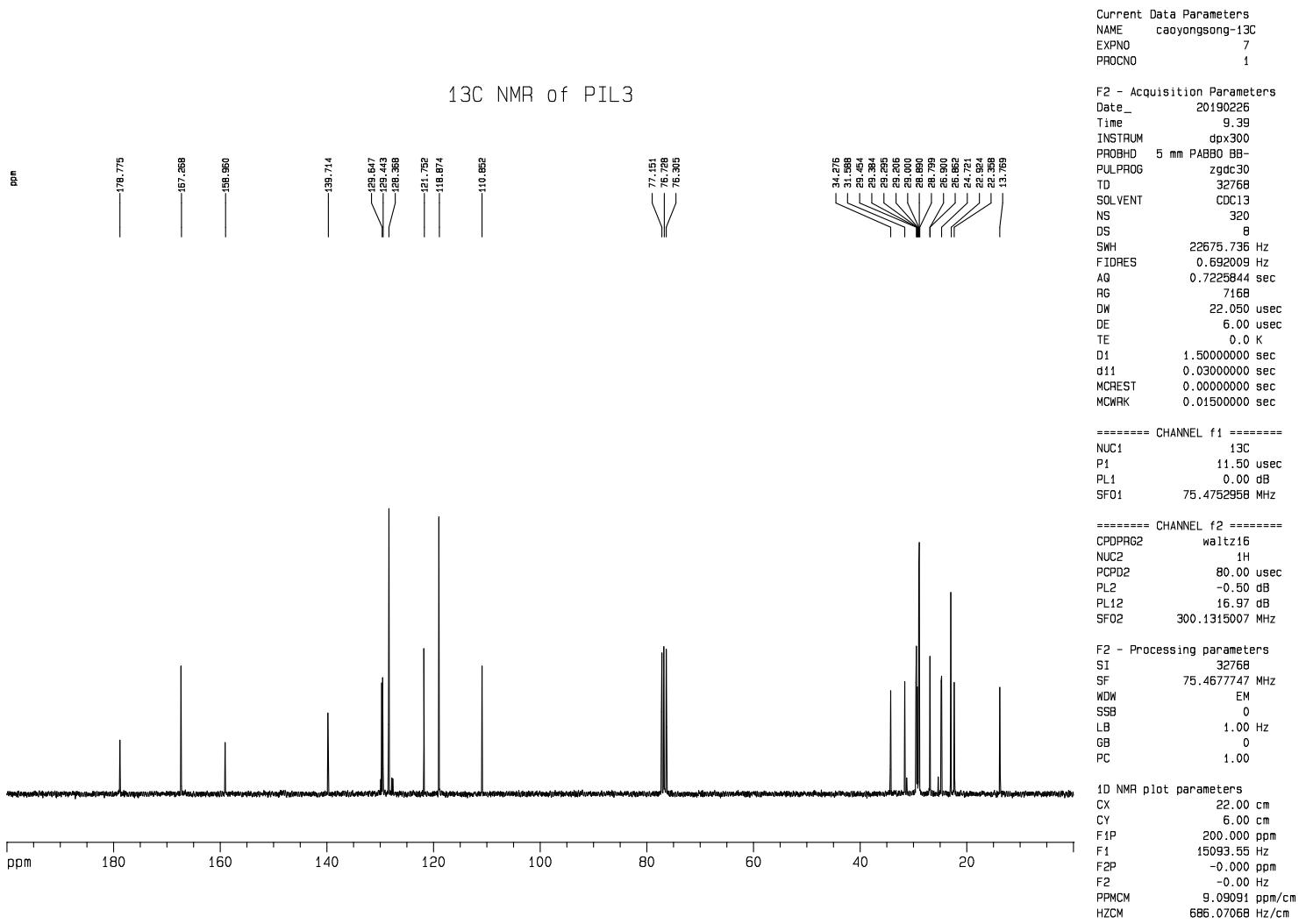
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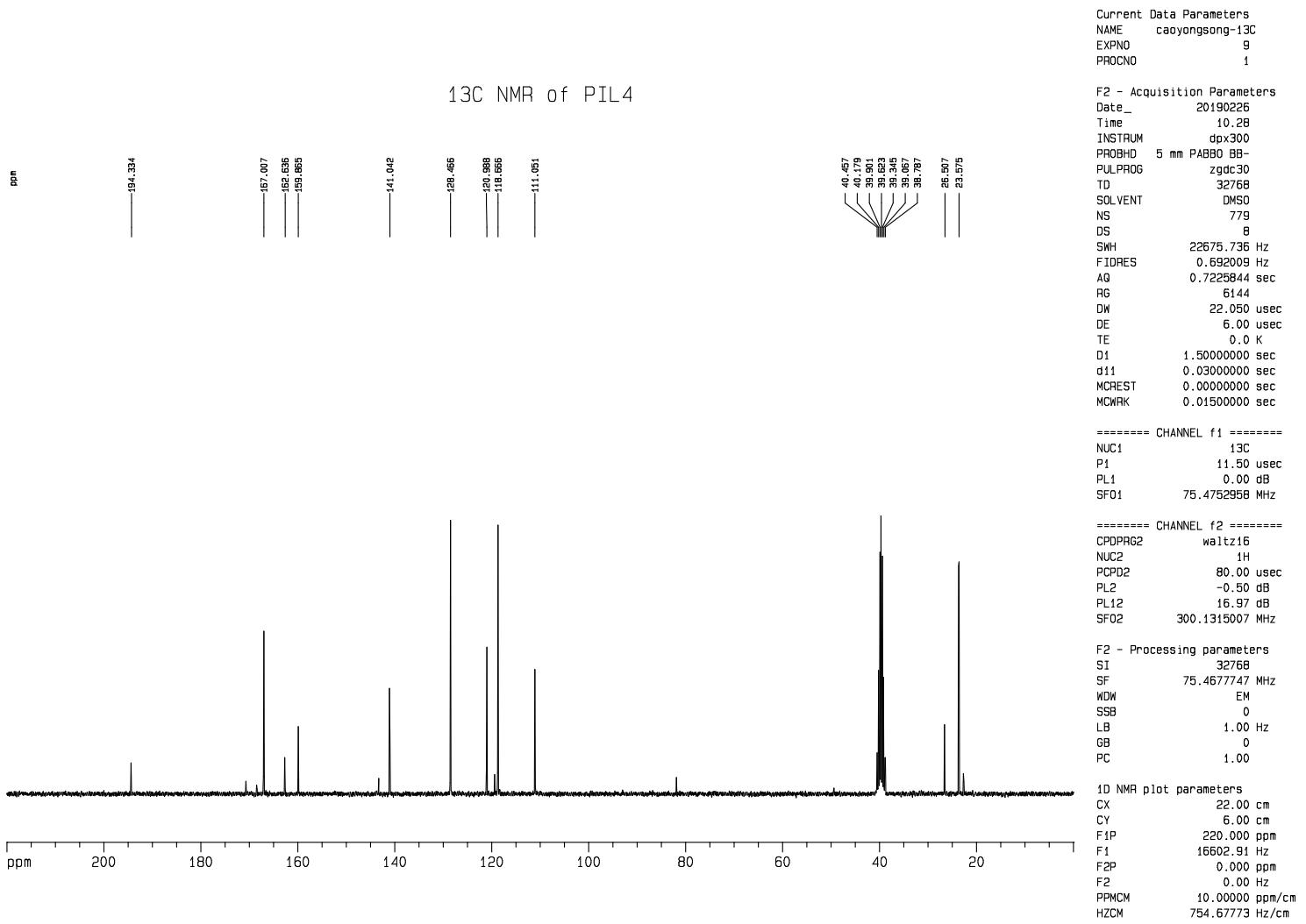
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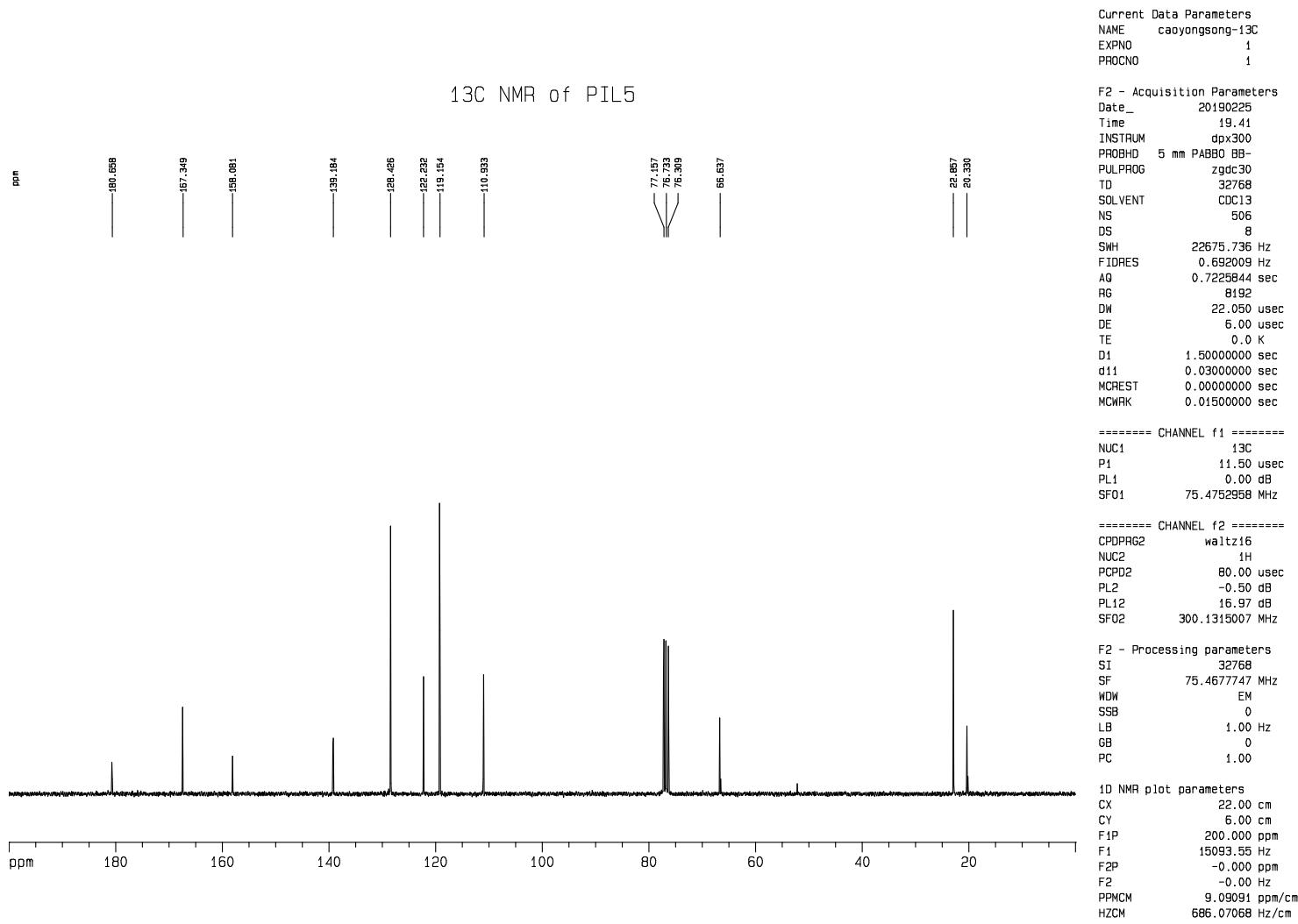
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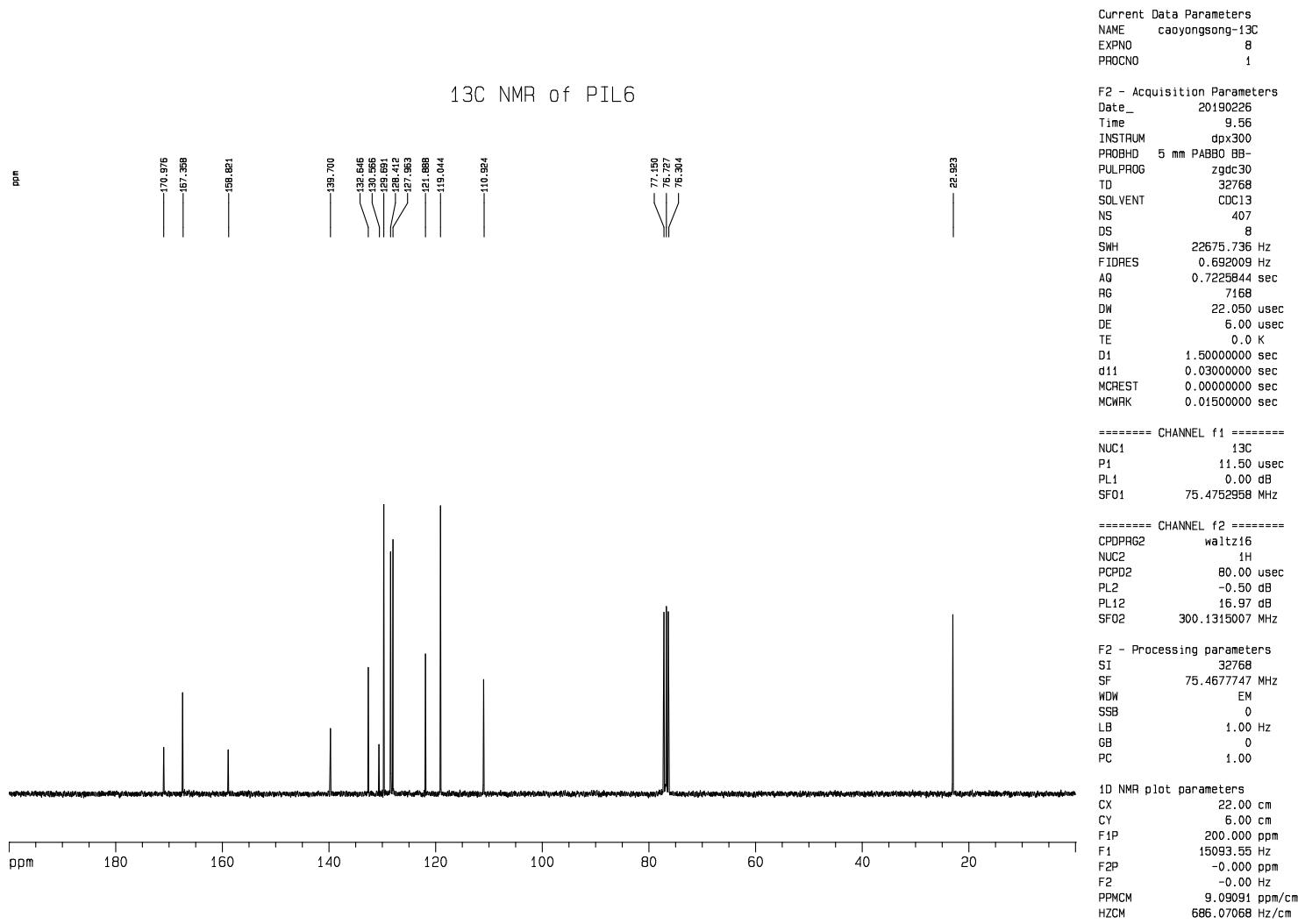
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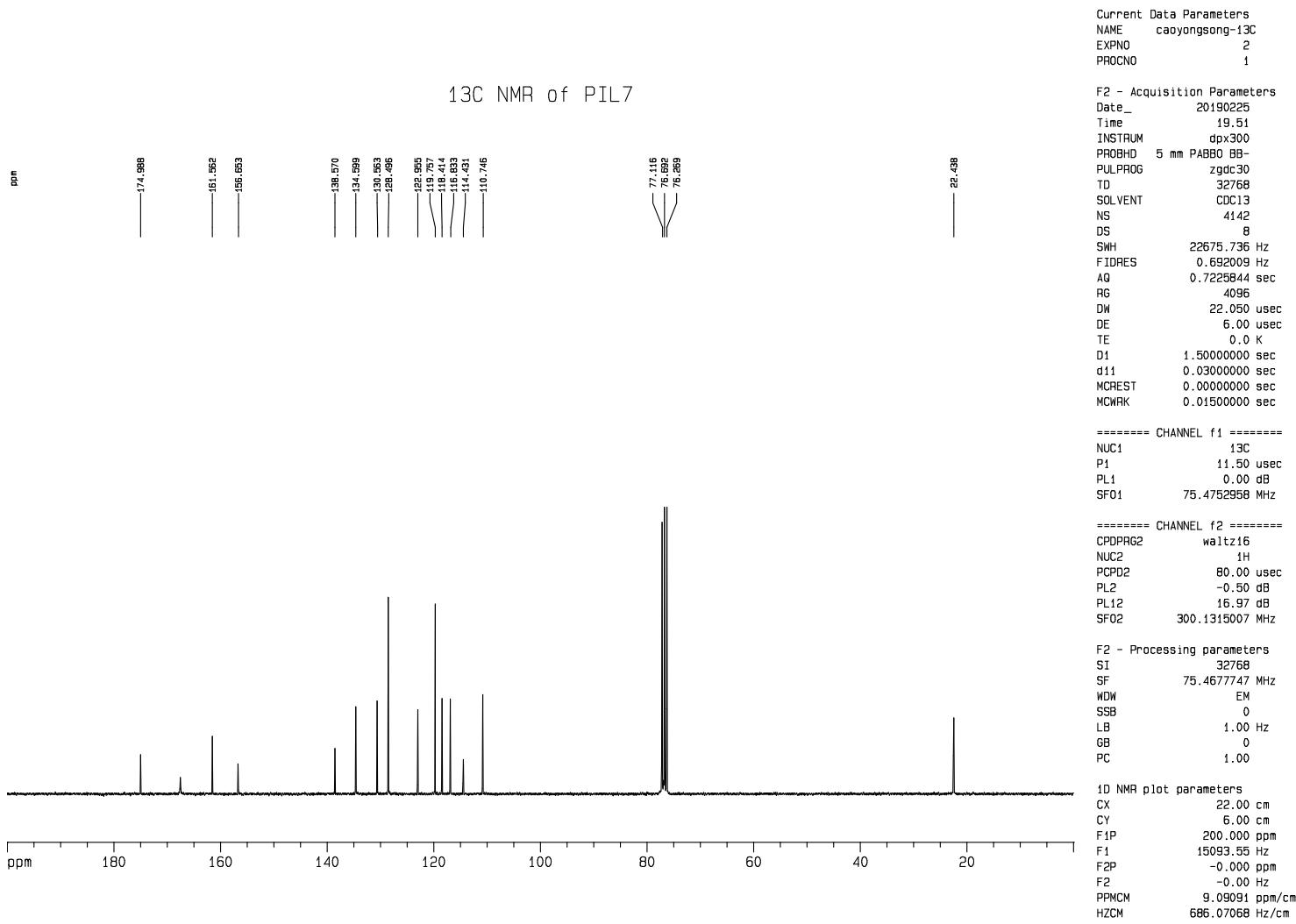
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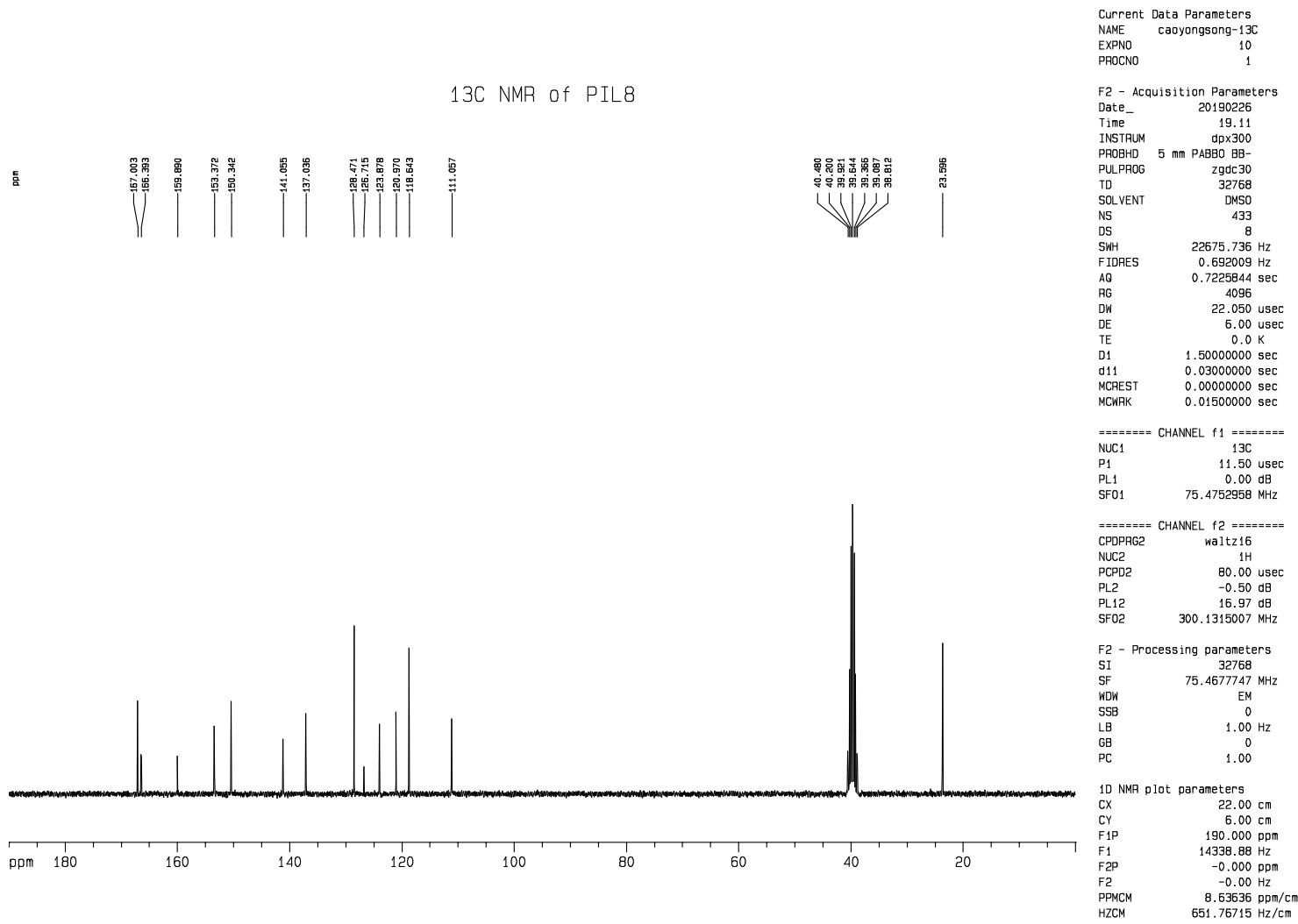
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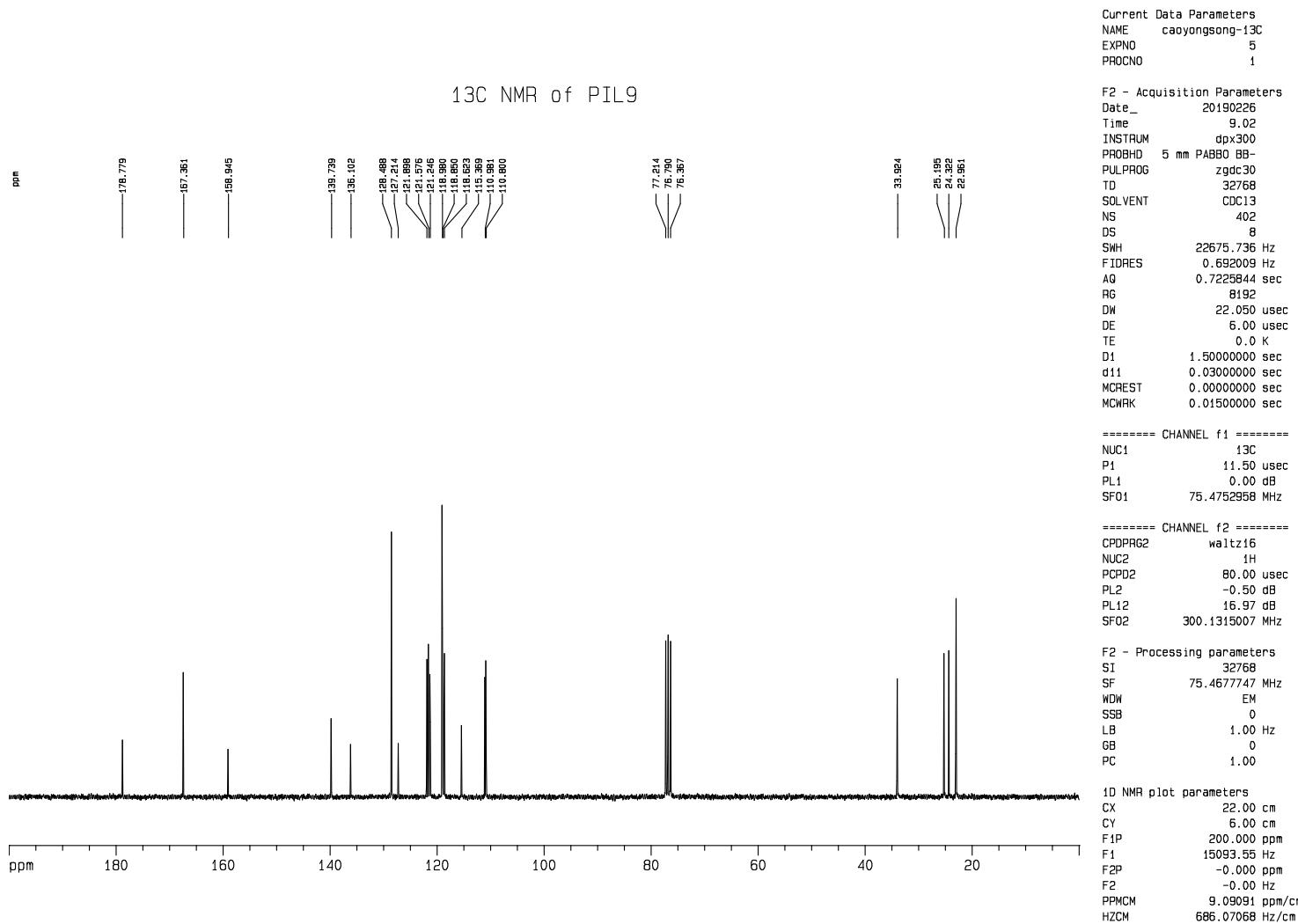
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