

# **Synthesis of 8-Arylquinoline via One-pot Pd-catalyzed Borylation of Quinoline-8-yl Halides and Subsequent Suzuki-Miyaura Coupling**

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## **Supporting Information**

### **Contents**

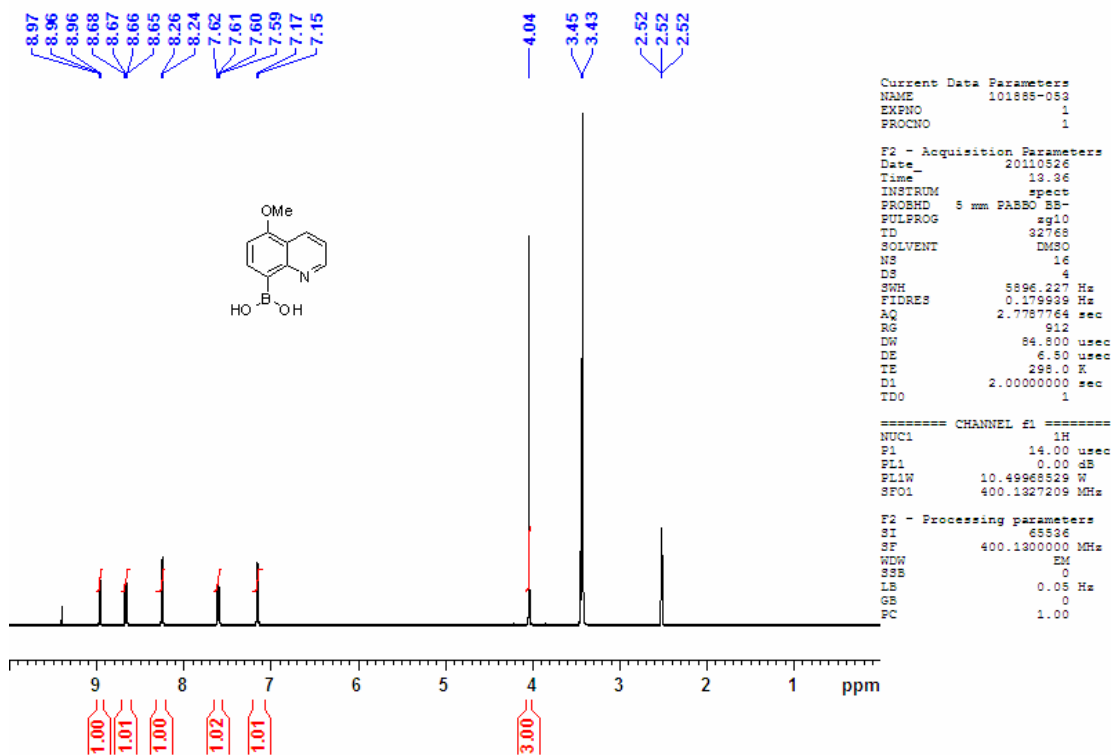
- I. General information (page SI-2)
- II. Spectra data ( $^1\text{H}$  and  $^{13}\text{C}$  NMR) of new compounds. (page SI-3)

**General Methods.** All reactions were carried out under an atmosphere of argon in dry glassware with magnetic stirring. Commercially available anhydrous tetrahydrofuran, N-methylpyrrolidinone, N,N-dimethylformamide and N,N-dimethylacetamide are received and used without any further purification. Column chromatography was performed on silica gel 60 (230-400 mesh). Thin layer chromatography was performed on 0.25 mm silica gel 60-F plates. Visualization was accomplished with UV light,  $\text{KMnO}_4$ , aqueous ceric ammonium molybdate, or bromocresol green dips followed by heating.

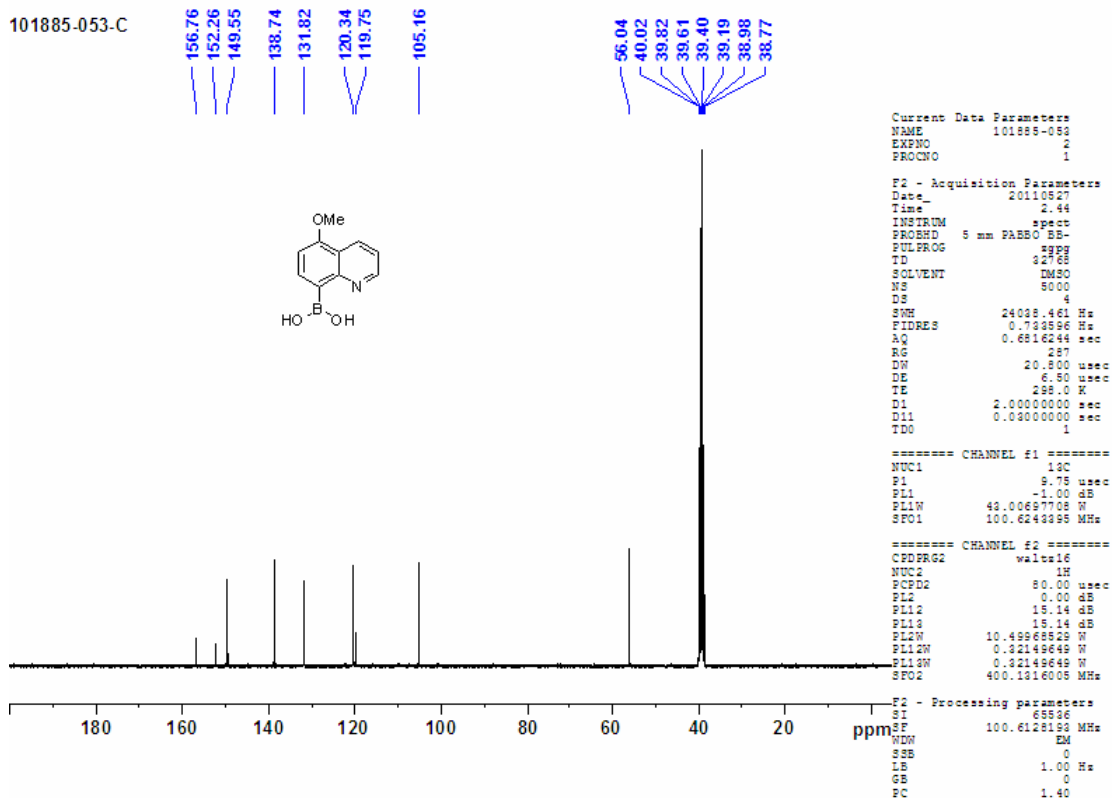
$^1\text{H}$  NMR and spectra were recorded on a 400 MHz spectrometer at ambient temperature. Data are reported as follows: chemical shift in parts per million ( $\delta$ , ppm) from an internal standard [tetramethylsilane (TMS) or deuterated chloroform ( $\text{CDCl}_3$ )], multiplicity (s = singlet, d = doublet, t = triplet, q = quartet and m = multiplet), integration, and coupling constant (Hz).  $^{13}\text{C}$  NMR and spectra were recorded on a 400 MHz spectrometer at ambient temperature. Chemical shifts are reported in ppm from  $\text{CDCl}_3$  taken as 77.0 ppm.

# 5-Methoxyquinolin-8-ylboronic acid (3)

101885-053-H

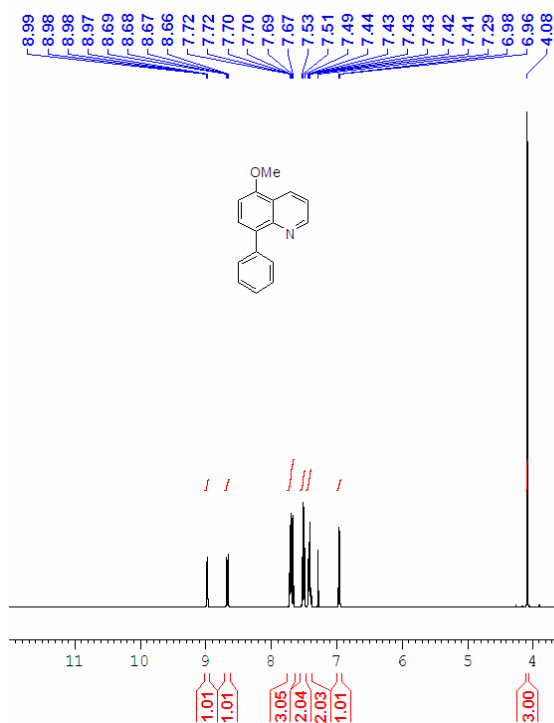


101885-053-C



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101946-003-H



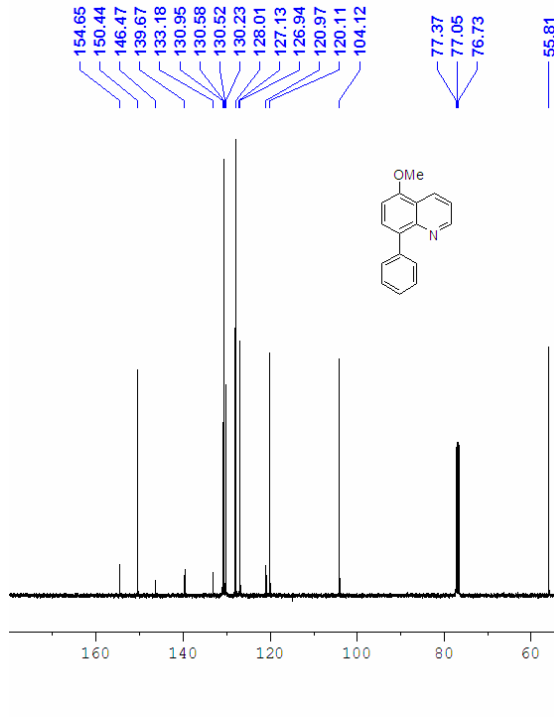
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101946-003-C



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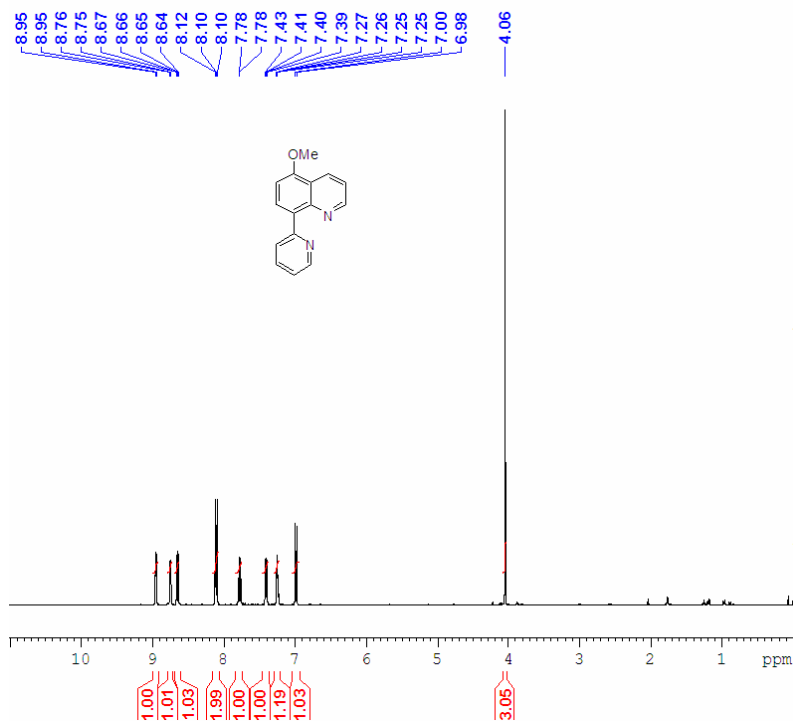
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101946-007-H



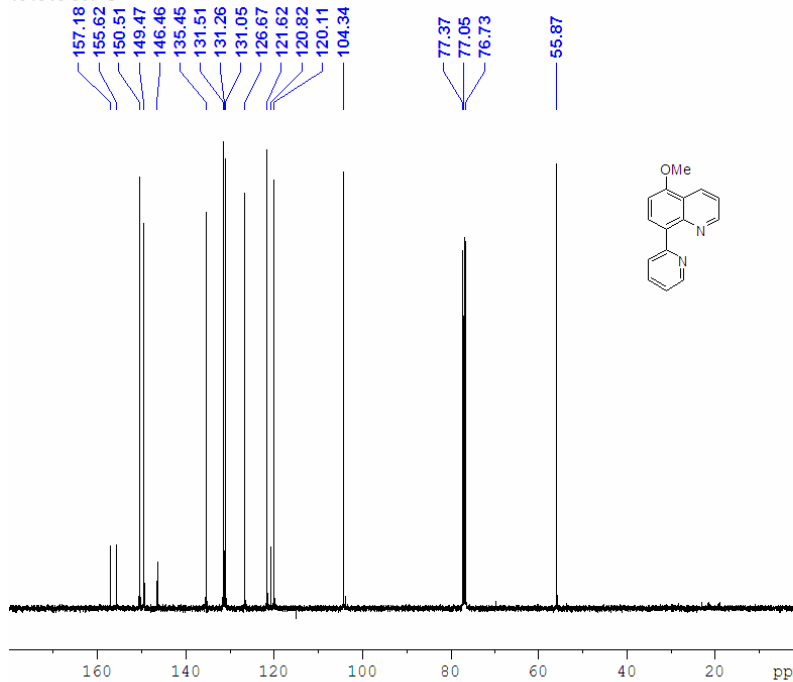
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101946-007-C



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PROCNO    1

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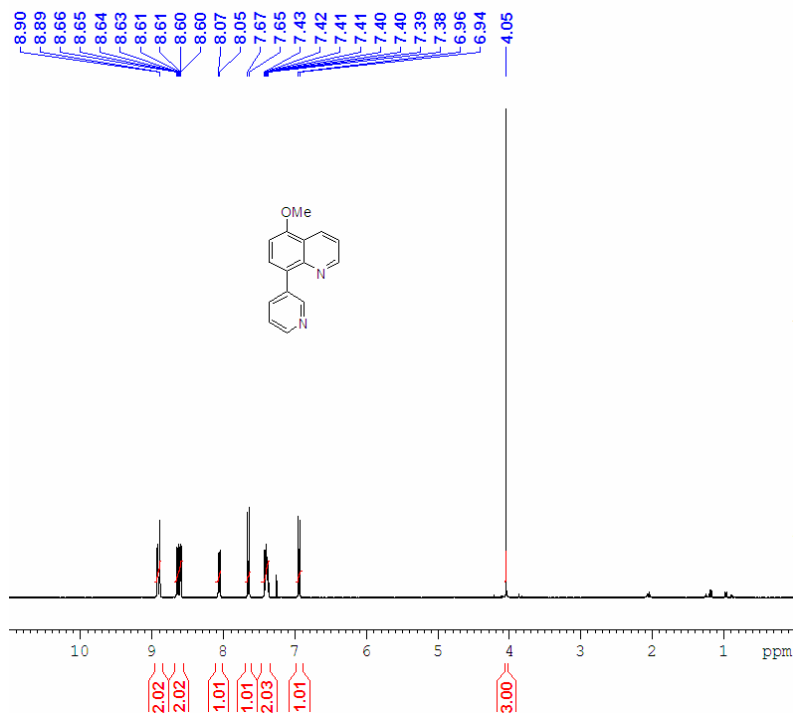
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101946-010-H



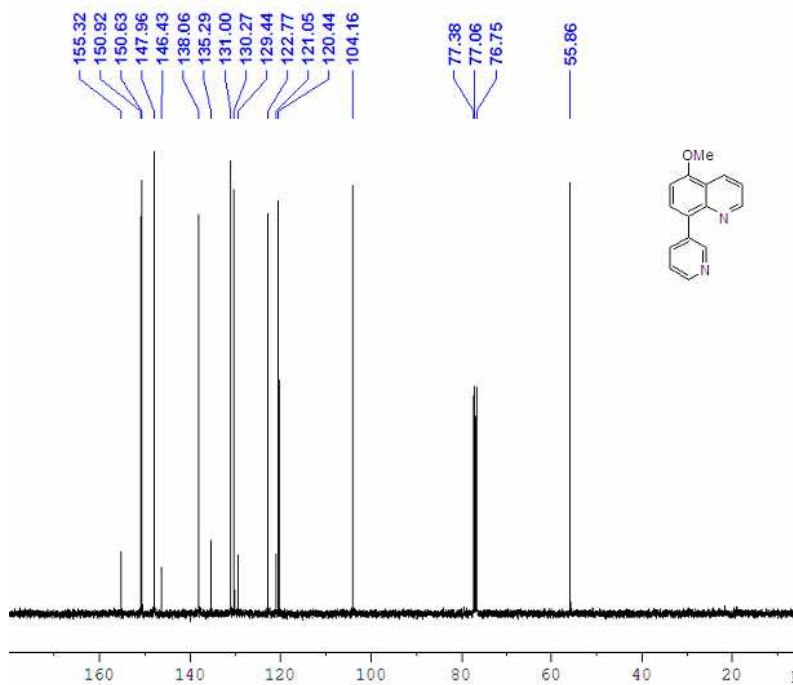
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101946-010-C



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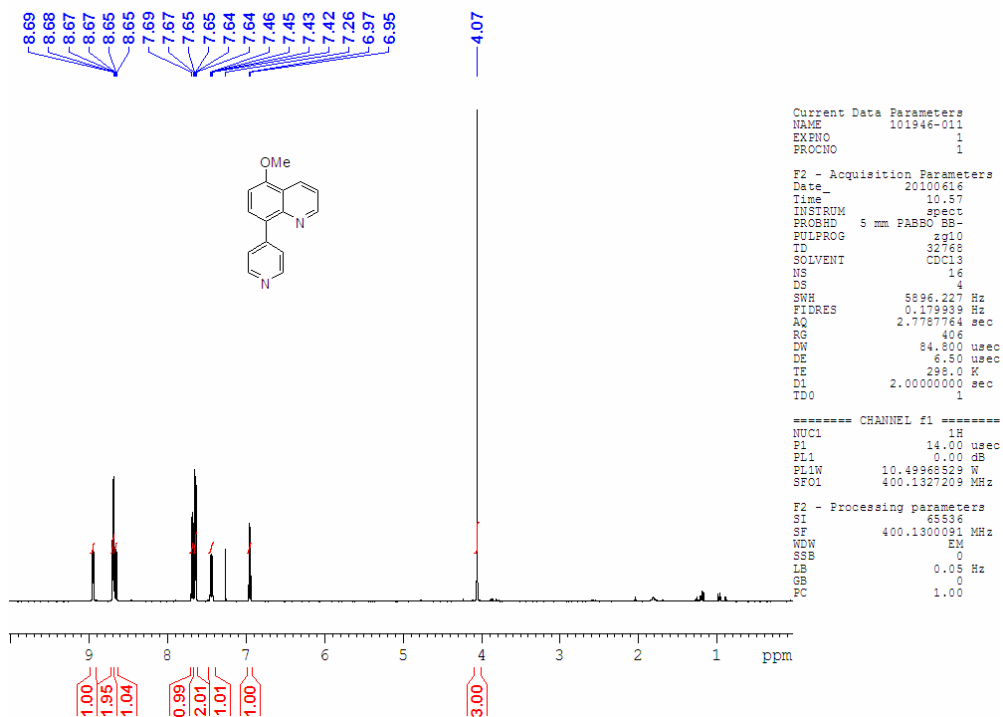
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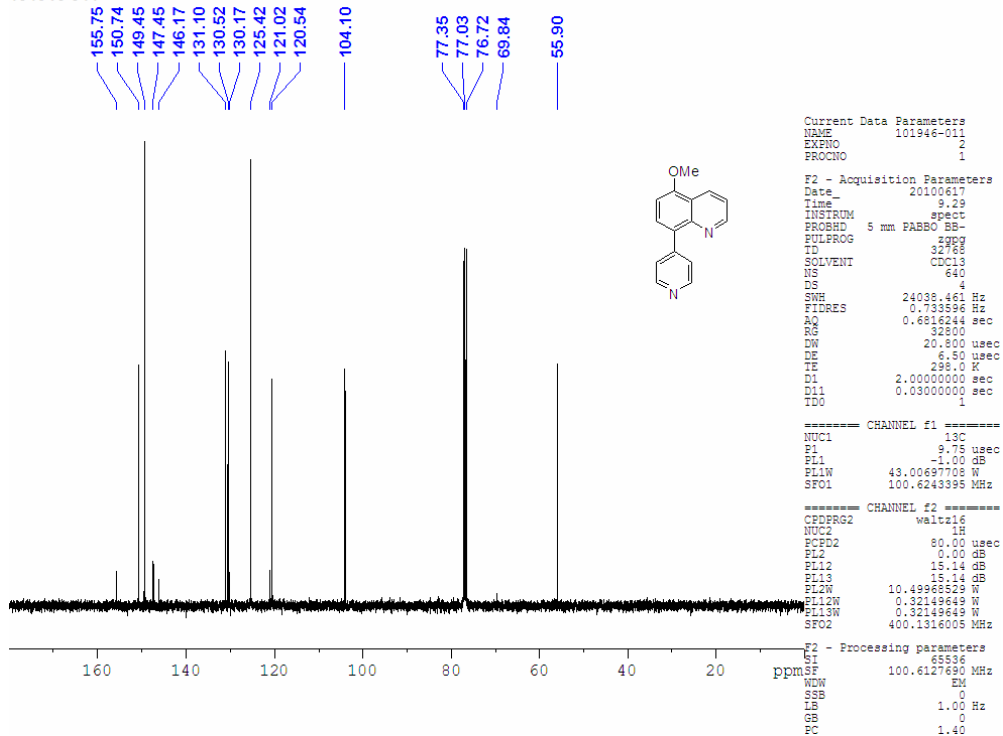
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101946-011

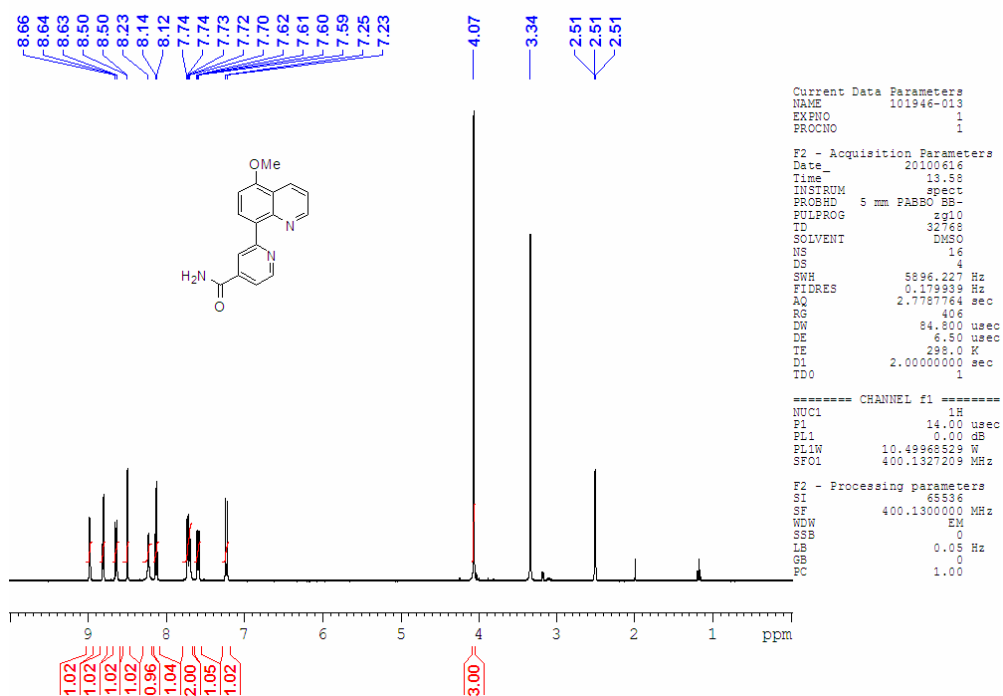


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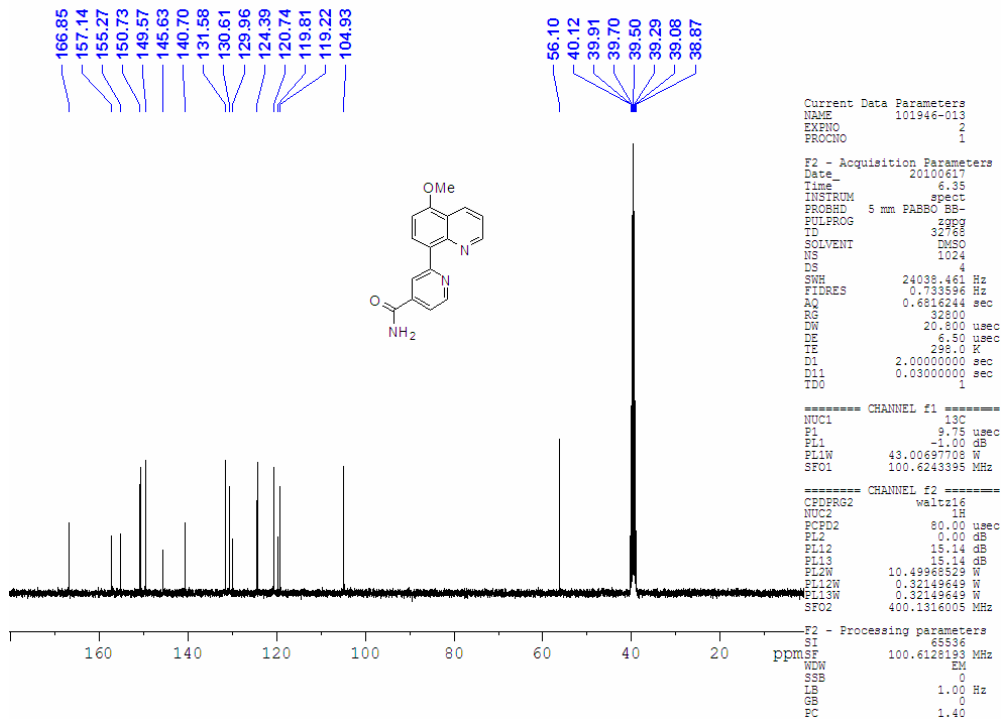


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101946-013-H



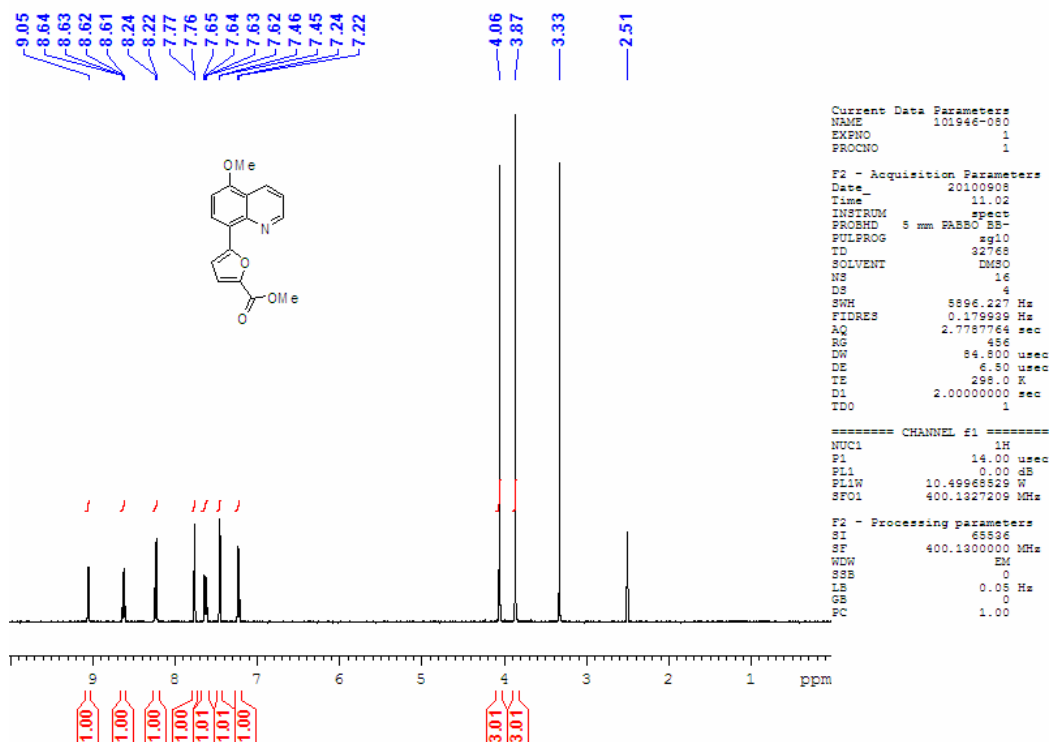
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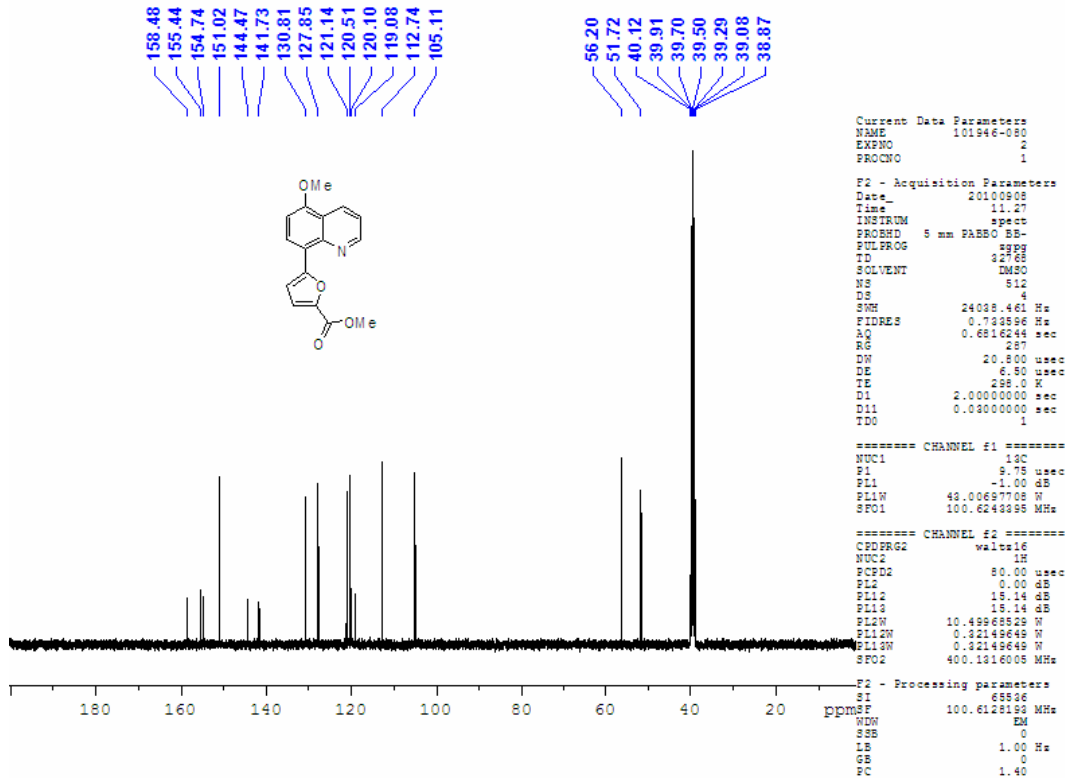


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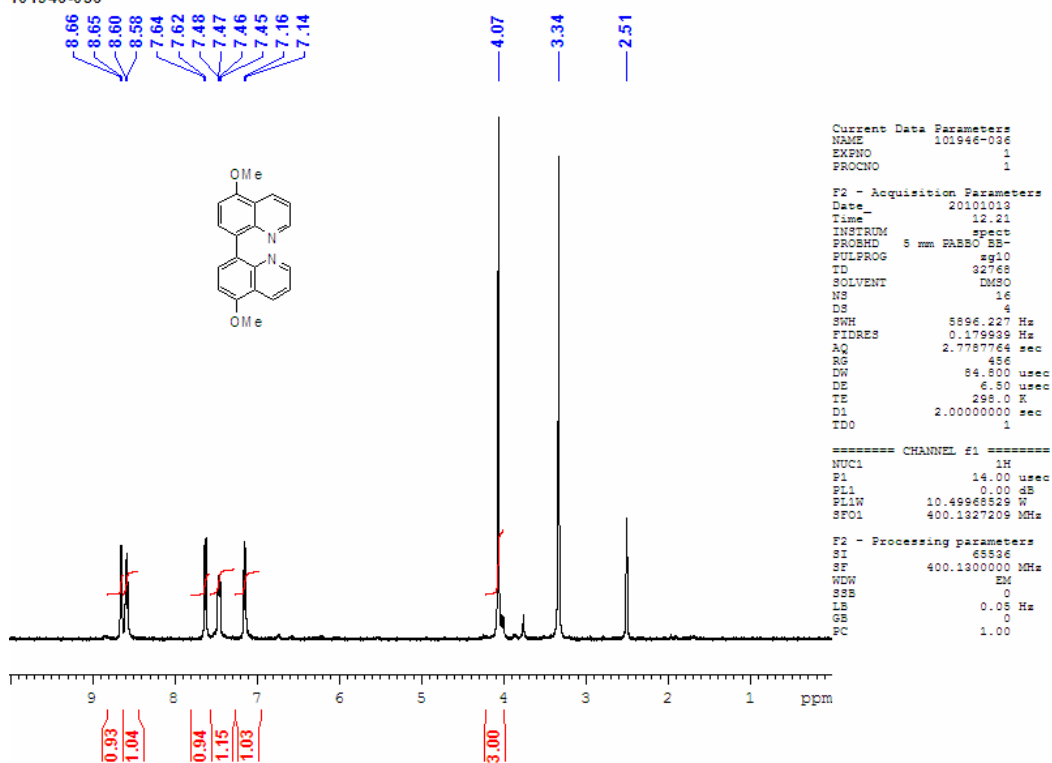


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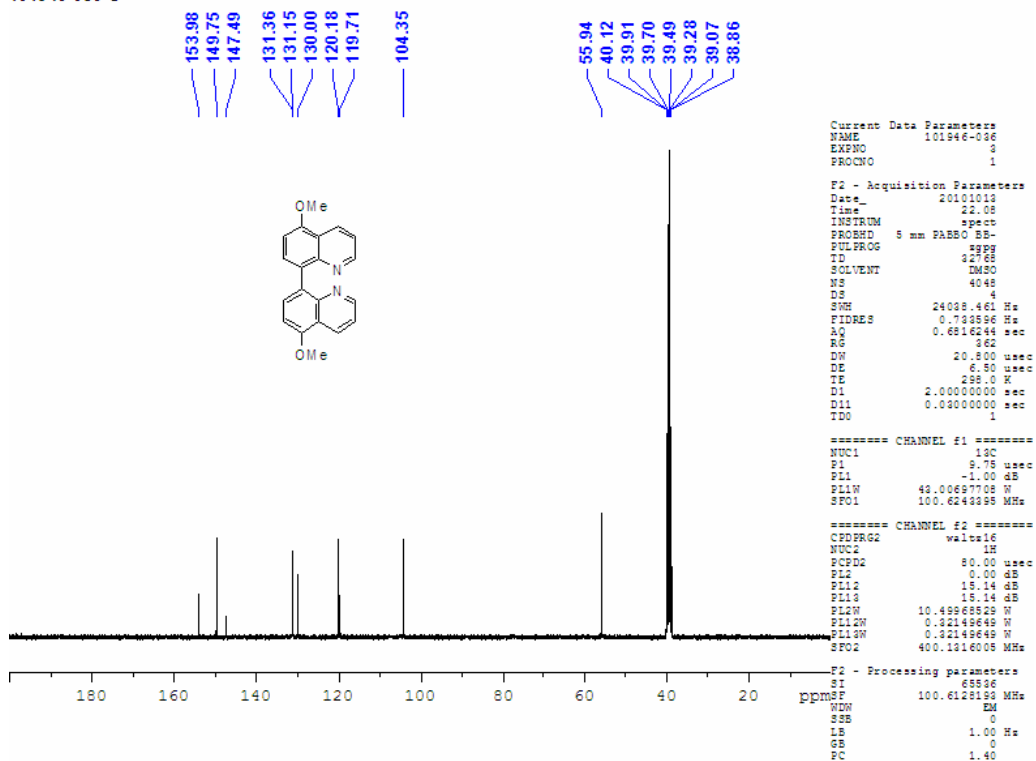


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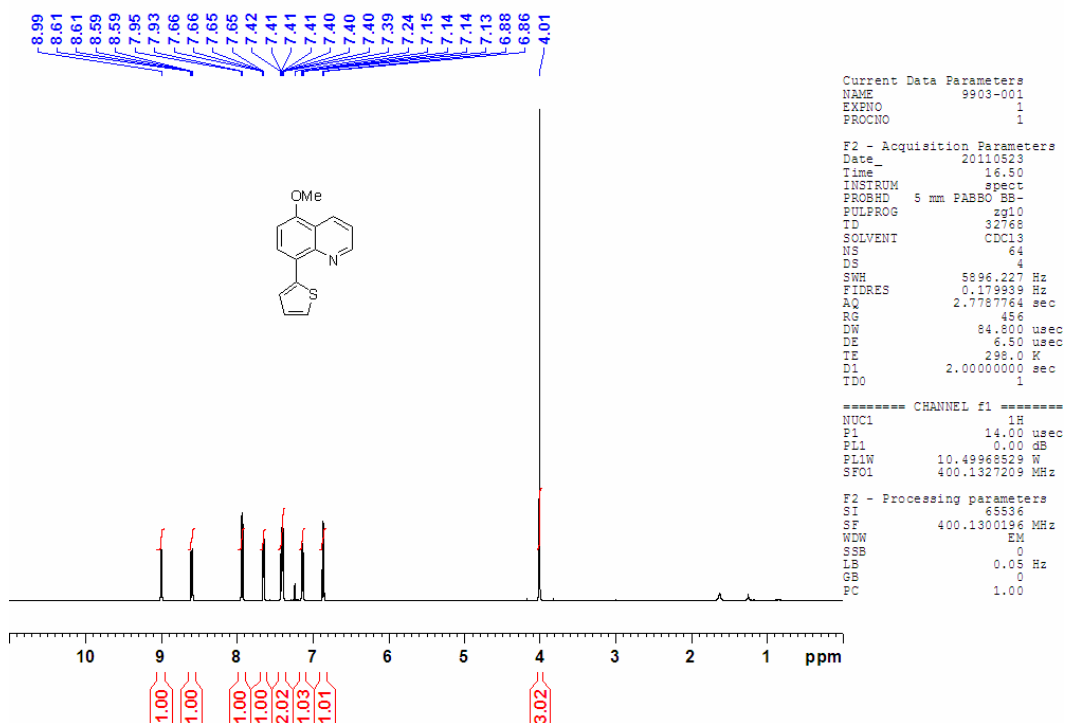


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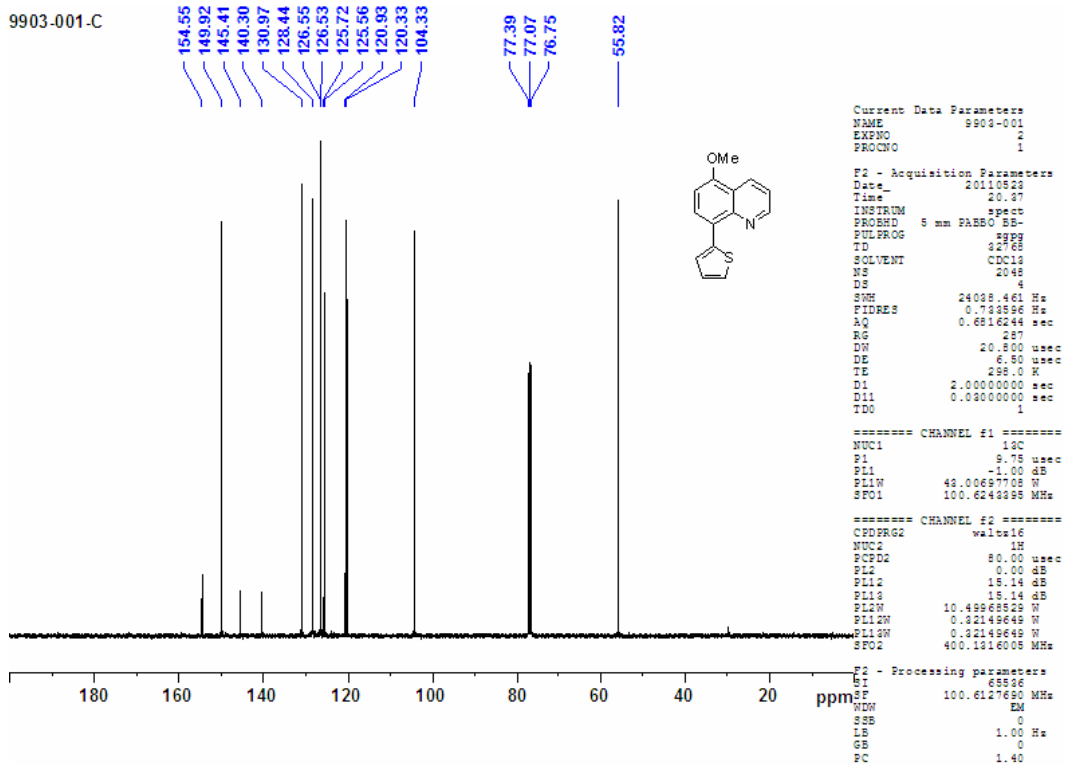


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9903-001-H

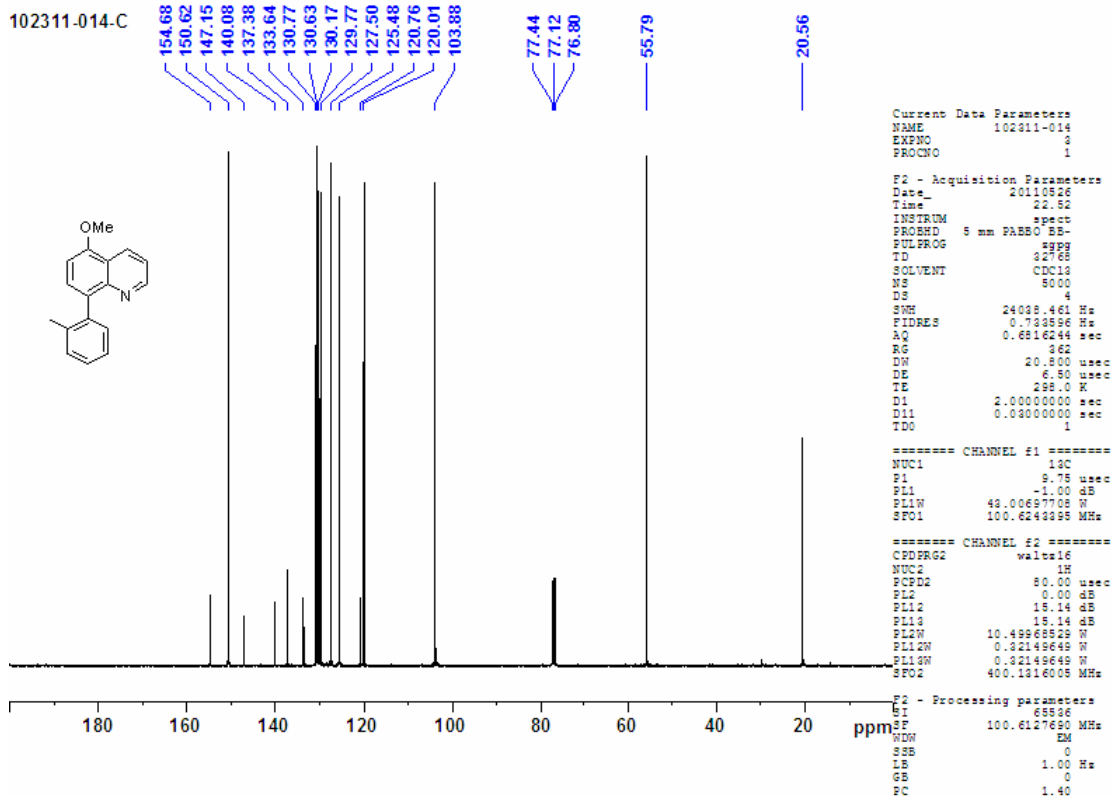
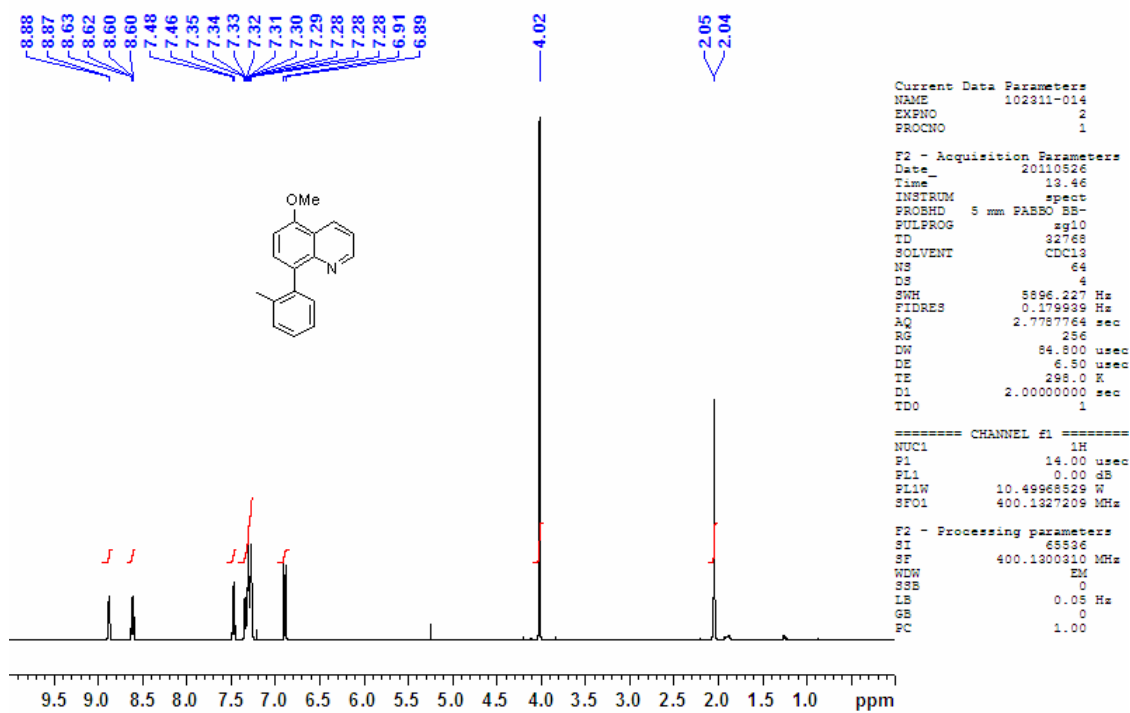


9903-001-C



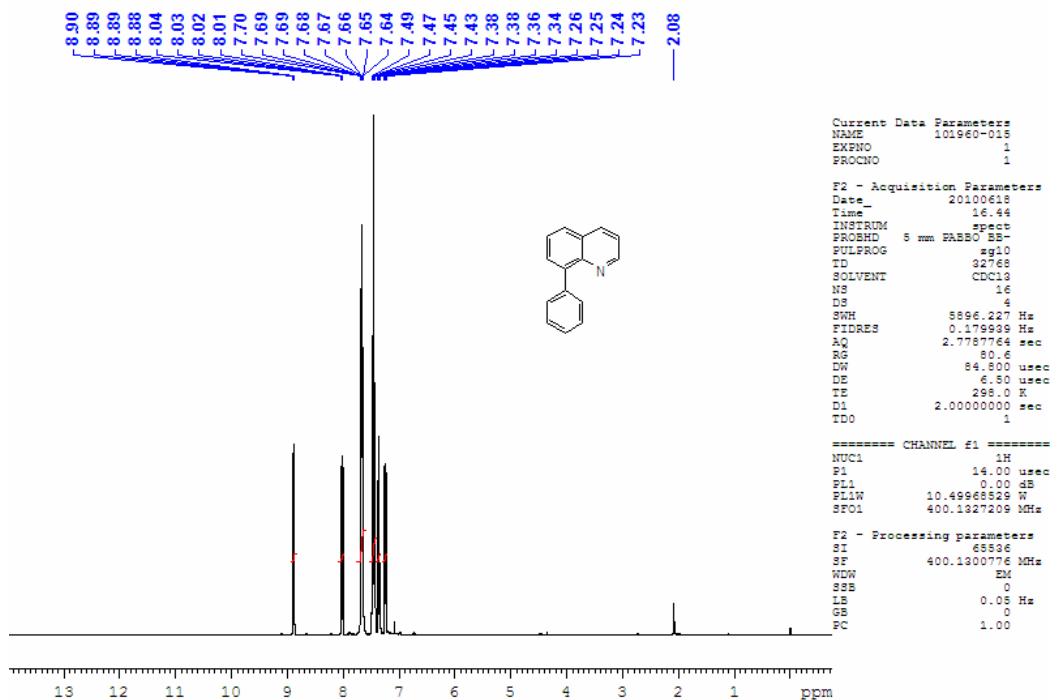
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102311-014-H

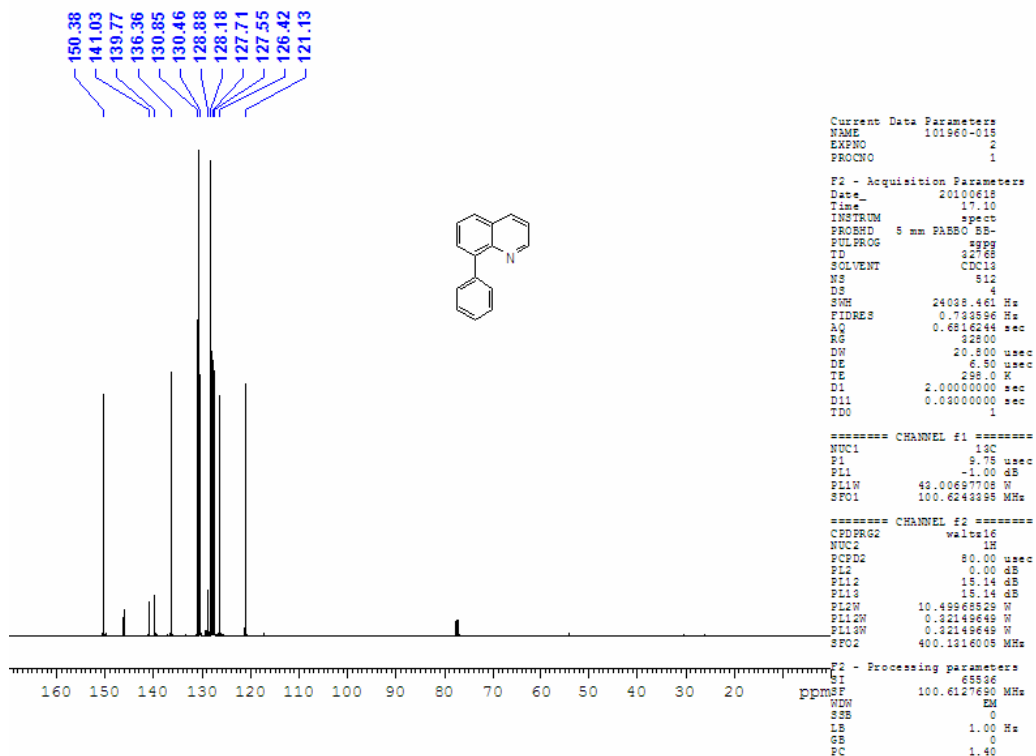


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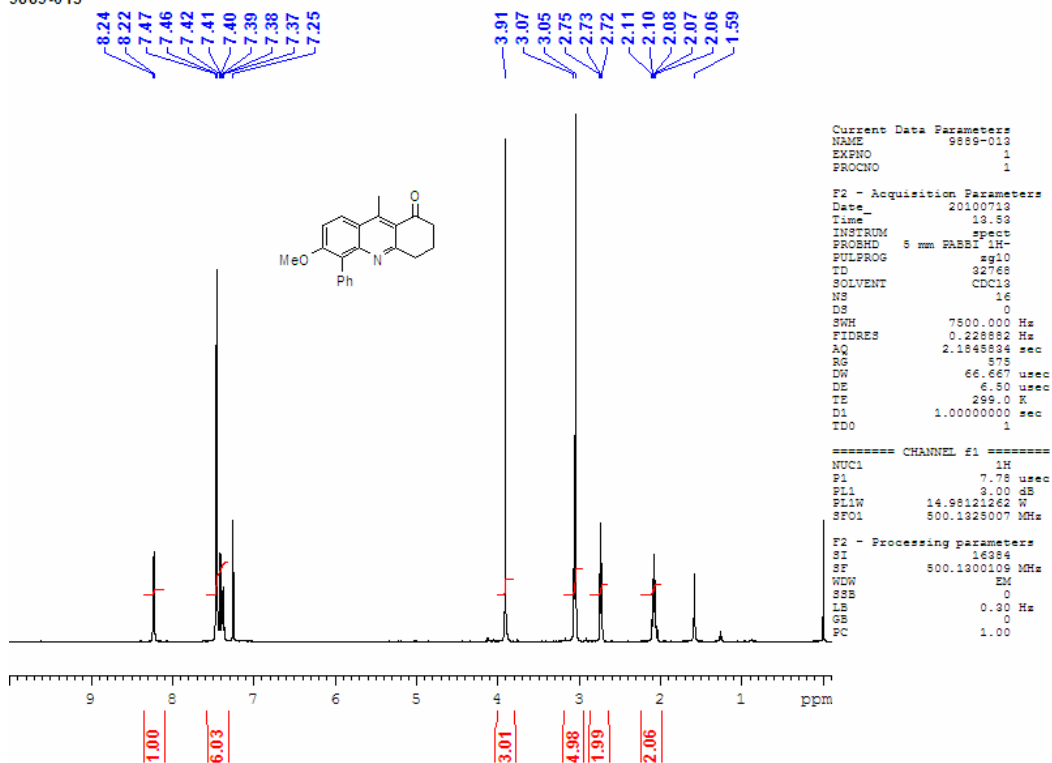


101960-015 CDCl3

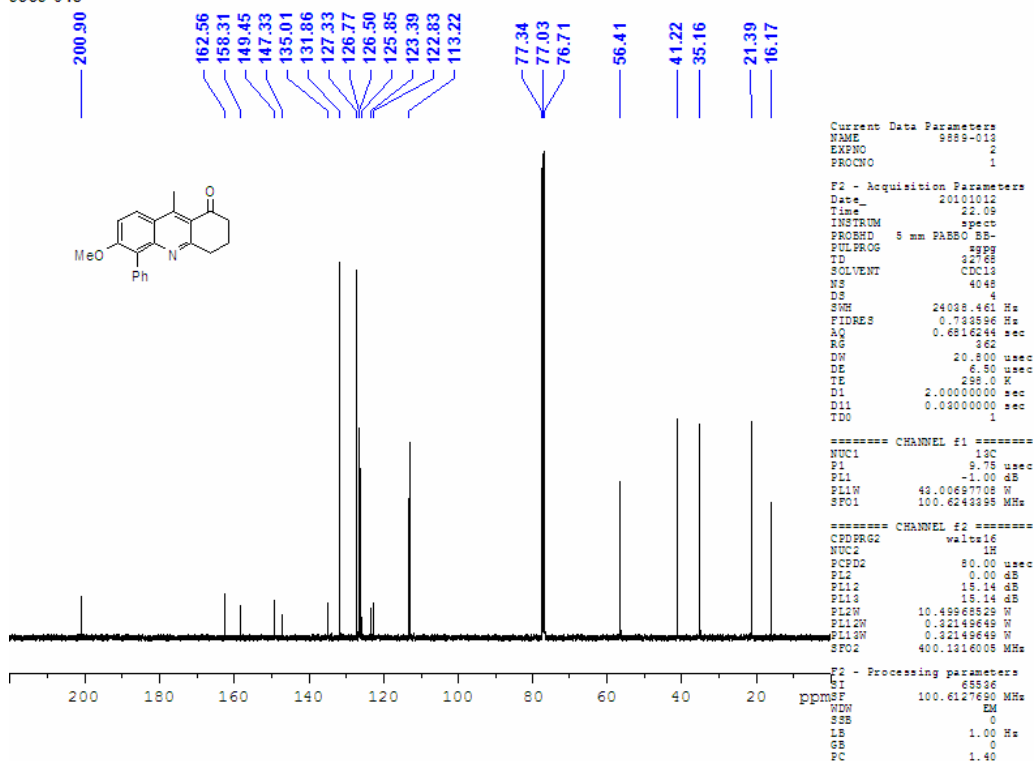


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9889-013

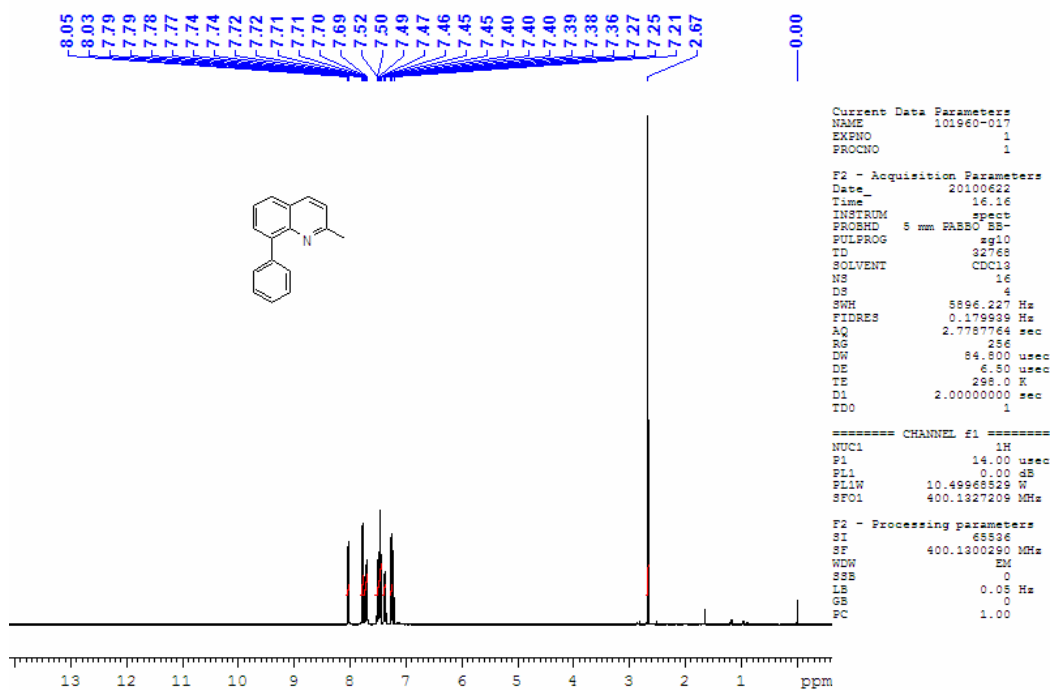


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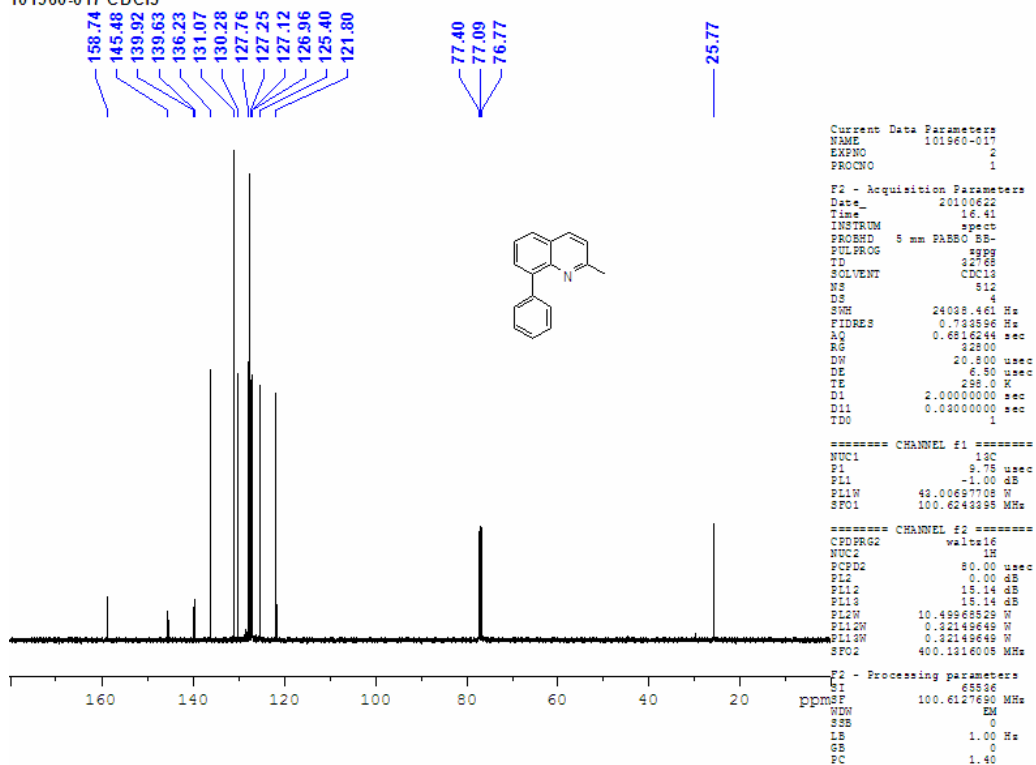


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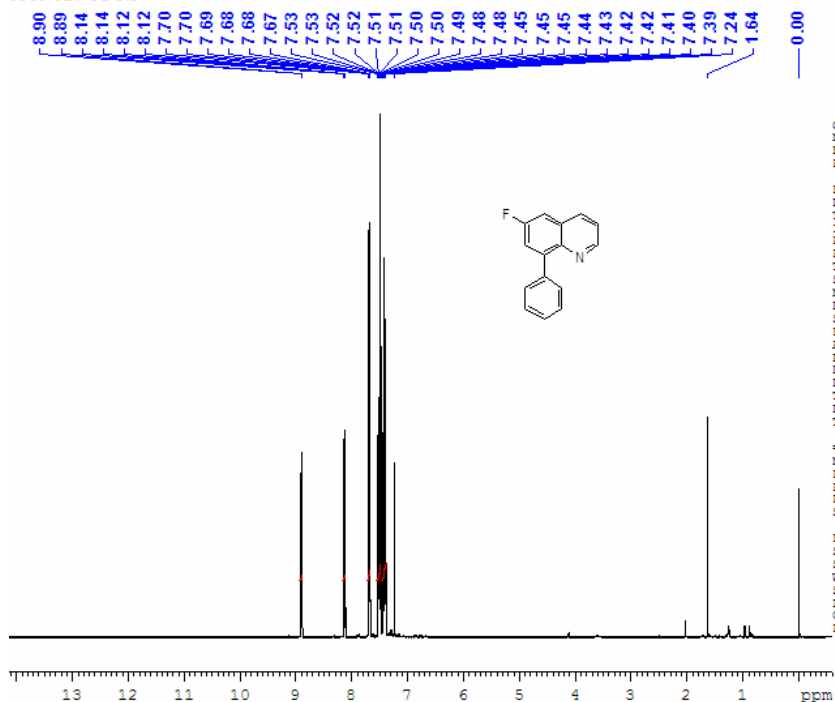


101960-017 CDCl<sub>3</sub>



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9889-021 CDCl<sub>3</sub>



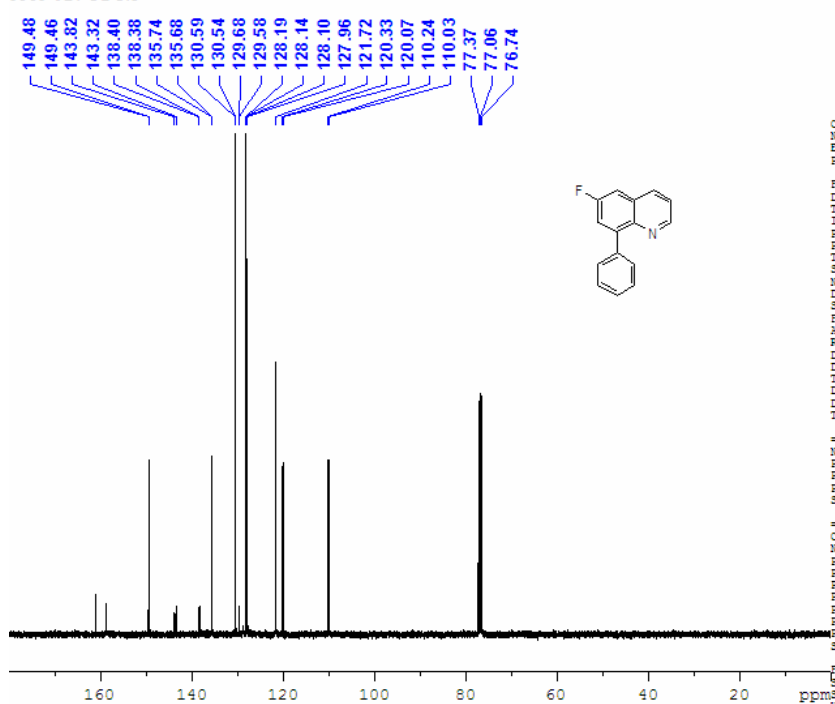
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TD0 1

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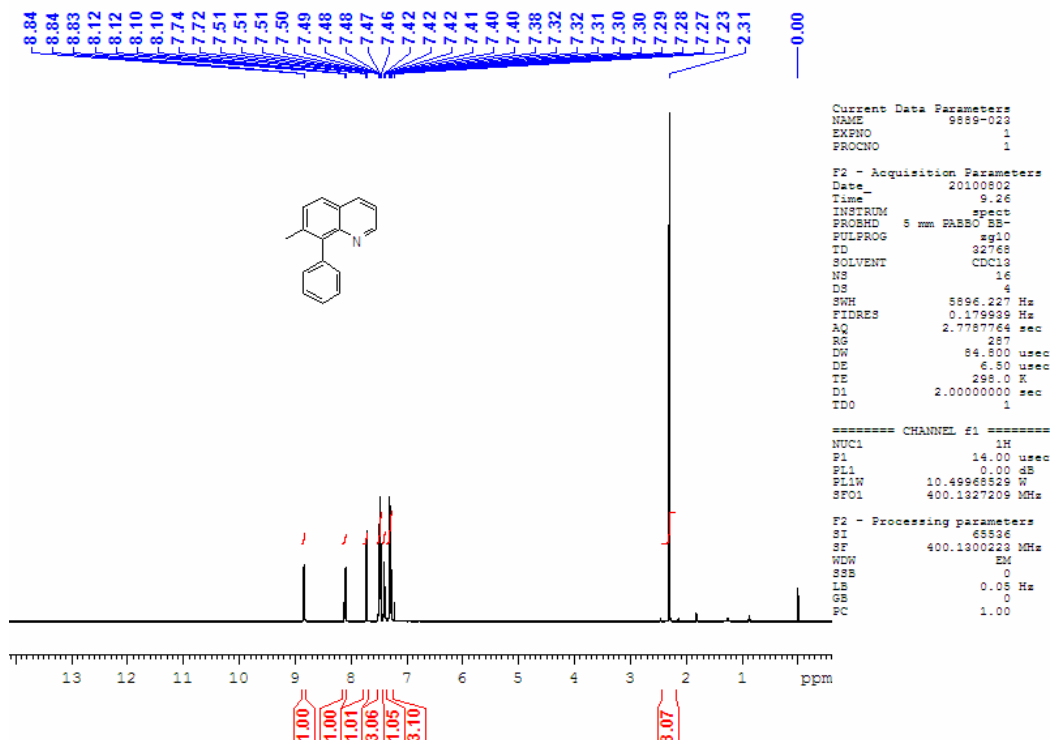
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PL12W 0.32149649 W  
PL13W 0.32149649 W  
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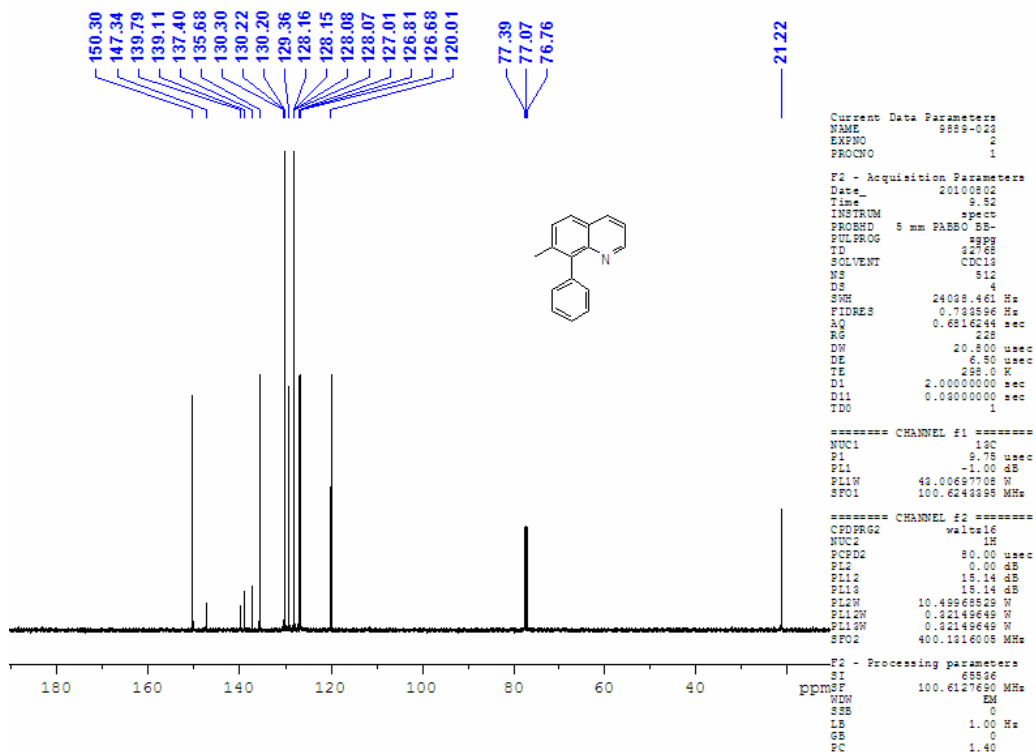


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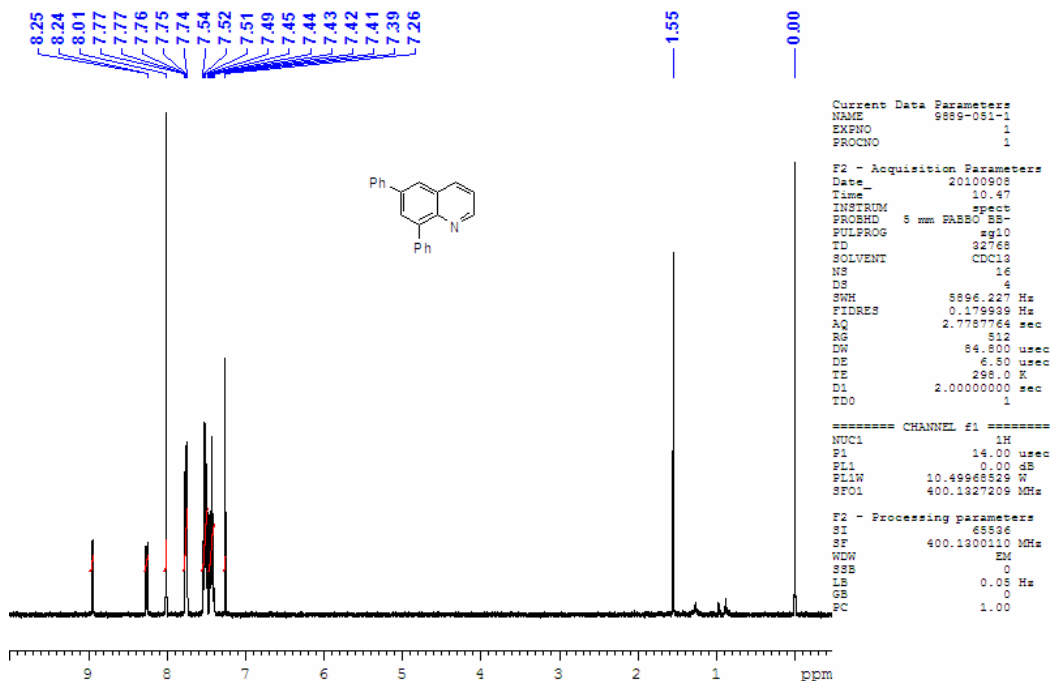


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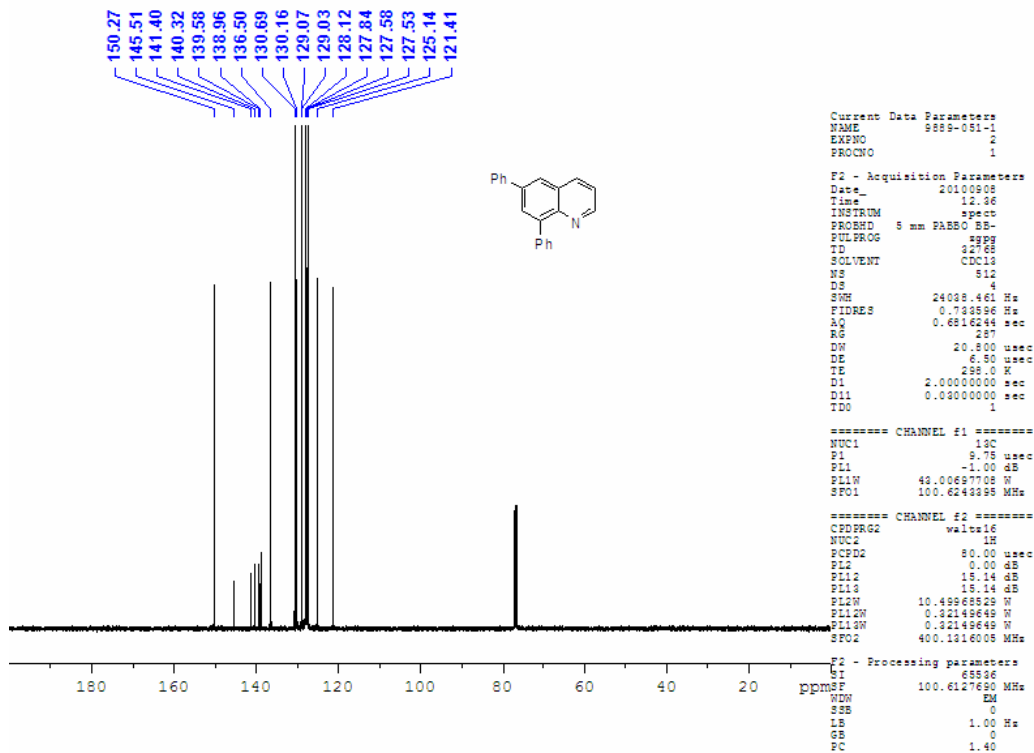


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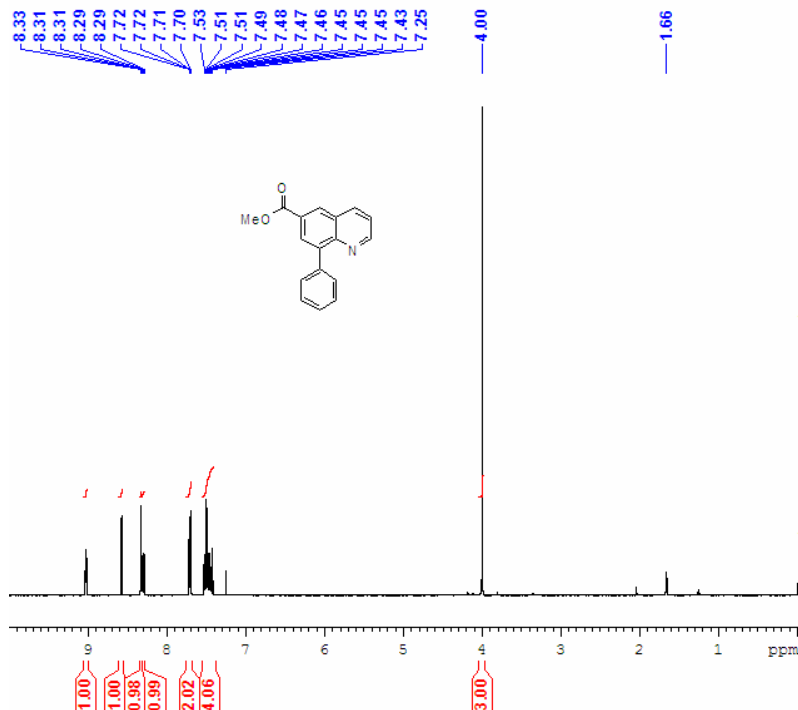


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101946-083-H



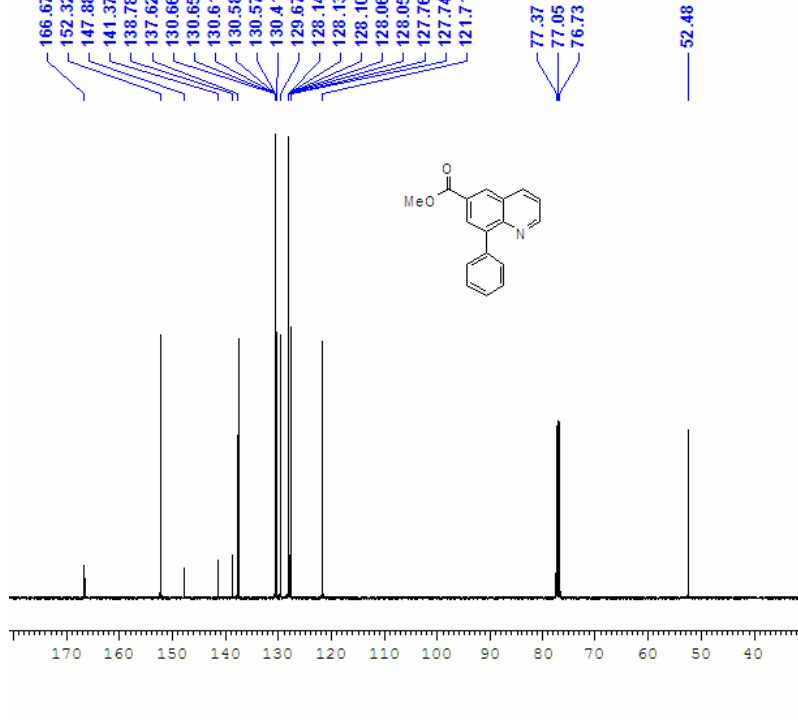
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TE 298.0 K  
D1 2.00000000 sec  
TDO 1

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101946-083-C



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DE 6.50 usec  
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D1 2.00000000 sec  
D11 0.03000000 sec  
TDO 1

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SFO1 100.6243395 MHz

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PCPD2 80.00 usec  
PL2 0.00 dB  
PL12 15.14 dB  
PL13 15.14 dB  
PL1W 10.49968529 W  
PL12W 0.32149649 W  
PL13W 0.32149649 W  
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