

# **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**

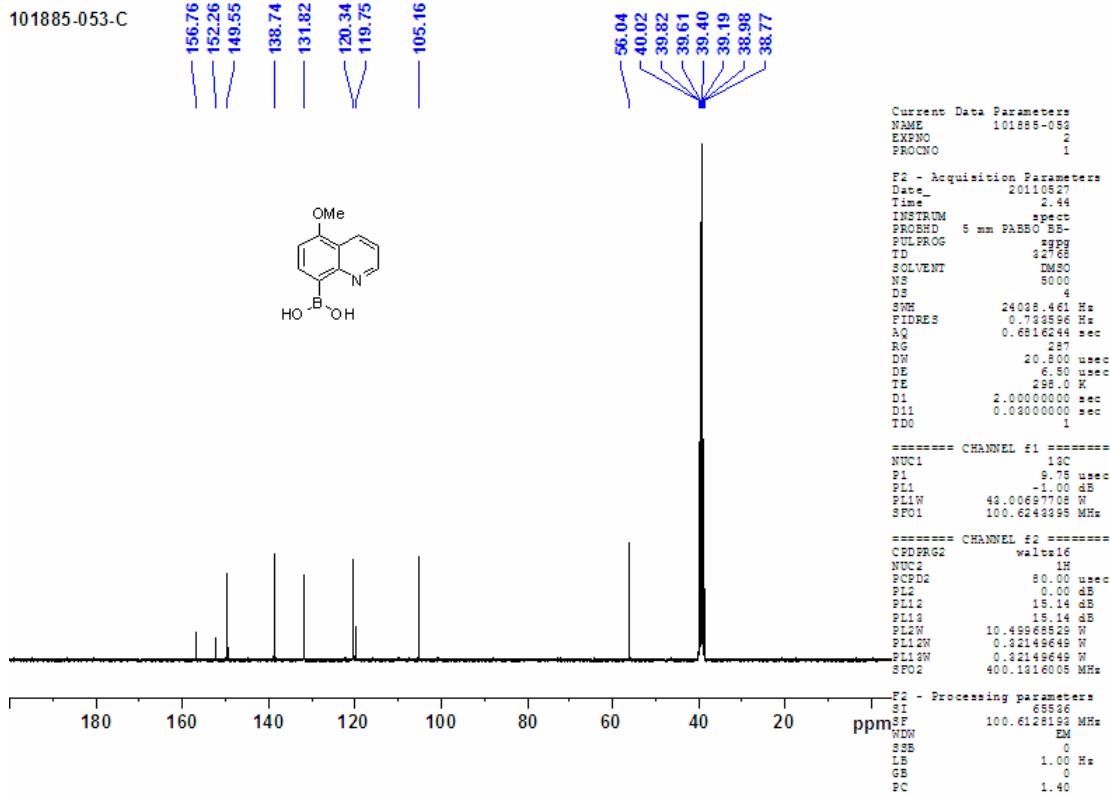
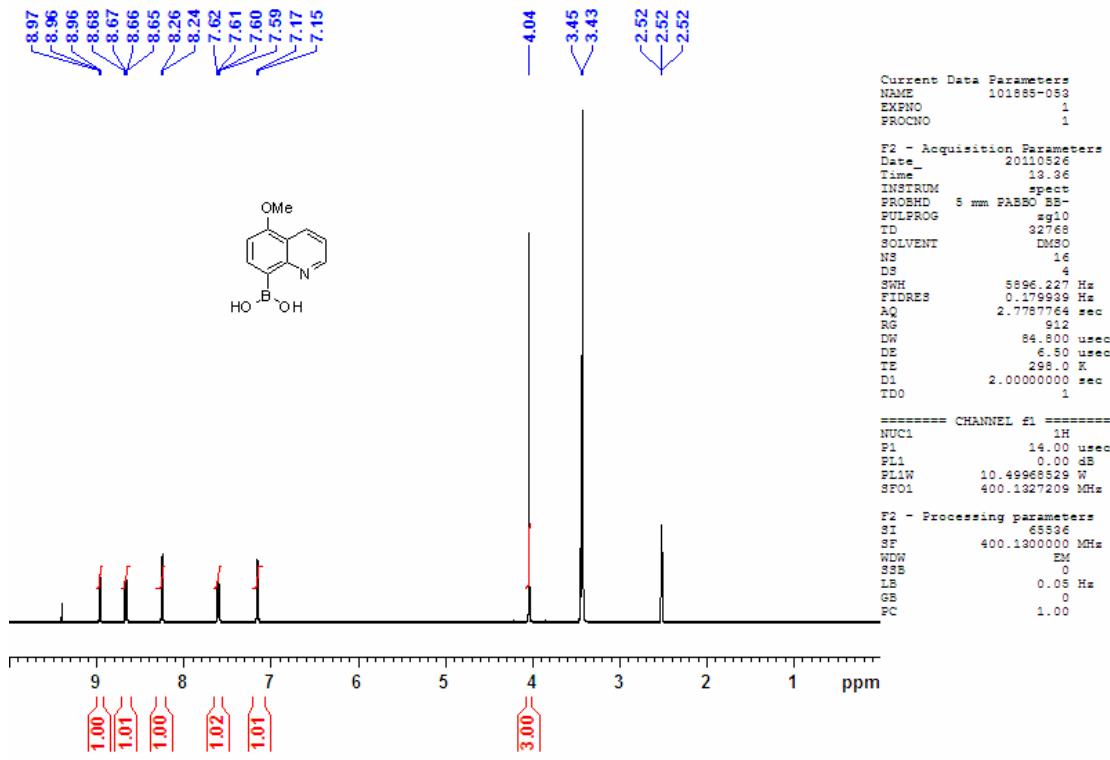
- I. General information (page SI-2)
- II. Spectra data ( $^1\text{H}$  and  $^{13}\text{C}$  NMR) of new compounds. (page SI-3)

**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, KMnO<sub>4</sub>, aqueous ceric ammonium molybdate, or bromocresol green dips followed by heating.

<sup>1</sup>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 (CDCl<sub>3</sub>)], multiplicity (s = singlet, d = doublet, t = triplet, q = quartet and m = multiplet), integration, and coupling constant (Hz). <sup>13</sup>C NMR and spectra were recorded on a 400 MHz spectrometer at ambient temperature. Chemical shifts are reported in ppm from CDCl<sub>3</sub> taken as 77.0 ppm.

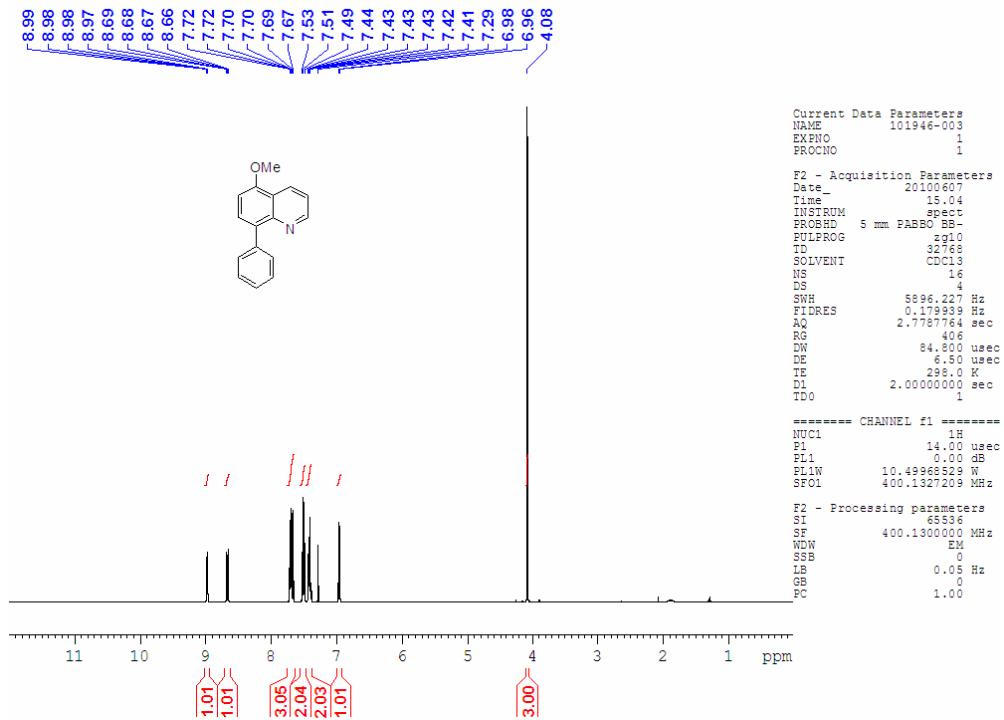
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101885-053-H

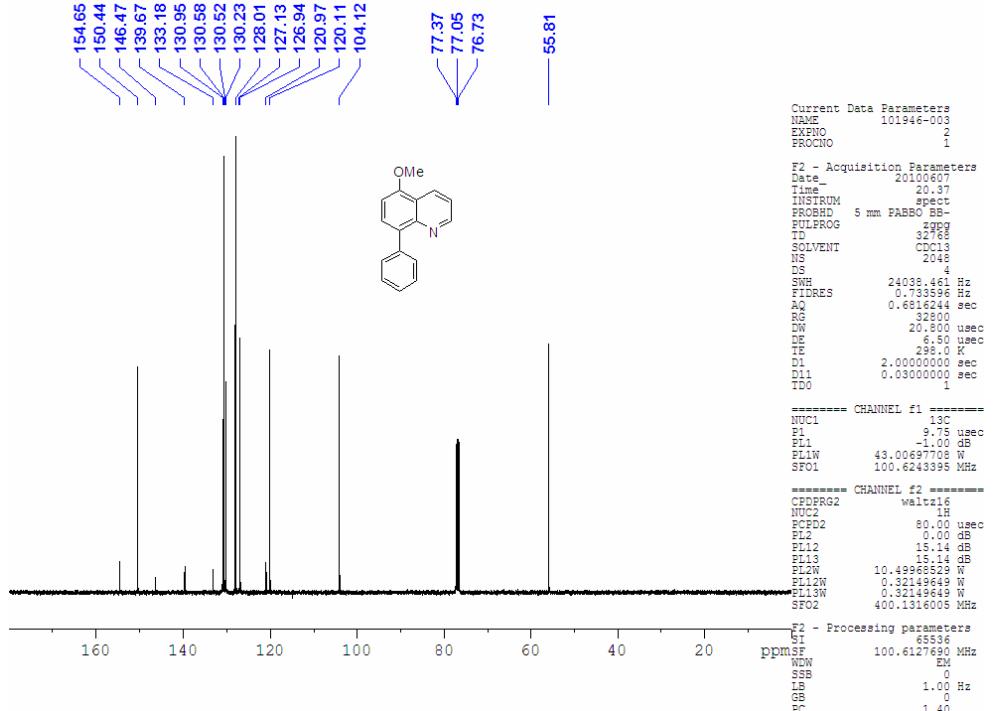


## 5-methoxy-8-phenylquinoline (4)

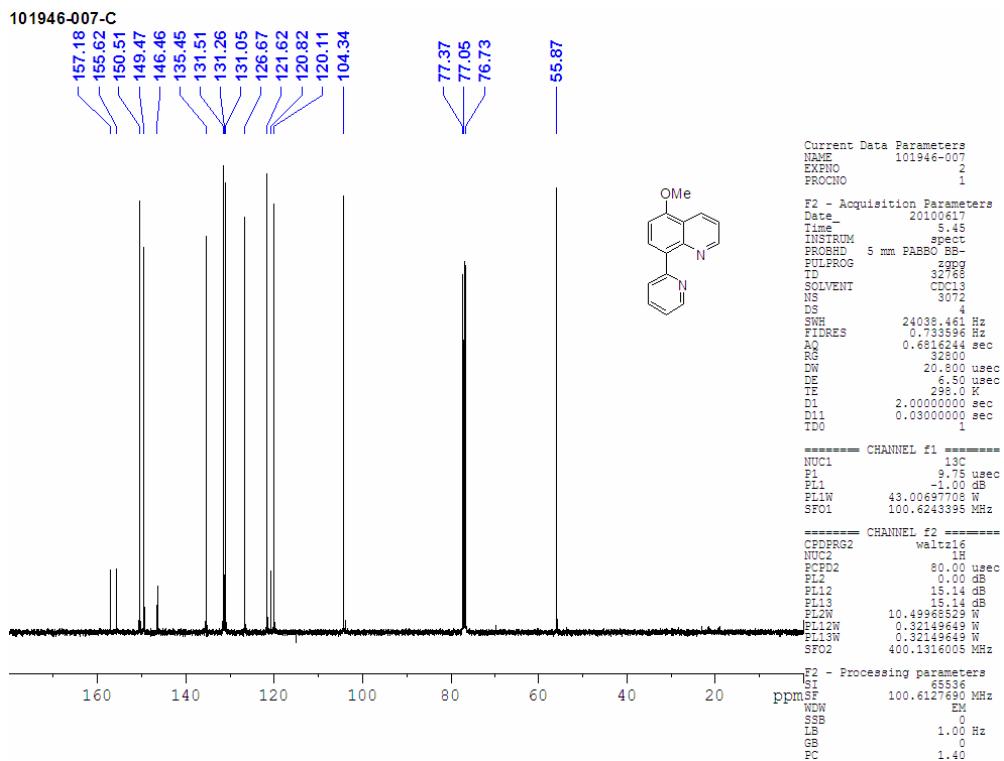
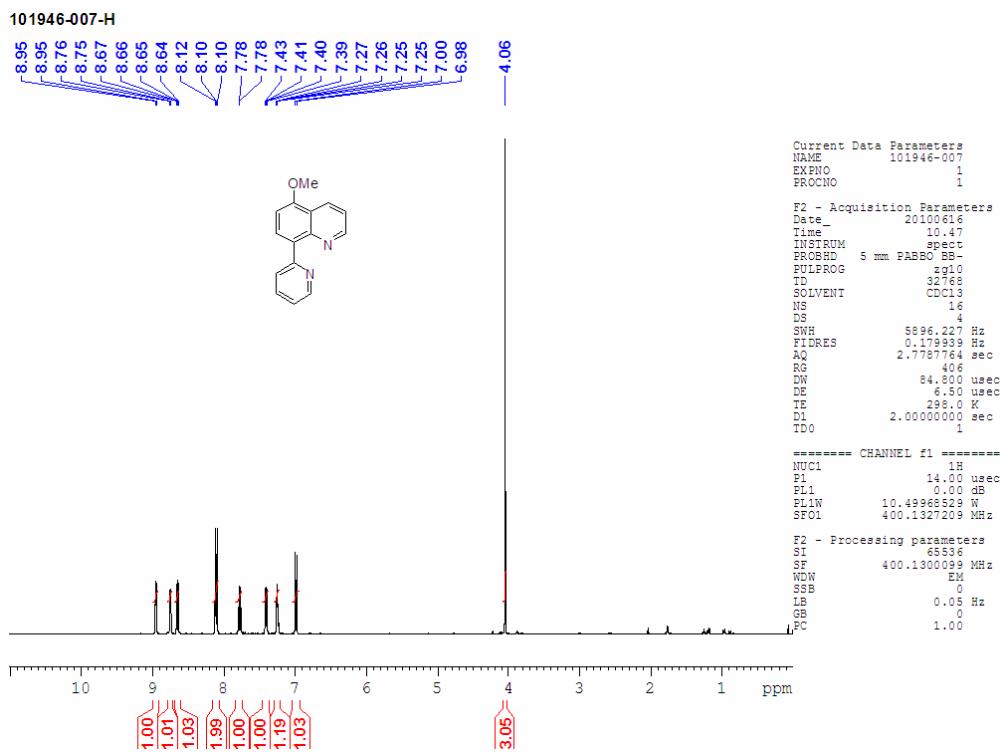
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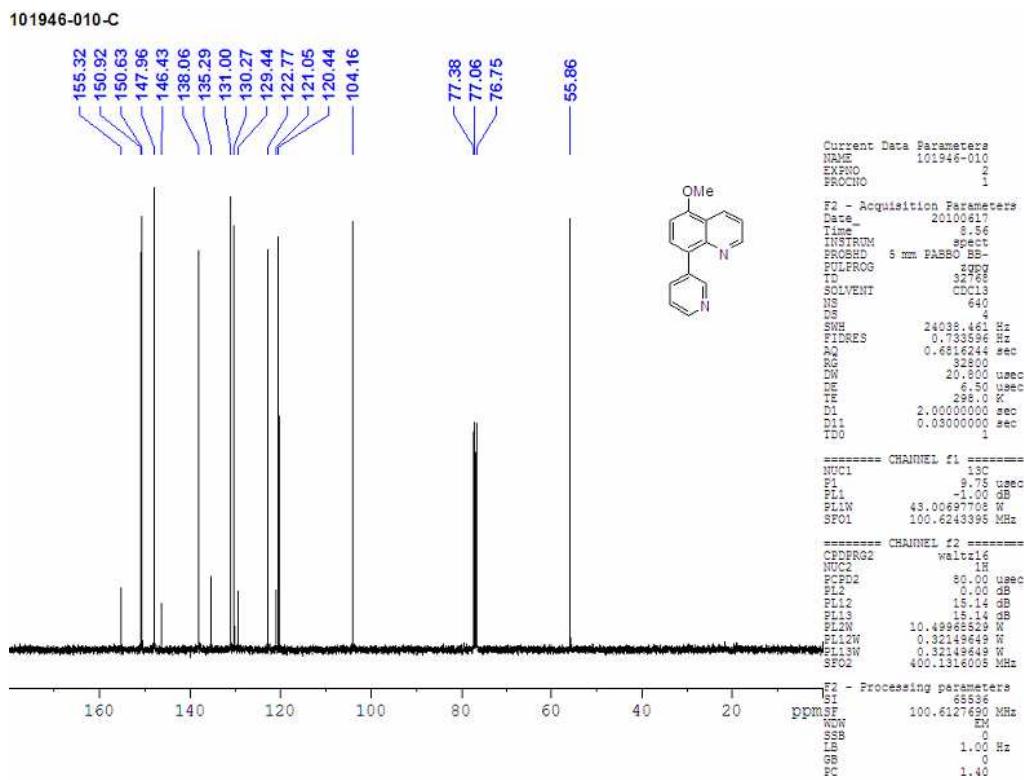
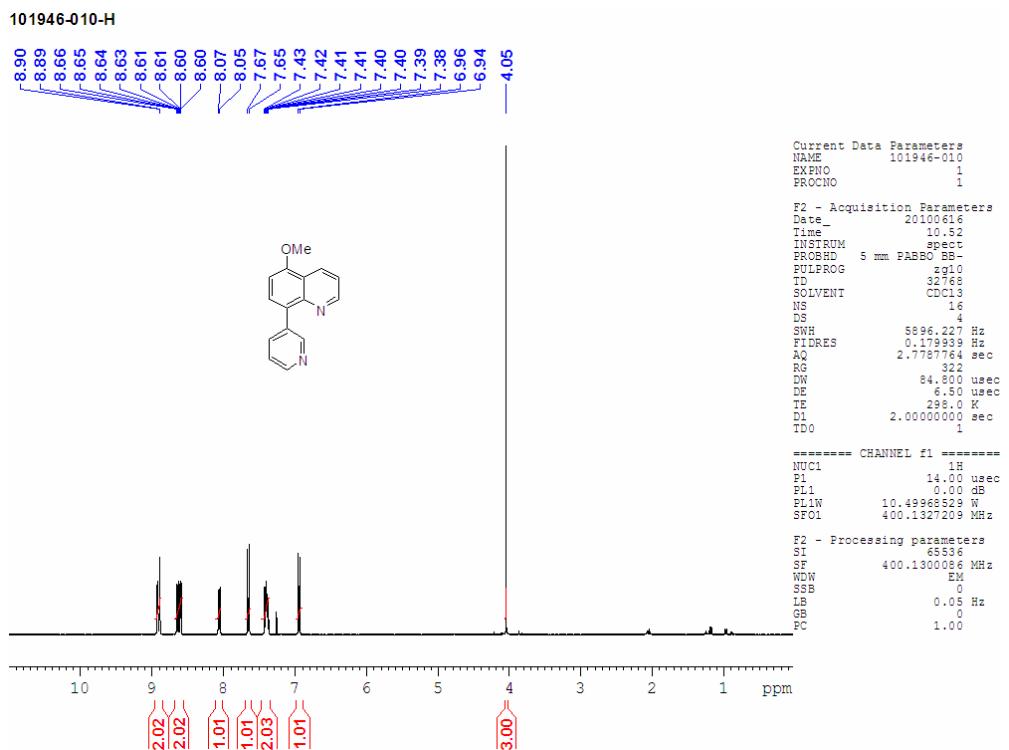
101946-003-C



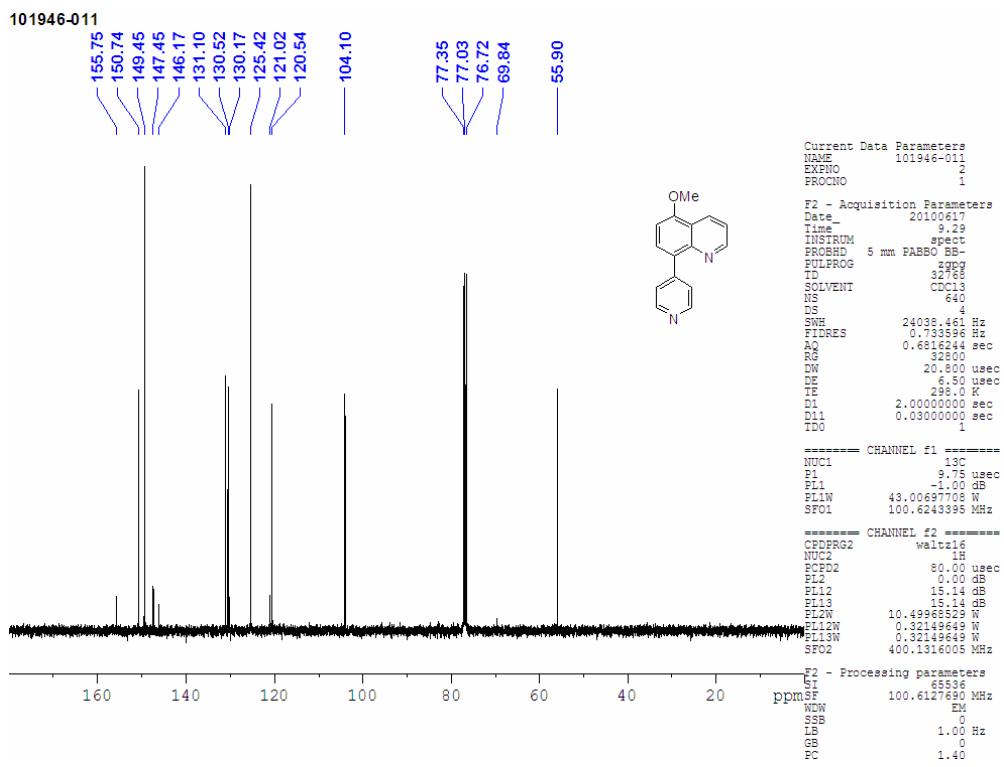
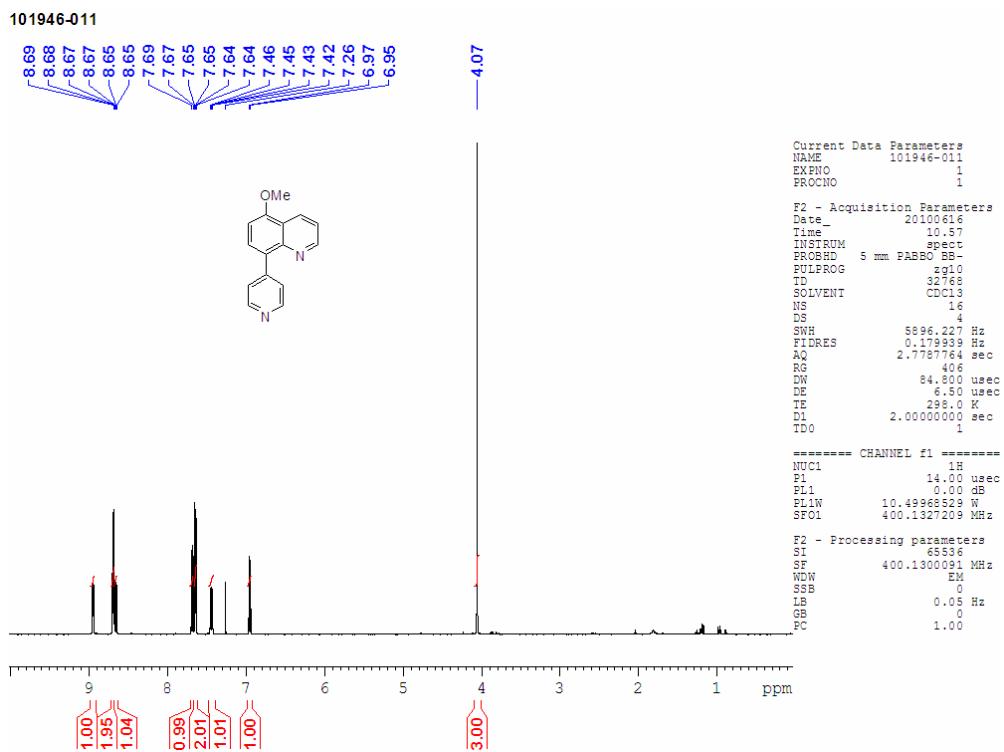
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### 5-Methoxy-8-(pyridin-3-yl)quinoline (6)

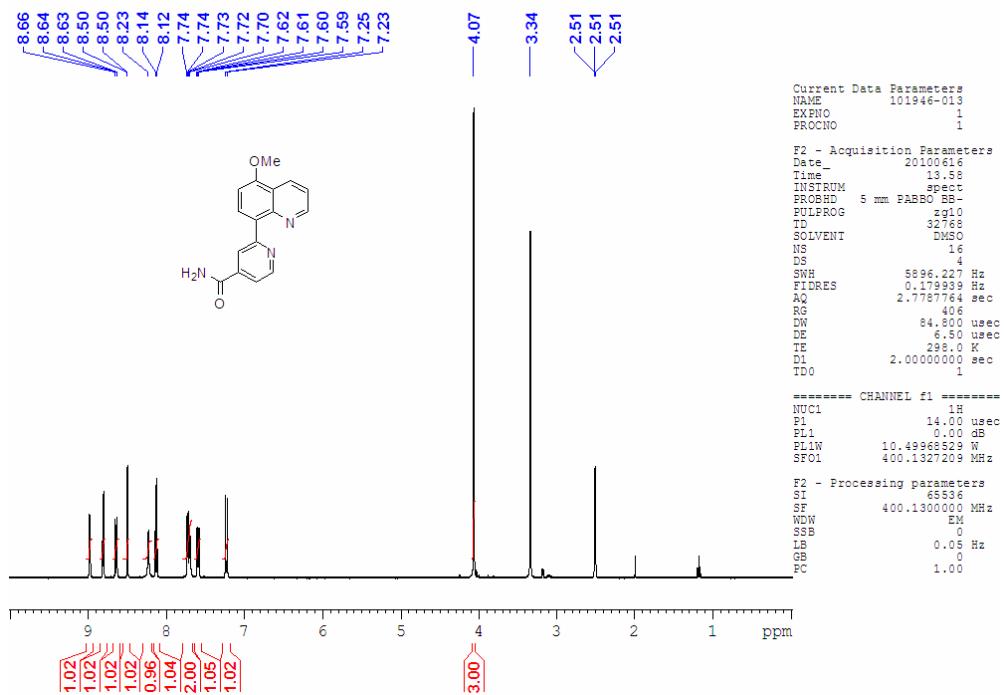


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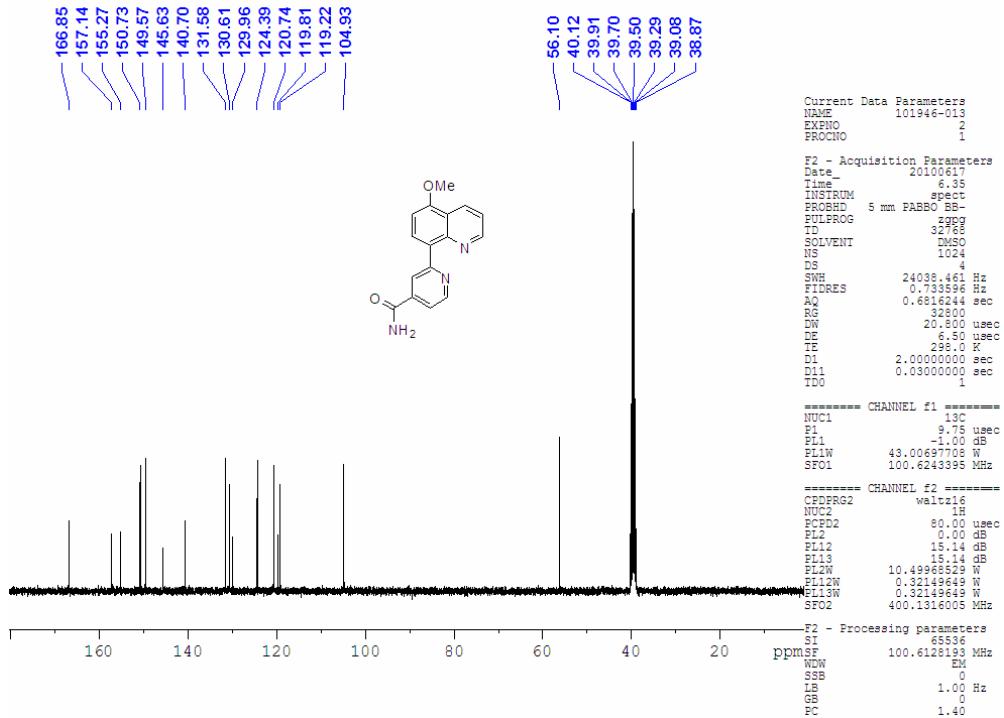


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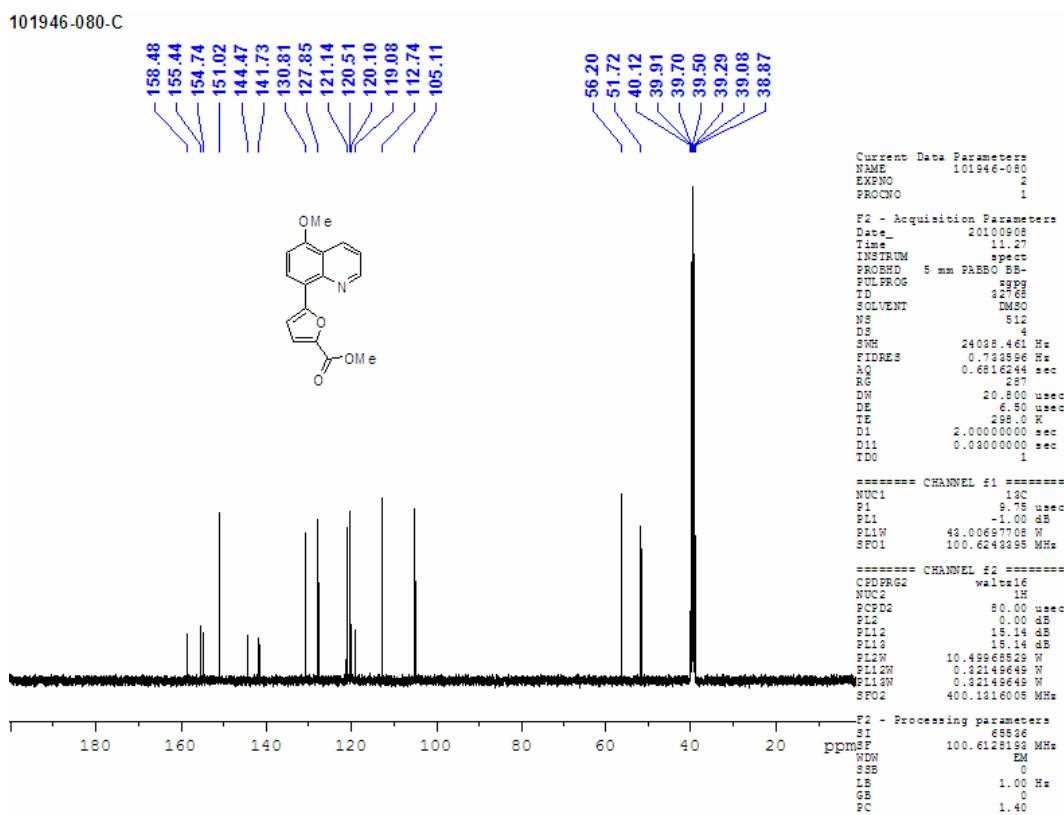
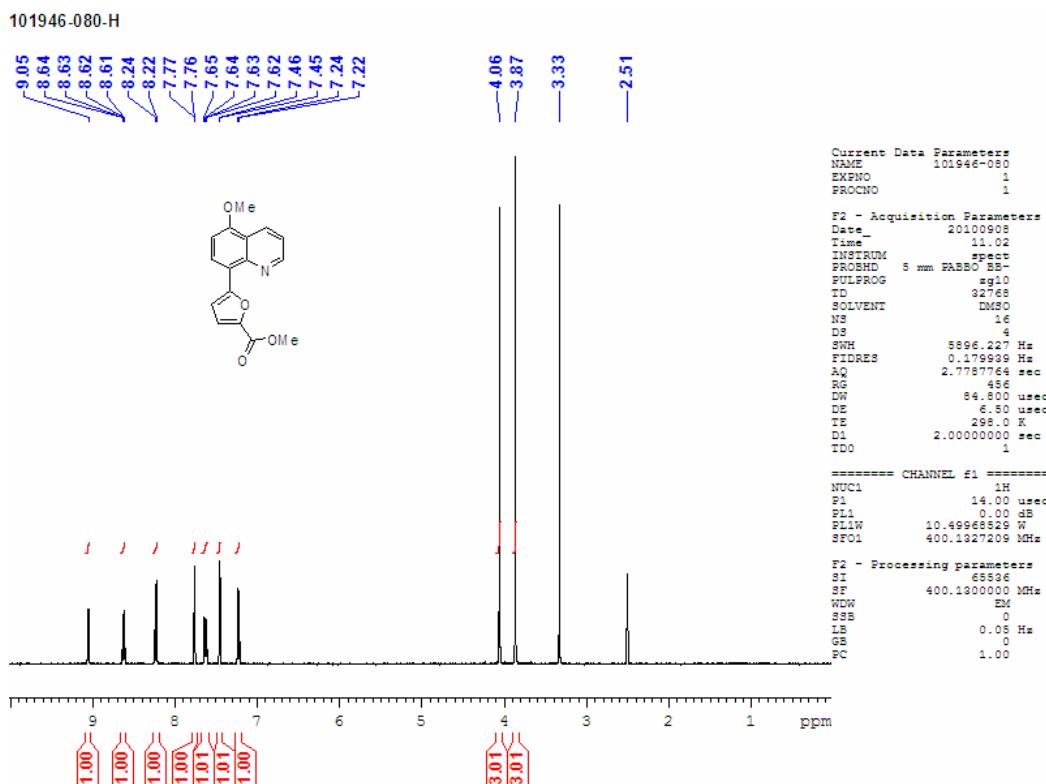
101946-013-H



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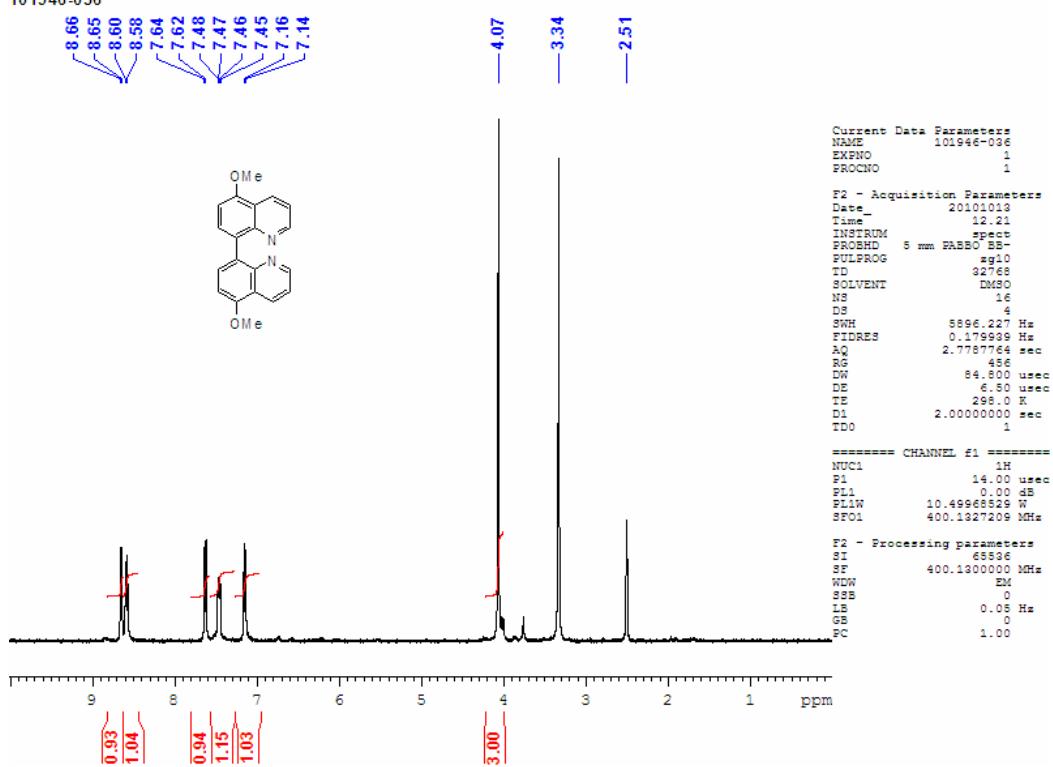


### Methyl 5-(5-methoxy quinolin-8-yl)furan-2-carboxylate (9)

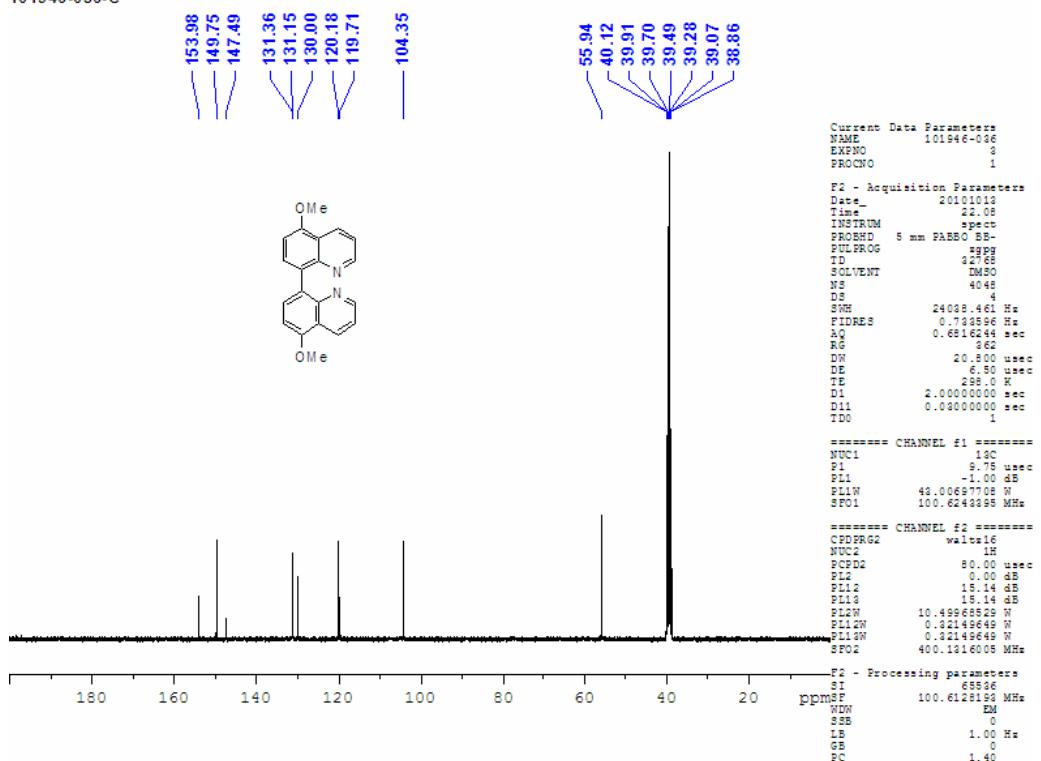


### 5,5'-Dimethoxy-8,8'-biquinoline (10)

101946-036

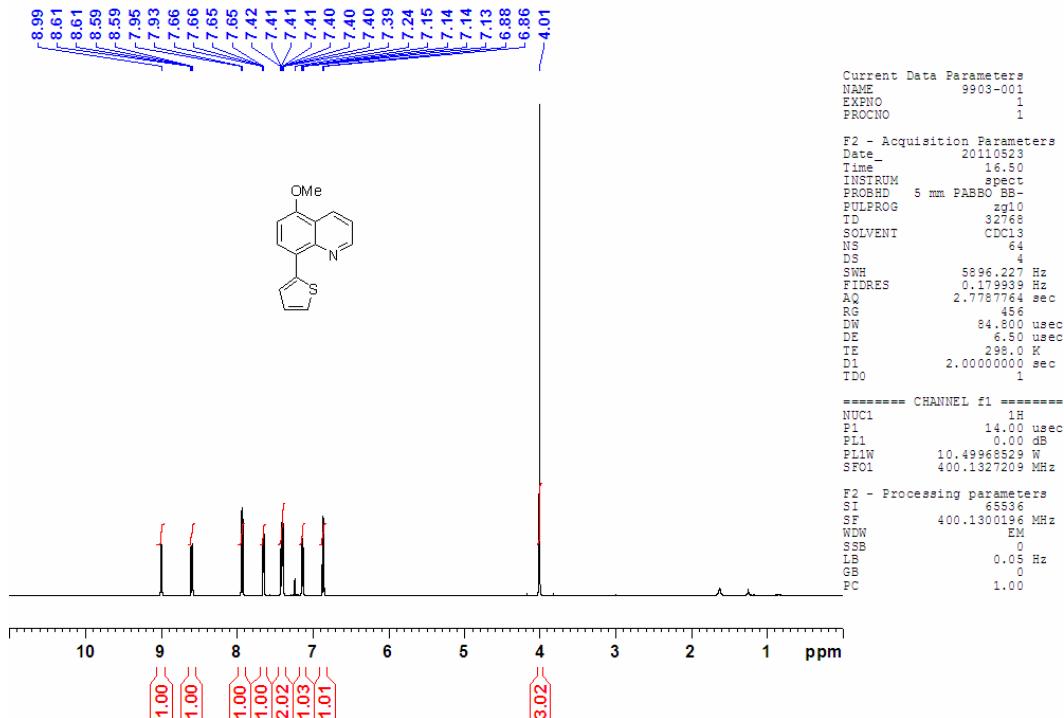


101946-036-C

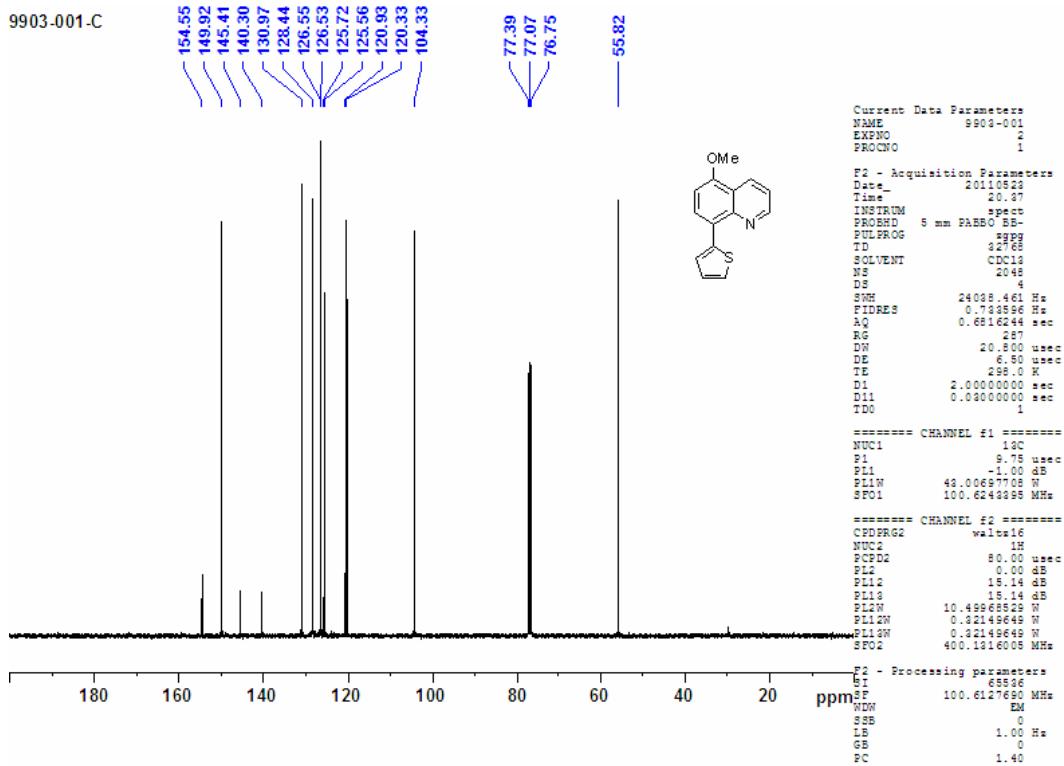


## 5-Methoxy-8-(thiophen-2-yl)quinoline (11)

9903-001-H

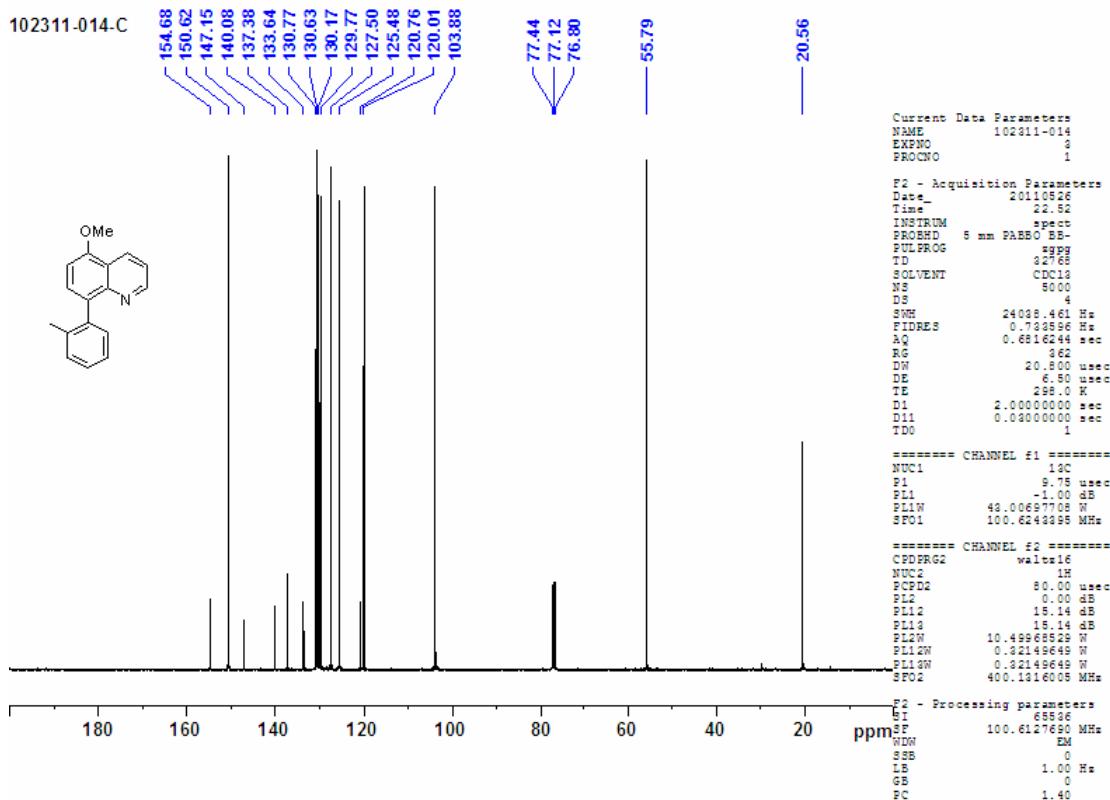
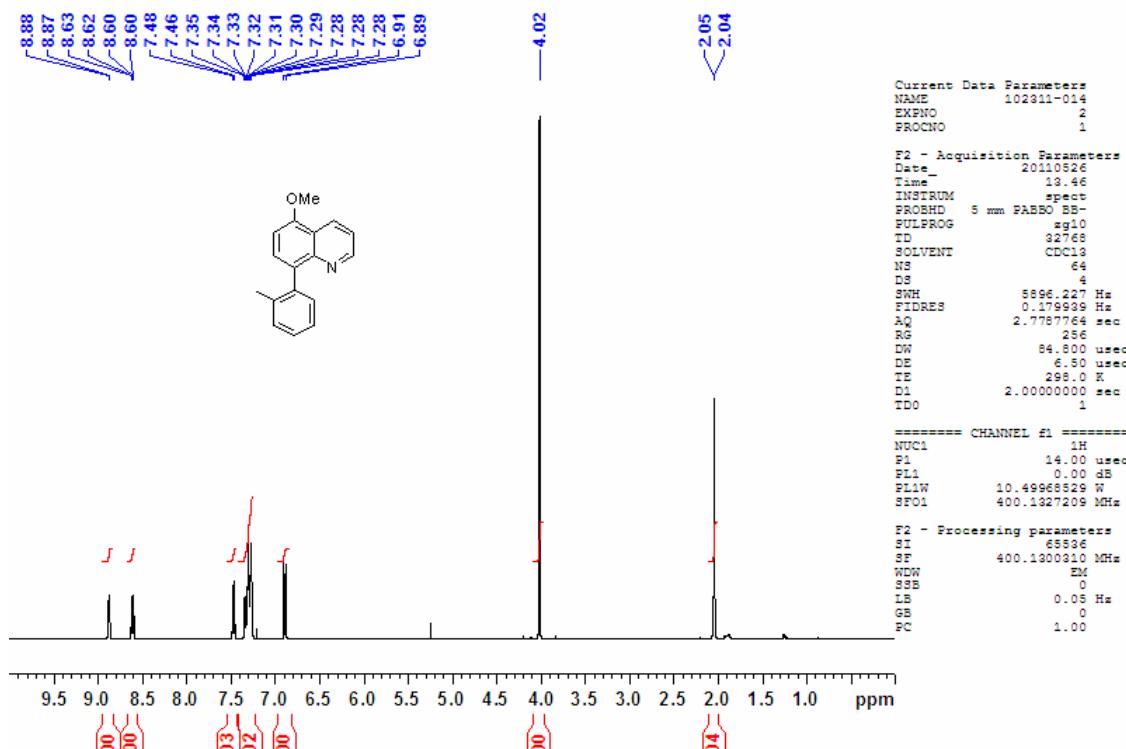


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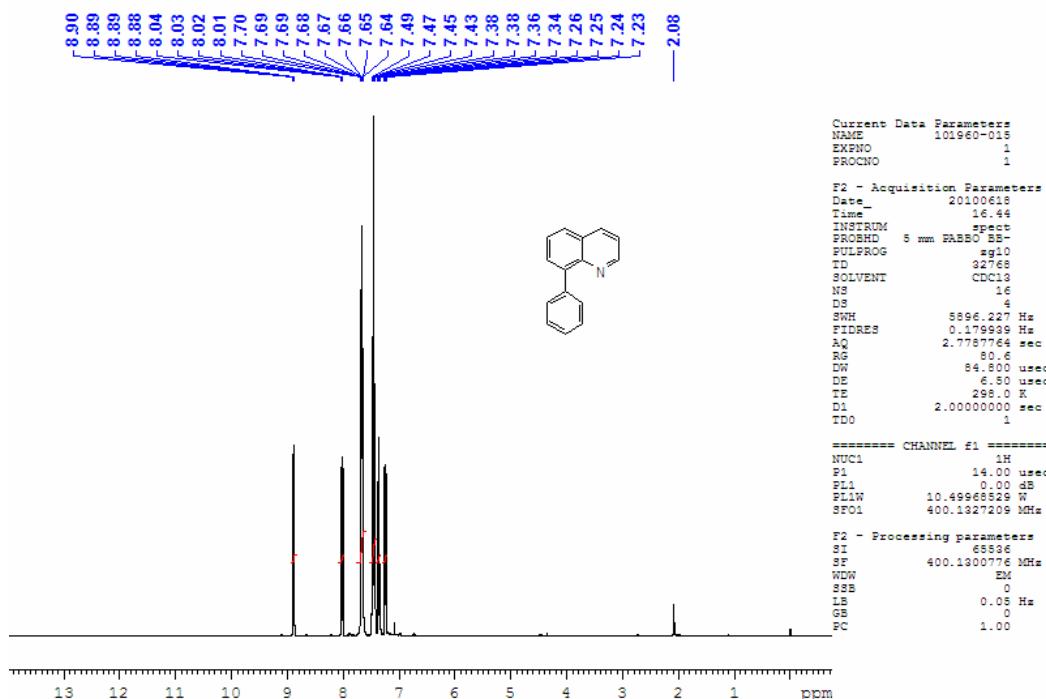
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102311-014-H

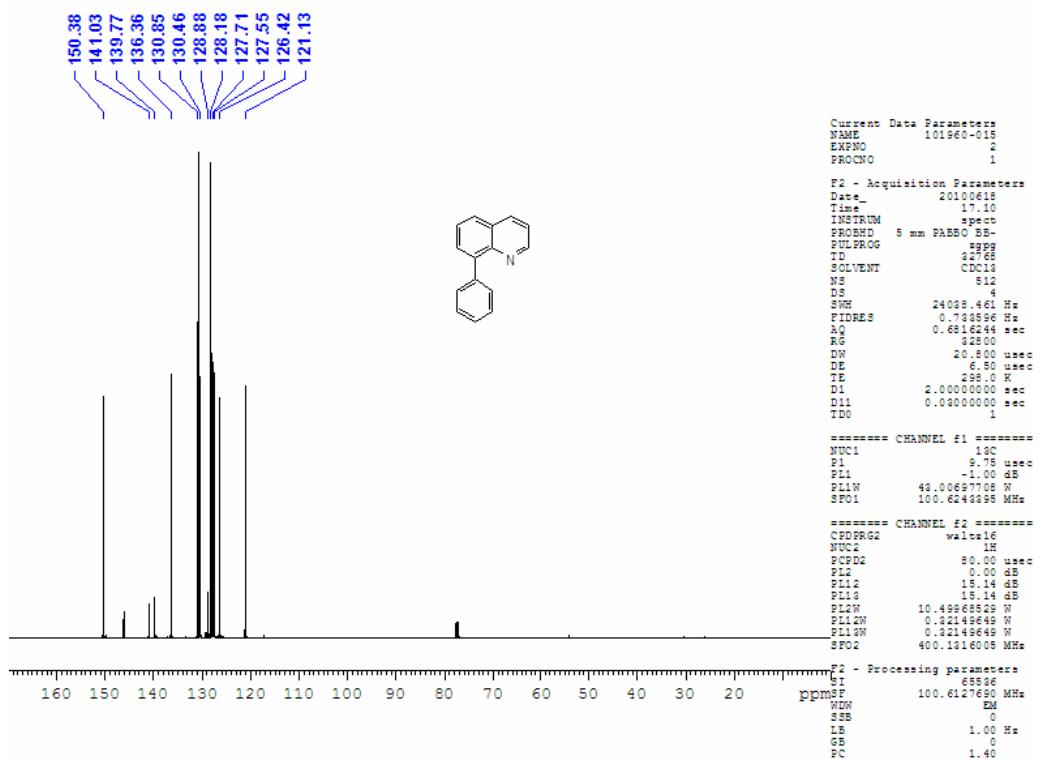


## 8-Phenylquinoline (14)

101960-015 CDCl<sub>3</sub>

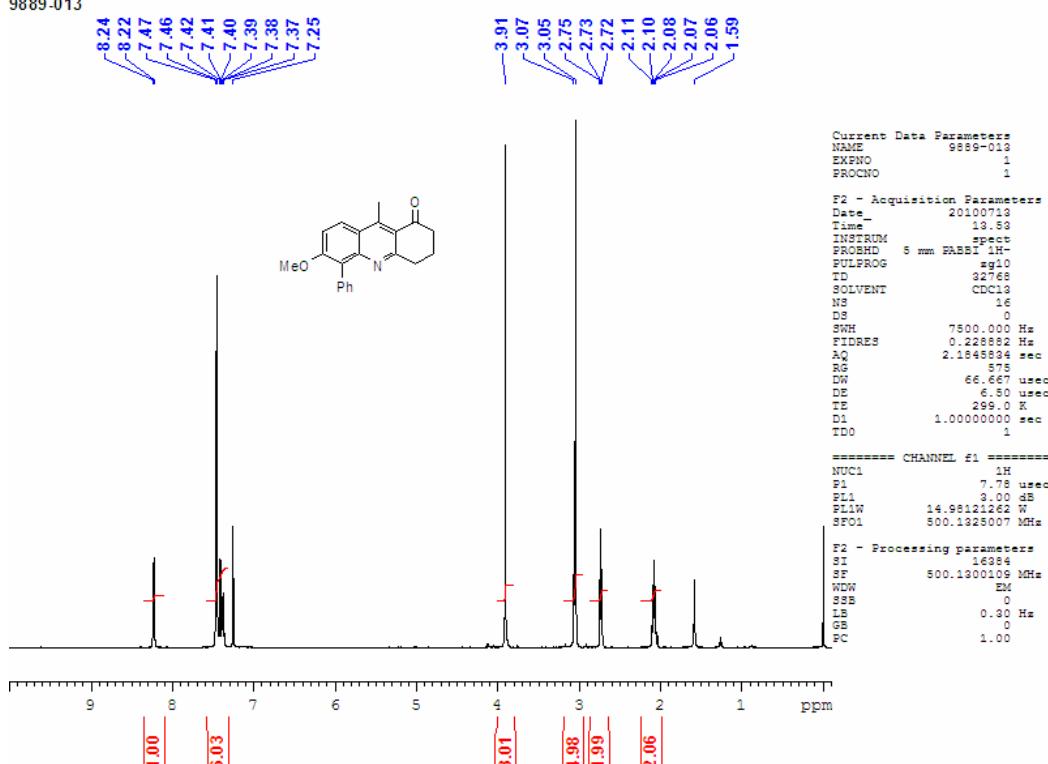


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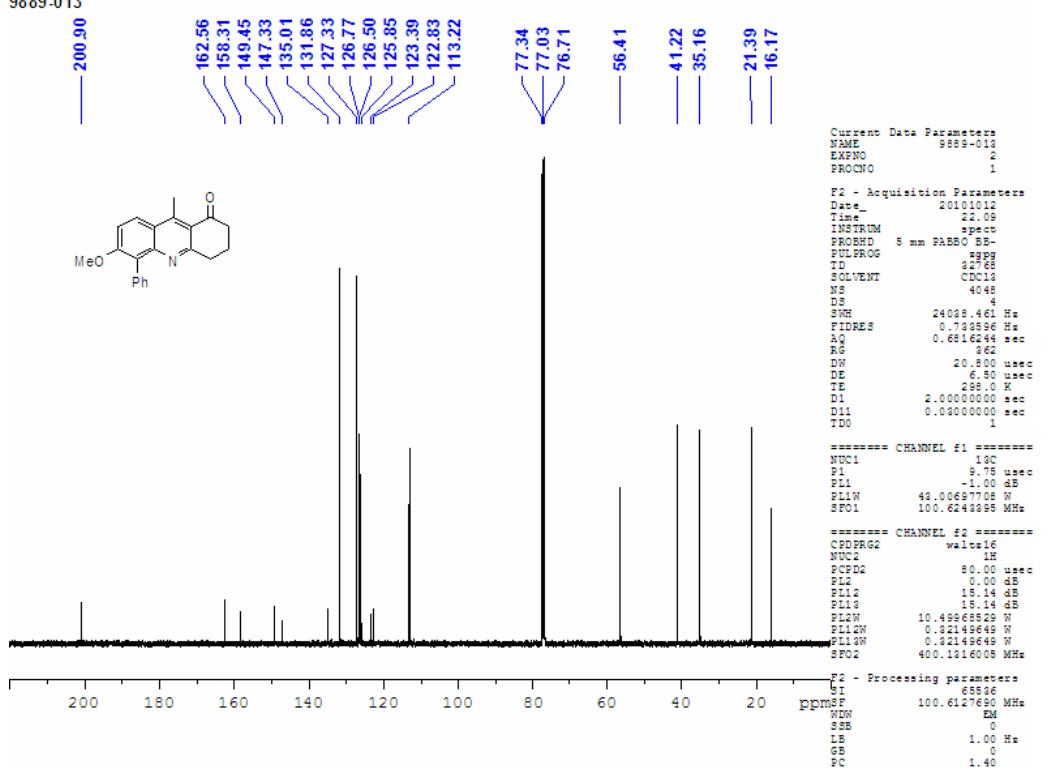


**6-Methoxy-9-methyl-5-phenyl-3,4-dihydroacridin-1(2H)-one (16)**

9889-013

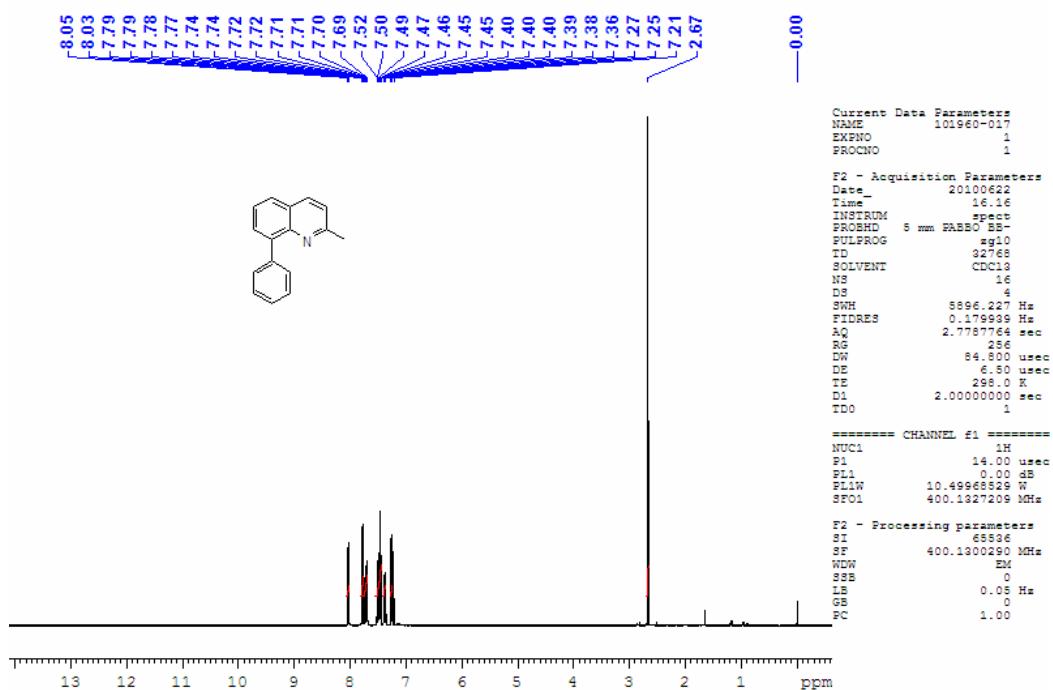


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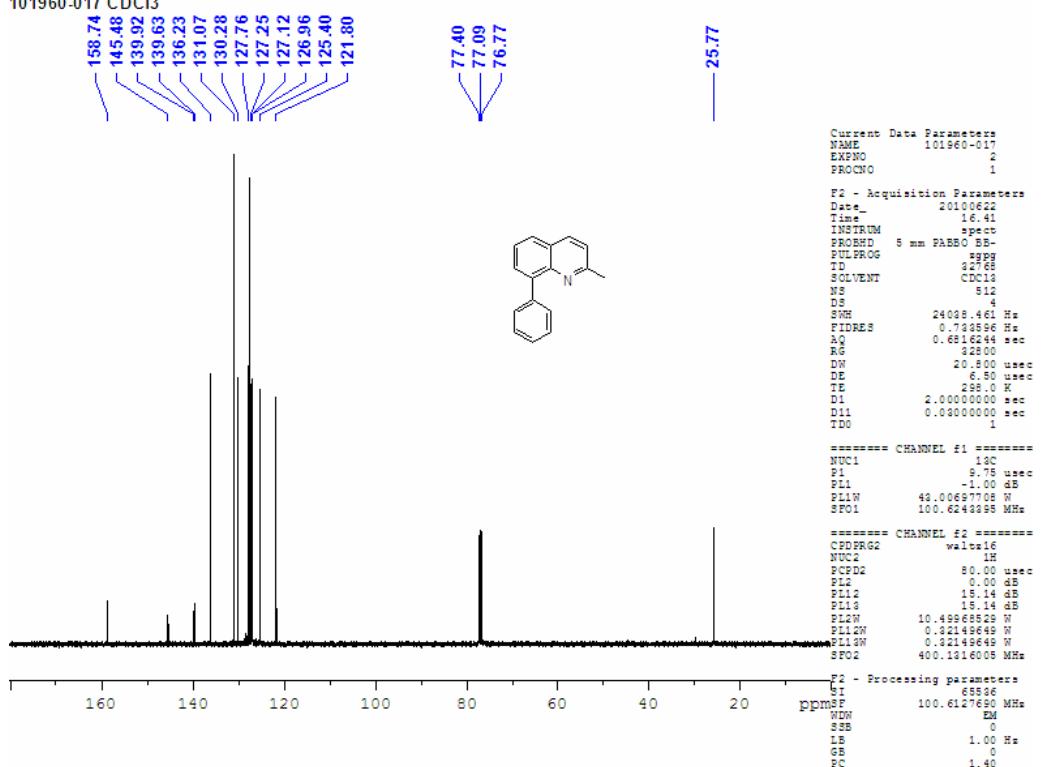


## 2-Methyl-8-phenylquinoline(18)

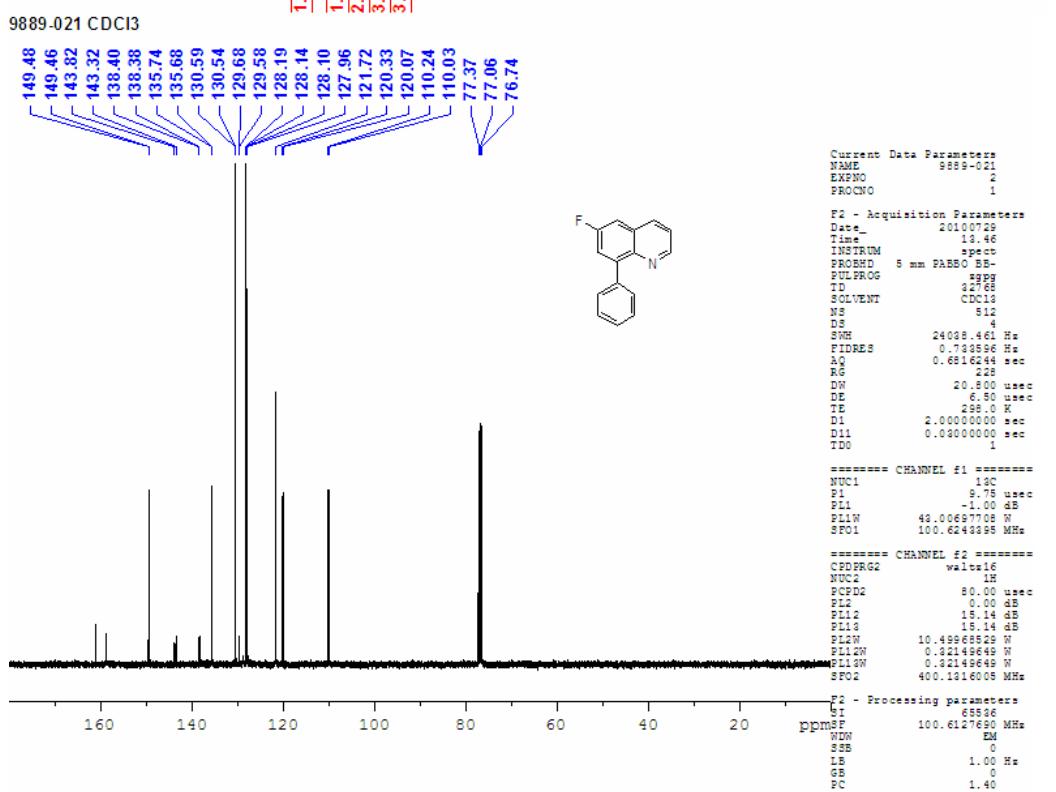
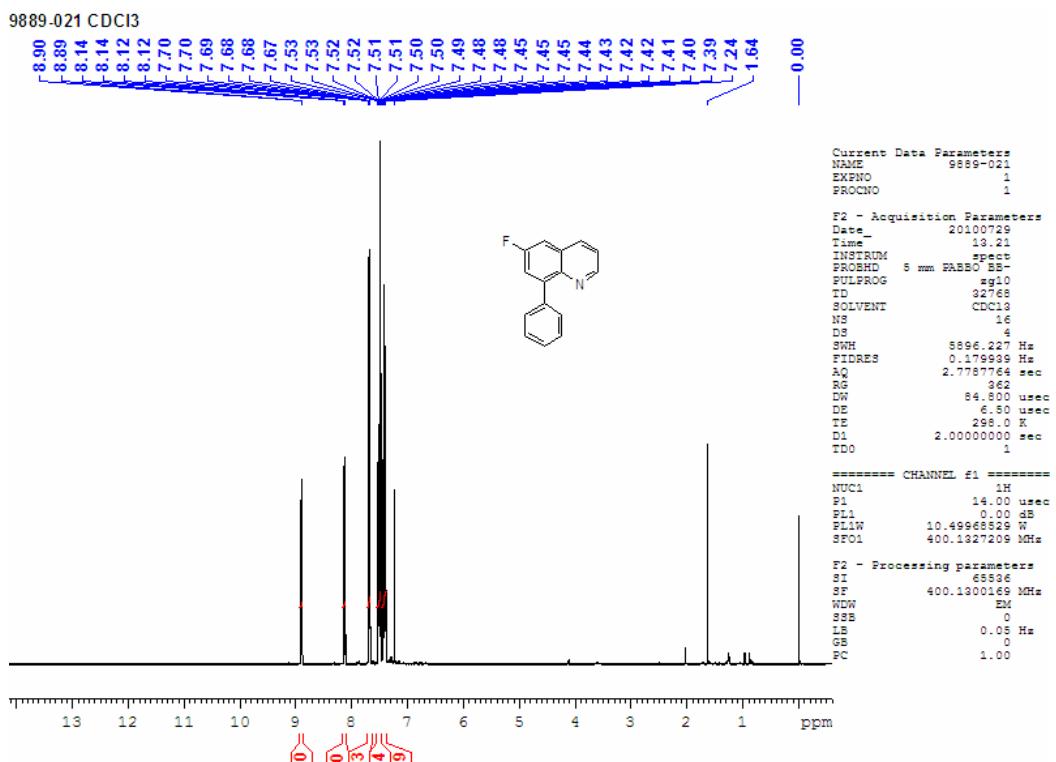
101960-017 CDCl<sub>3</sub>



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

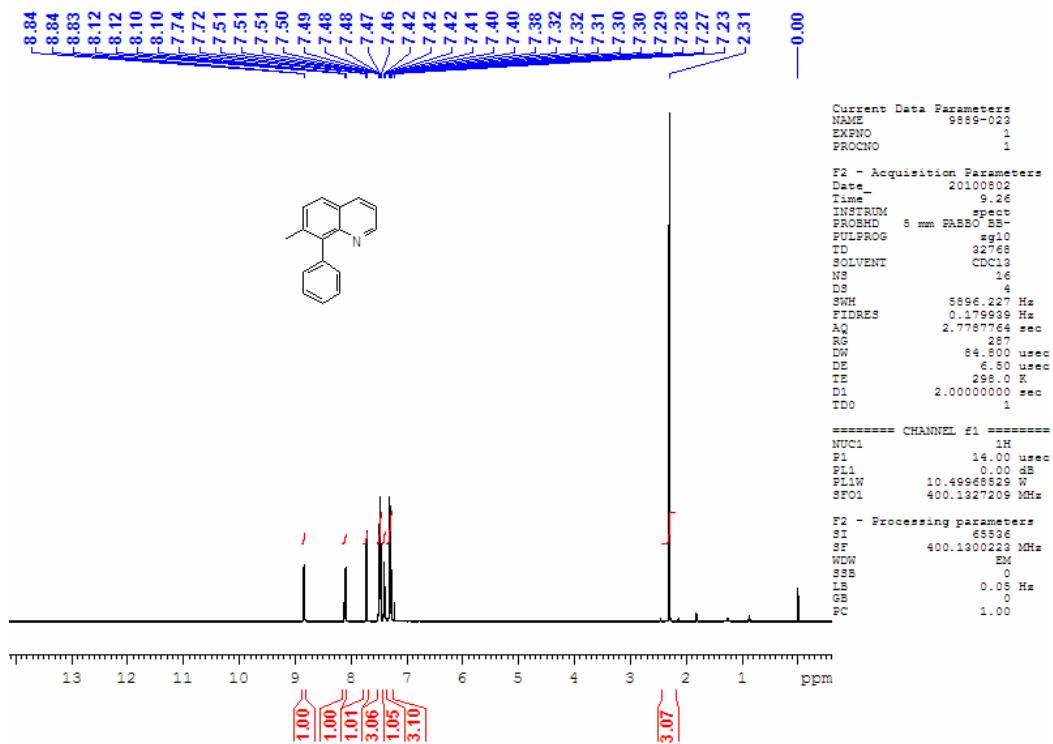


## 6-Fluoro-8-phenylquinoline (20)

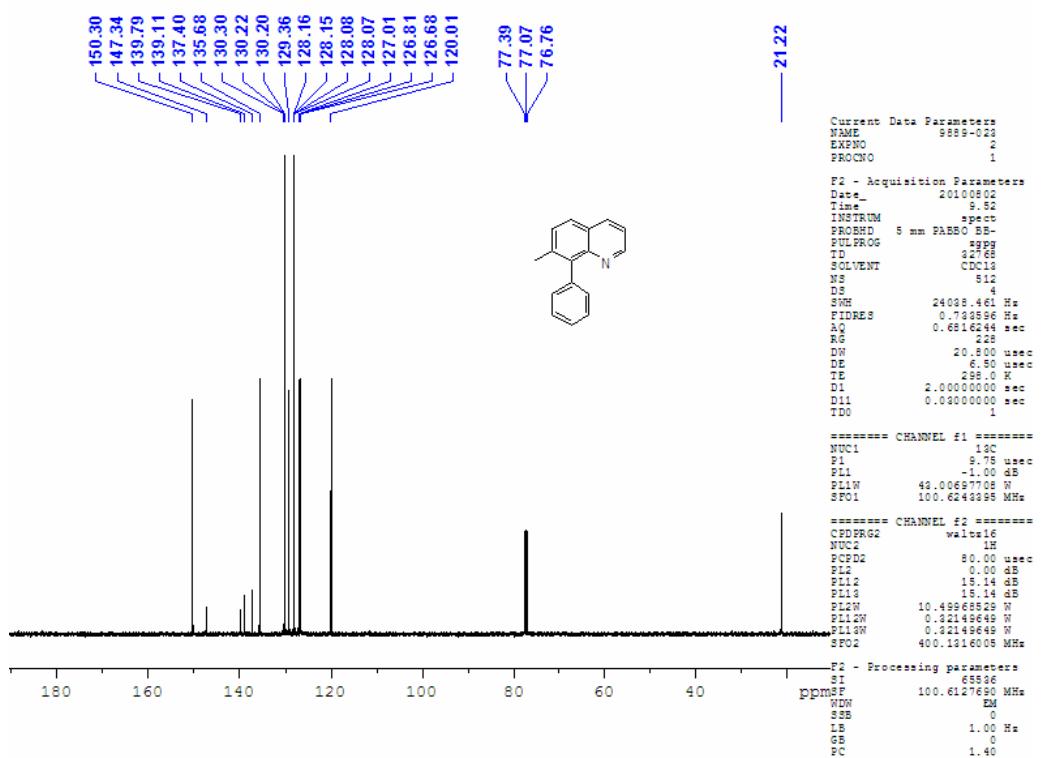


## 7-Methyl-8-phenylquinoline (22)

9889-023 CDCl<sub>3</sub>

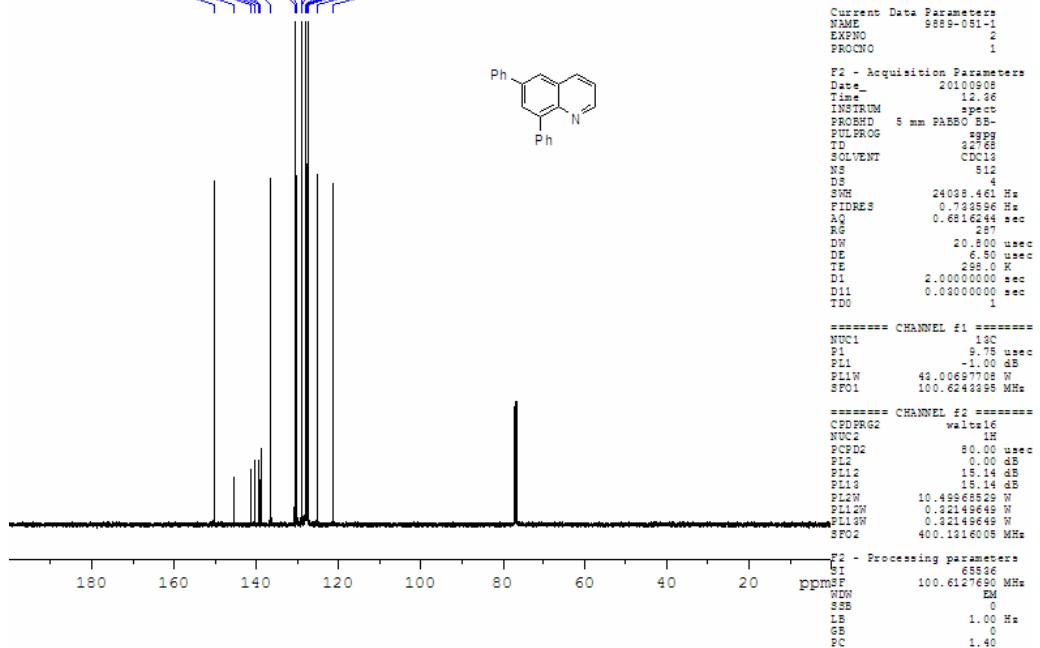
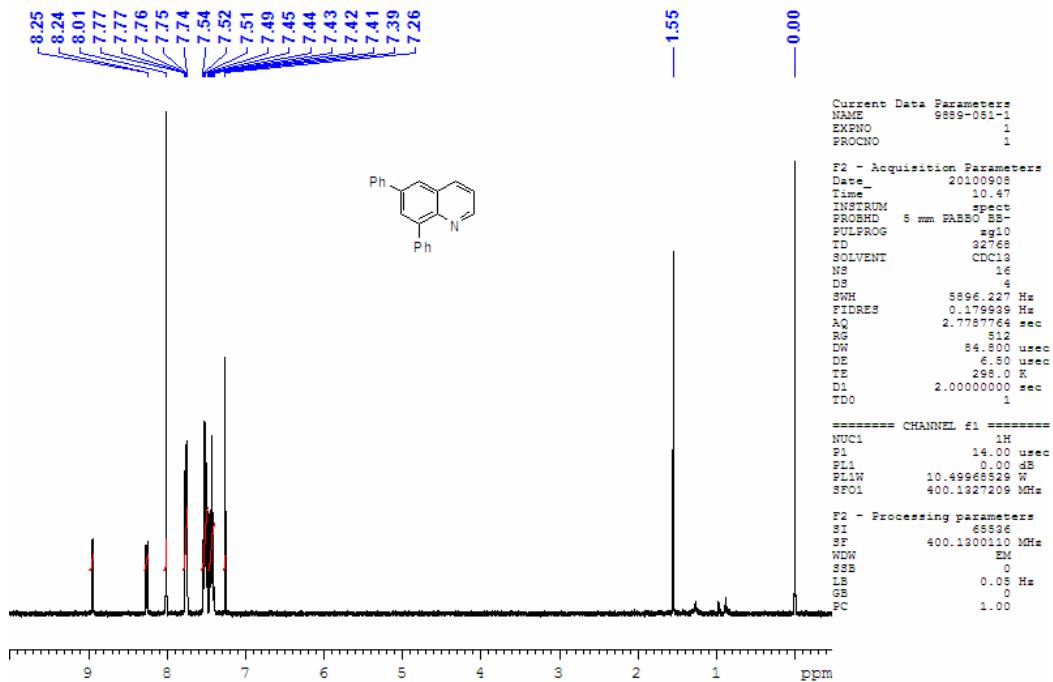


9889-023 CDCl<sub>3</sub>



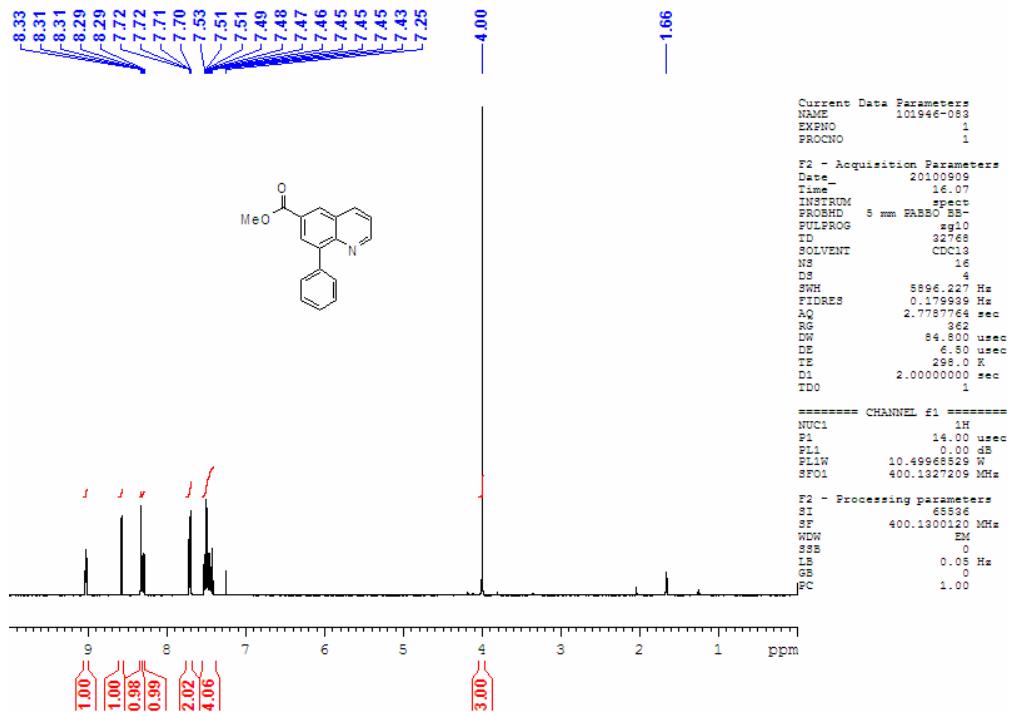
## 6,8-Diphenylquinoline (24)

9889-051-1 CDCl<sub>3</sub>



## Methyl 8-phenylquinoline-6-carboxylate (26)

101946-083-H



101946-083-C

