

# Supporting Information

## A Tandem Coupling/Smiles Rearrangement/Cyclization Approach to 1,4-Benzooxazinones or 1,4-Pyridooxazinones under Mild Conditions

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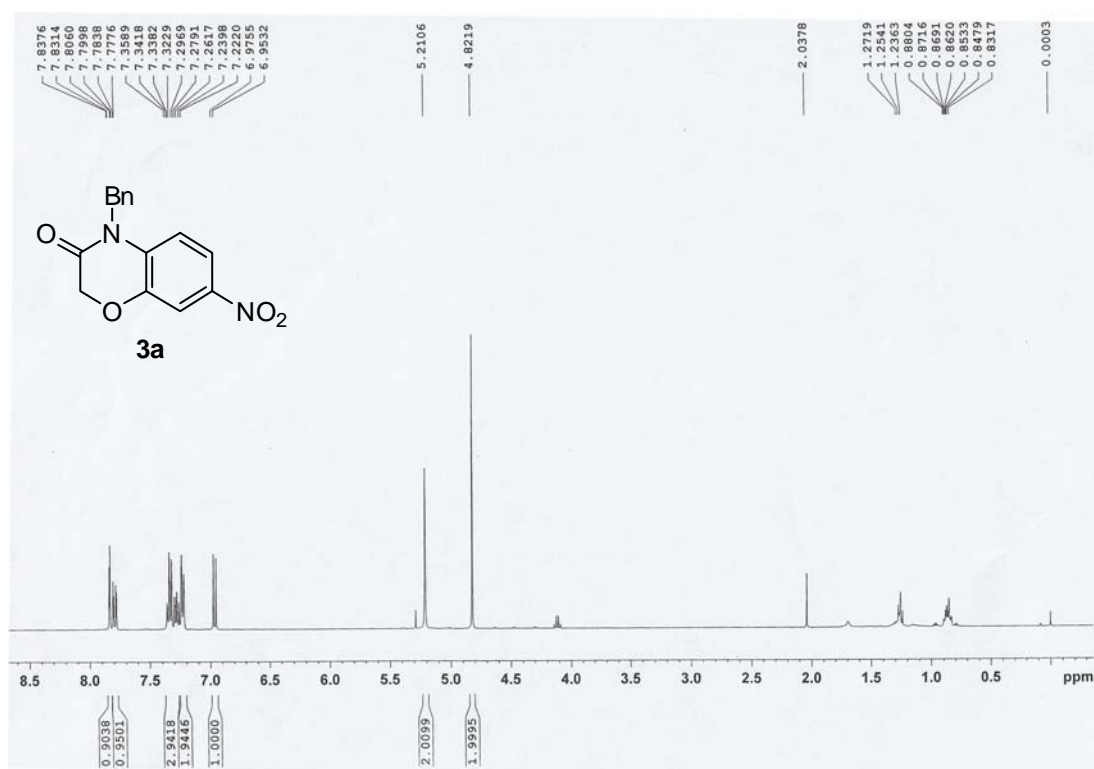
<sup>a</sup> School of Chemistry and Chemical Engineering, Shandong University, Jinan, 250100, P. R. China.

<sup>b</sup> State Key Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing, 100191, P. R. China.

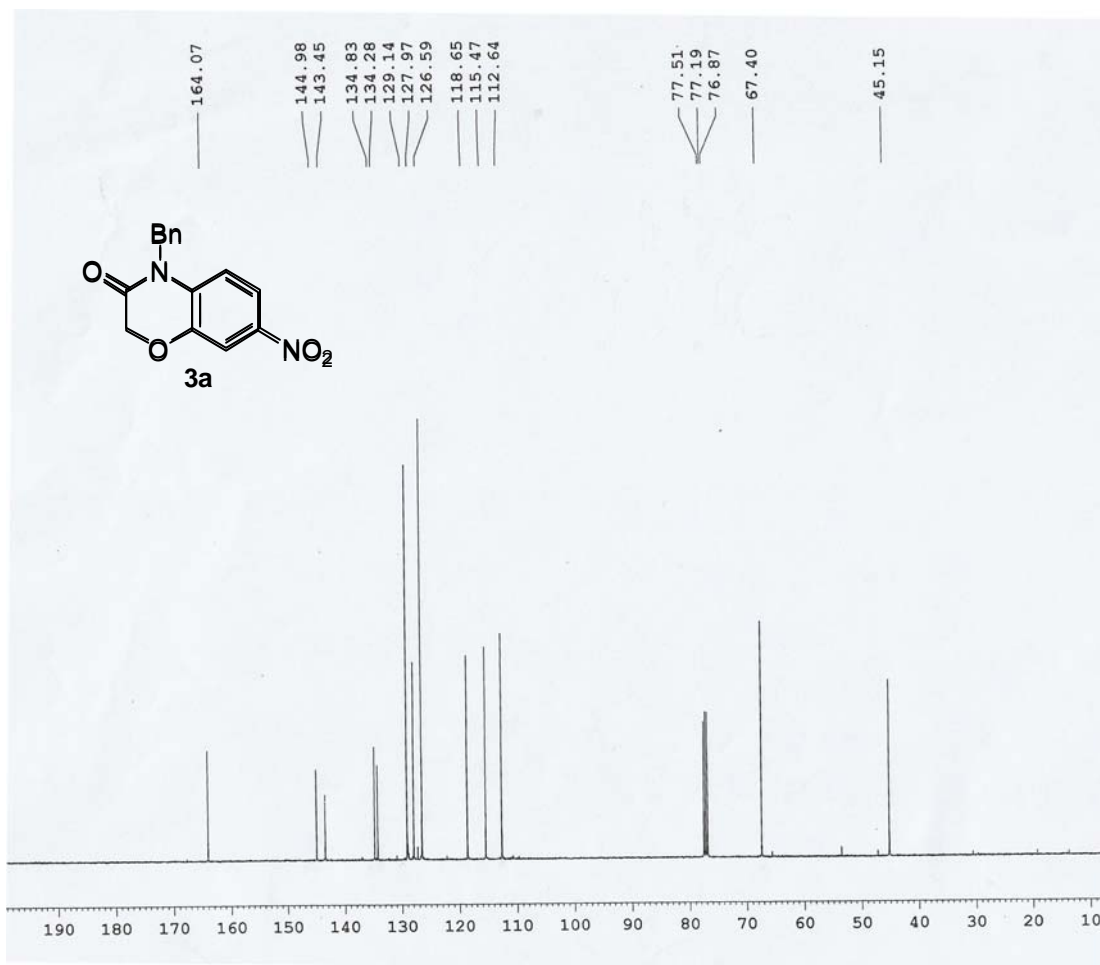
### Experimental Section

NMR and mass spectrometry of Compound (4a-k), (3a-o), (5k).

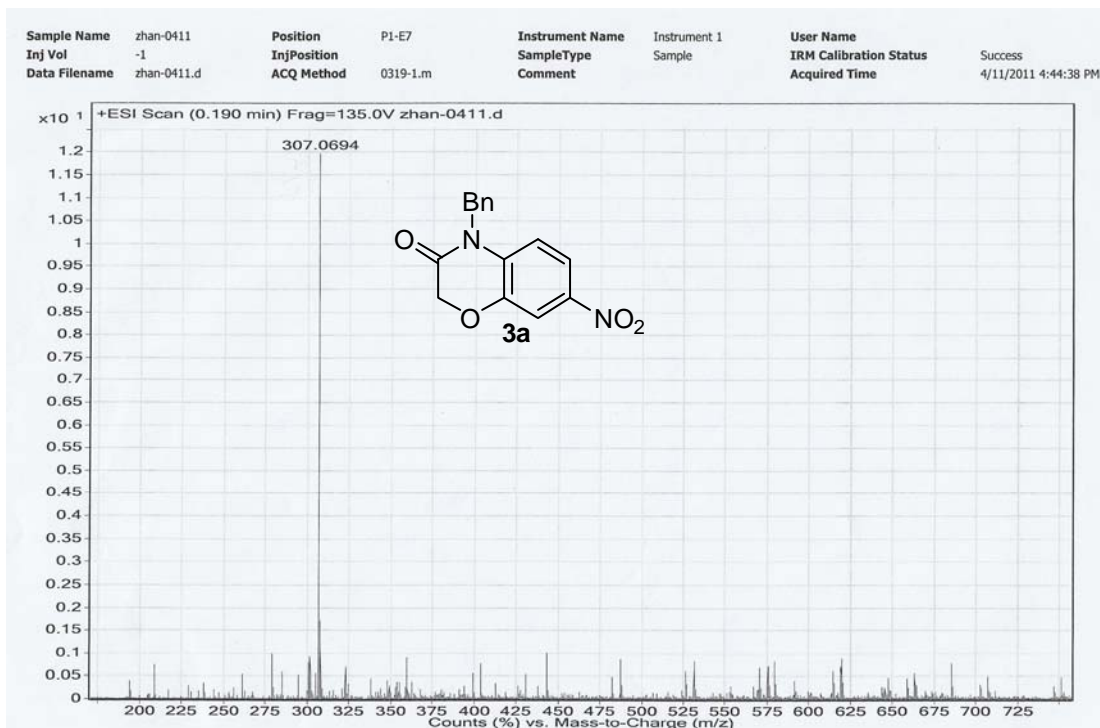
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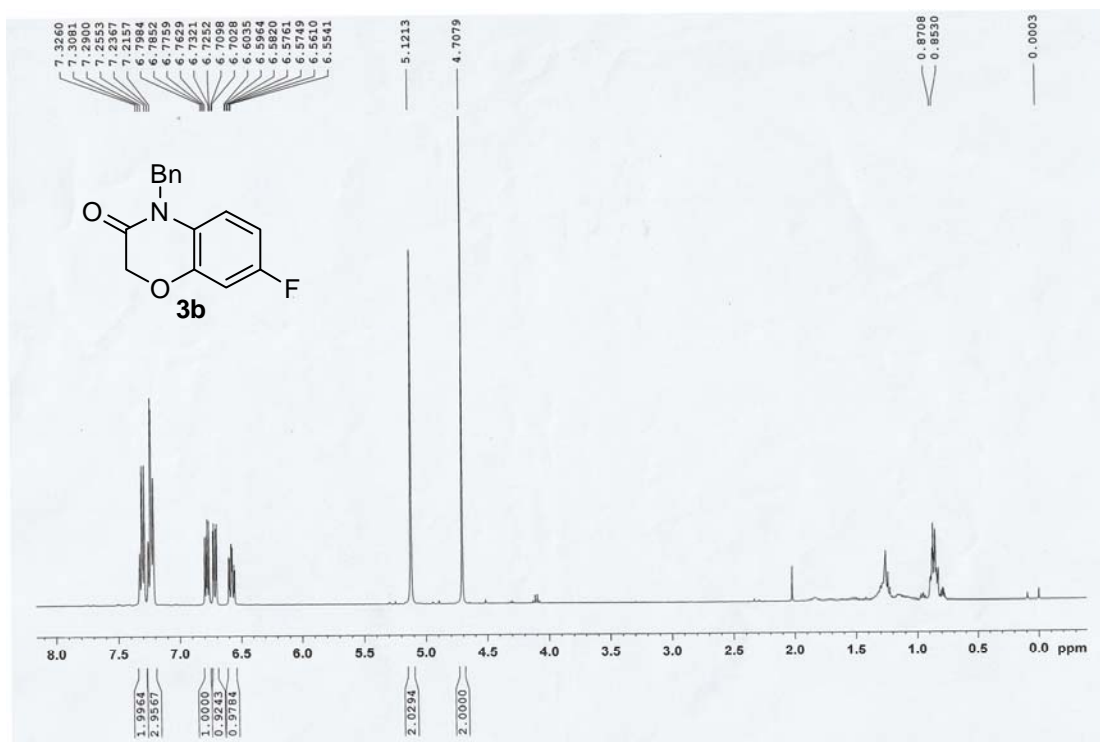
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



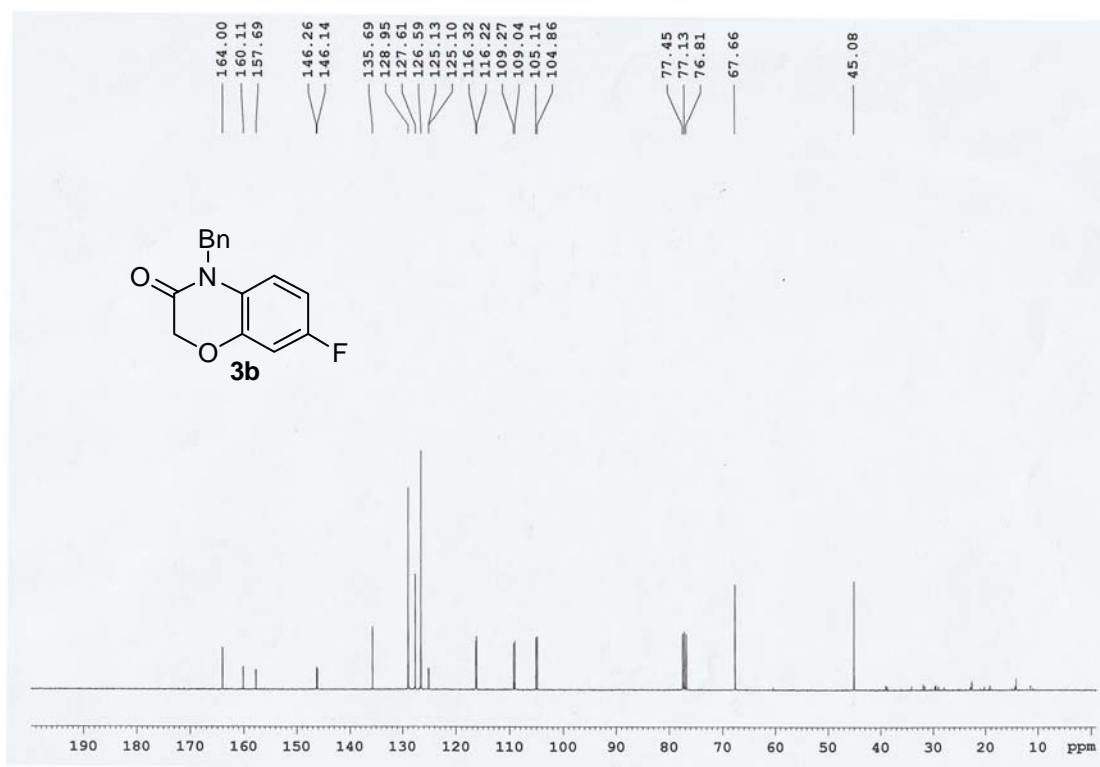
$^{13}\text{C}$  NMR(100 MHz,  $\text{CDCl}_3$ )



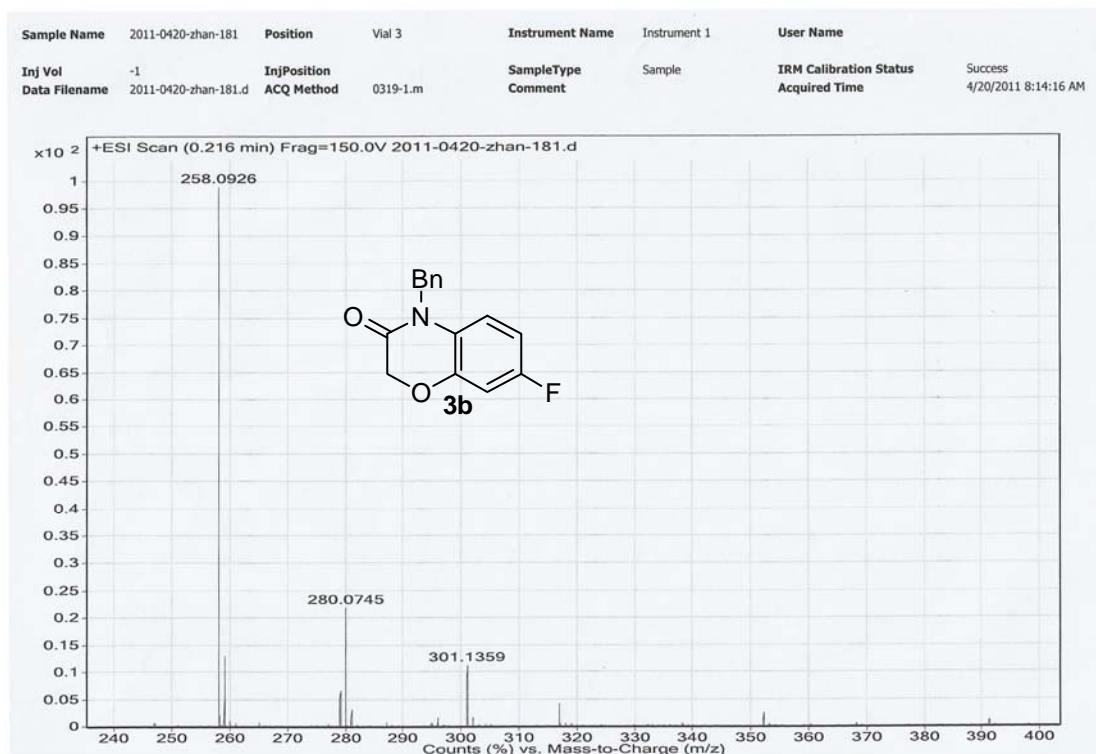
HRMS



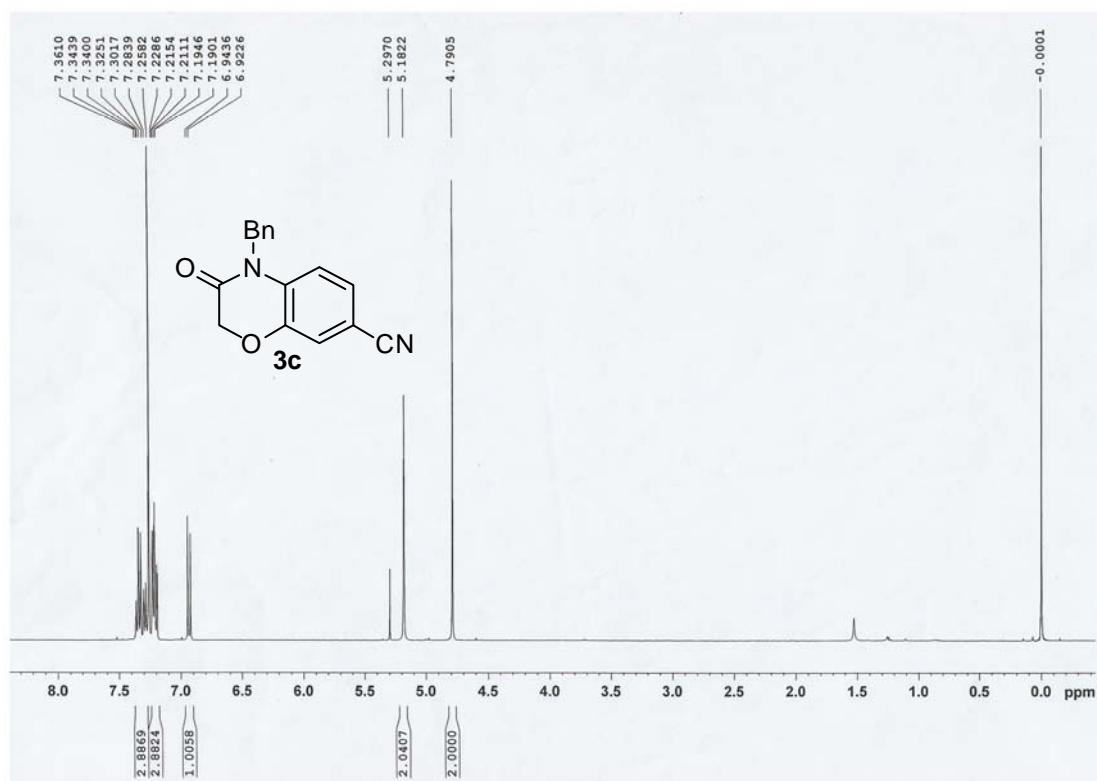
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



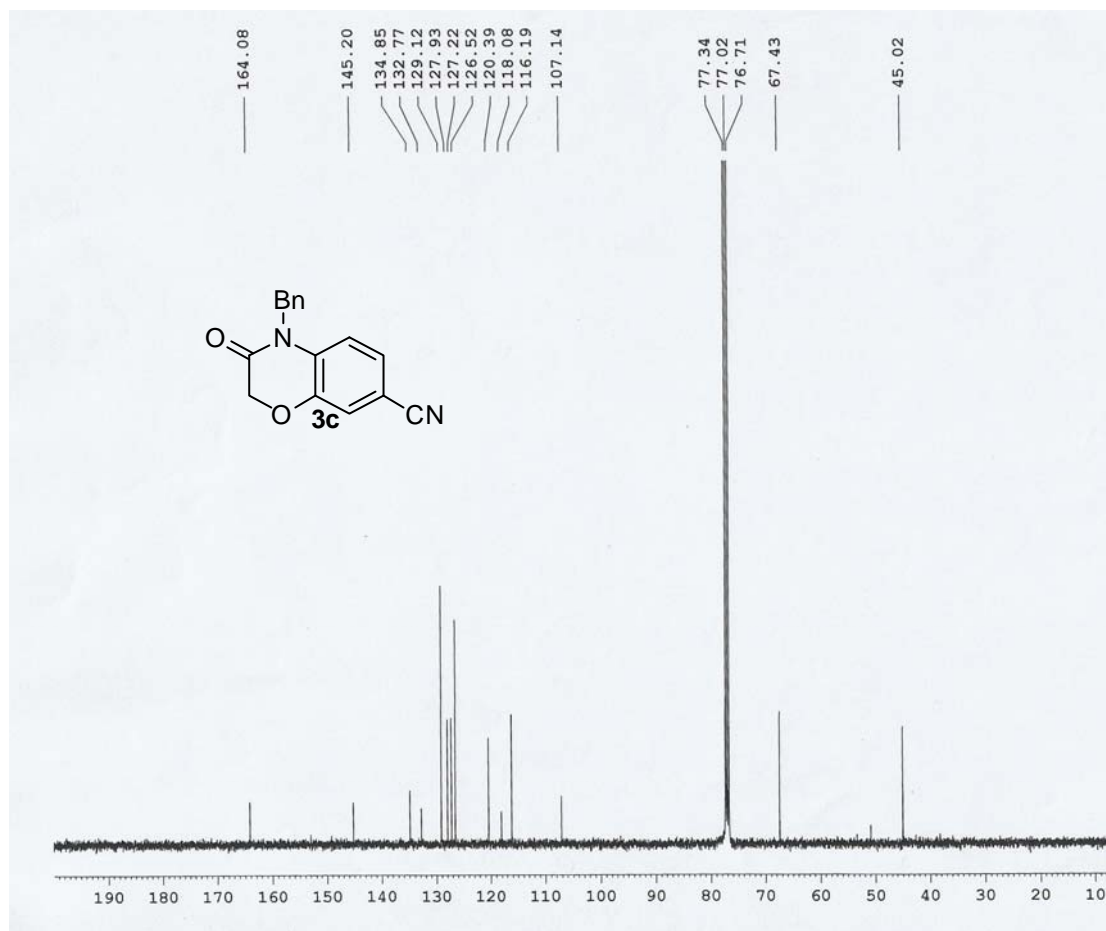
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)



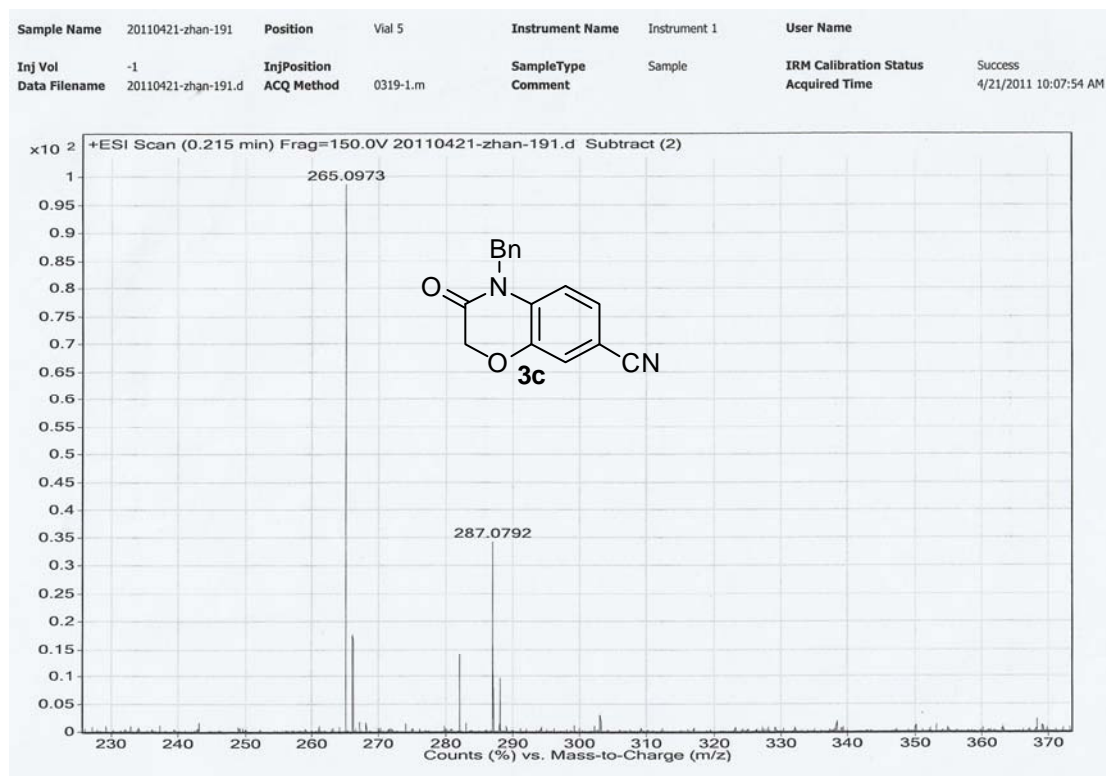
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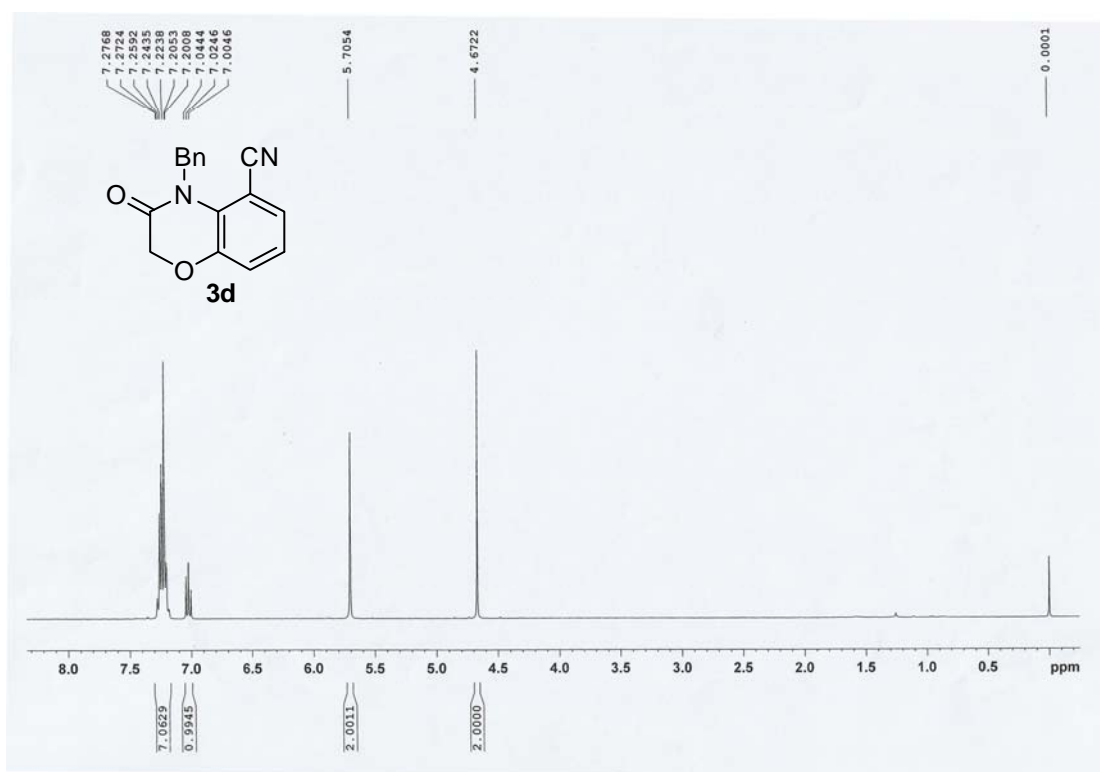
## <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



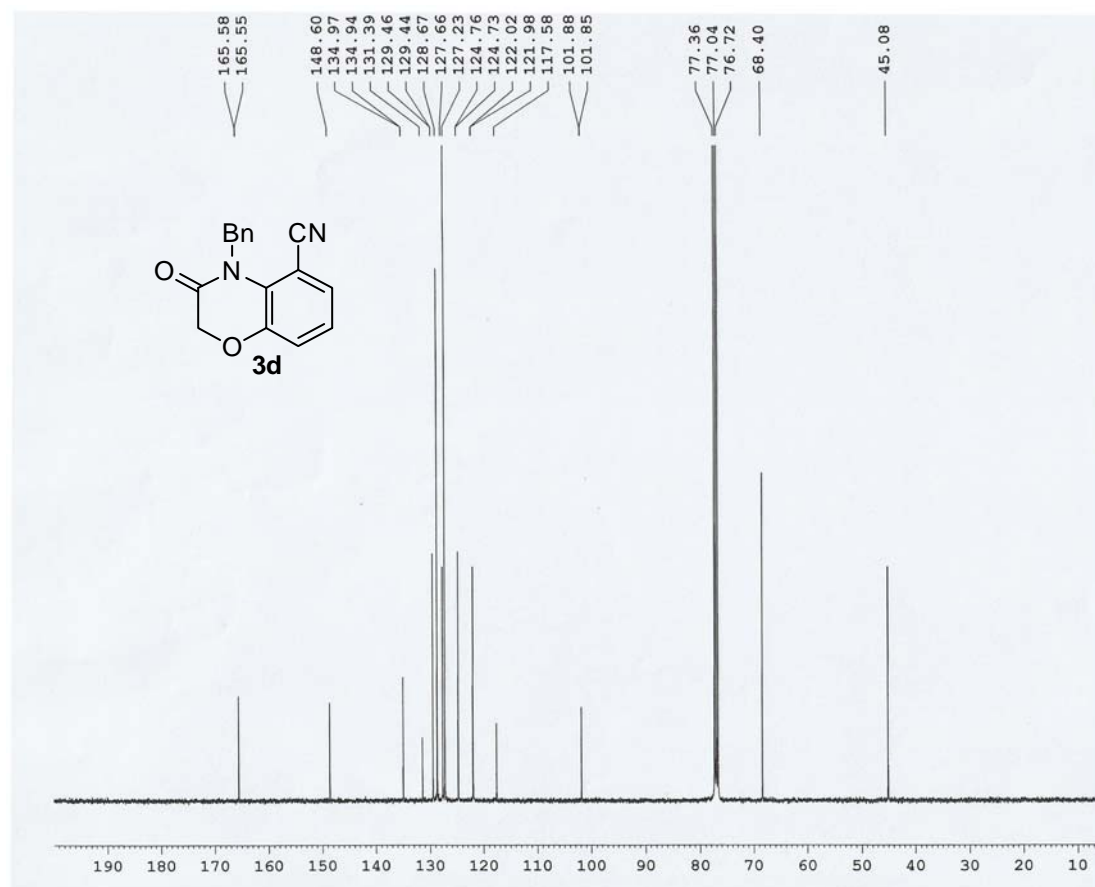
$^{13}\text{C}$  NMR(100 MHz,  $\text{CDCl}_3$ )



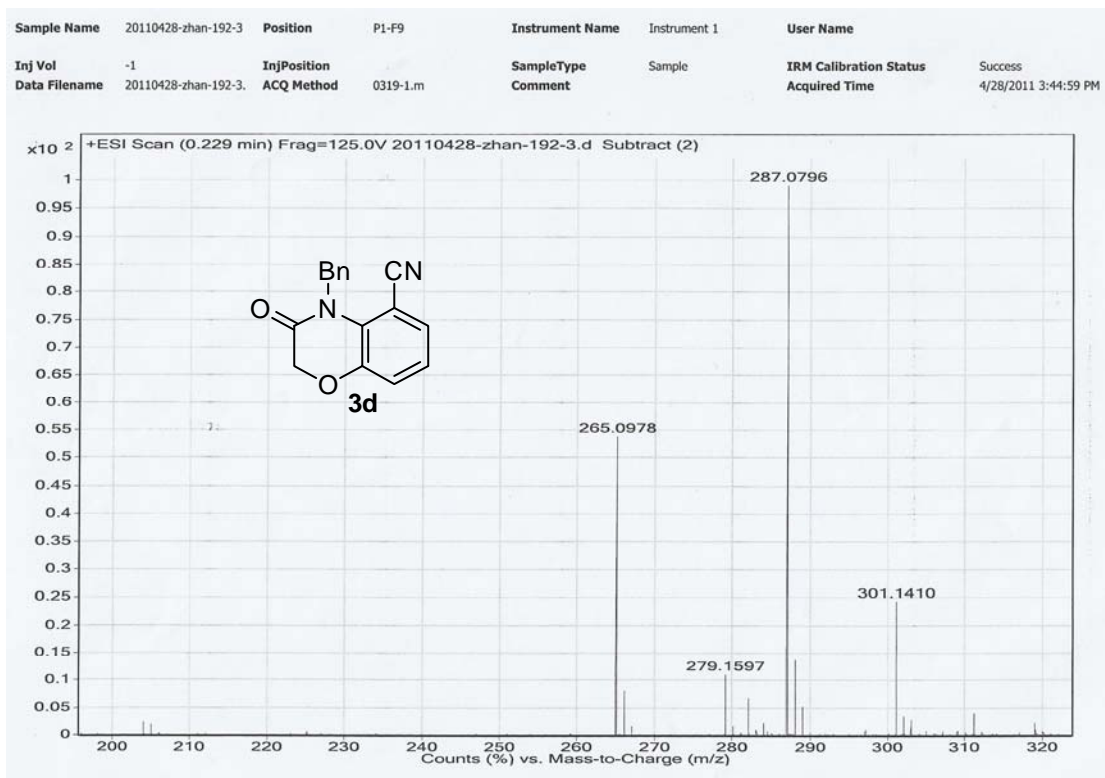
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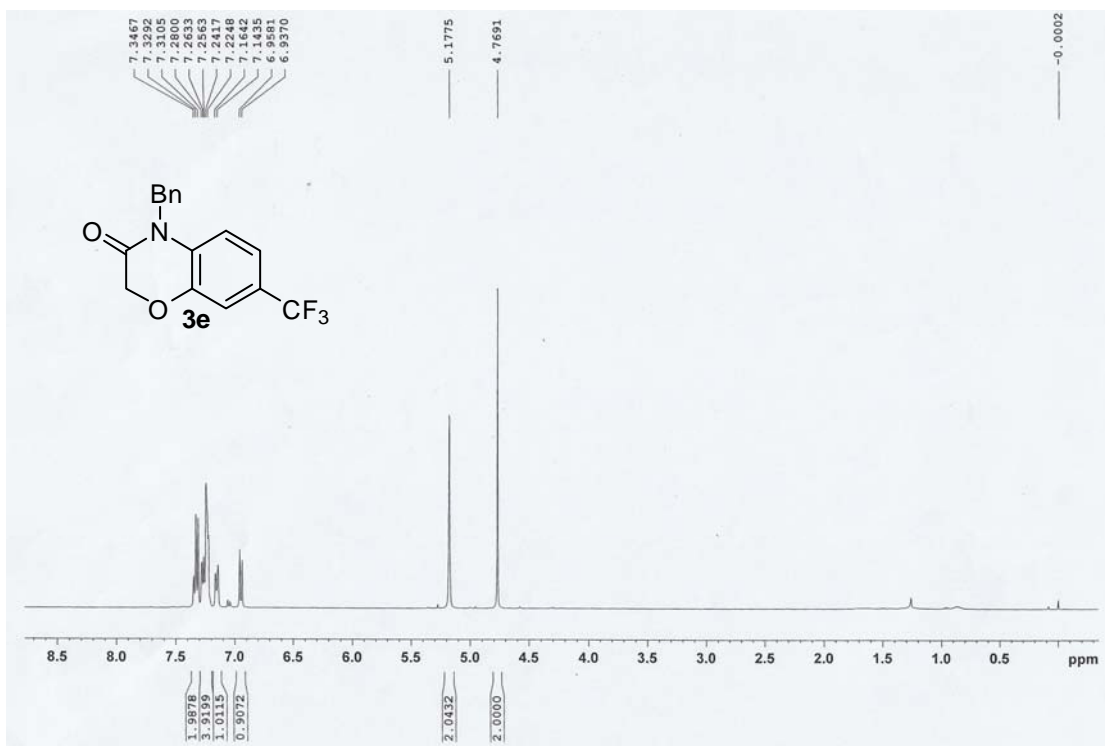
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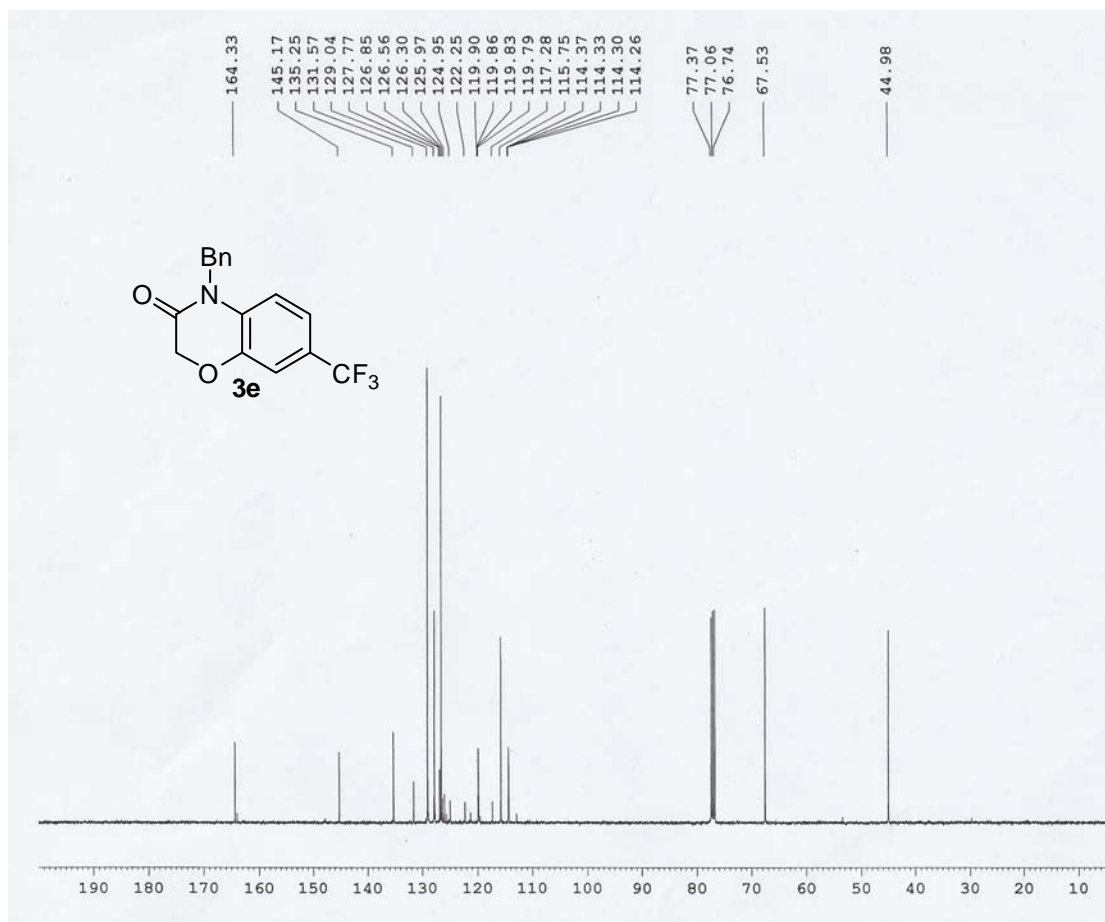
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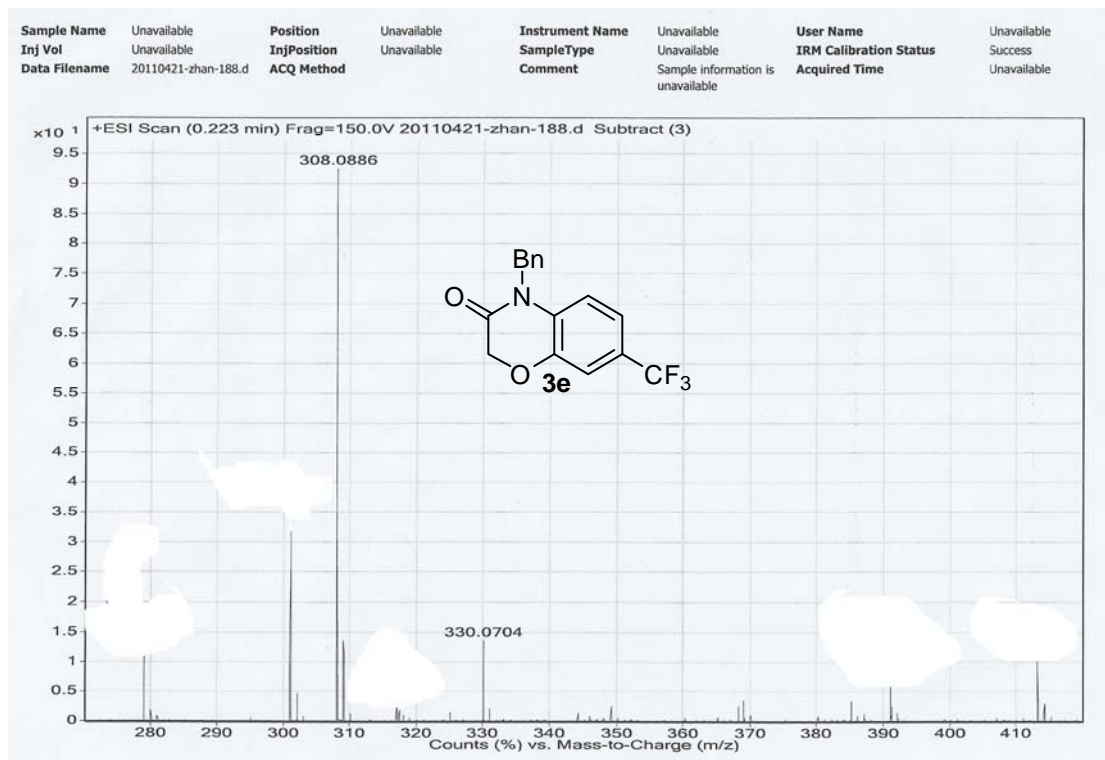
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$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )

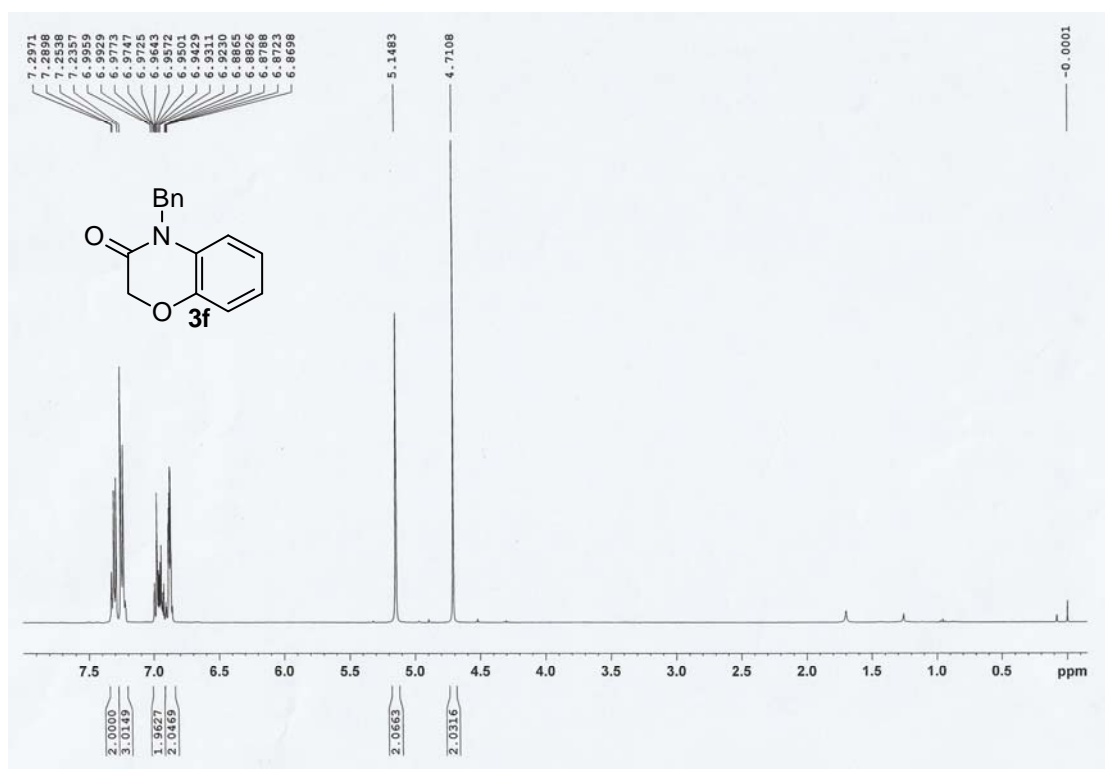


$^{13}\text{C}$  NMR(100 MHz,  $\text{CDCl}_3$ )

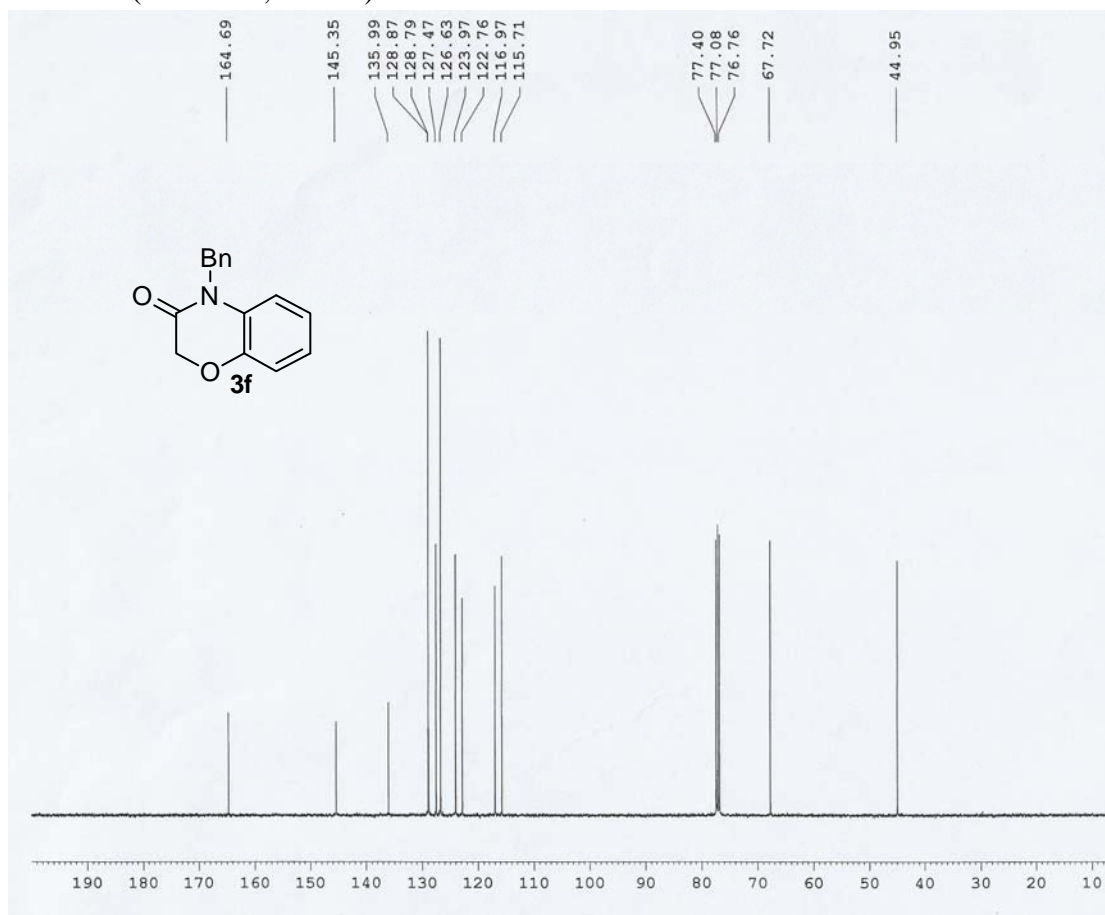


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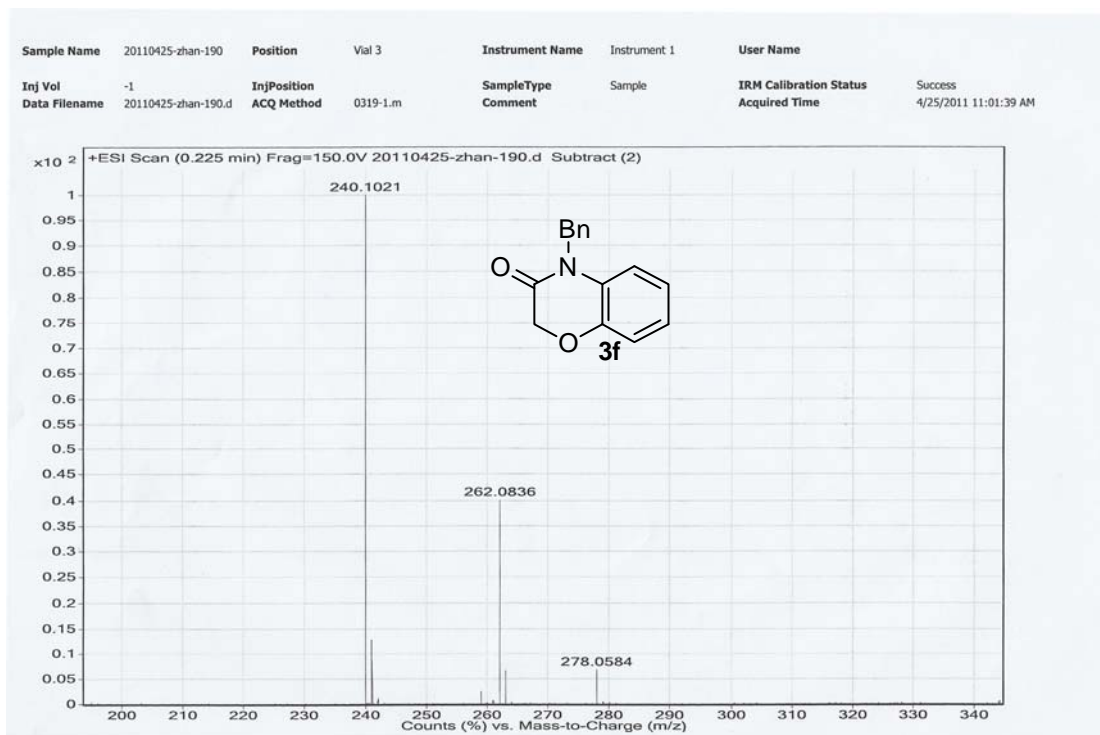




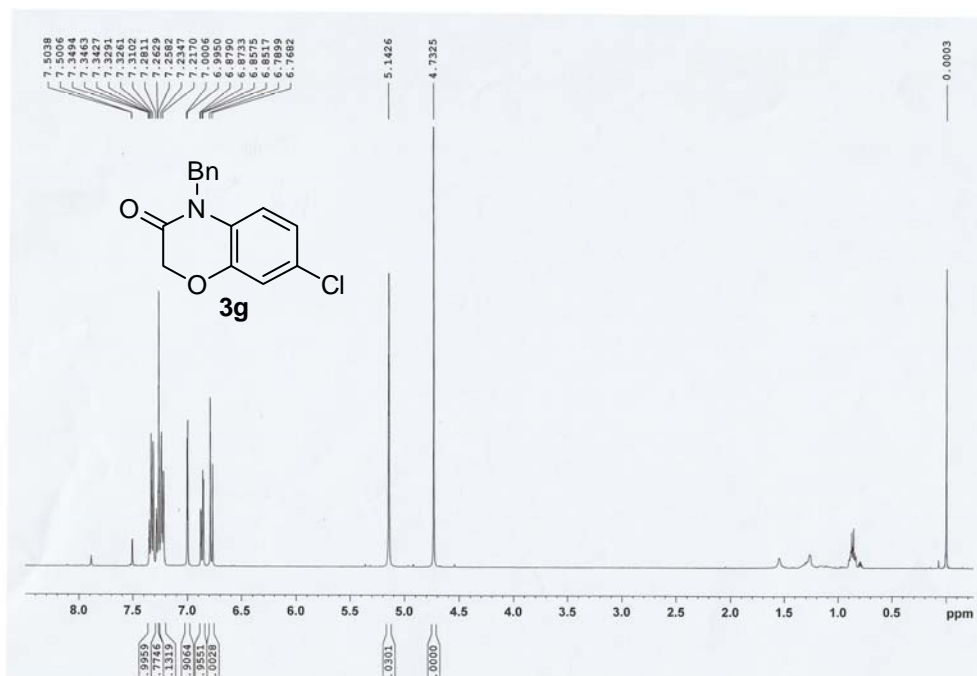
$^1\text{H NMR}$  (400 MHz,  $\text{CDCl}_3$ )



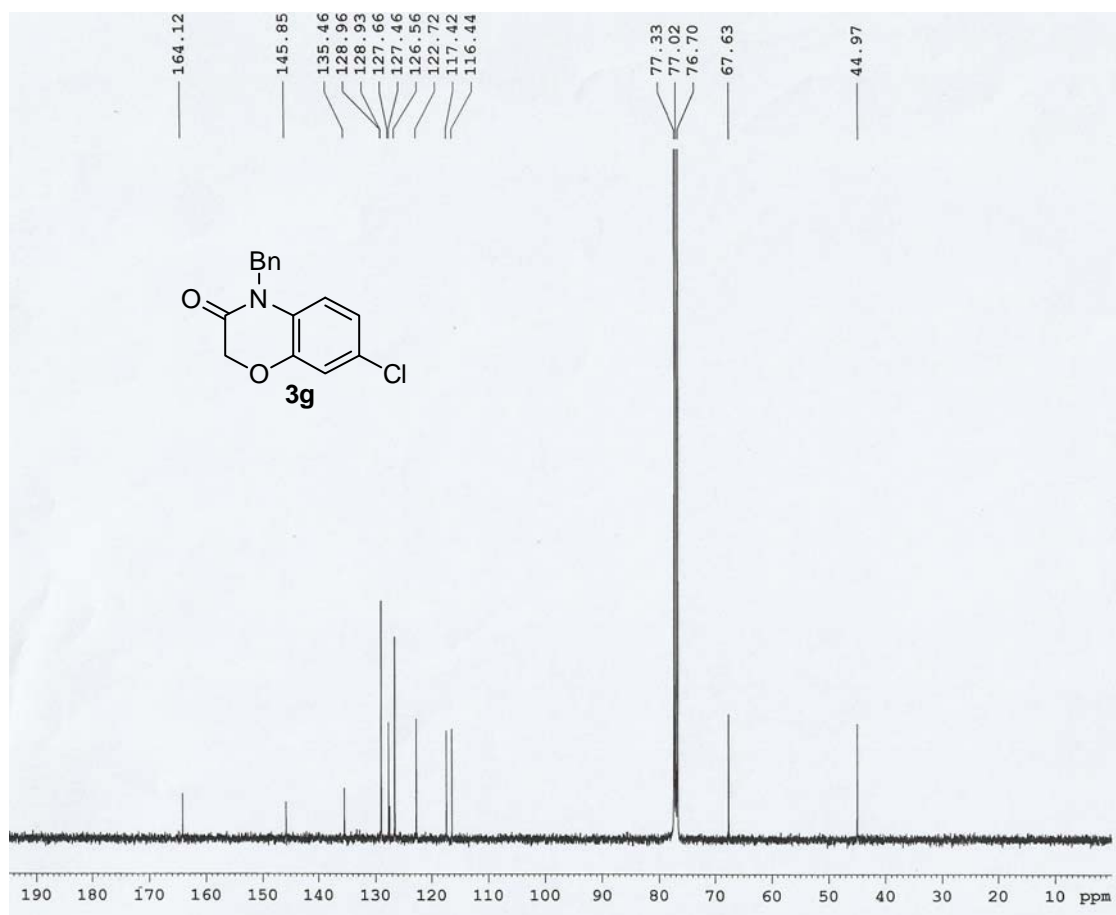
$^{13}\text{C NMR}$  (100 MHz,  $\text{CDCl}_3$ )



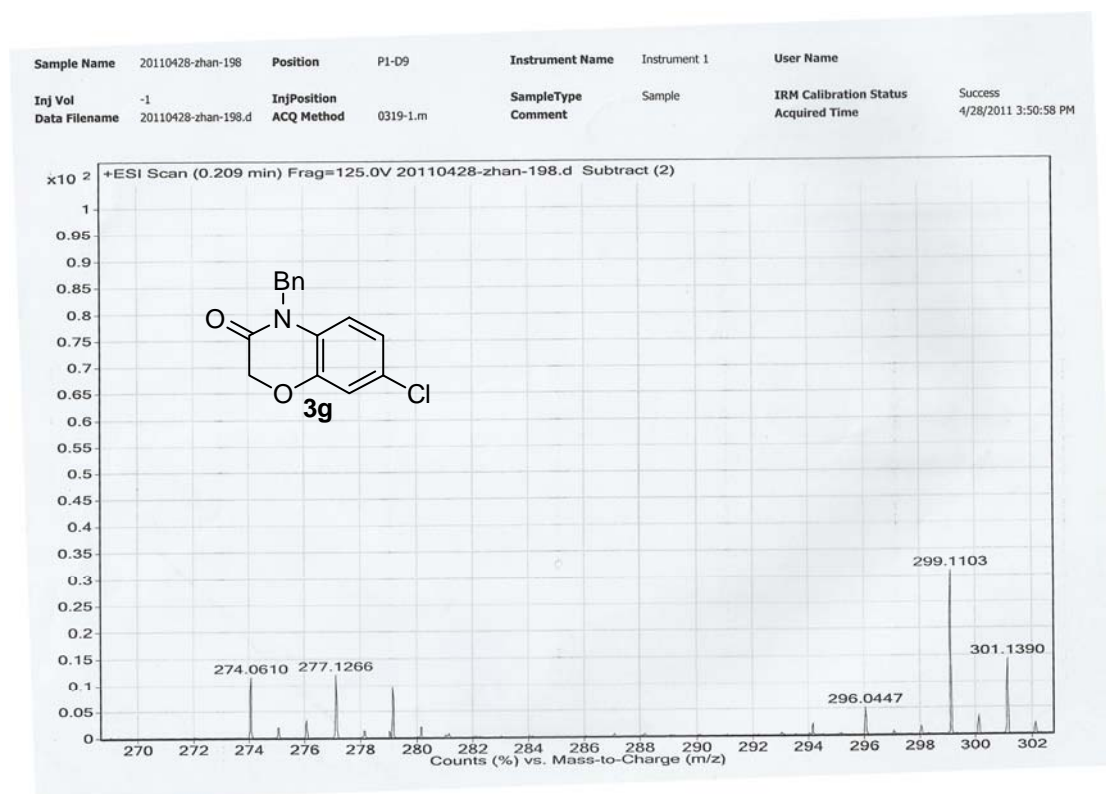
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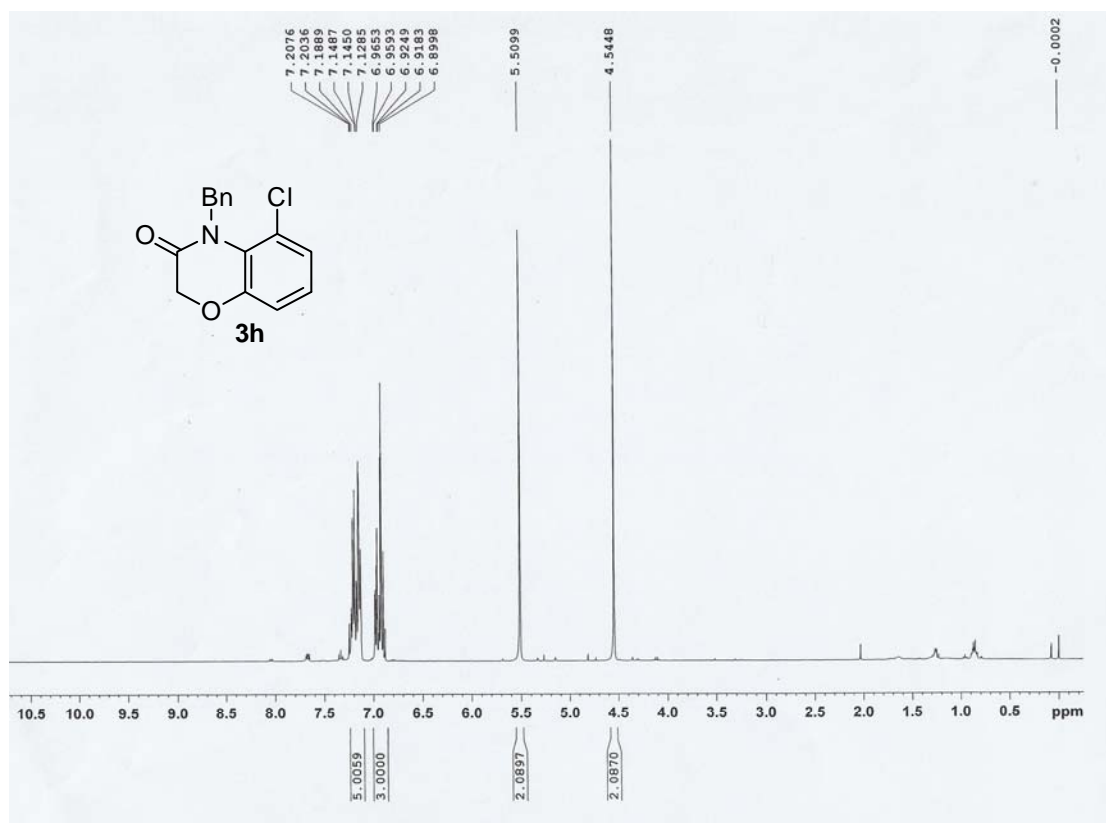
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )



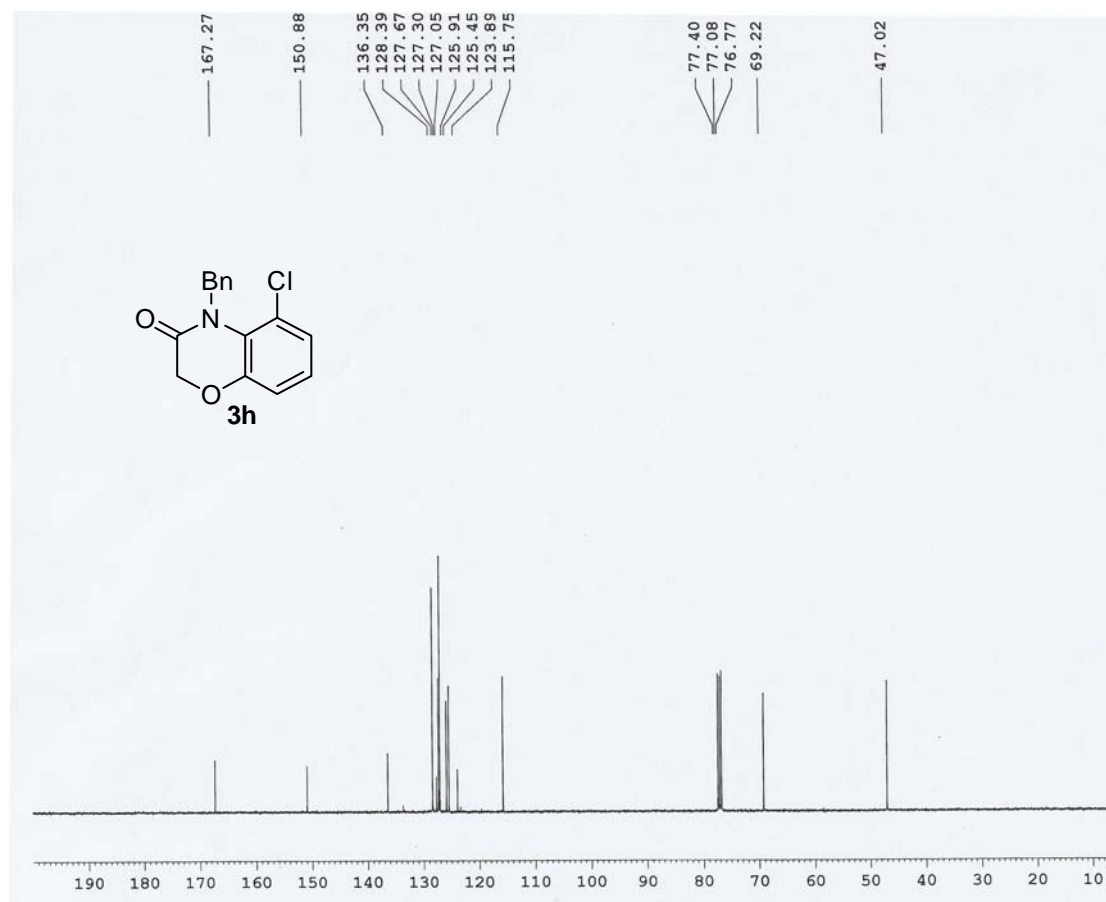
<sup>13</sup>C NMR(100 MHz, CDCl<sub>3</sub>)



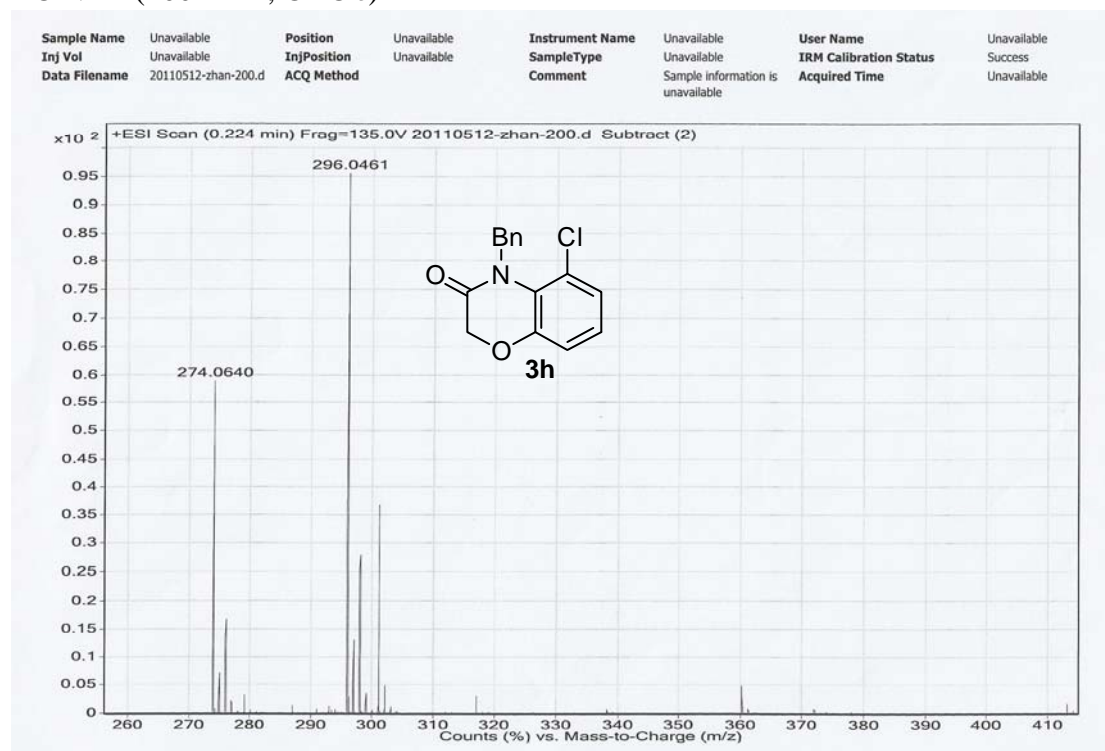
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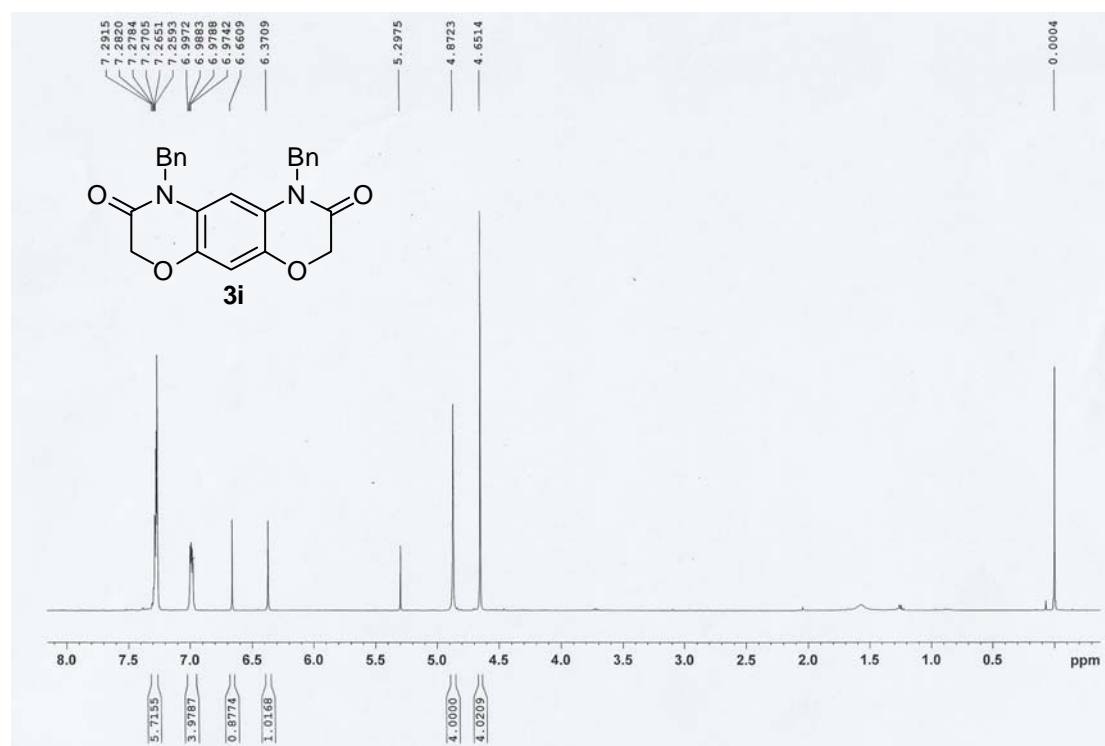
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



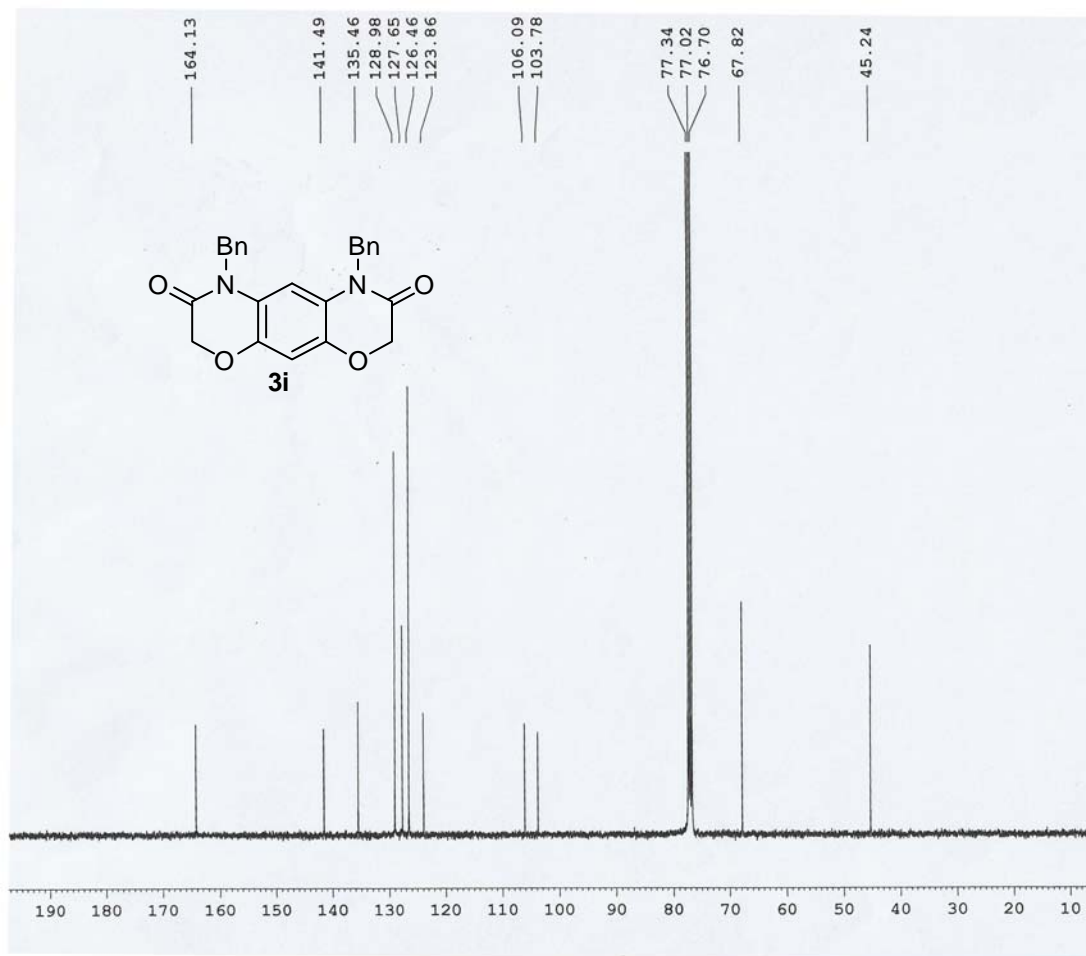
$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )



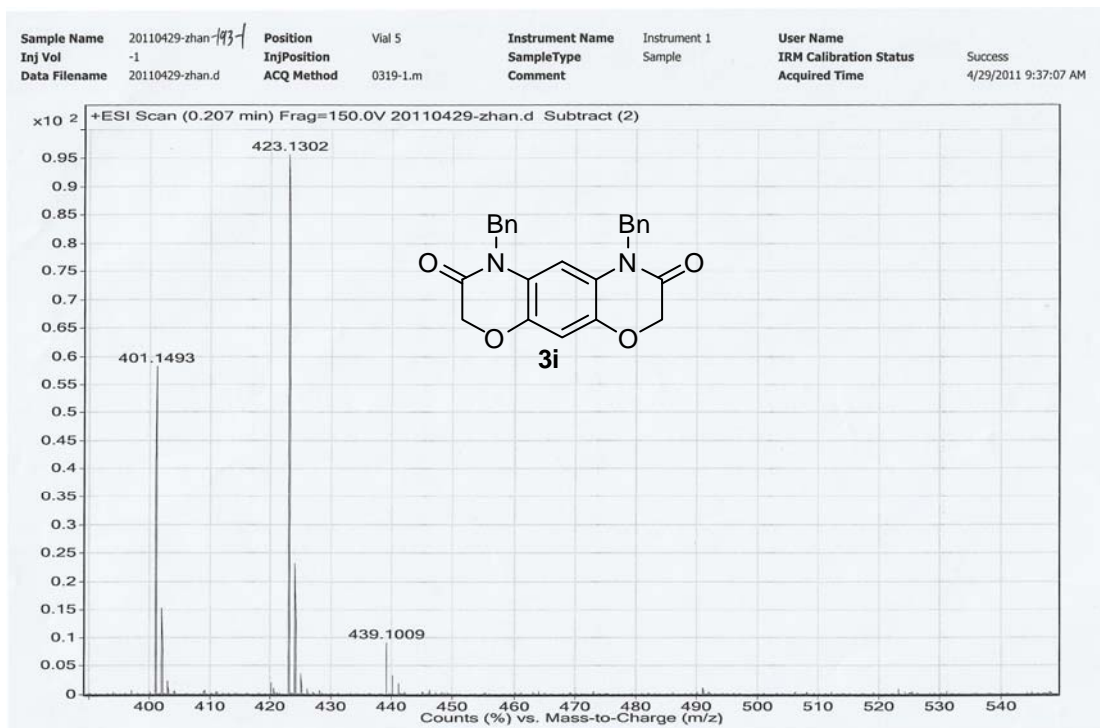
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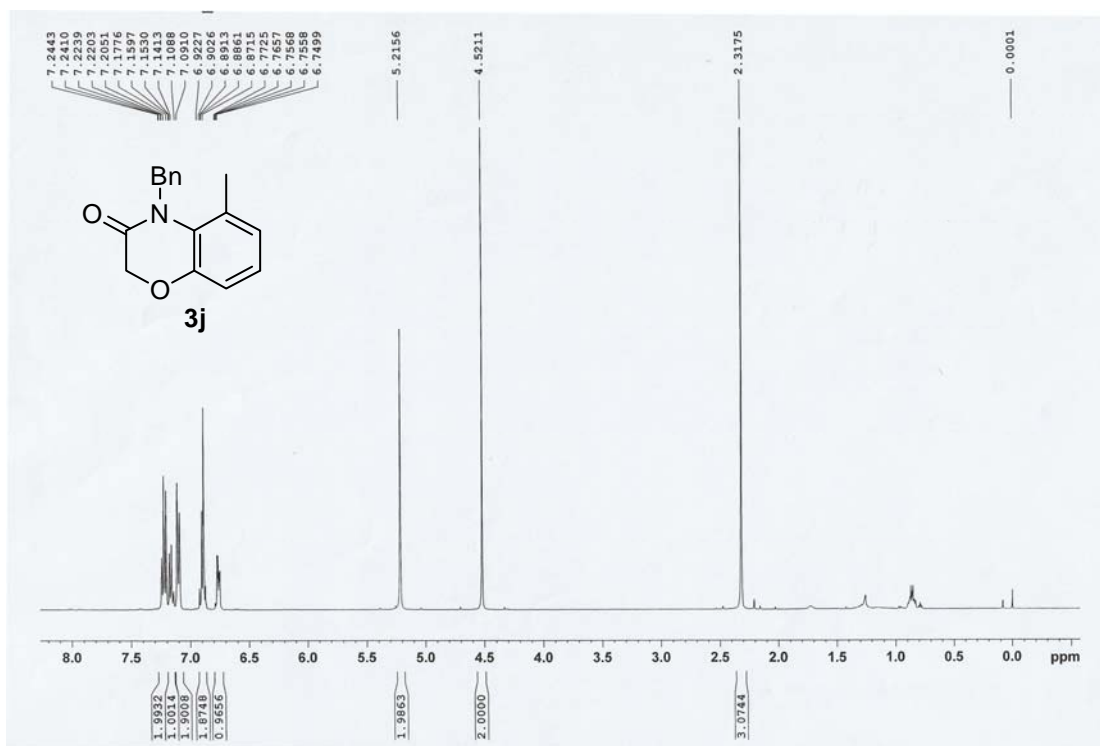


$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )

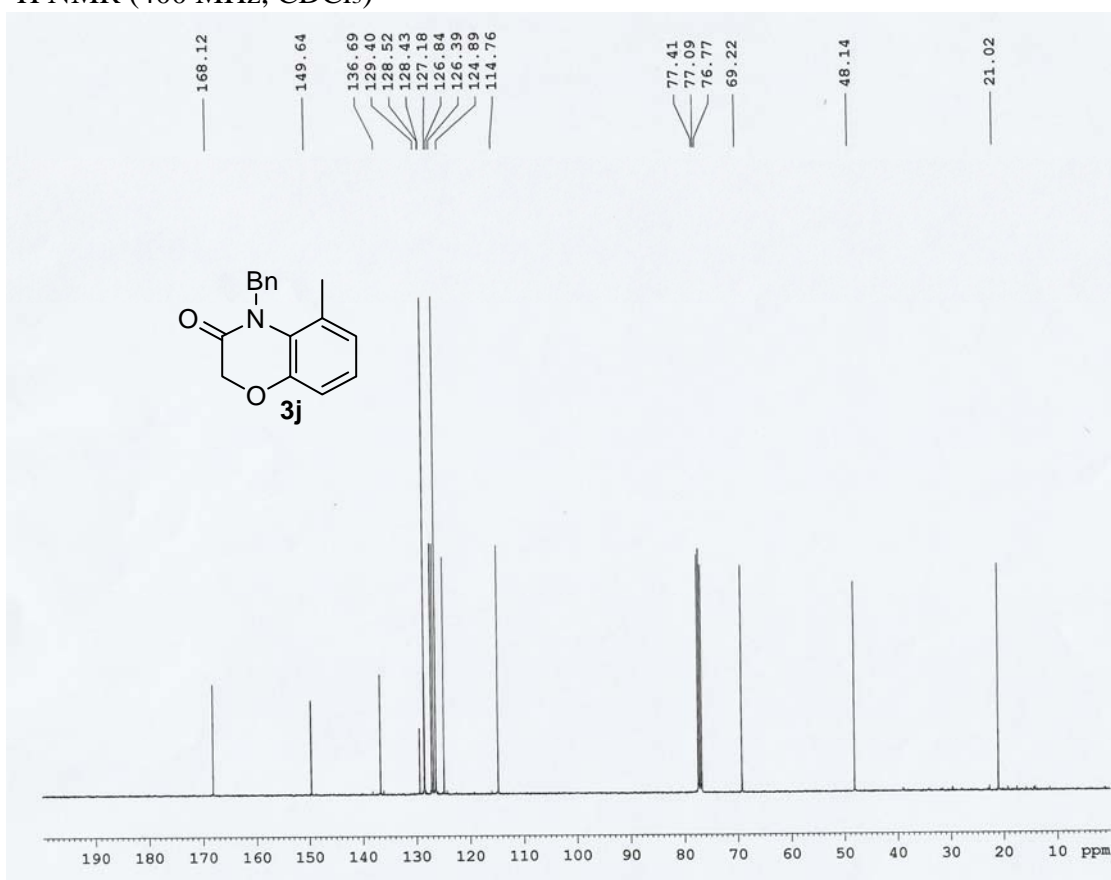


**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)**

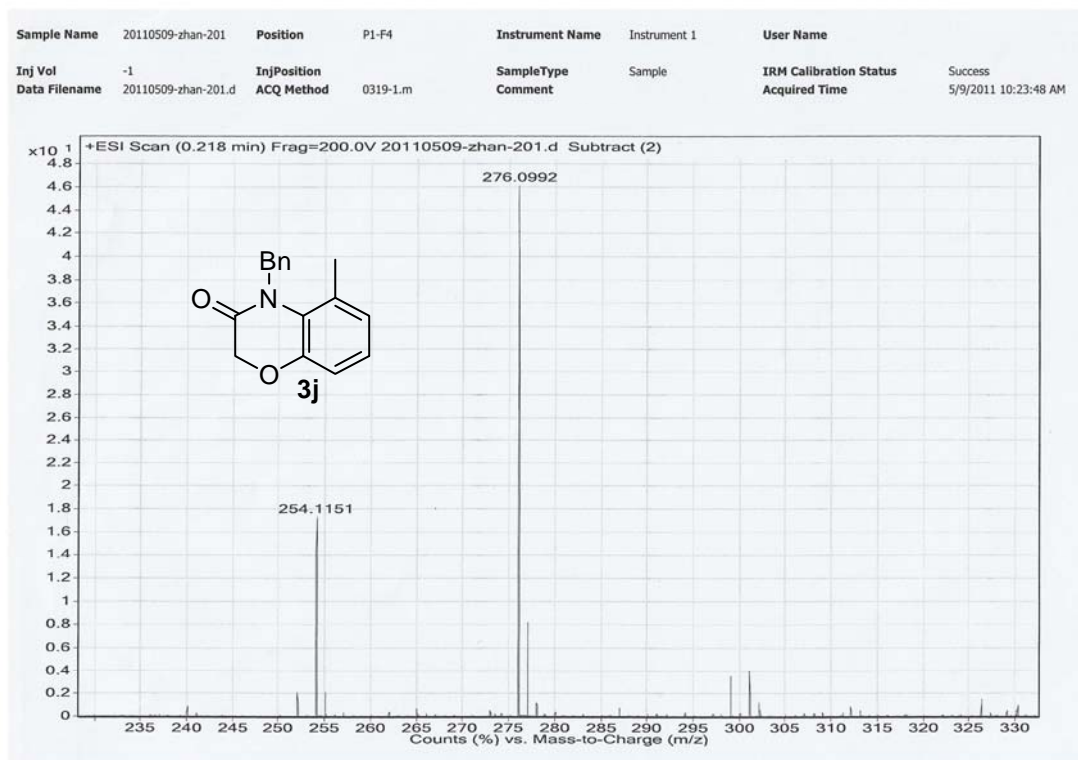




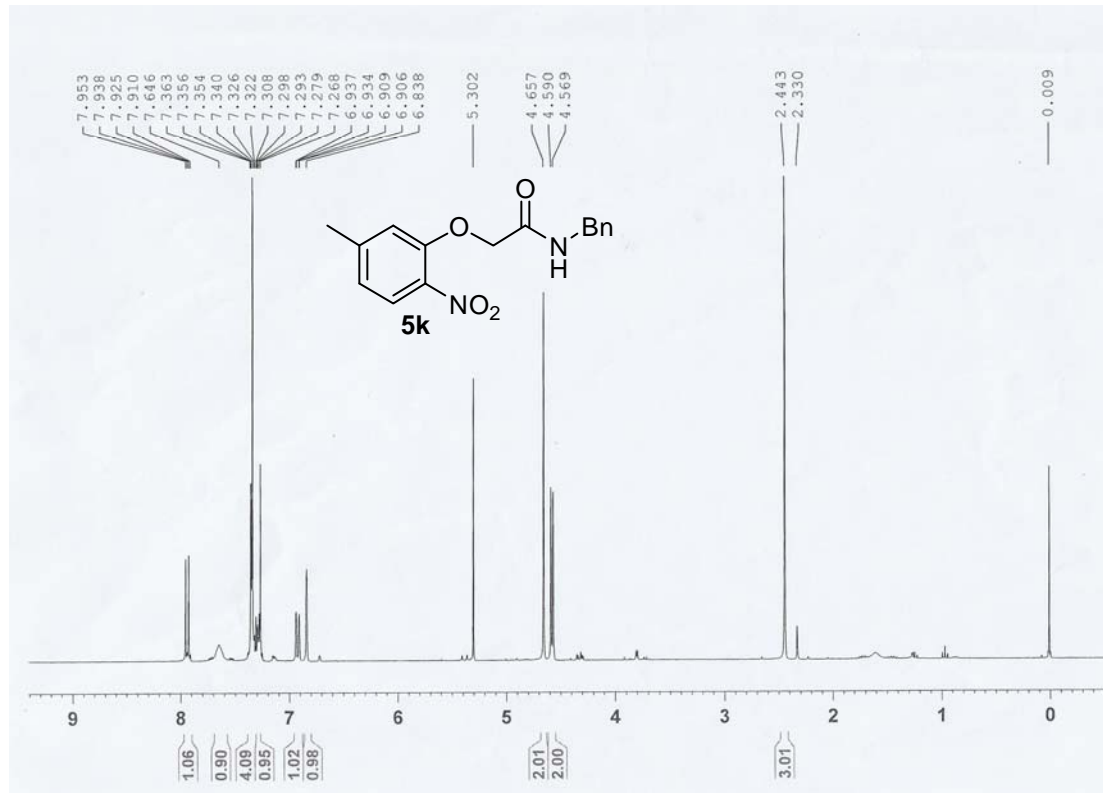
$^1\text{H NMR}$  (400 MHz,  $\text{CDCl}_3$ )



$^{13}\text{C NMR}$  (100 MHz,  $\text{CDCl}_3$ )

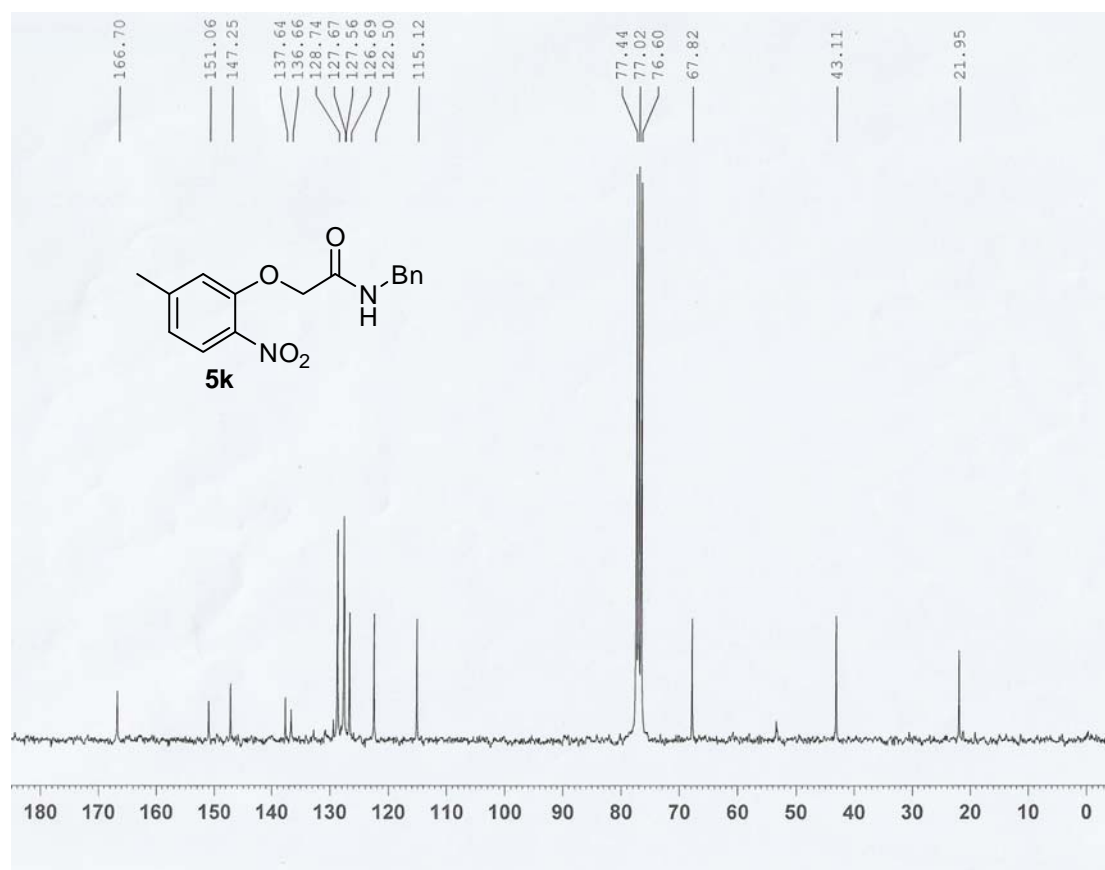


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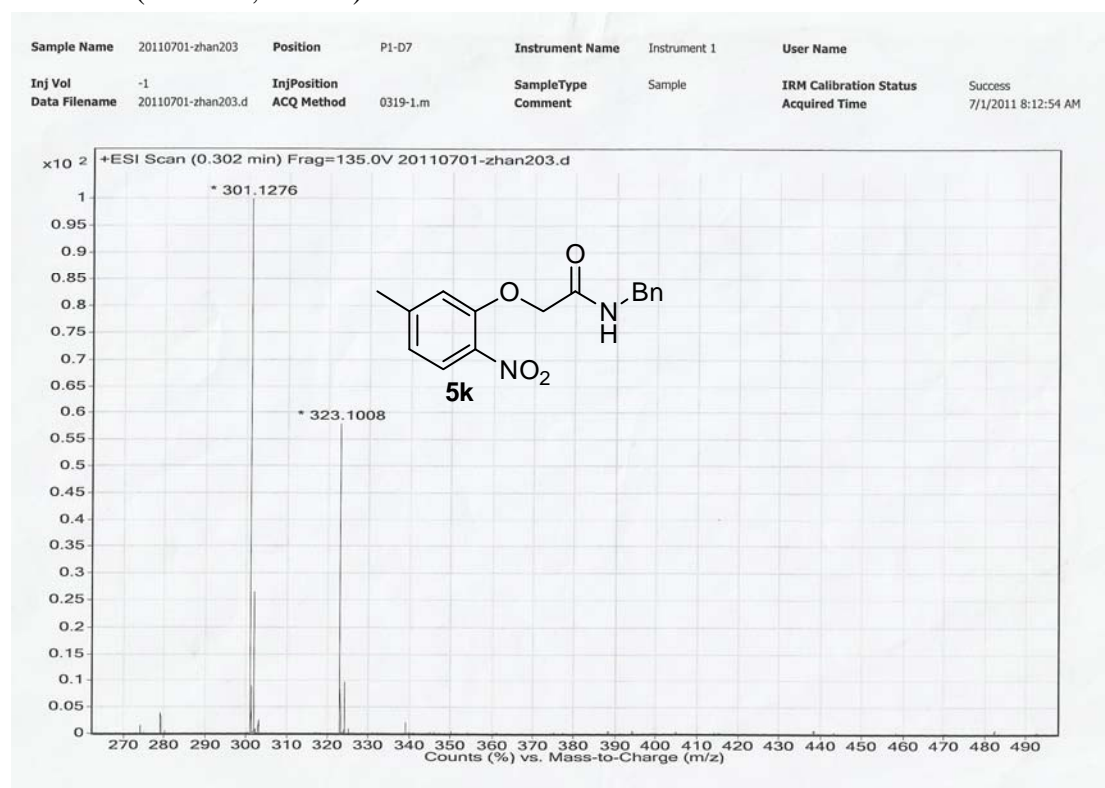


<sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)

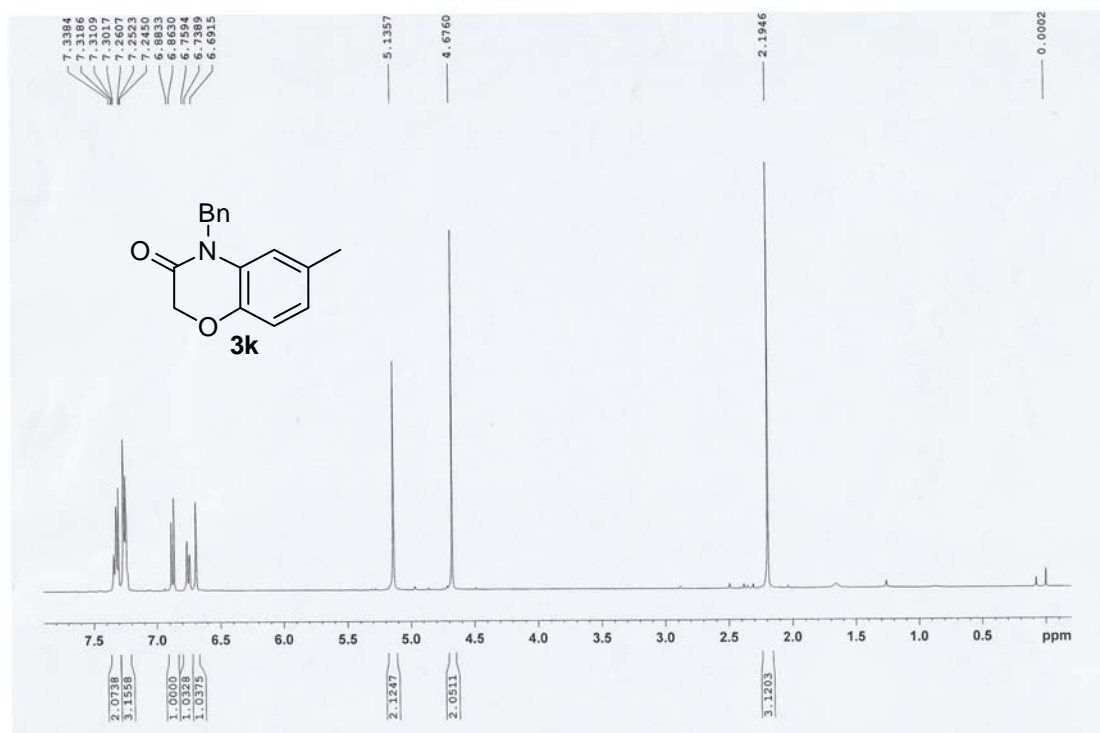




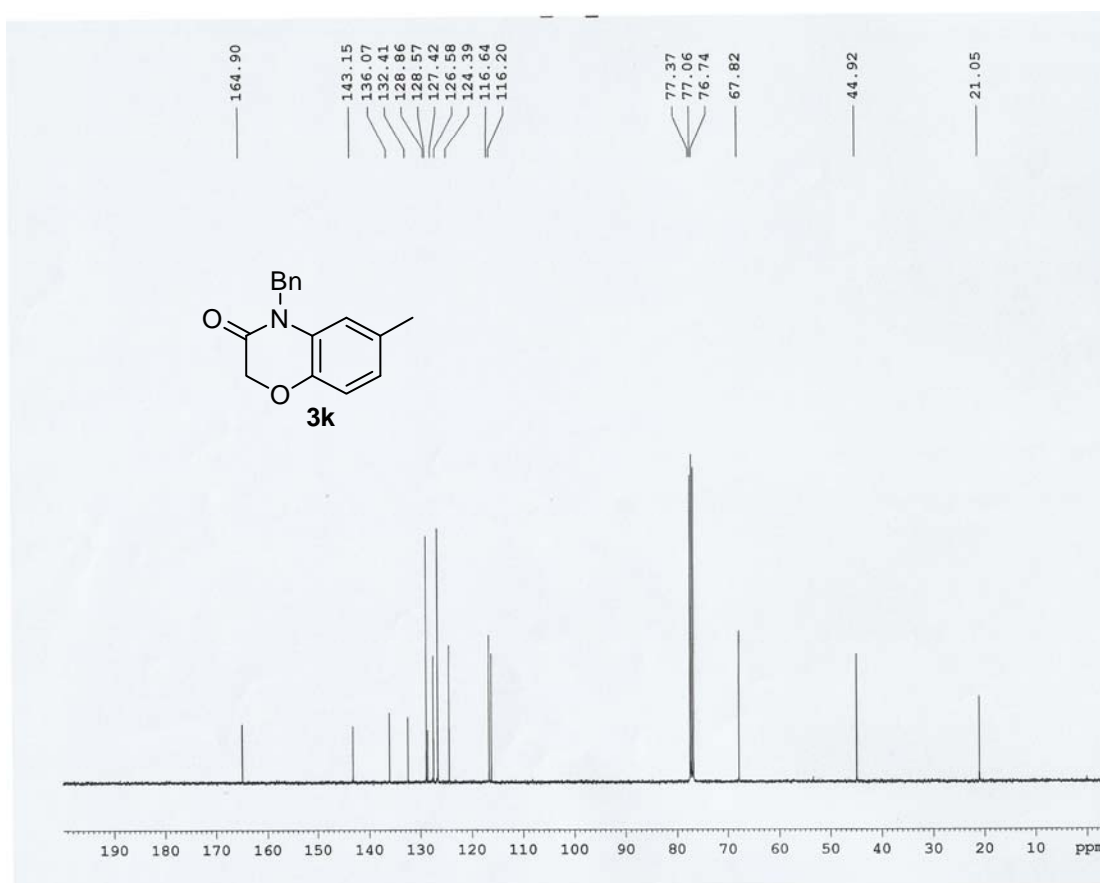
<sup>13</sup>C NMR (75 MHz, CDCl<sub>3</sub>)



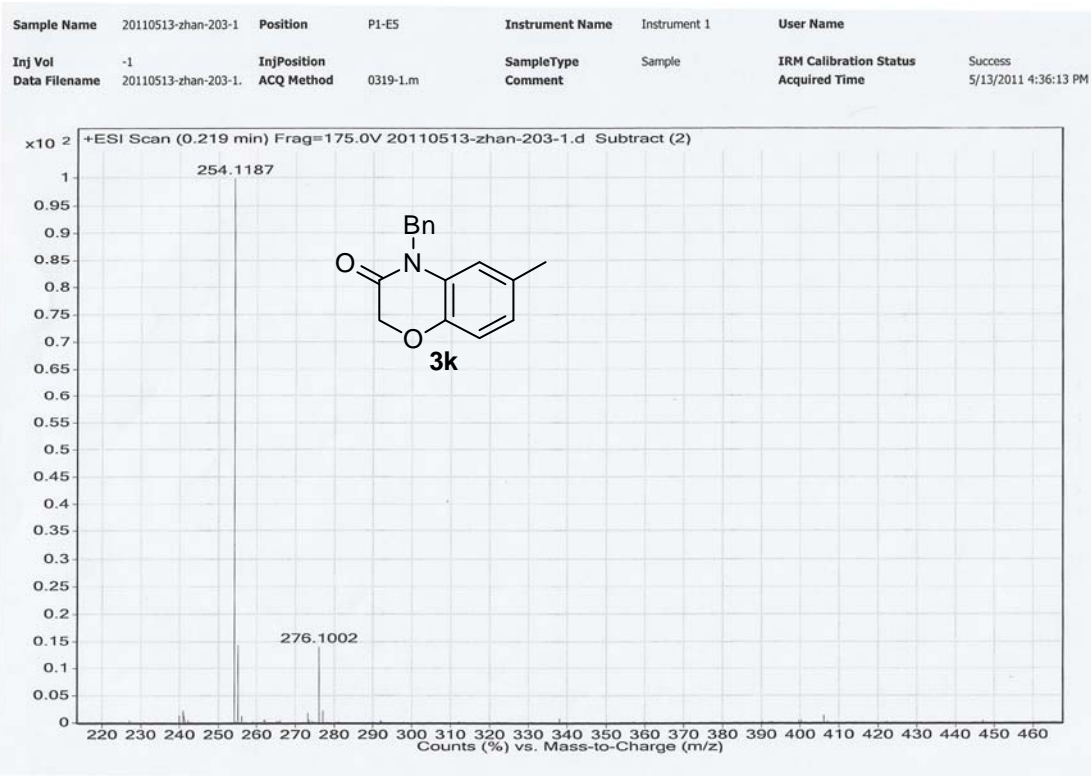
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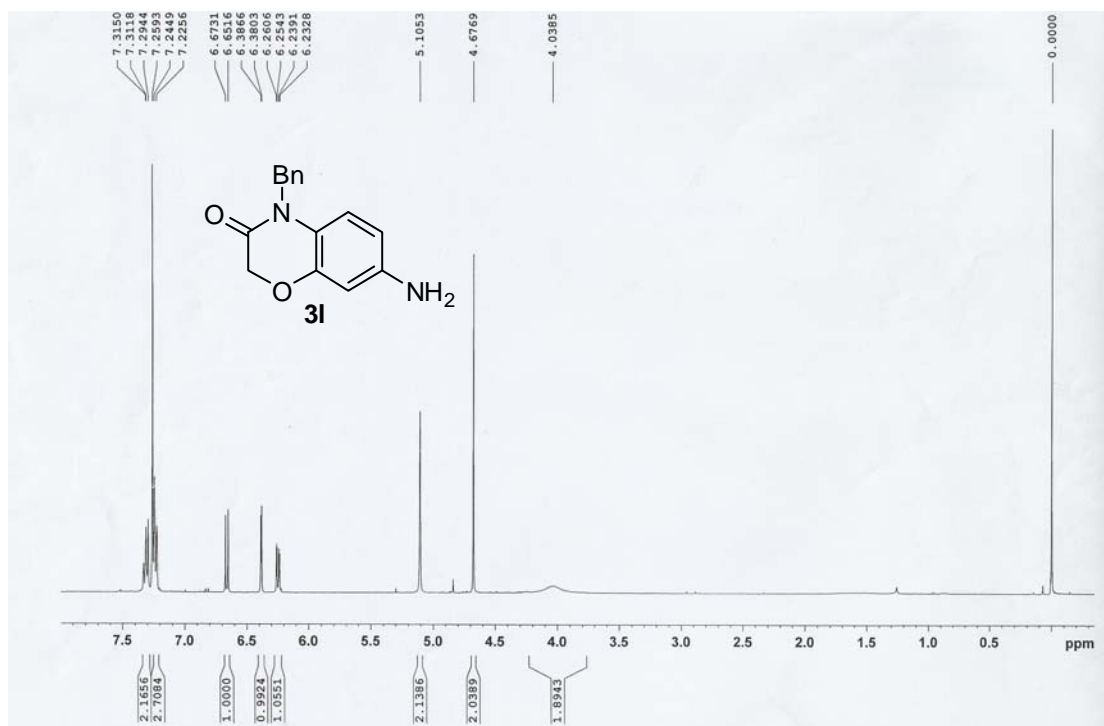
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



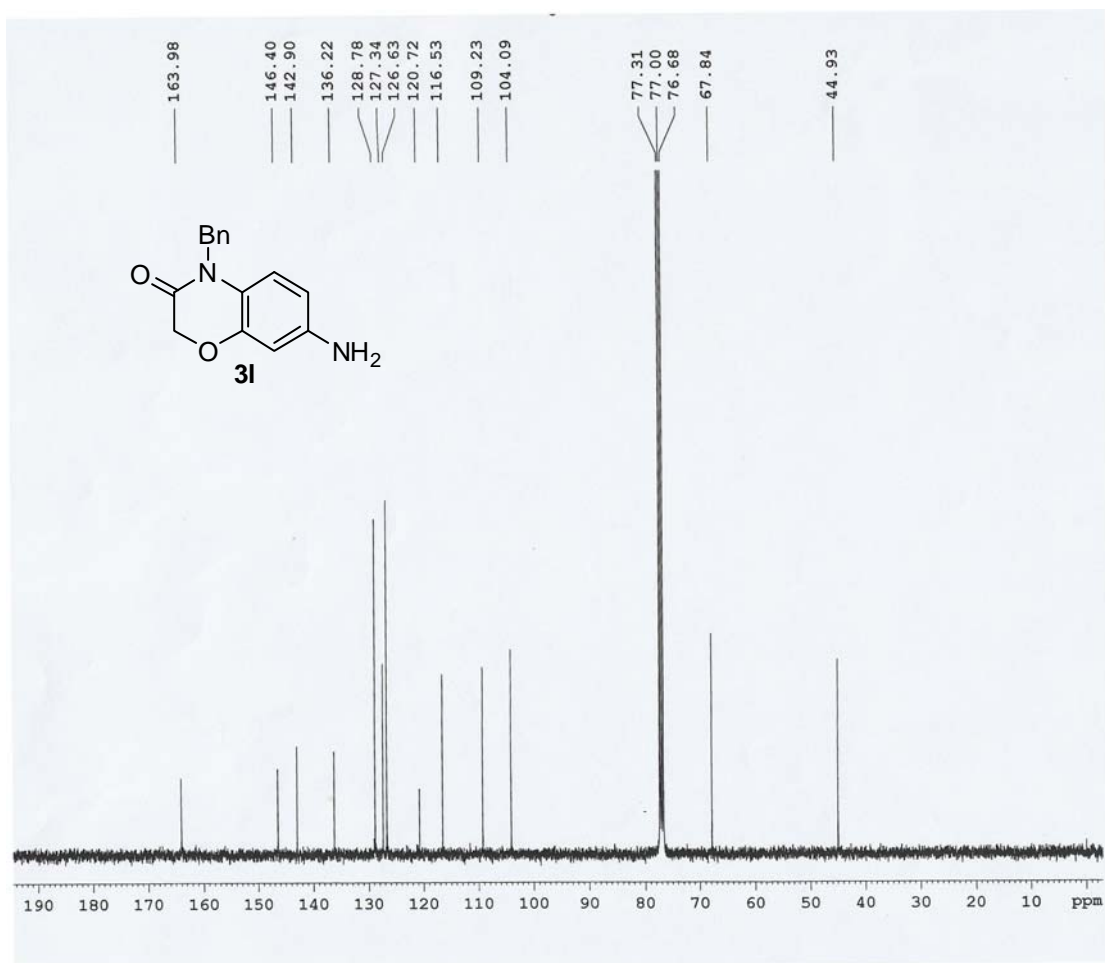
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)



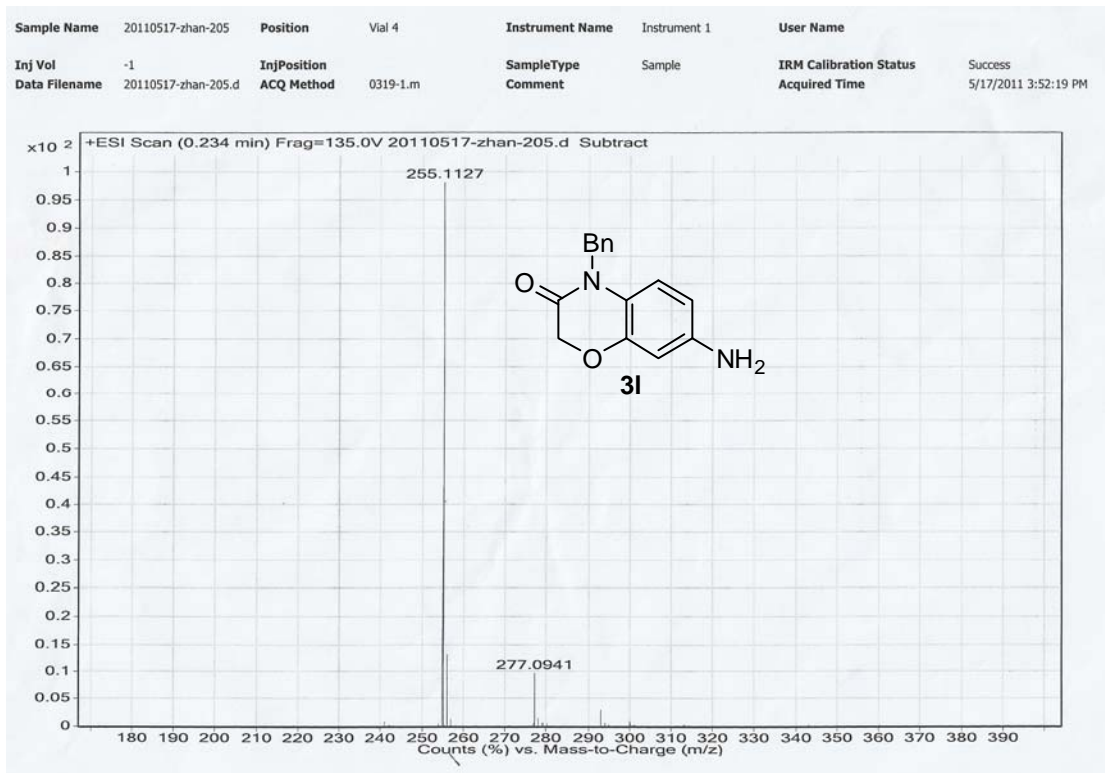
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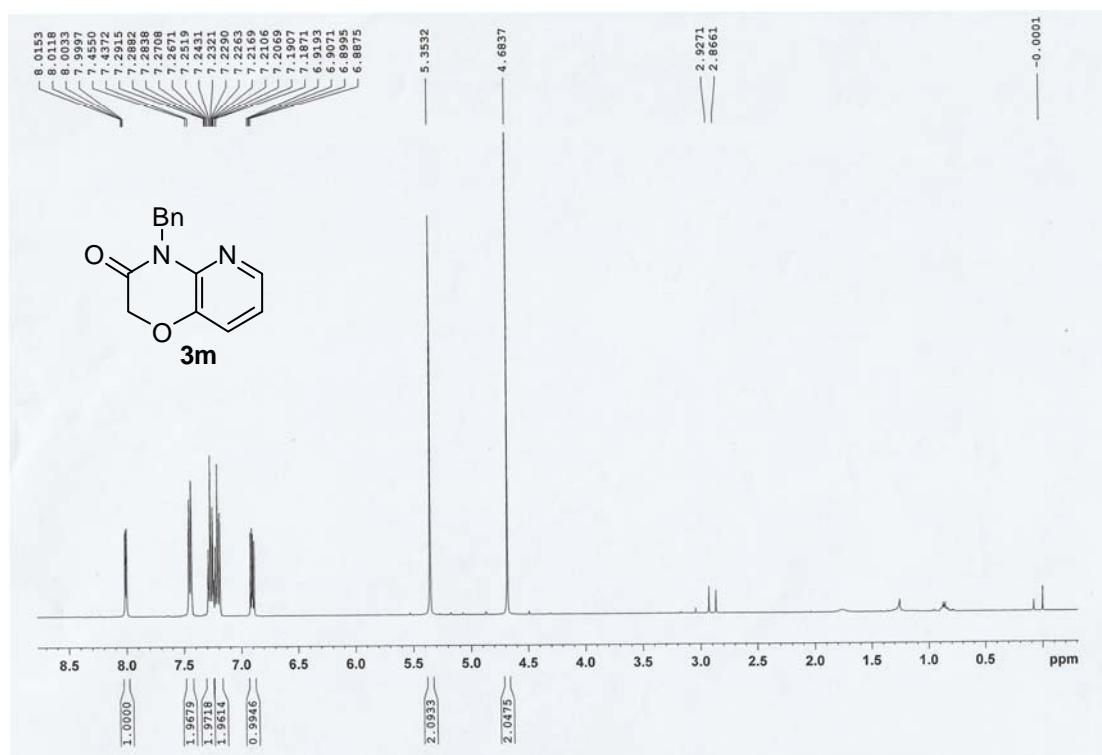
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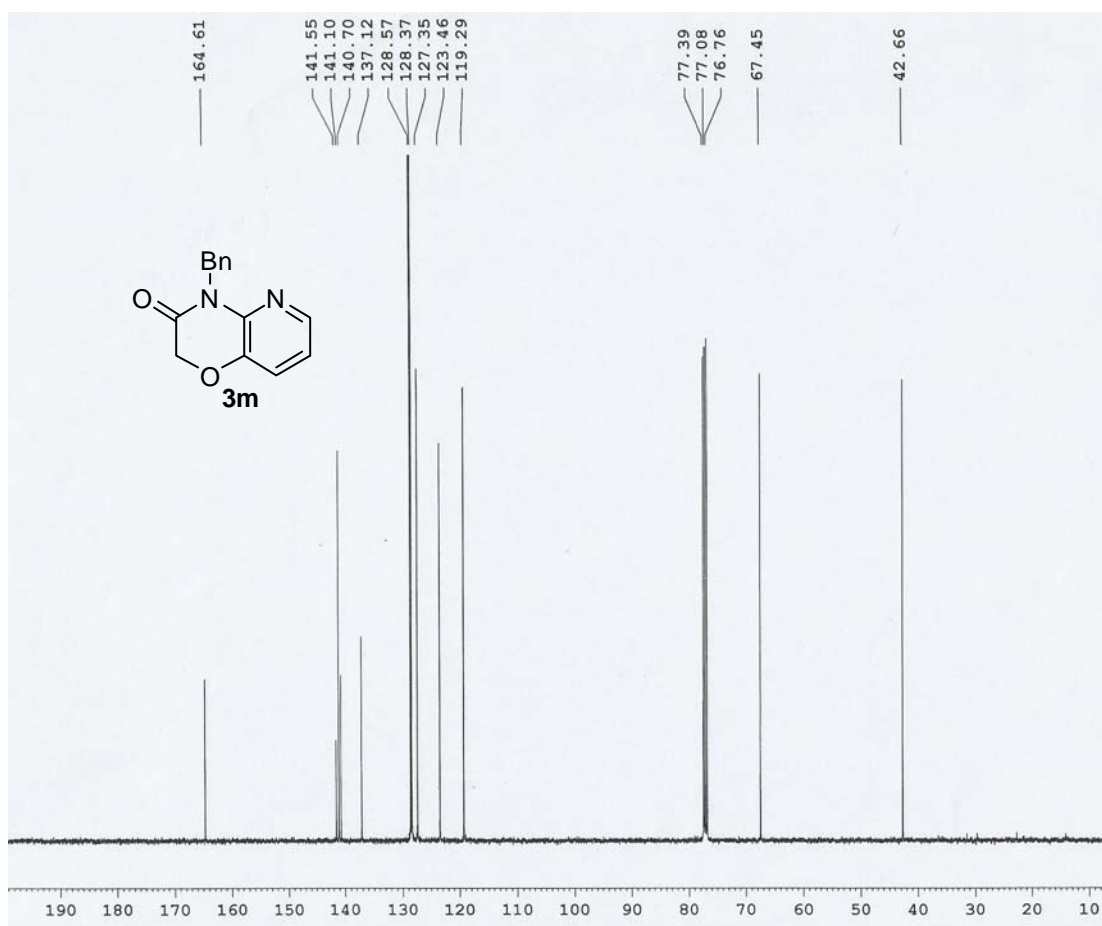
**<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)**



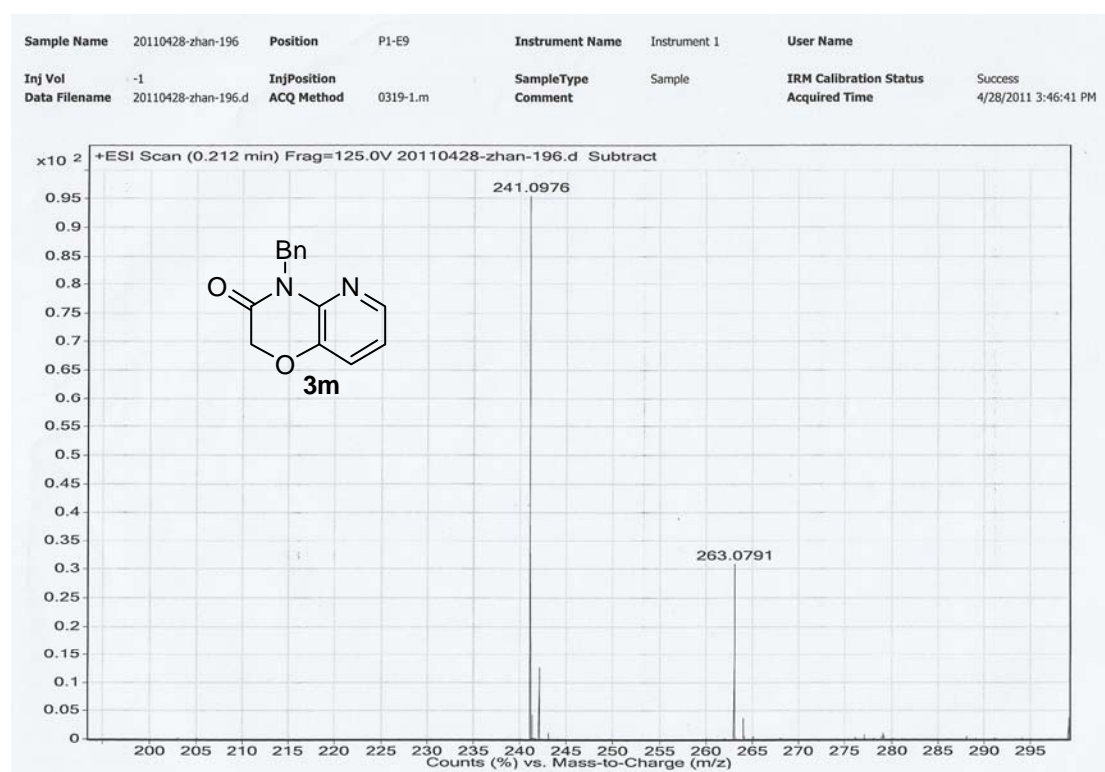
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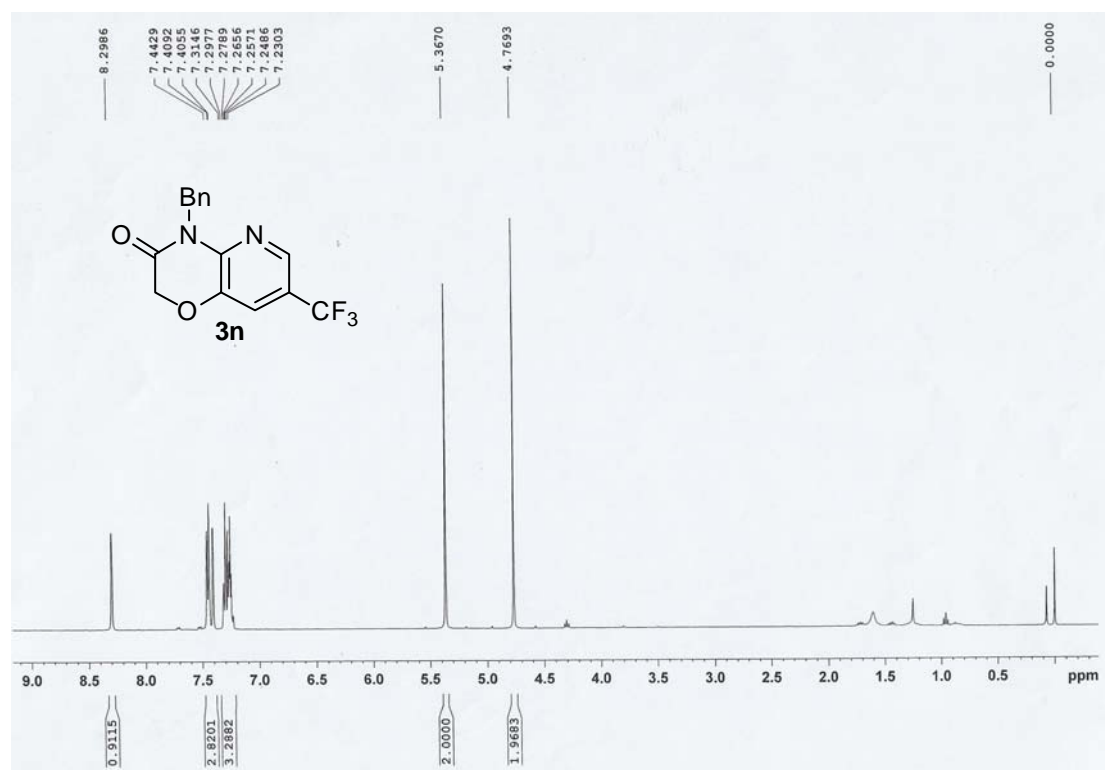
## <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



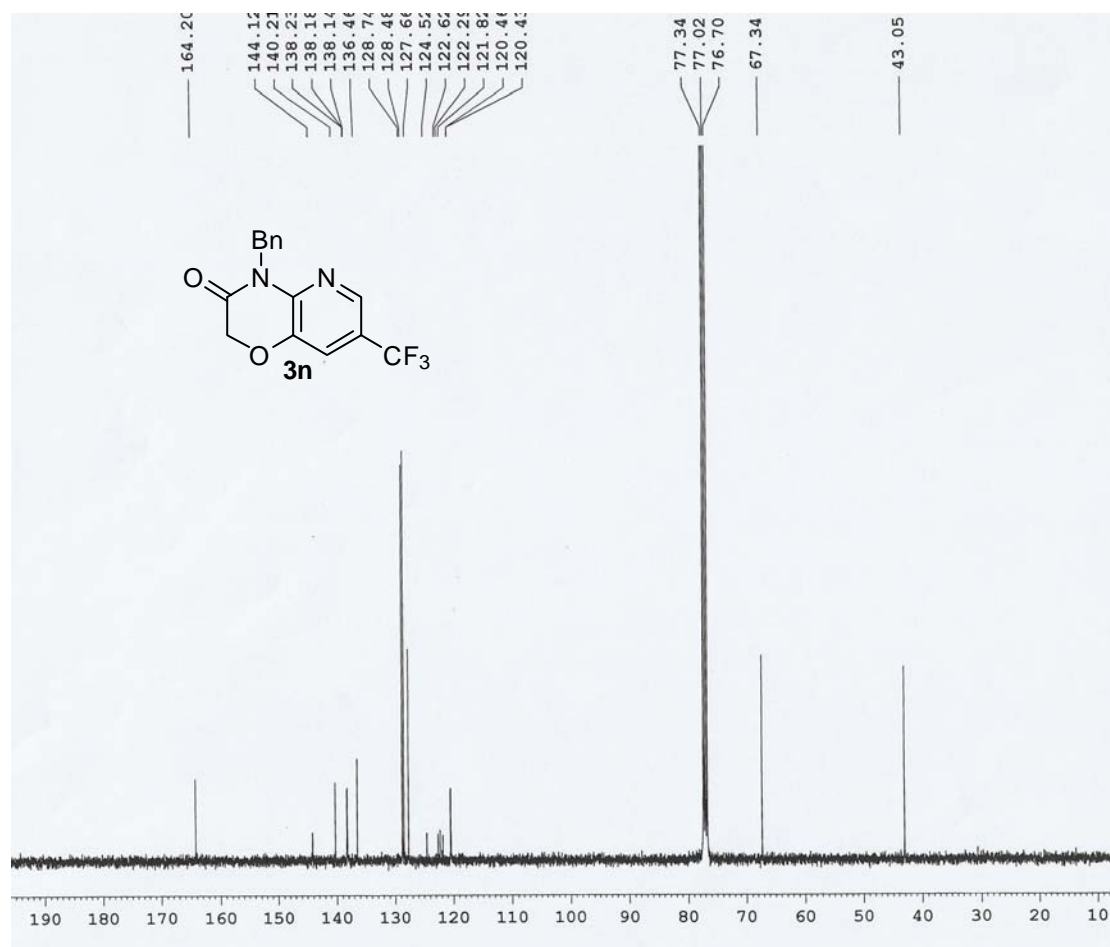
$^{13}\text{C}$  NMR(100 MHz,  $\text{CDCl}_3$ )



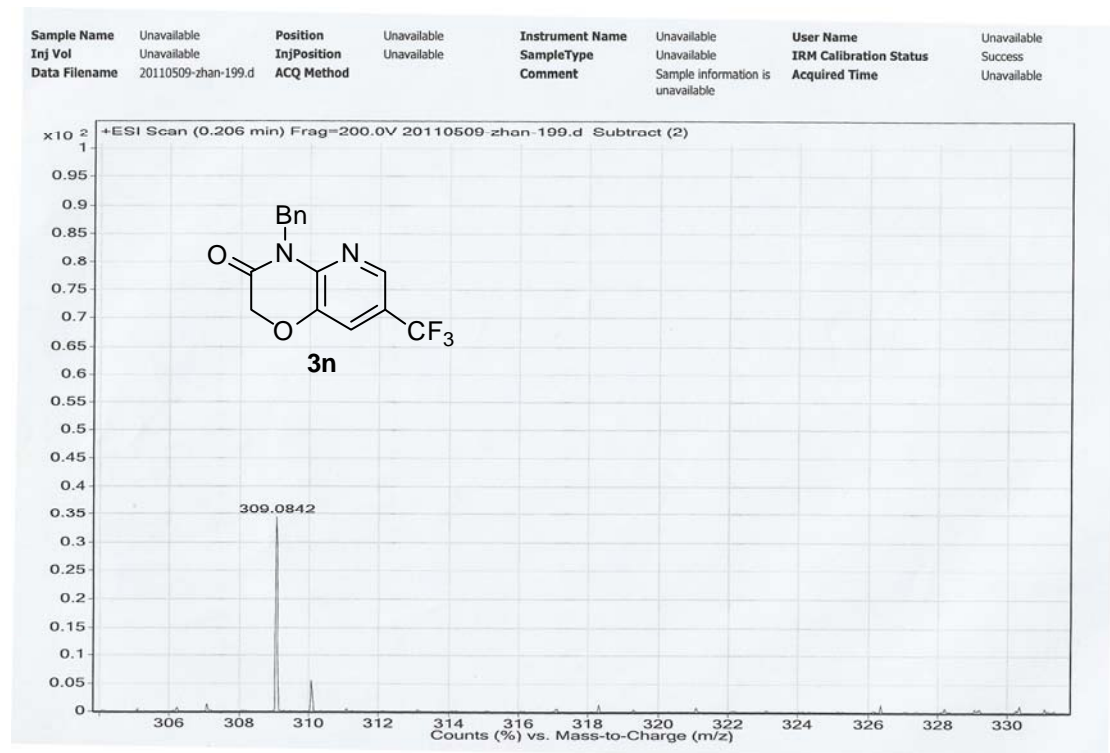
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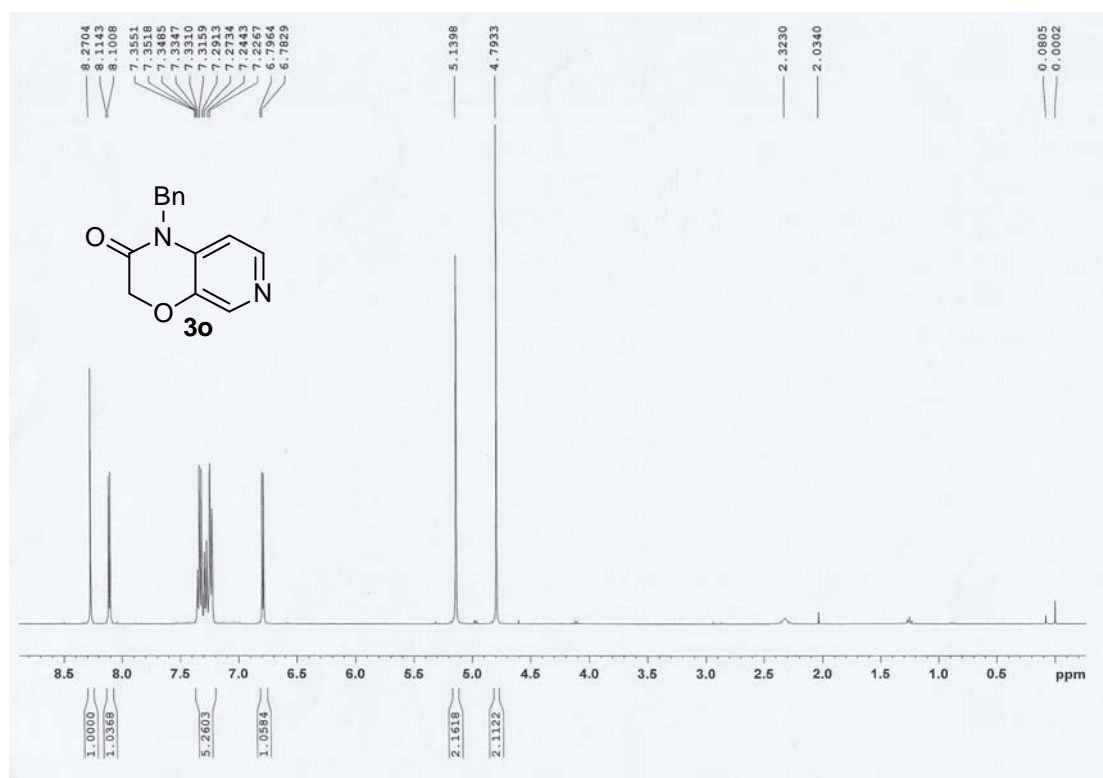
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )



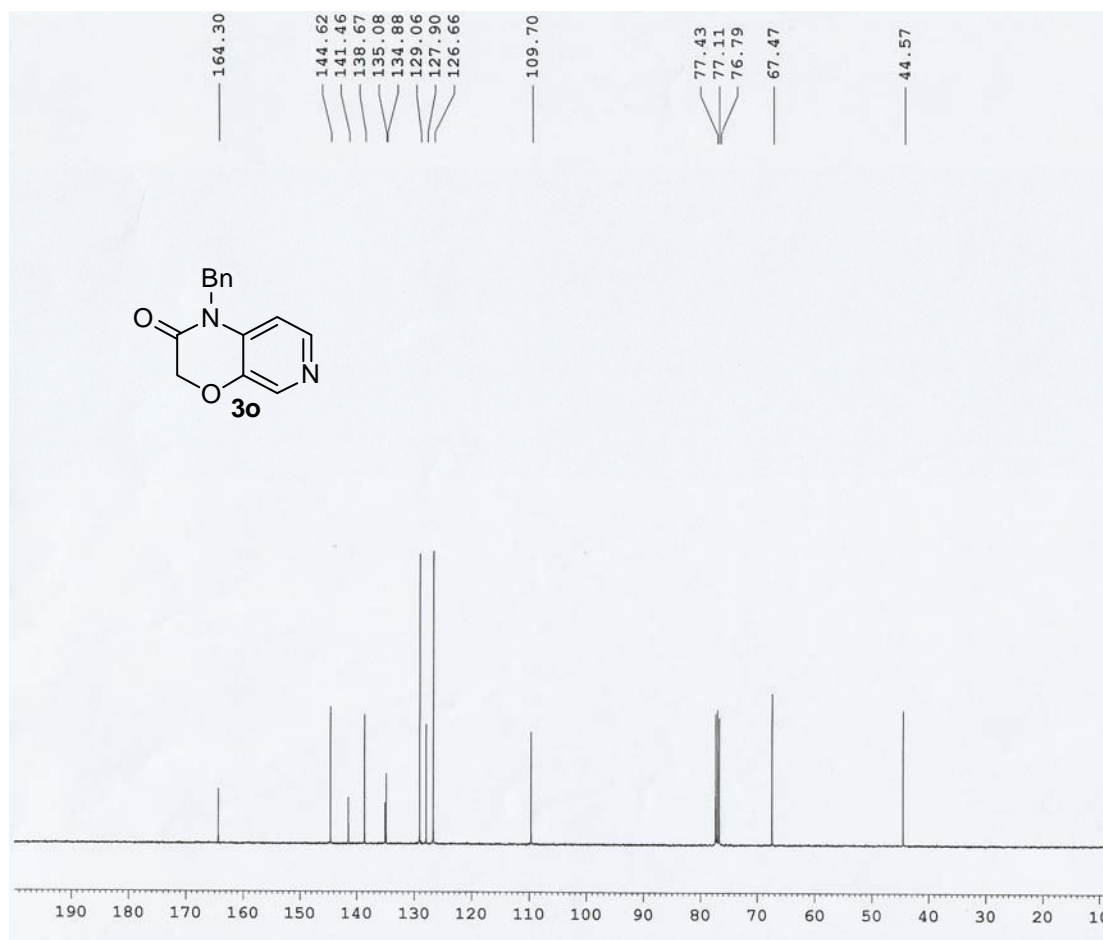
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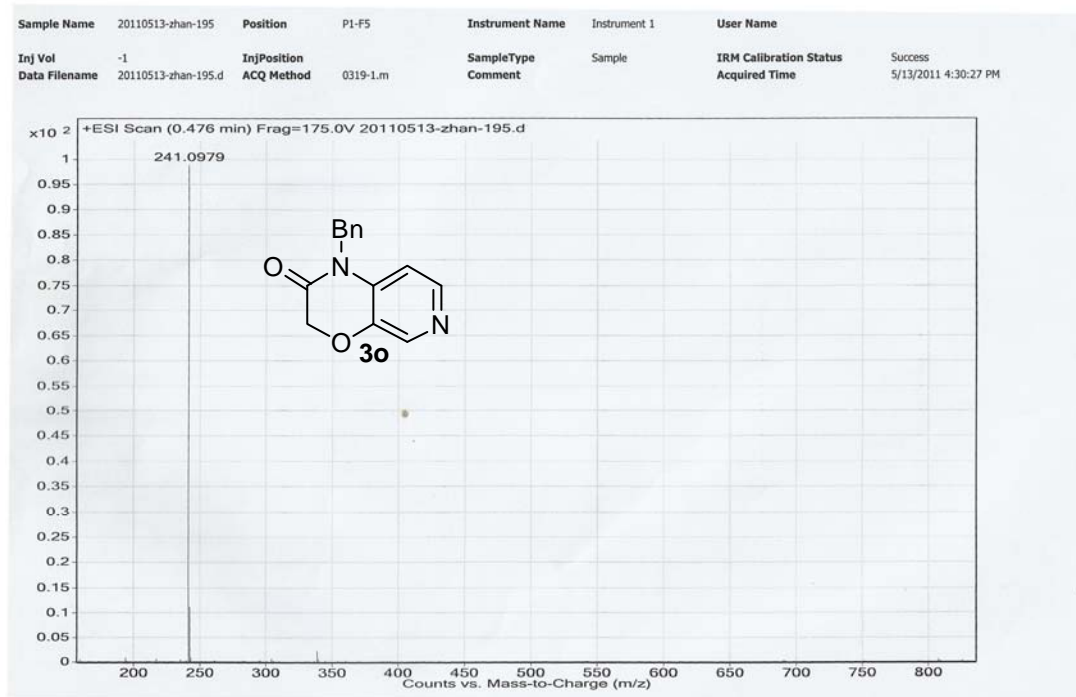


<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

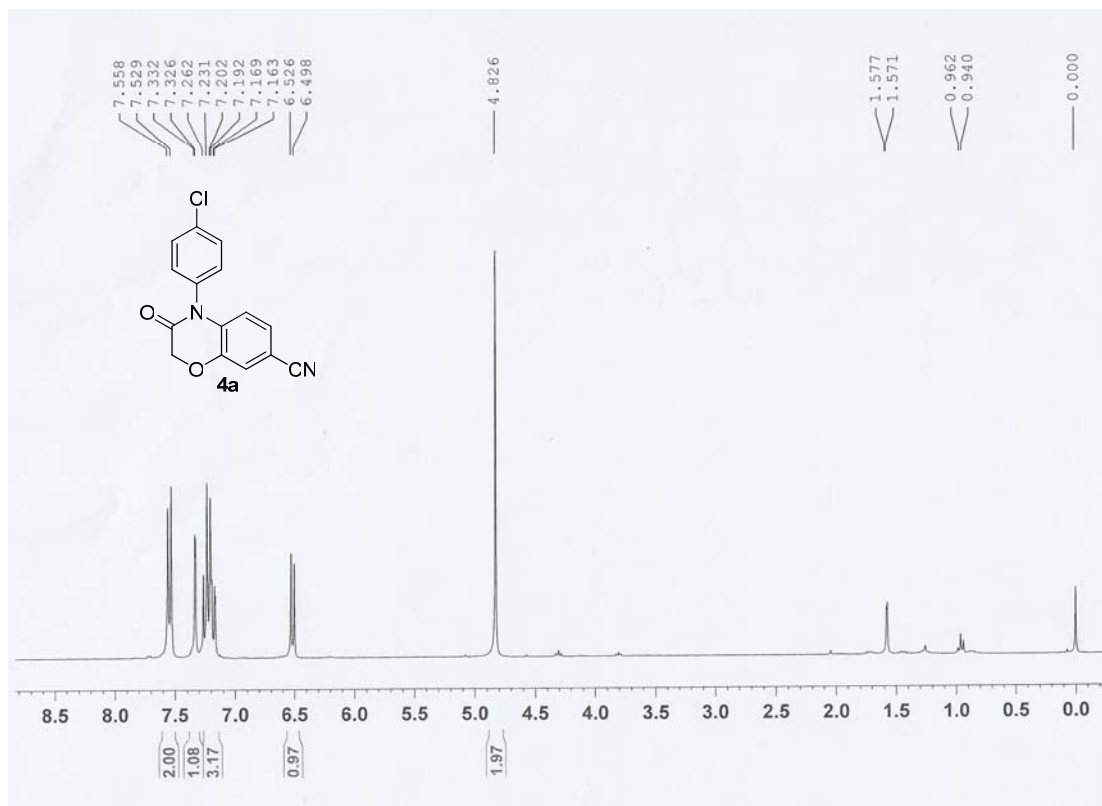




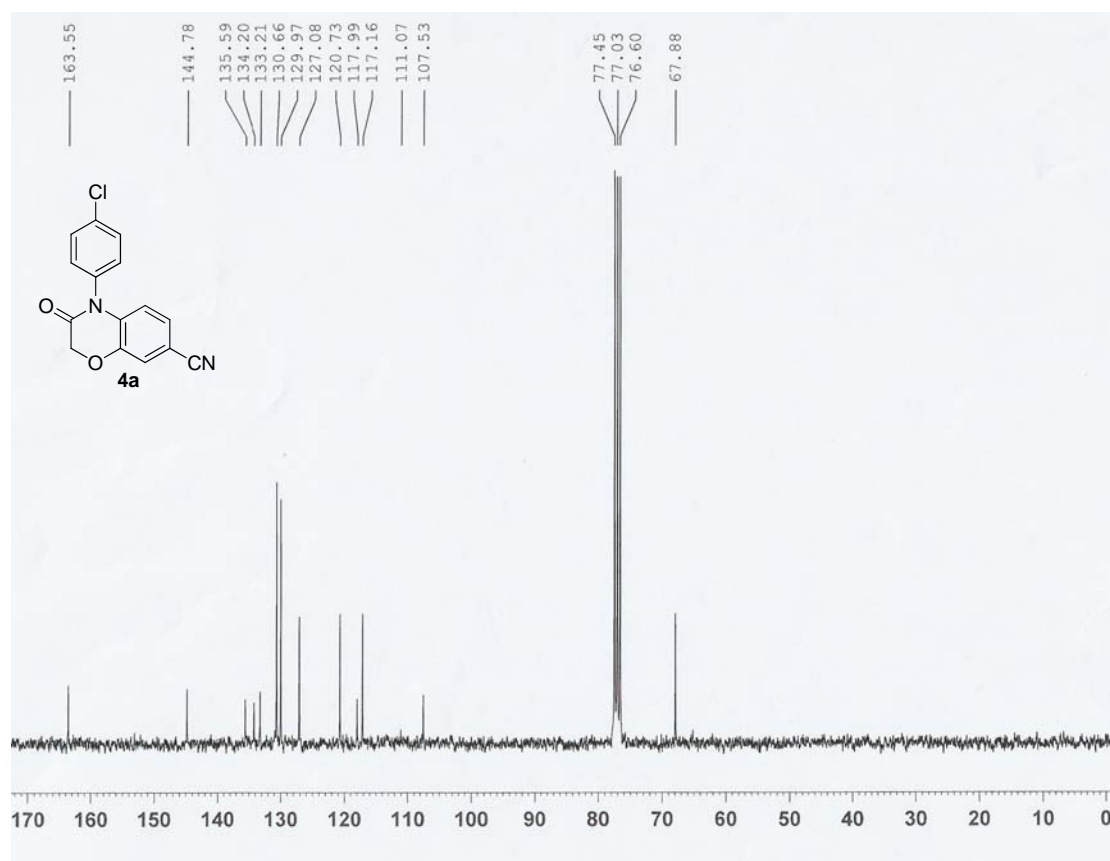
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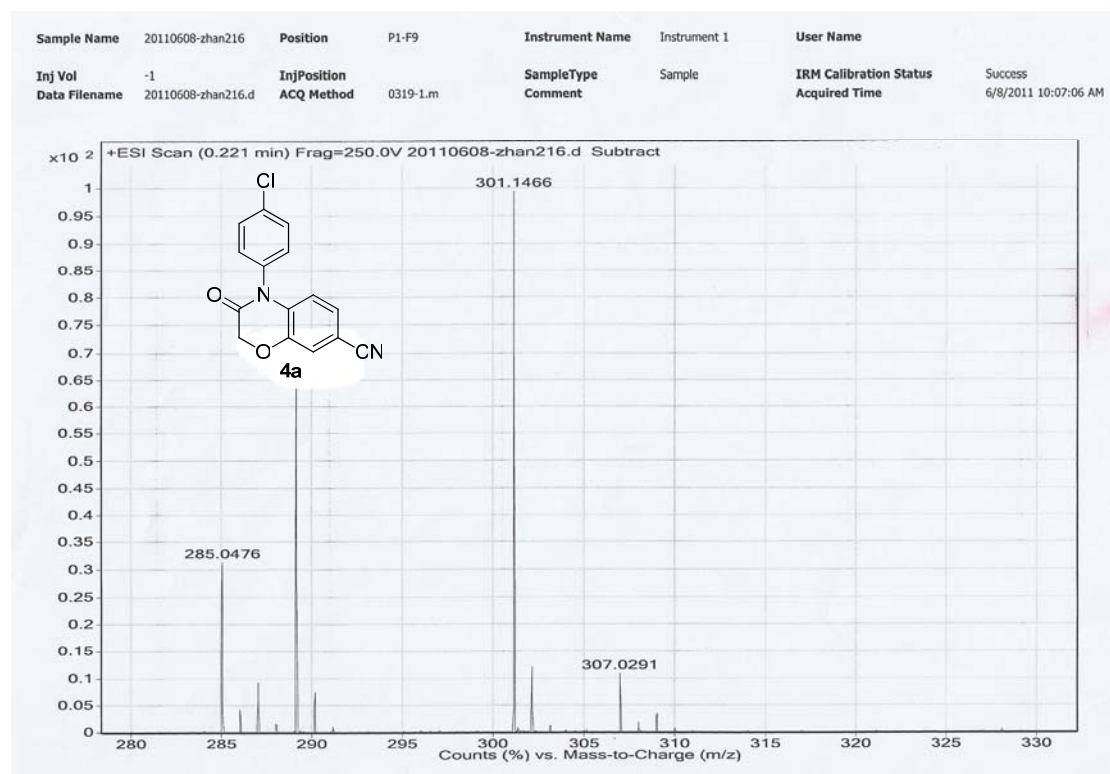
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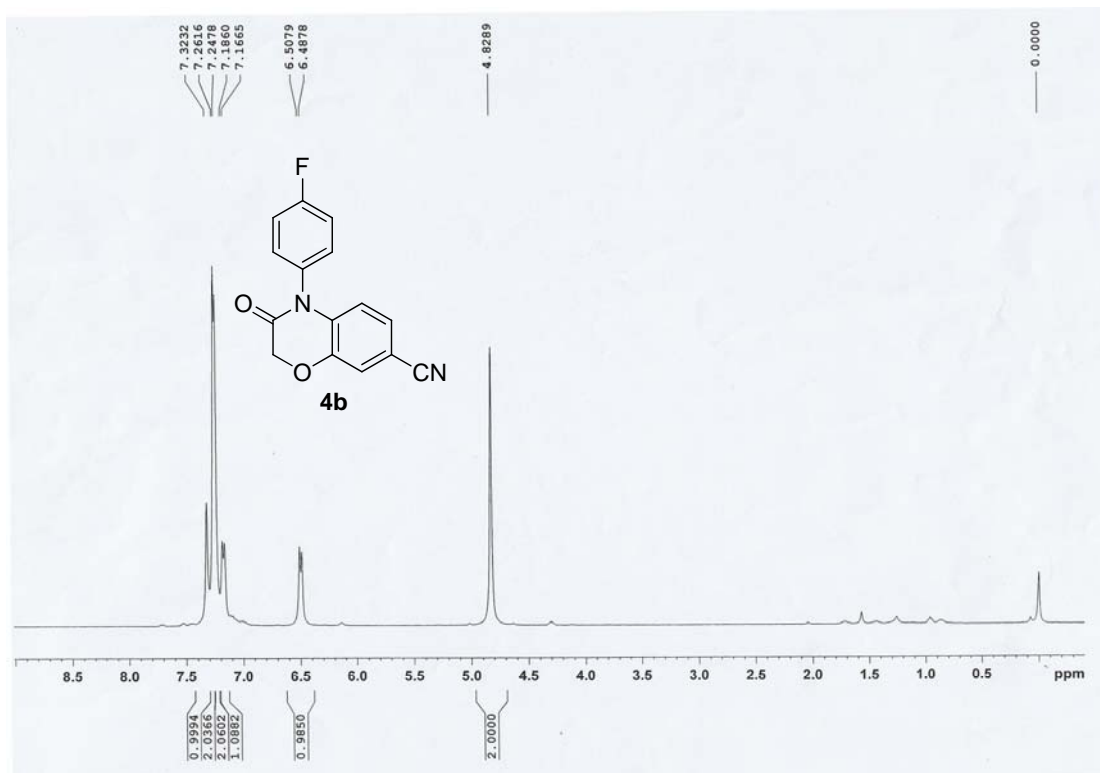


$^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )

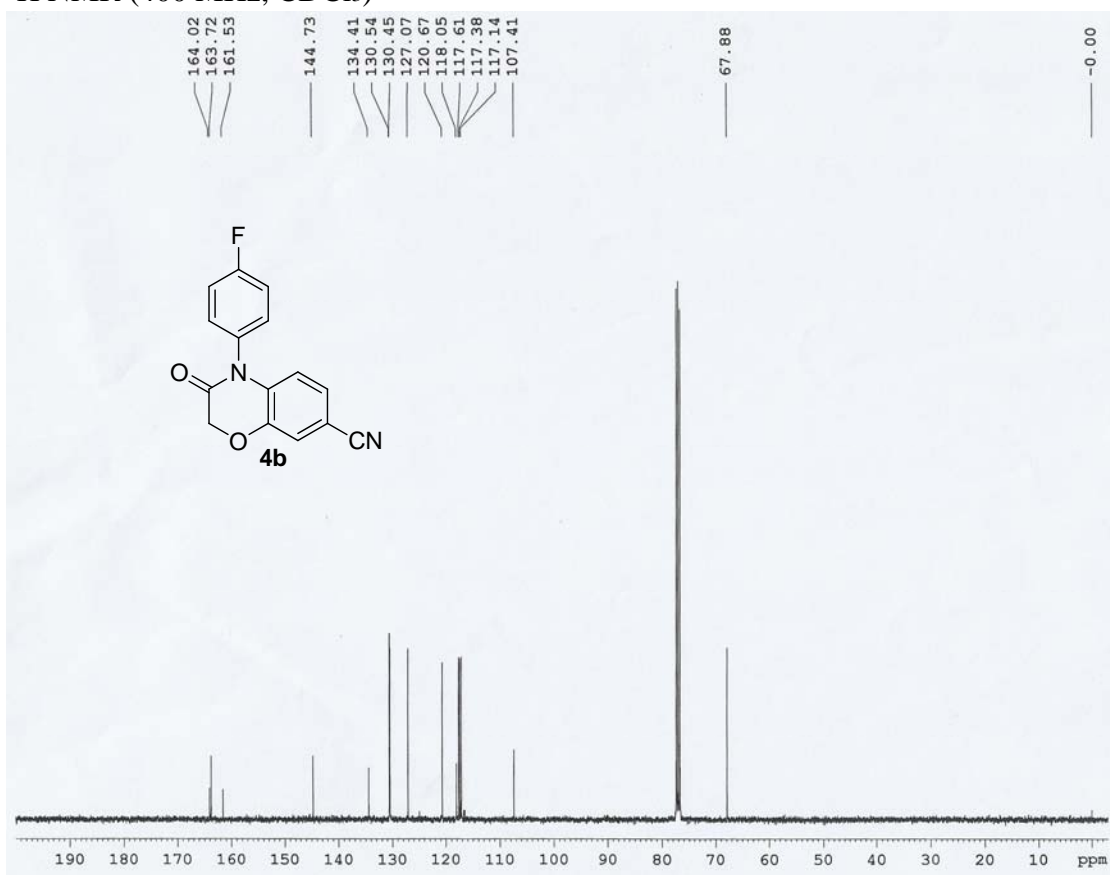


**<sup>13</sup>C NMR(75 MHz, CDCl<sub>3</sub>)**

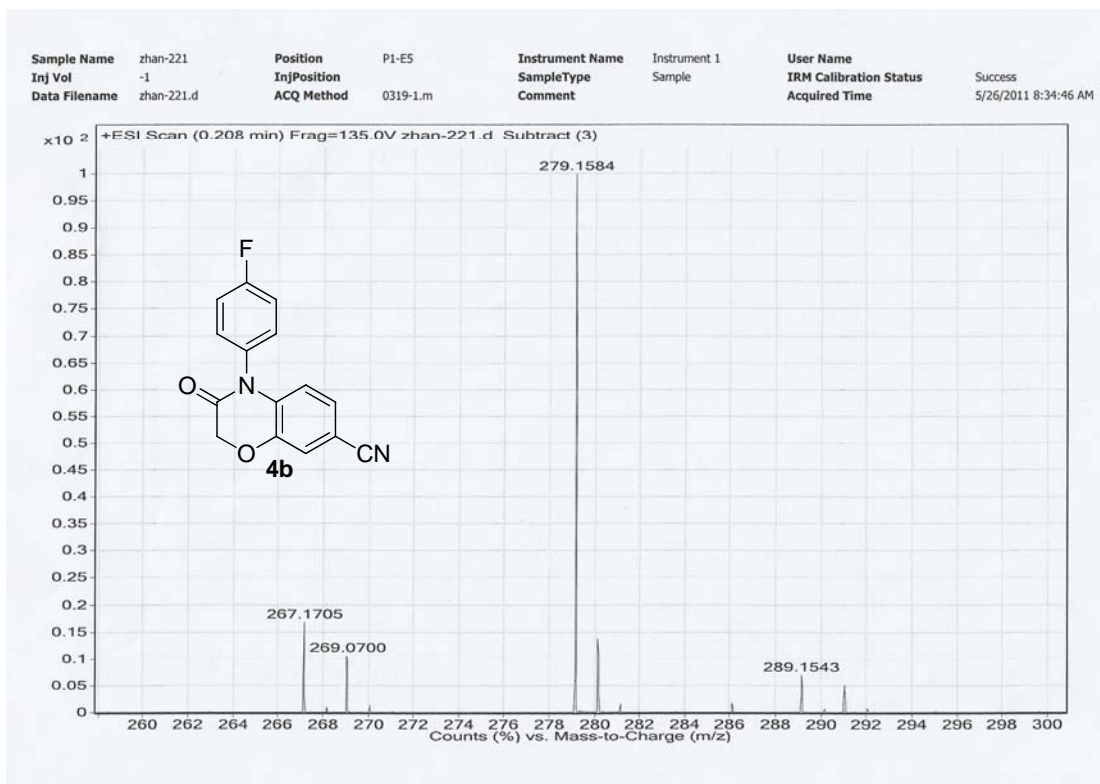




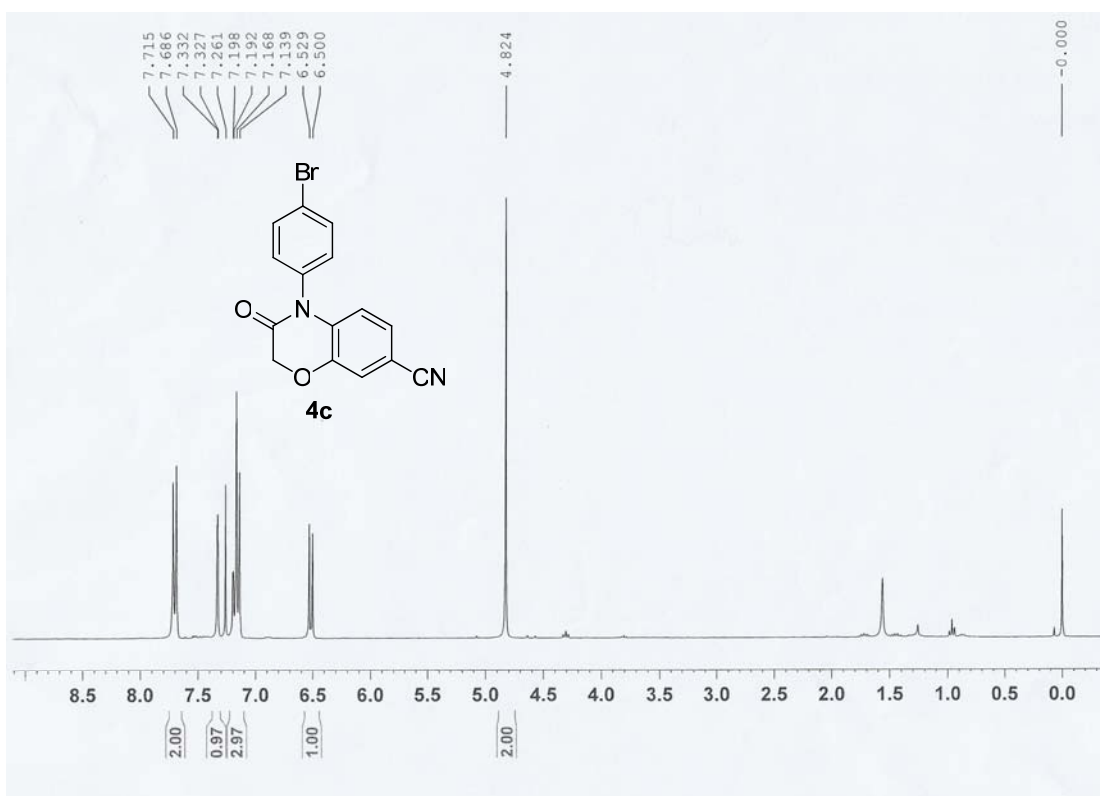
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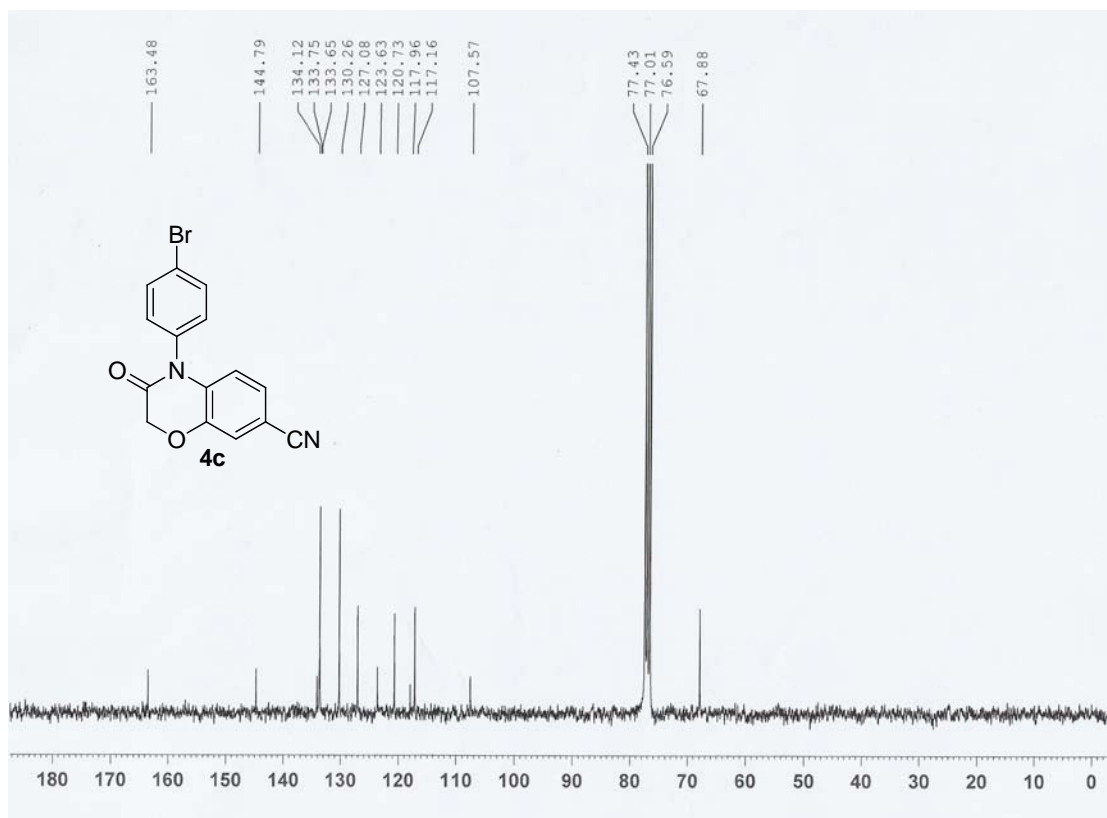
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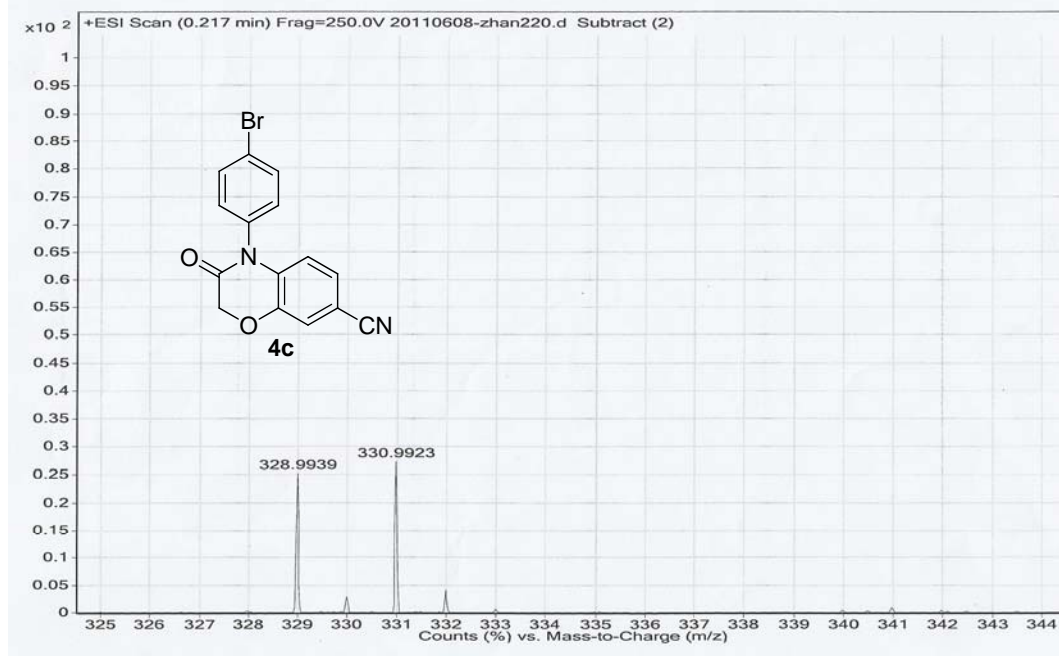


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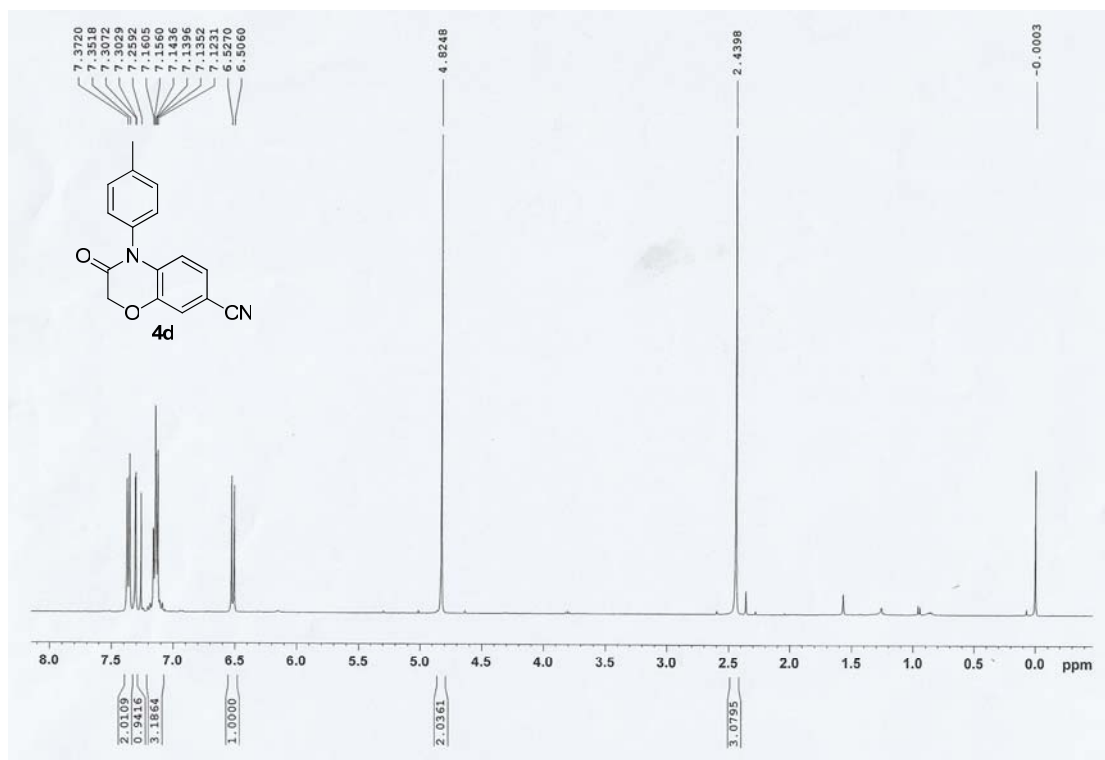


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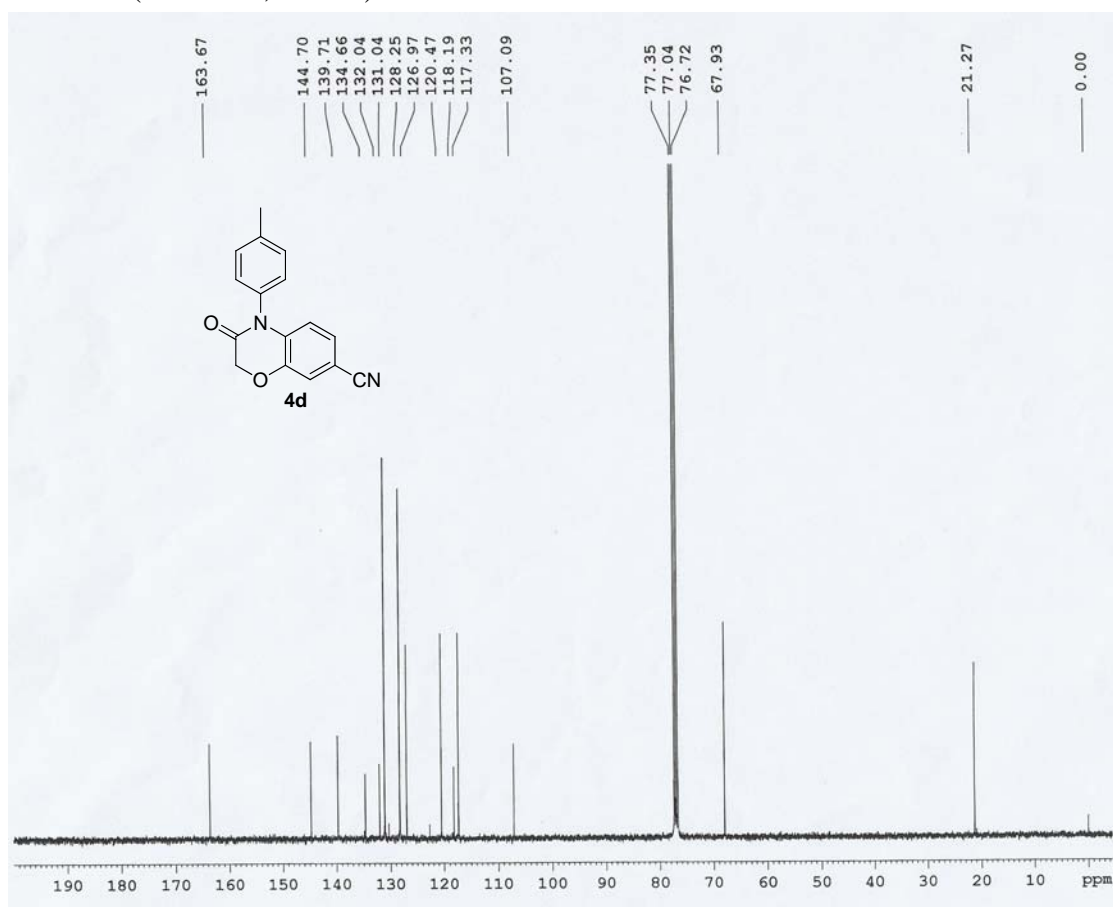
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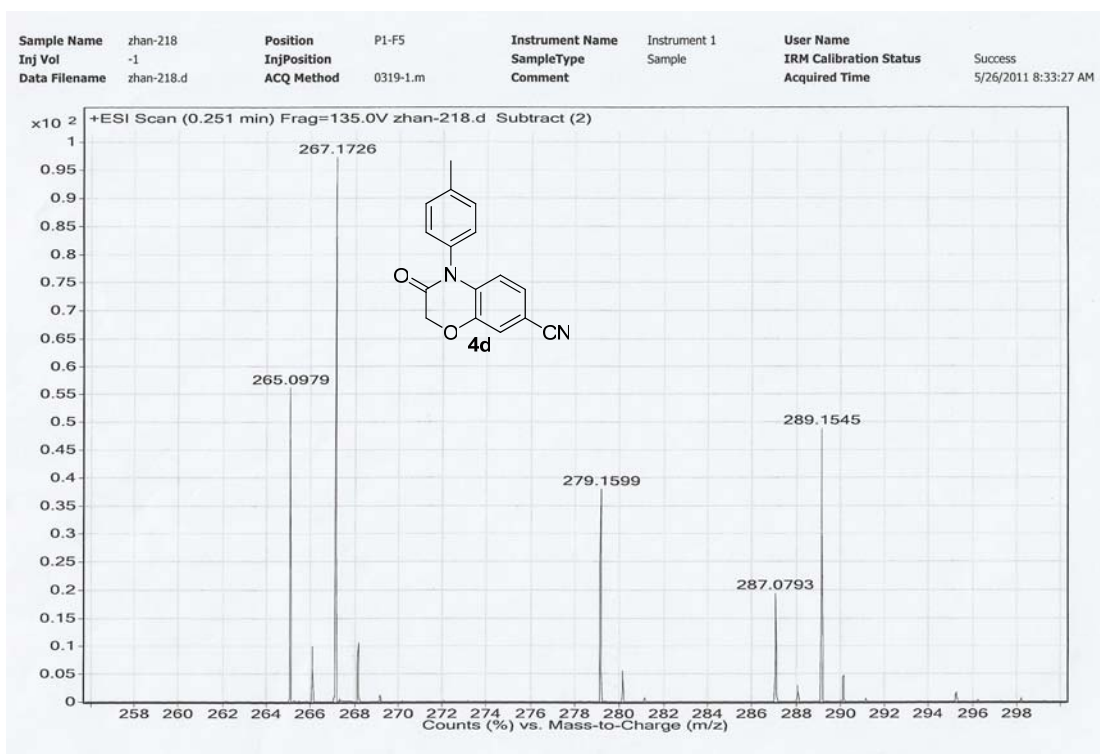
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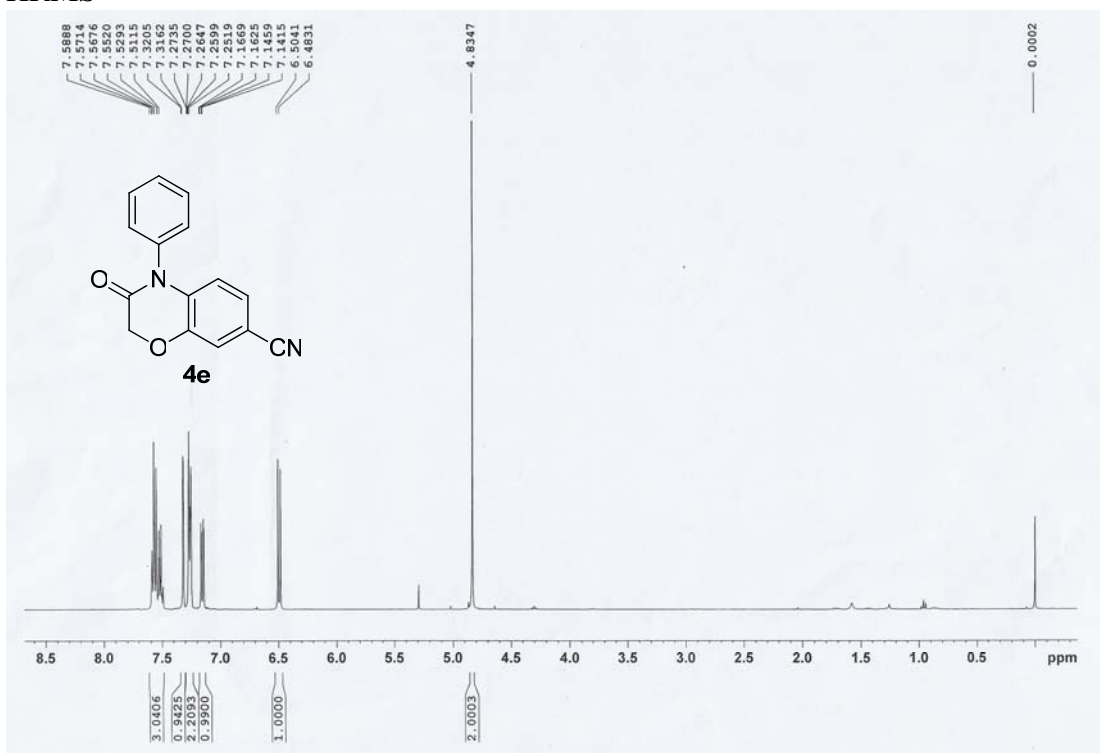
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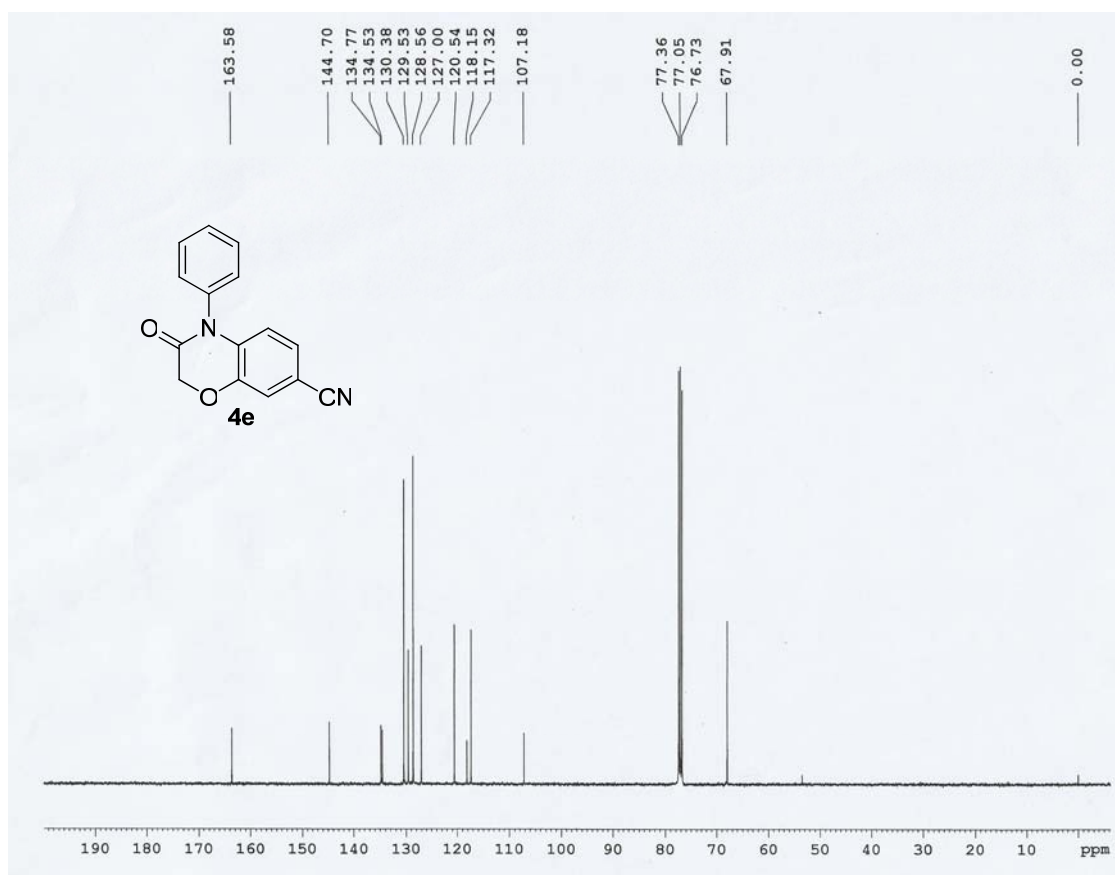
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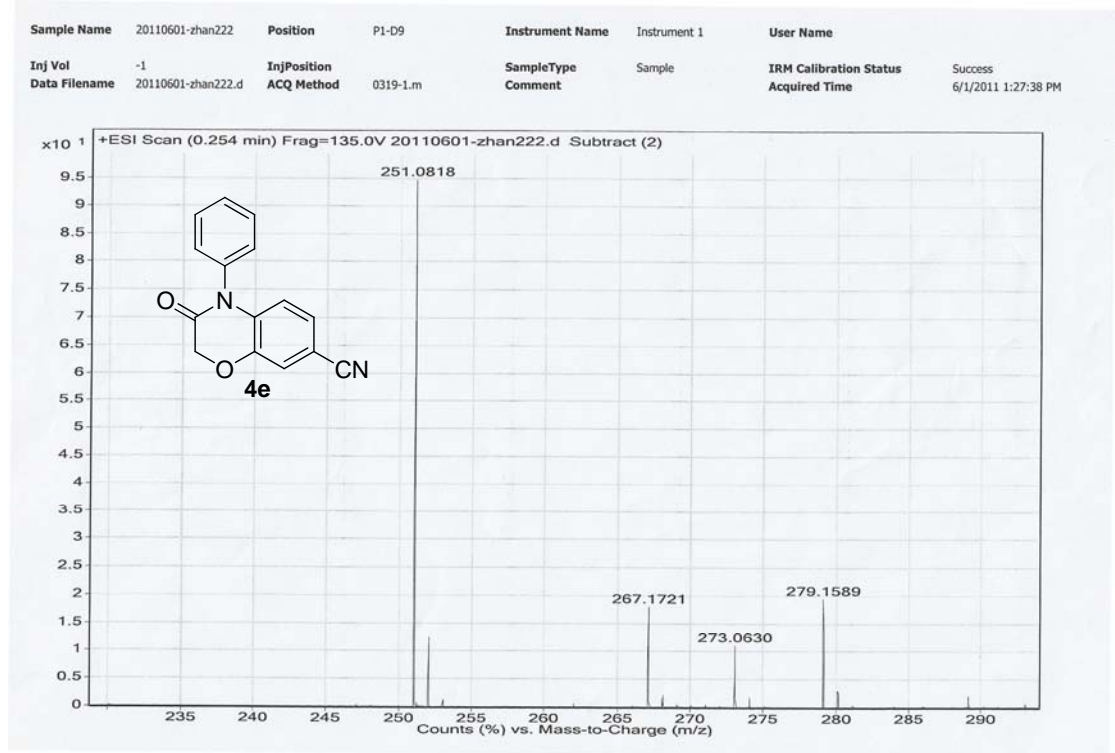
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<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

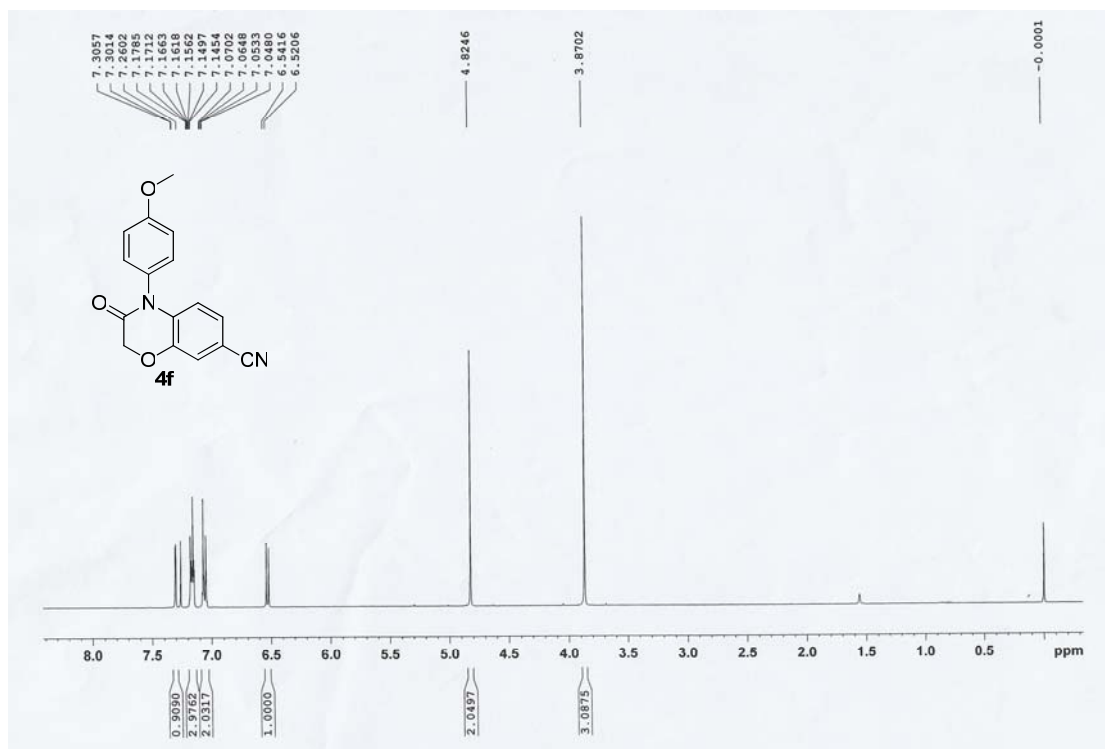


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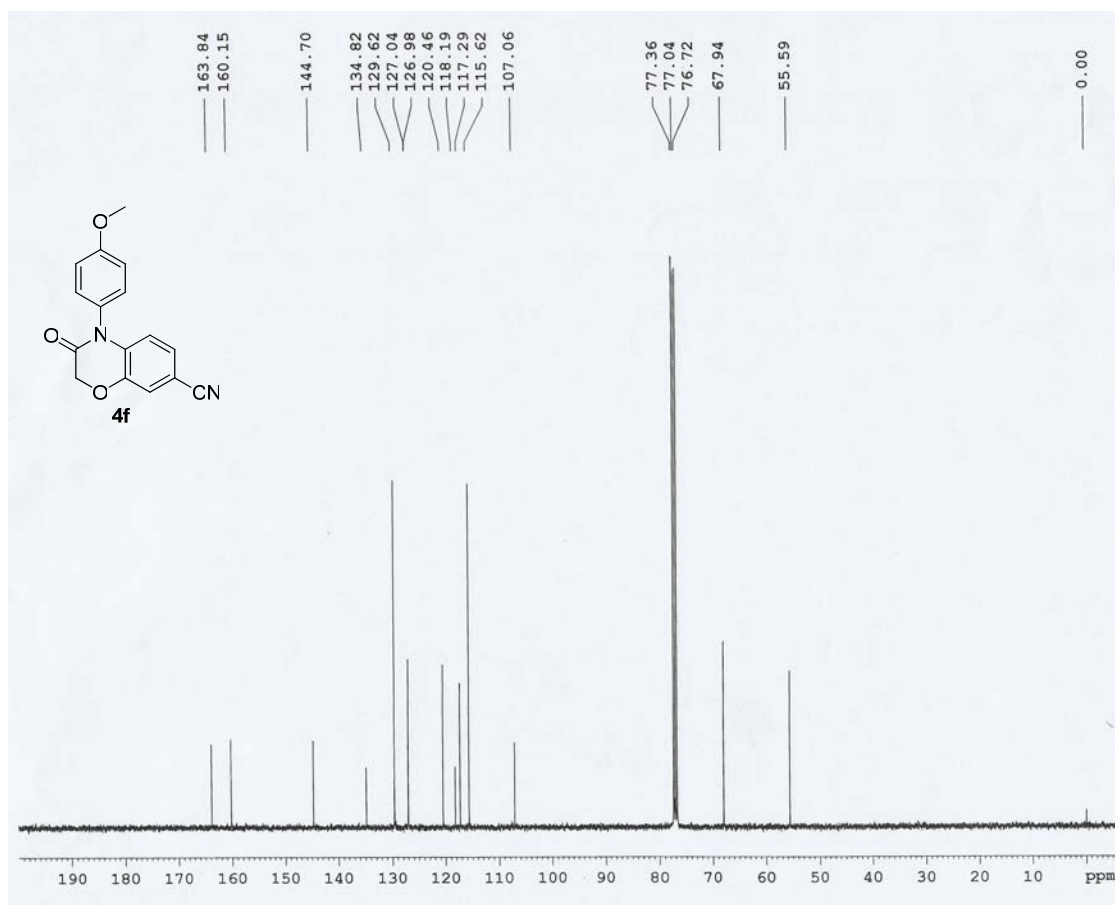


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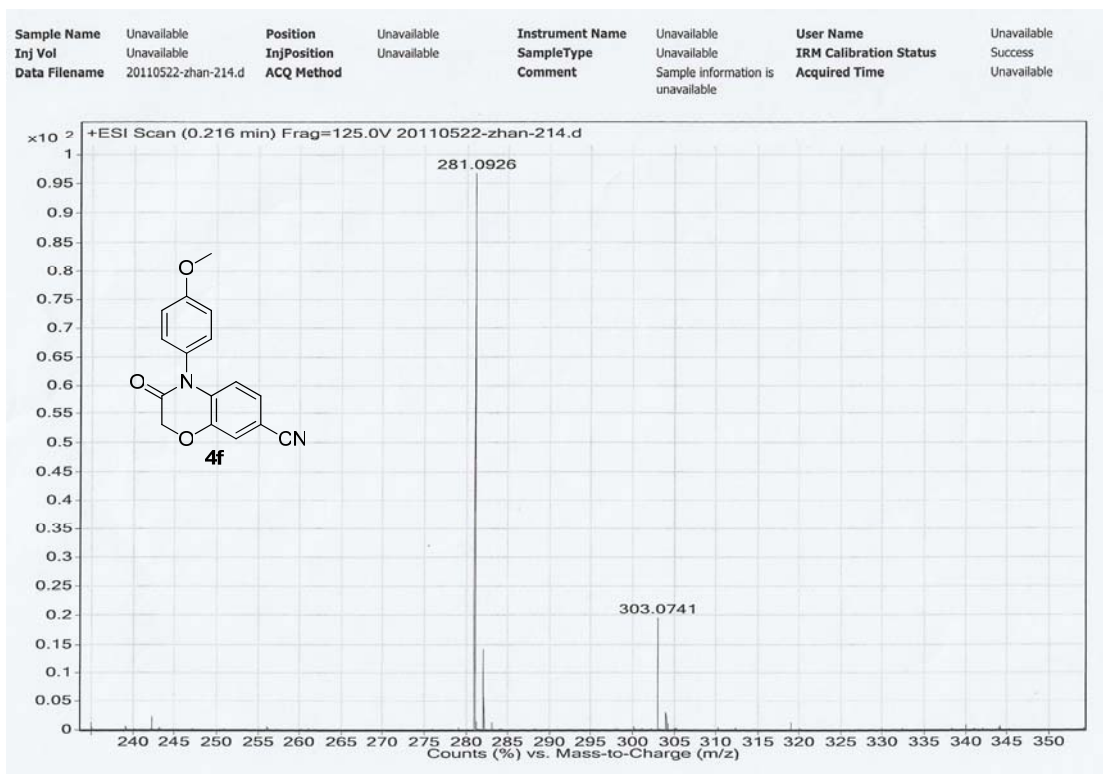




<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



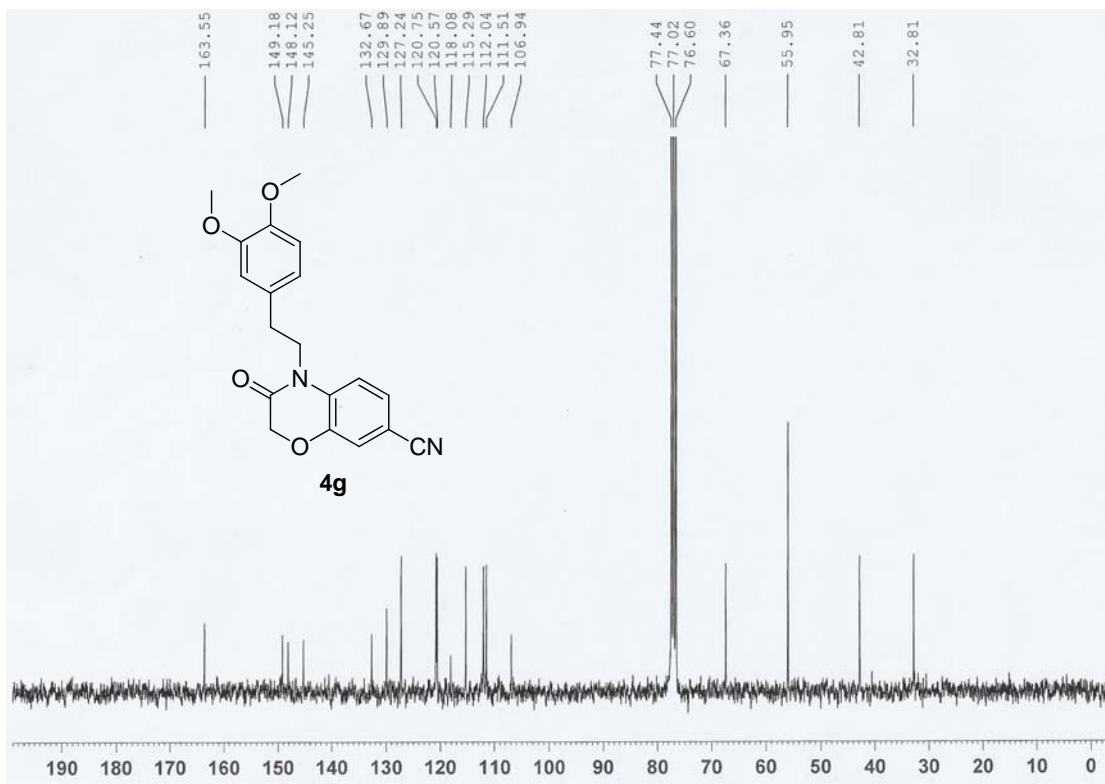
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)



### HRMS

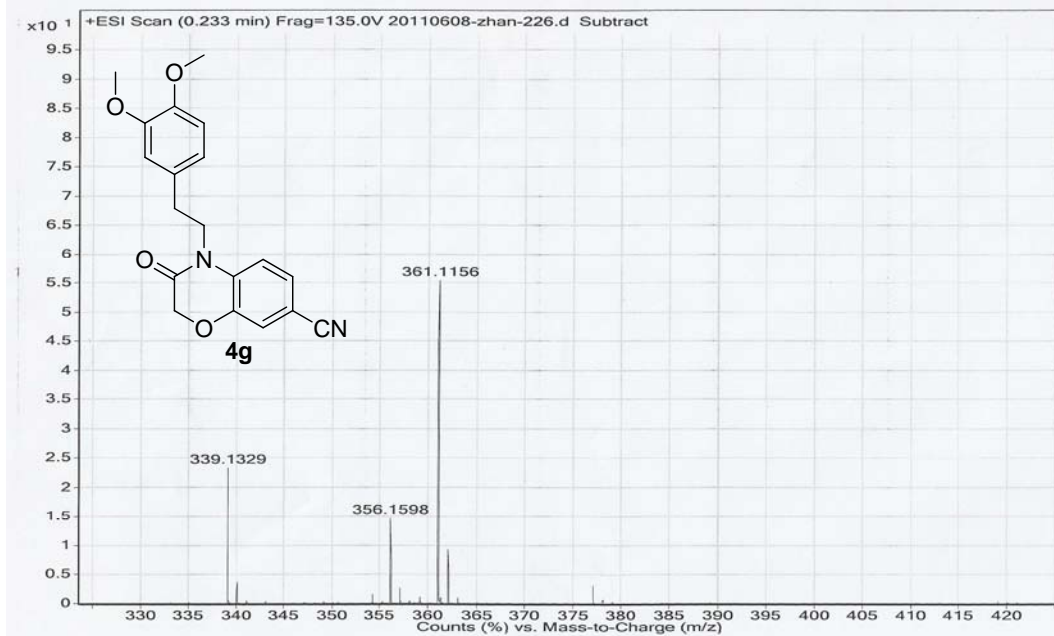


### <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)

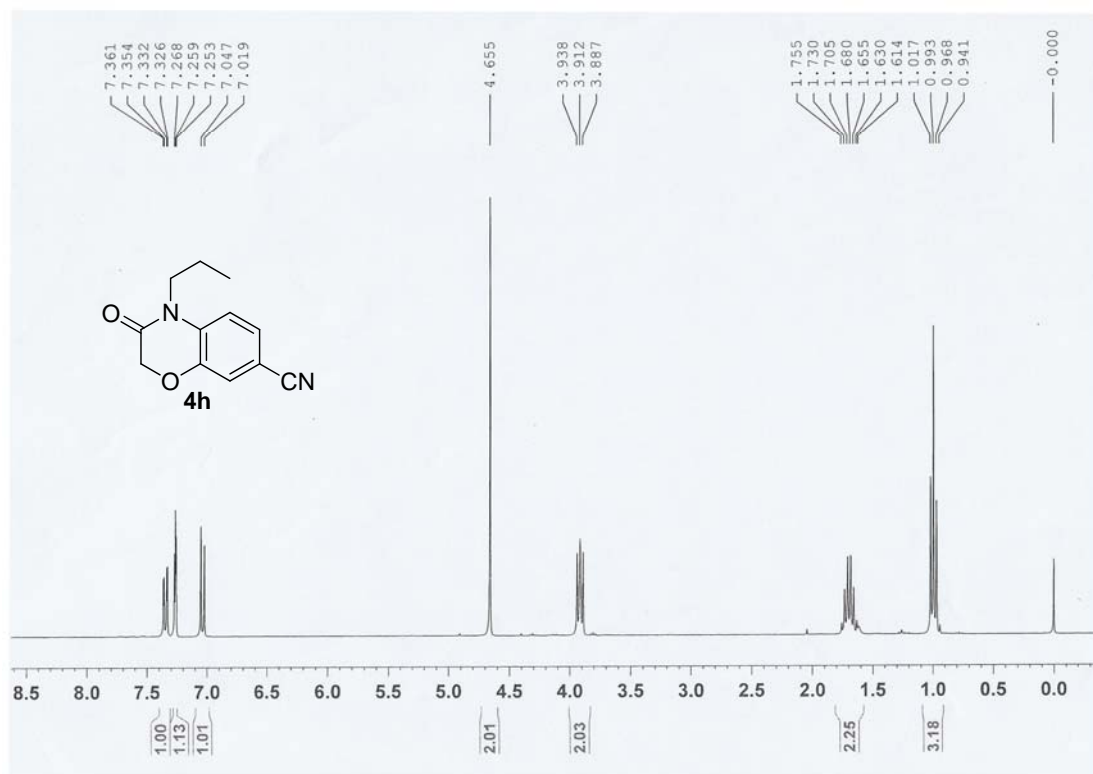


$^{13}\text{C}$  NMR (75 MHz,  $\text{CDCl}_3$ )

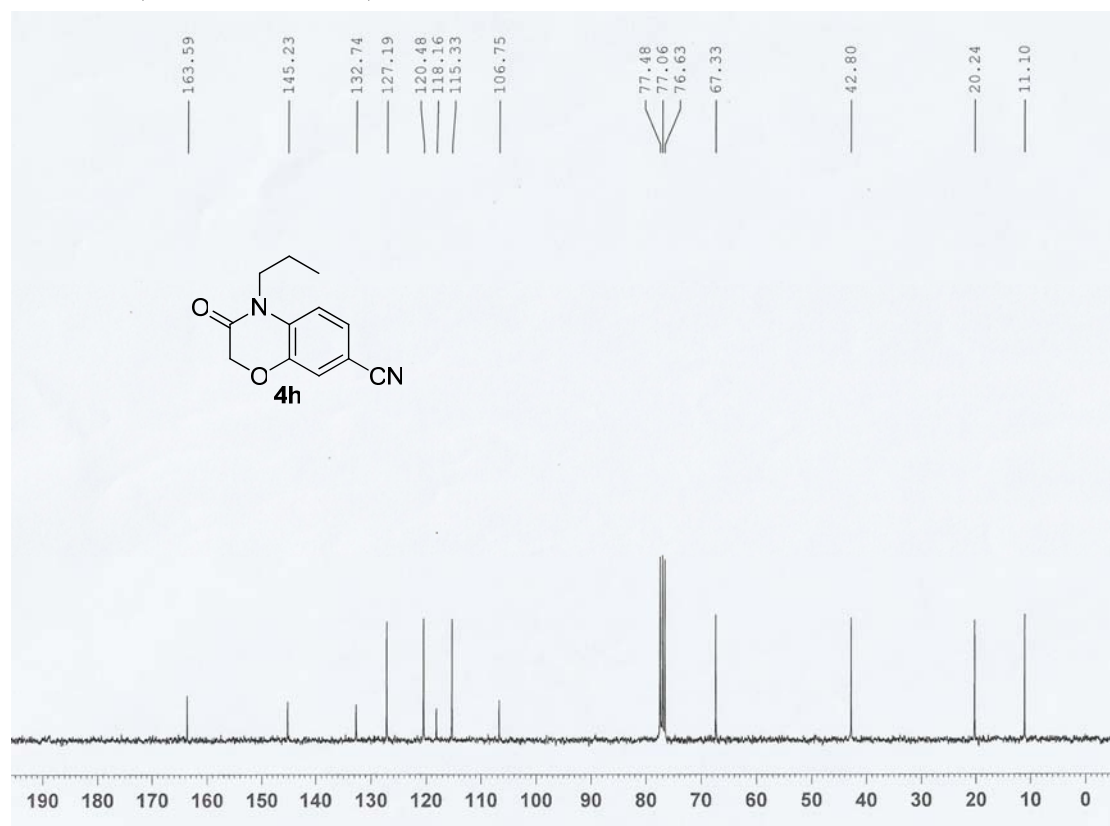
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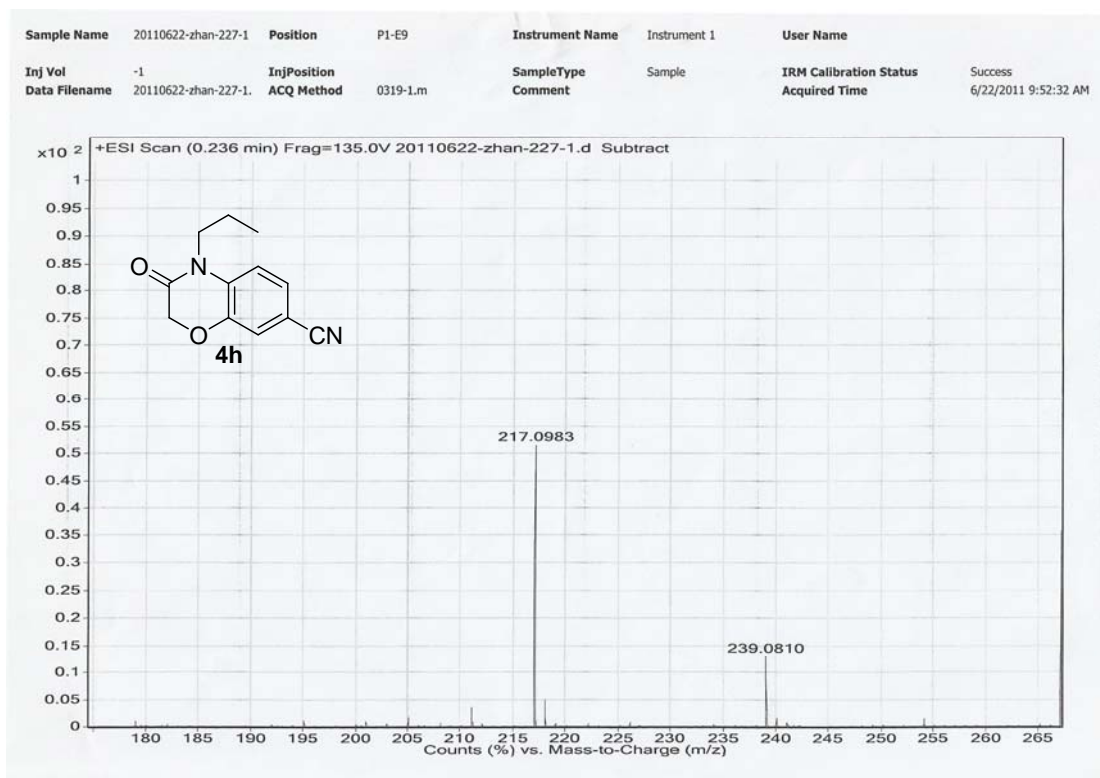
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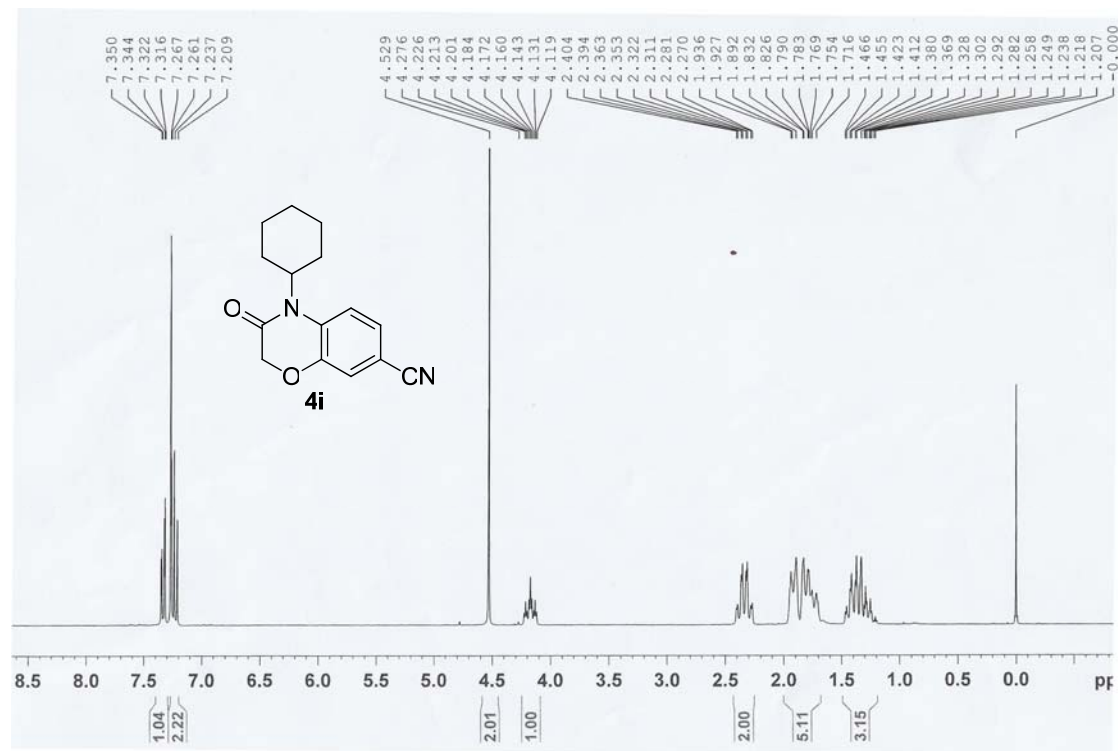
**<sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)**



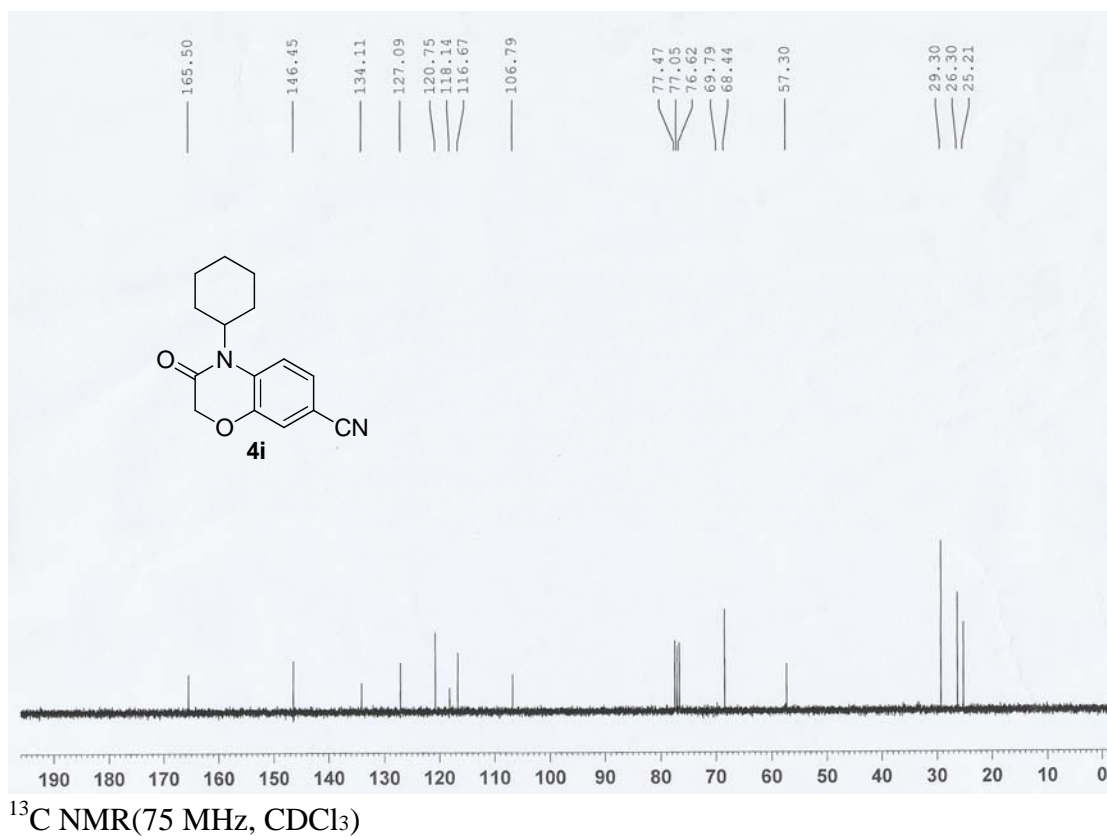
**<sup>13</sup>C NMR (75 MHz, CDCl<sub>3</sub>)**



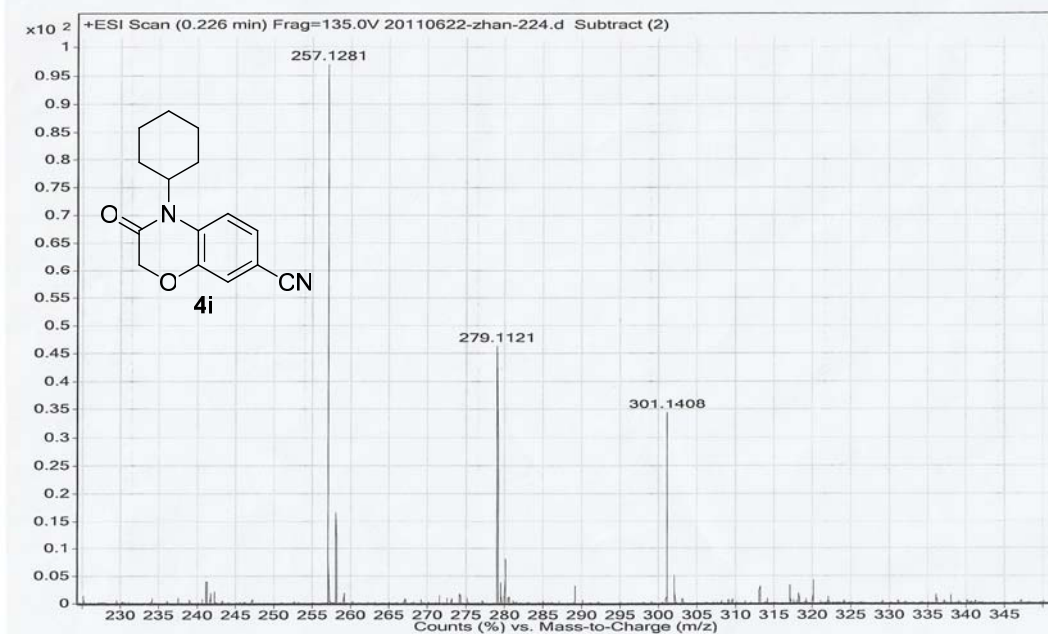
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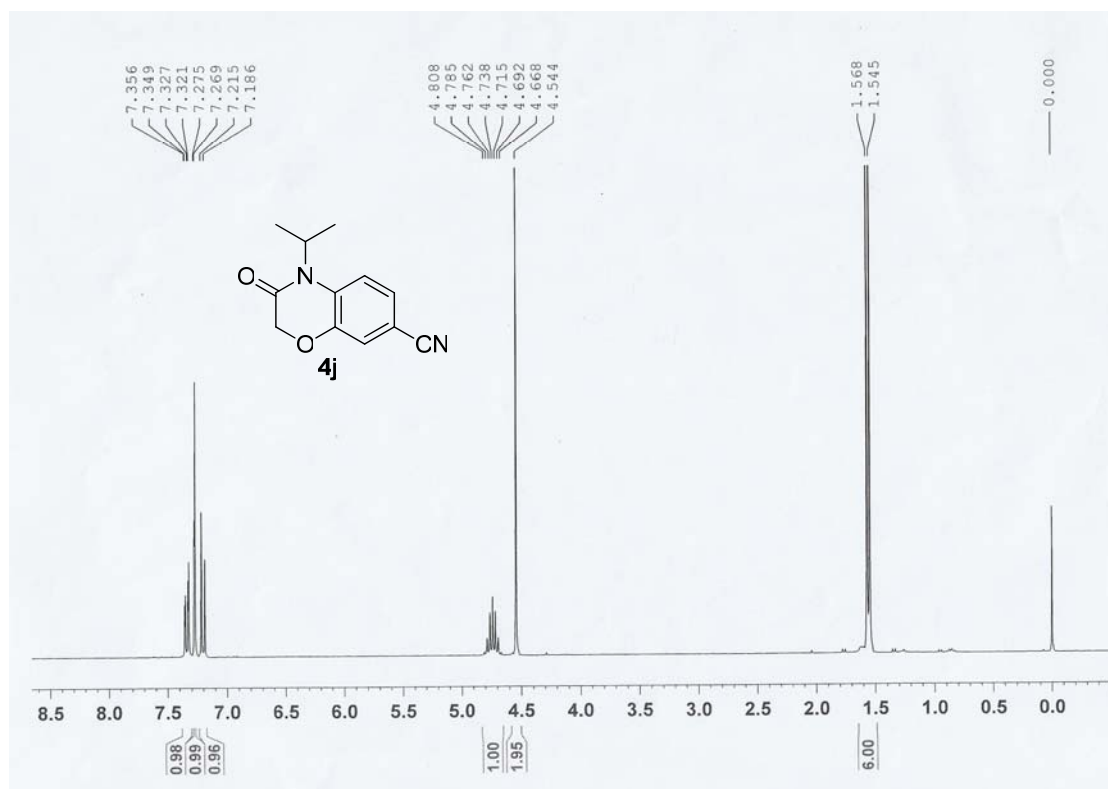
<sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)



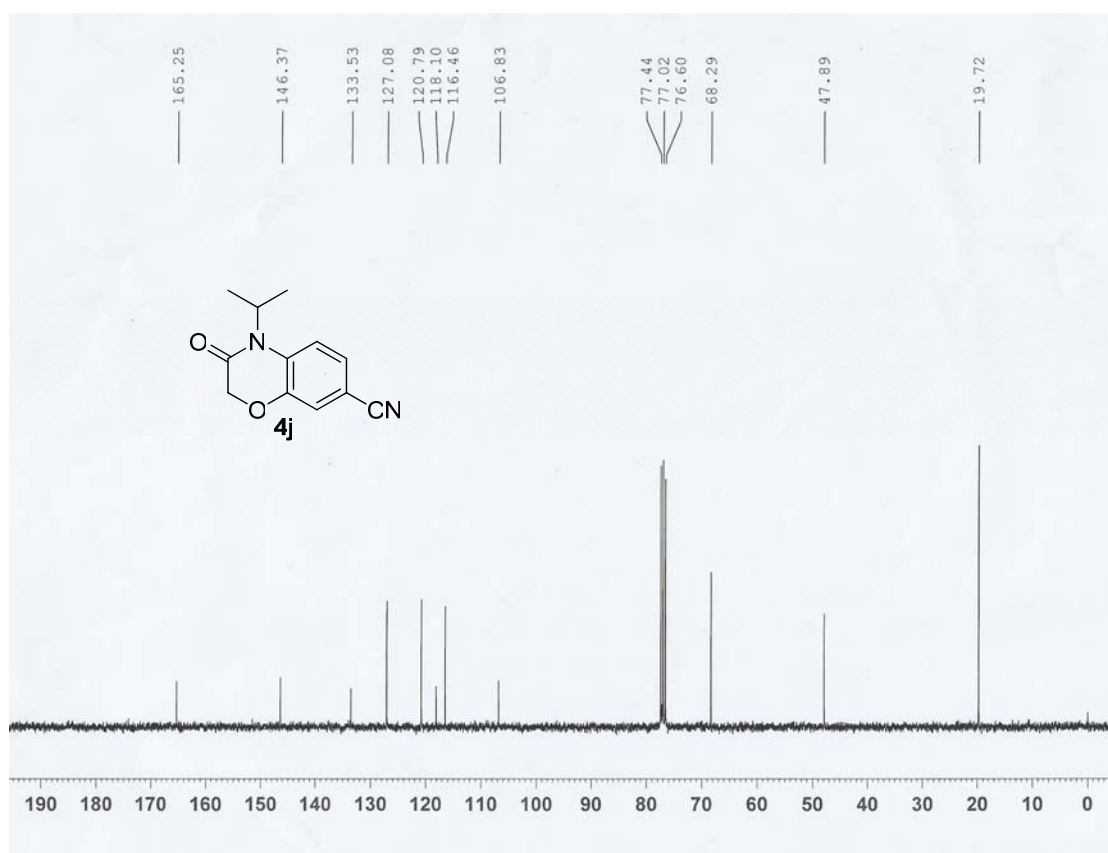
Sample Name	20110622-zhan-224	Position	P1-C9	Instrument Name	Instrument 1	User Name	
Inj Vol	-1	InjPosition		SampleType	Sample	IRM Calibration Status	Success
Data Filename	20110622-zhan-224.d	ACQ Method	0319-1.m	Comment		Acquired Time	6/22/2011 9:55:12 AM



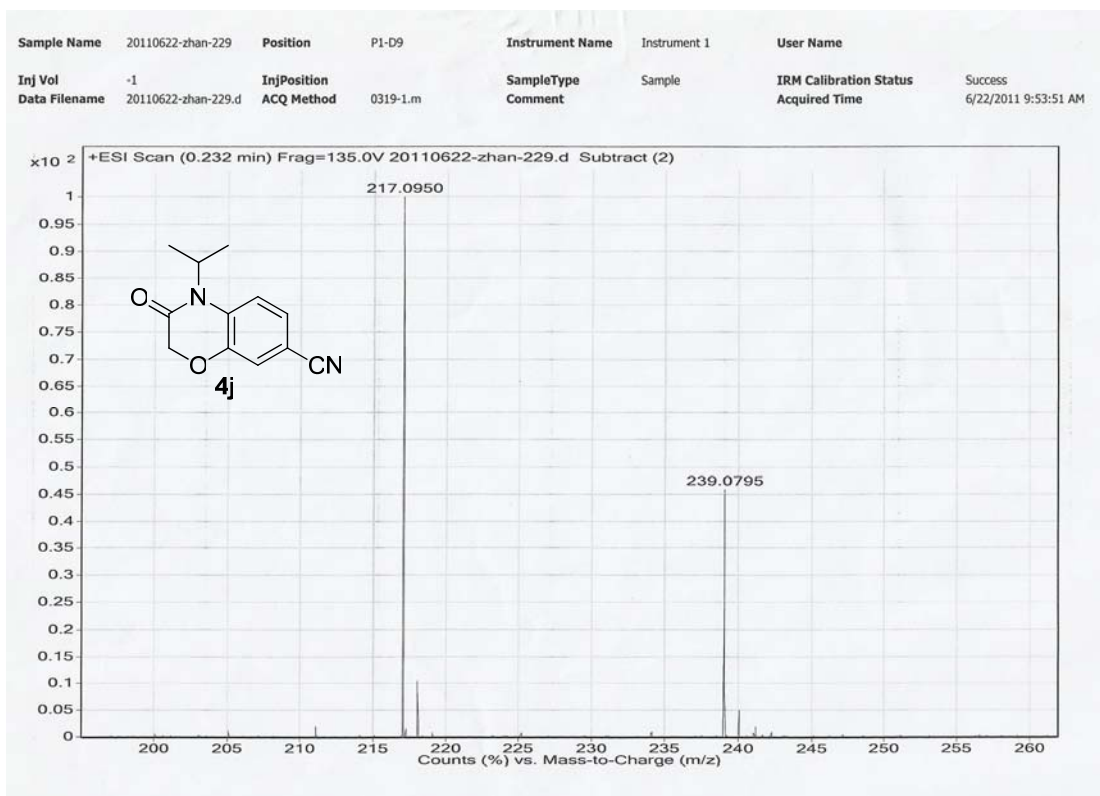
HRMS



$^1\text{H NMR}$  (300 MHz,  $\text{CDCl}_3$ )



$^{13}\text{C NMR}$  (75 MHz,  $\text{CDCl}_3$ )



HRMS