

## Supporting Information

### **Iodine Promoted One Pot reaction of pyridin-2-amine with Arylmethyl Ketone and Selenosulfonate: Synthesis of 3-(Alkylselanyl)-2-arylimidazo[1,2-a]pyridine Under Transition-metal Free Conditions**

Nan Jiang,<sup>a</sup> Yi Fang,<sup>a</sup> Yue Fang,<sup>a,b,c</sup> Shun-Yi Wang<sup>a\*</sup> and Shun-Jun Ji<sup>a\*</sup>

<sup>a</sup>Key Laboratory of Organic Synthesis of Jiangsu Province, College of Chemistry, Chemical Engineering and Materials Science & Collaborative Innovation Center of Suzhou Nano Science and Technology, Soochow University, Suzhou, 215123, P. R. China. <sup>b</sup>School of Pharmacy, Yancheng Teachers University, Yancheng, 224051, China <sup>c</sup>College of Chemical Engineering, Nanjing University of Technology, Nanjing, 210009, China.

Fax : (+86)-512-65880307; phone: (+86)- 512-65880307; E-mail: shunyi@suda.edu.cn; shunjun@suda.edu.cn

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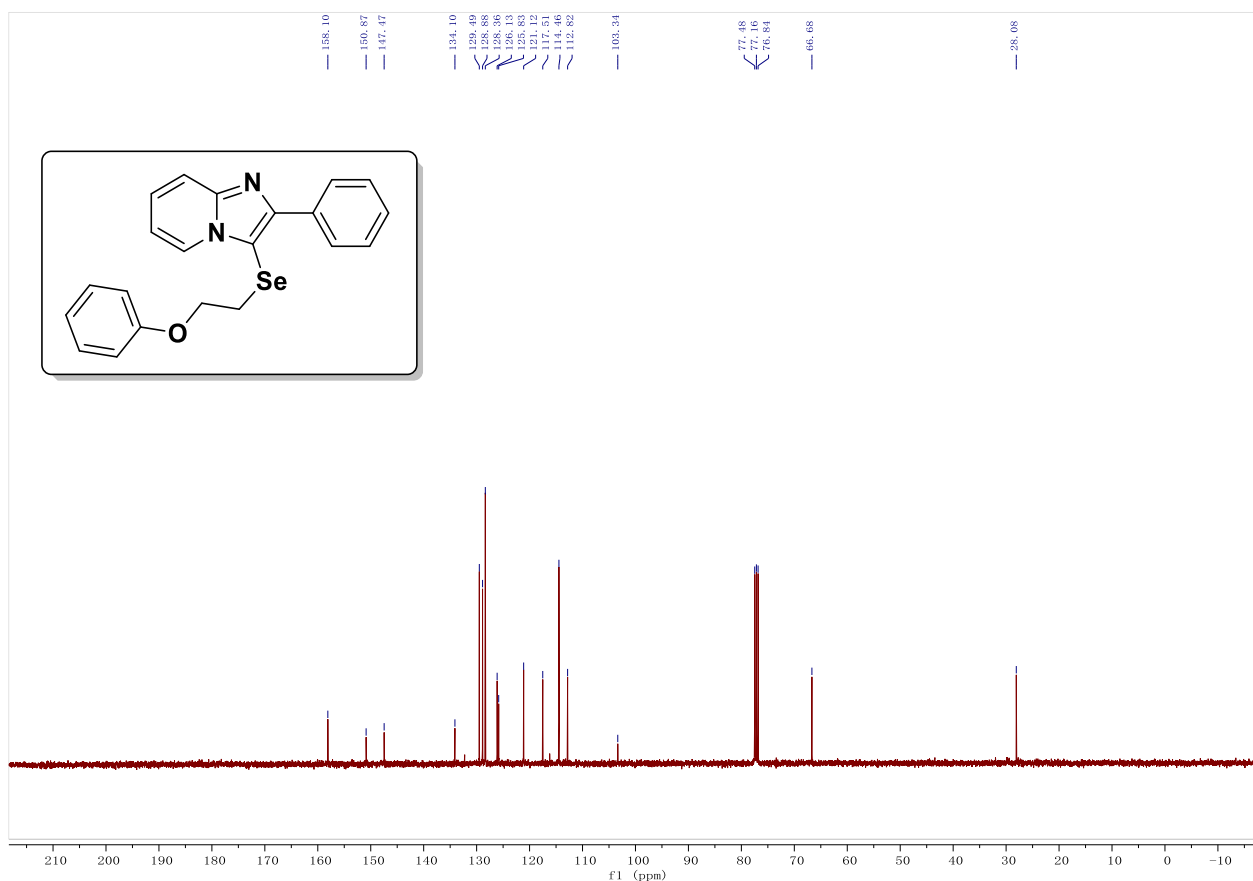
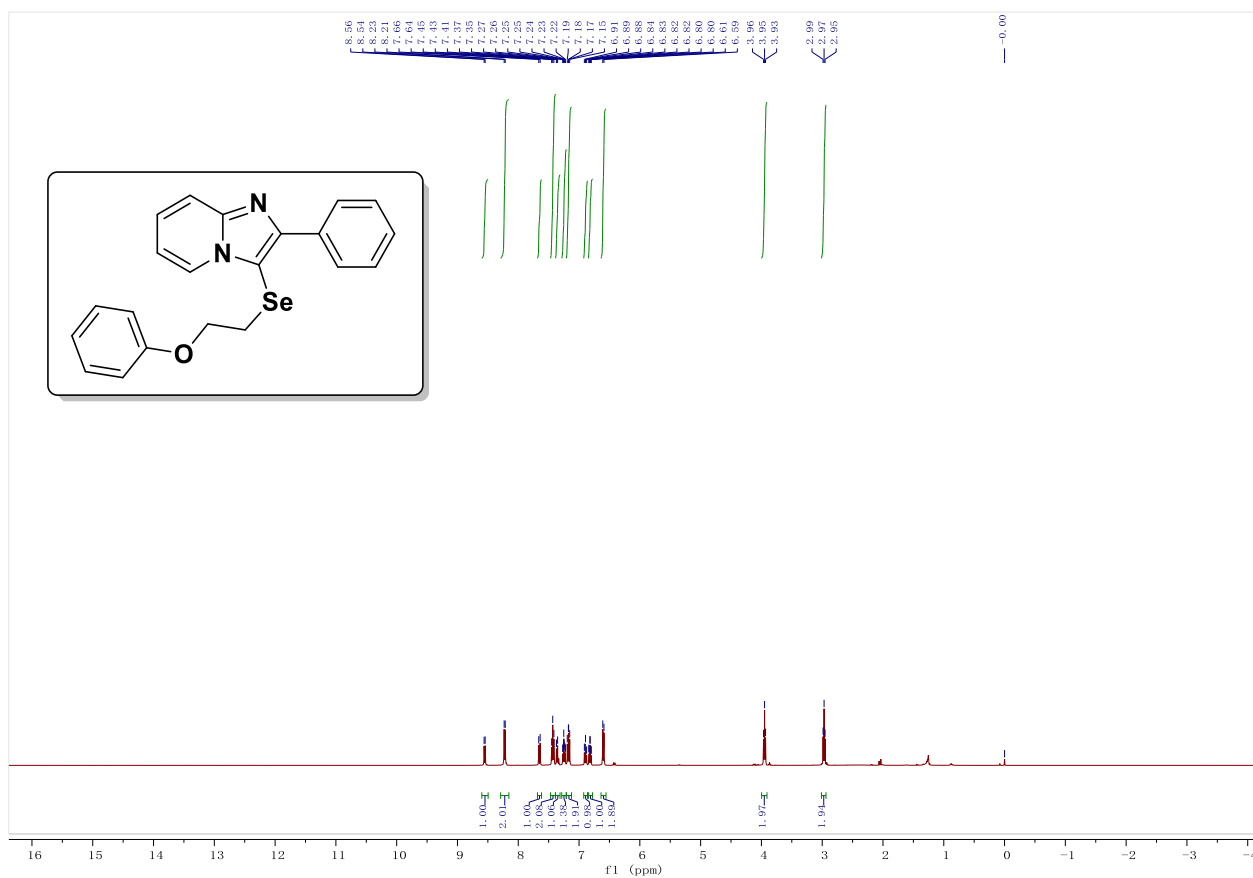
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## Experimental Section

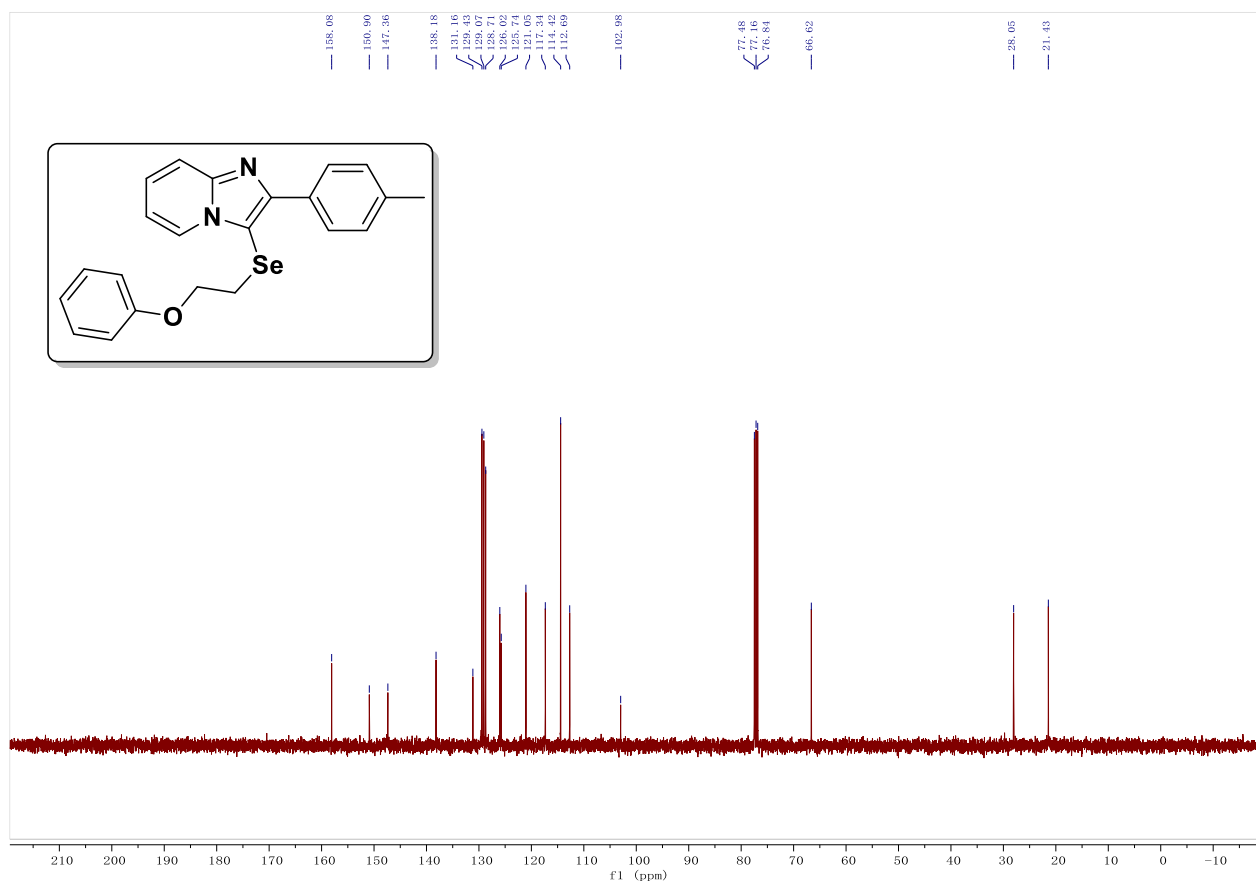
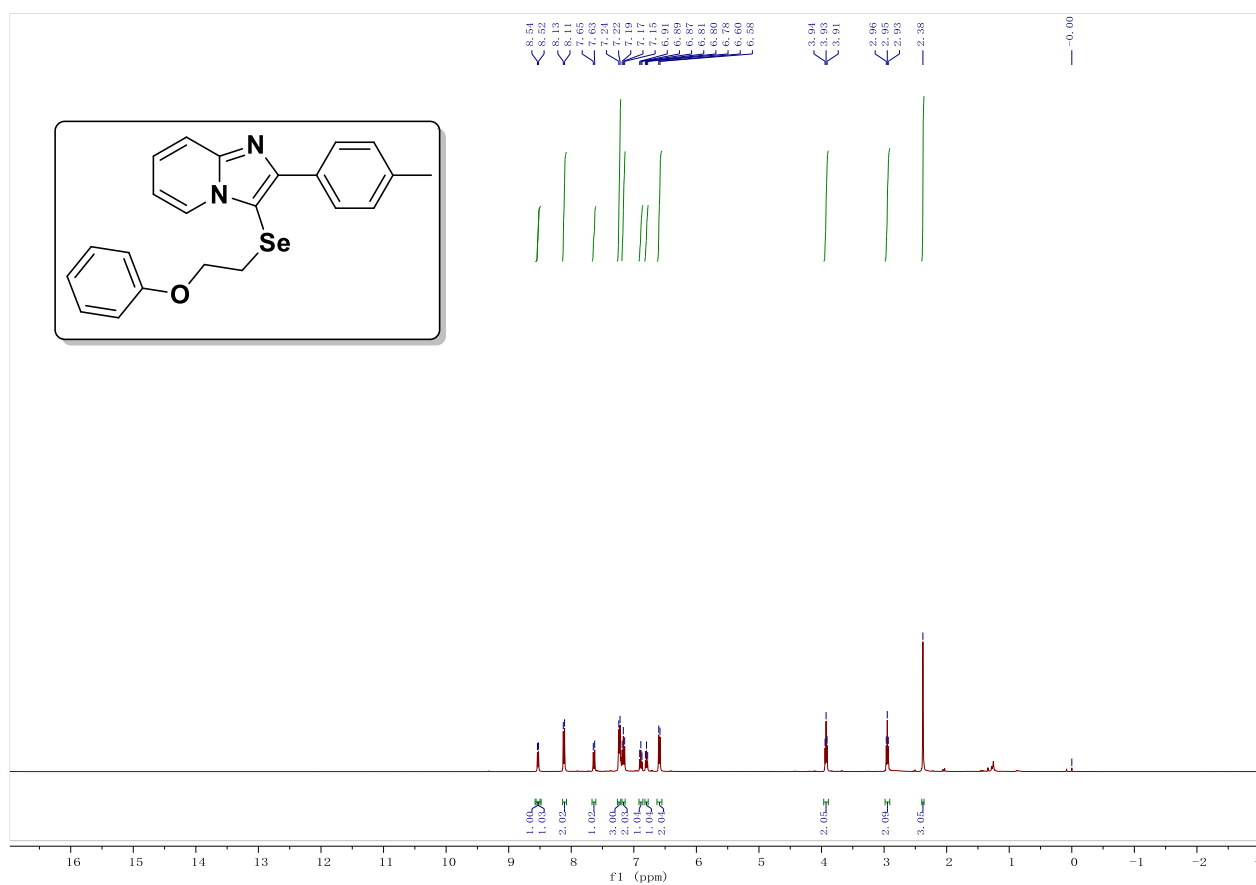
### General

Melting points were recorded on an Electrothermal digital melting point apparatus and were uncorrected. IR spectra were recorded on a BRUKER VERTEX 70 spectrophotometer.  $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR spectra were recorded on a BRUKER 400 MHz ( $^1\text{H}$  NMR) and 100 MHz ( $^{13}\text{C}$  NMR) spectrometer using  $\text{CDCl}_3$  or  $\text{DMSO-}d_6$  as solvent and TMS as internal standard. High resolution mass spectra were obtained using BRUKER micrOTOF-Q III instrument with ESI source.

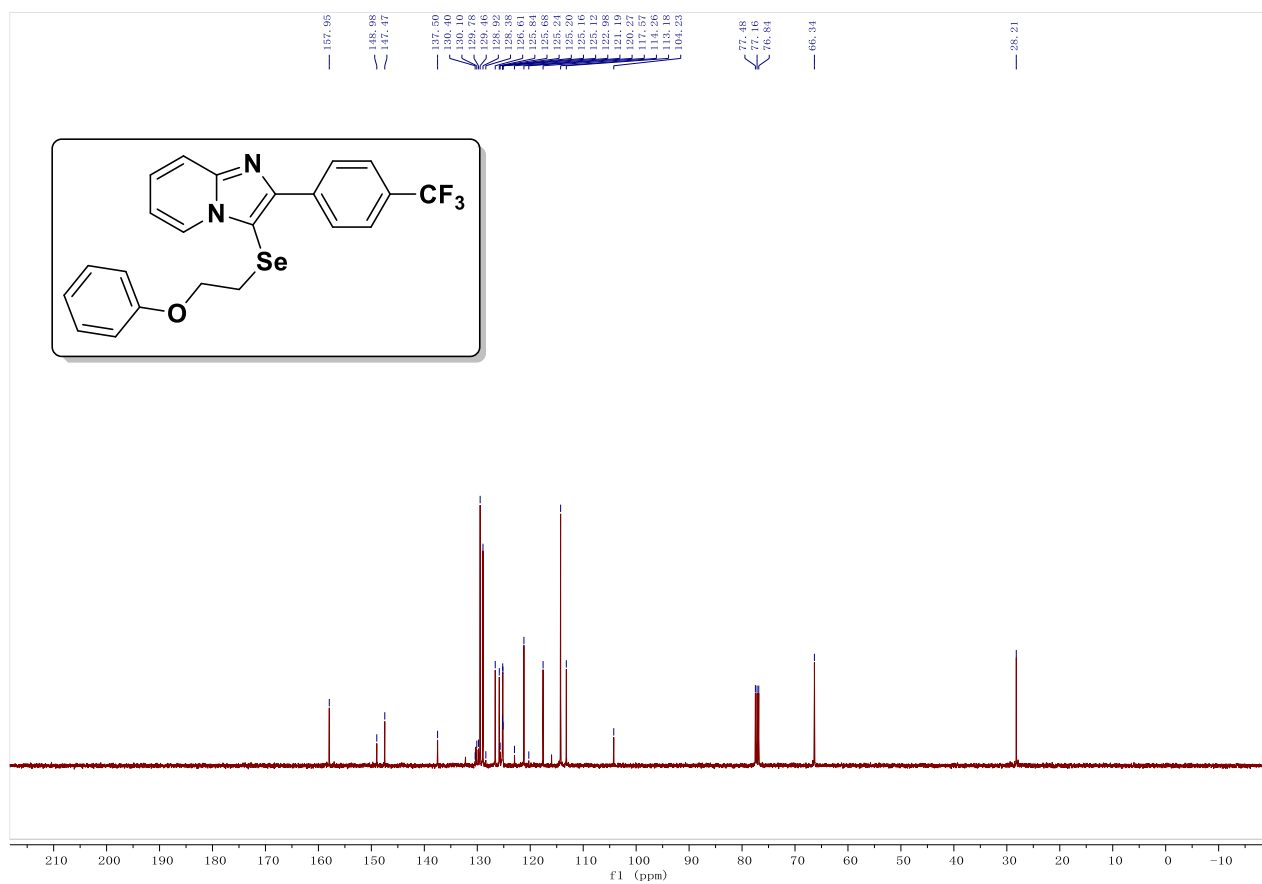
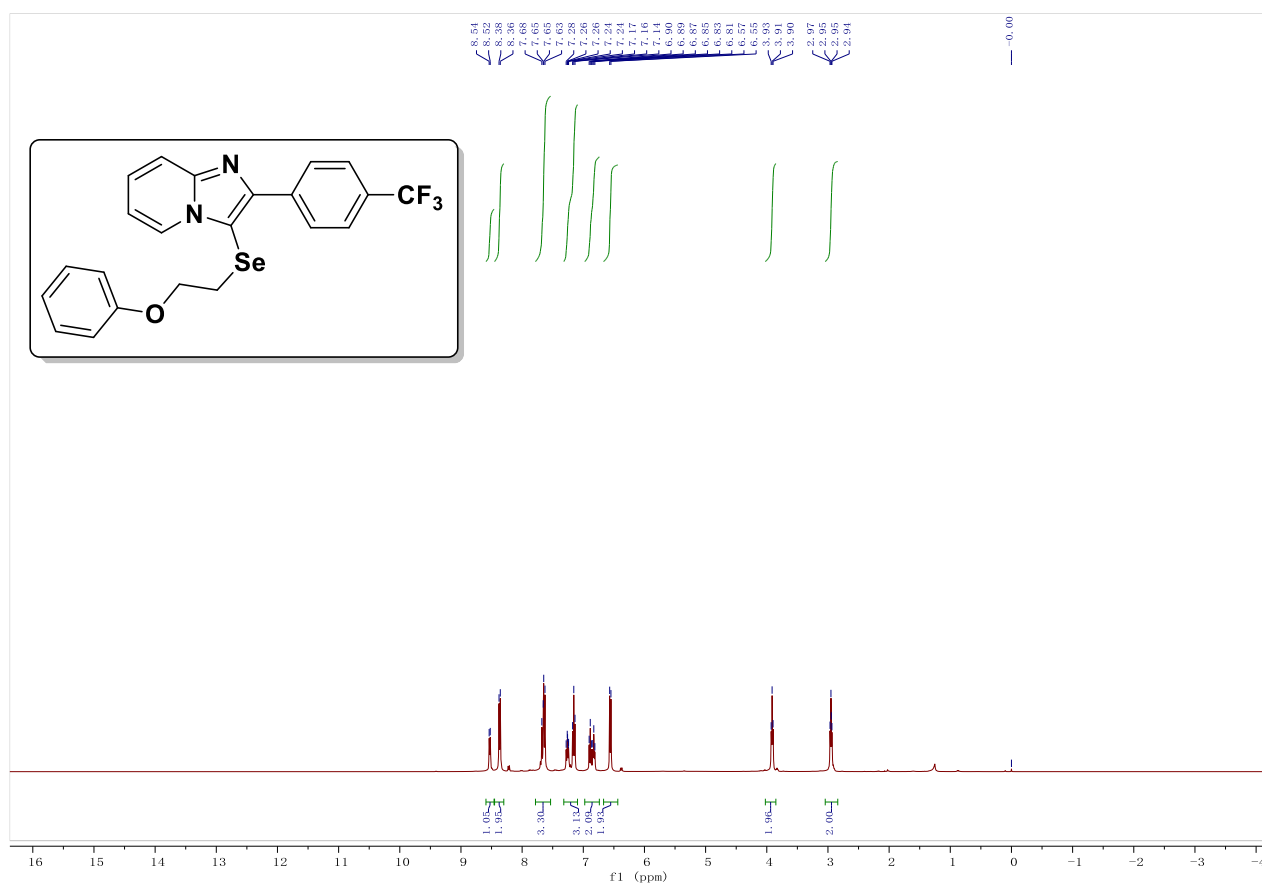
The  $^1\text{H}$  and  $^{13}\text{C}$  spectra of compounds: 4a:



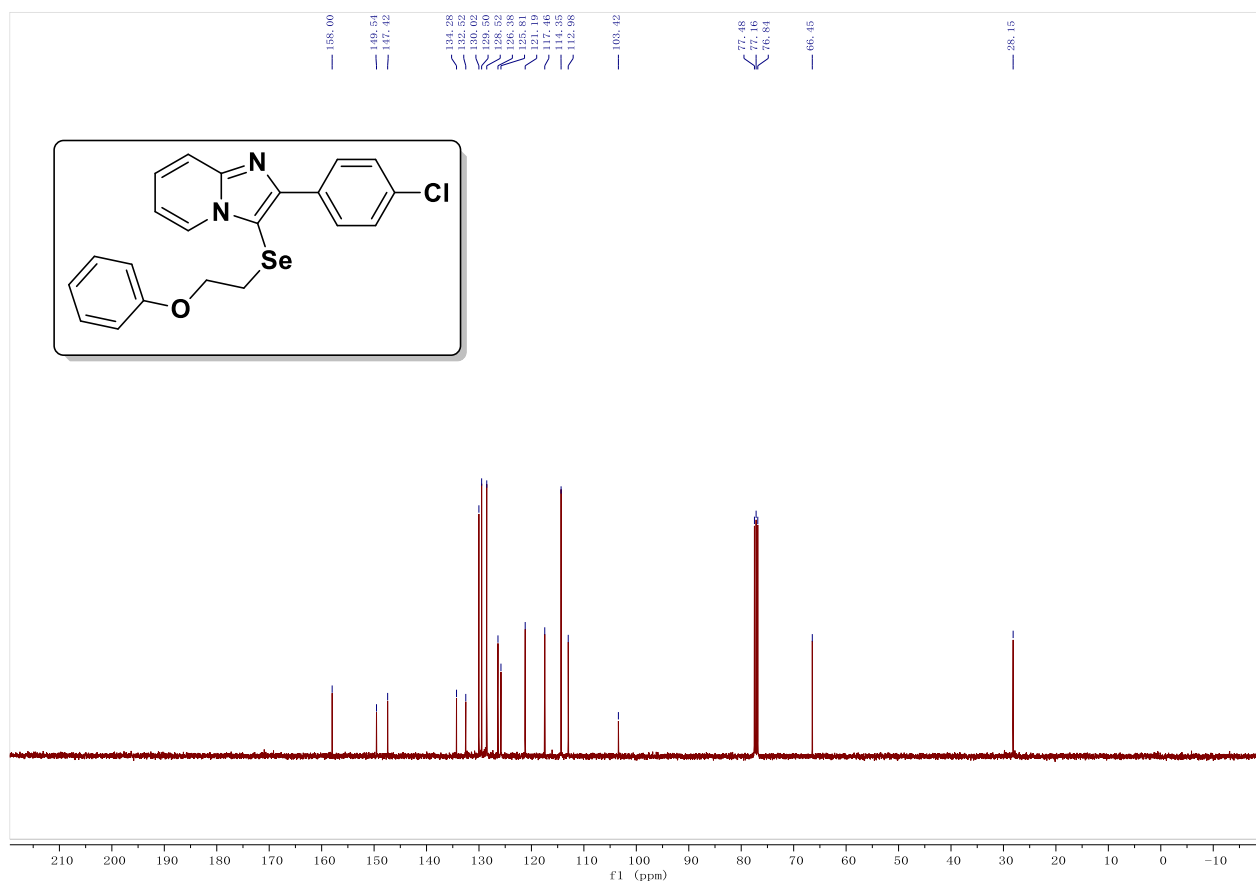
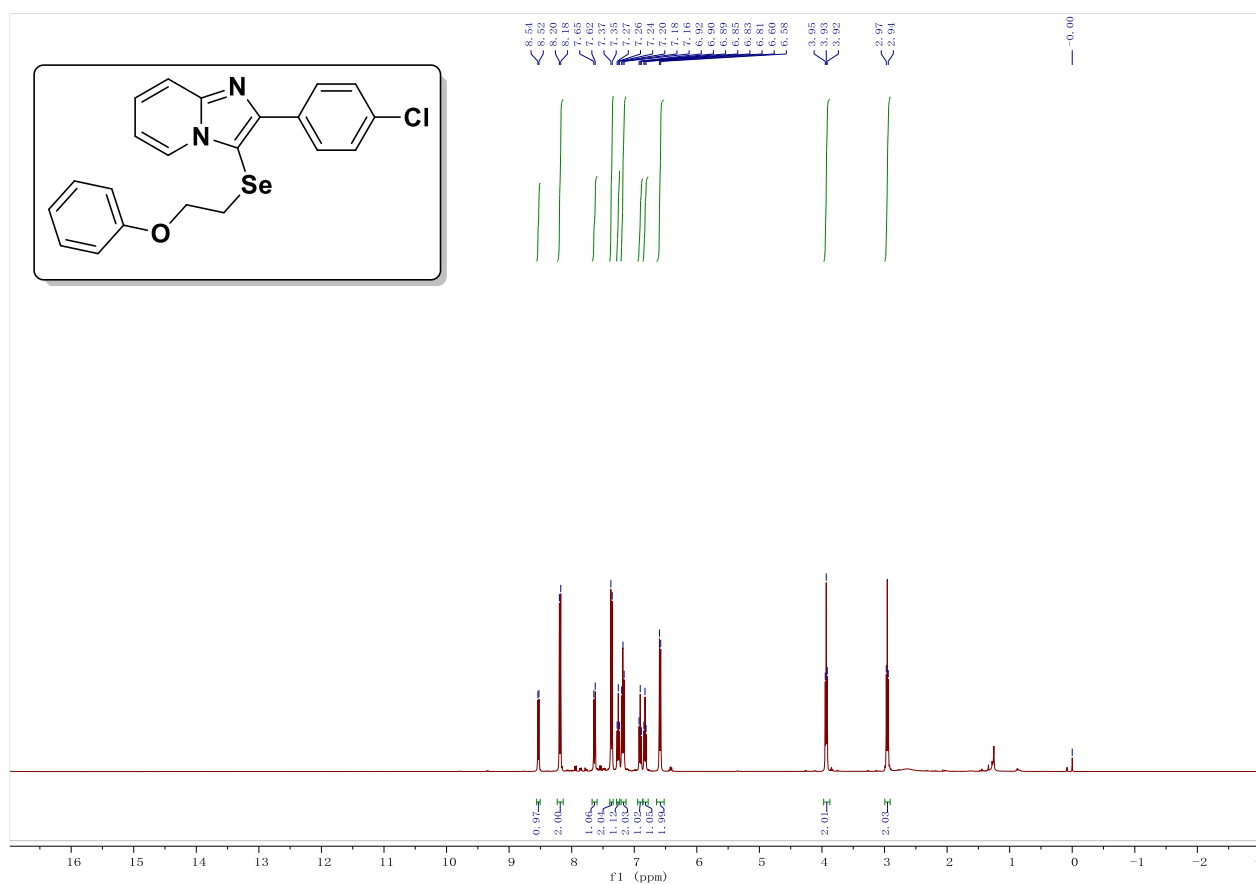
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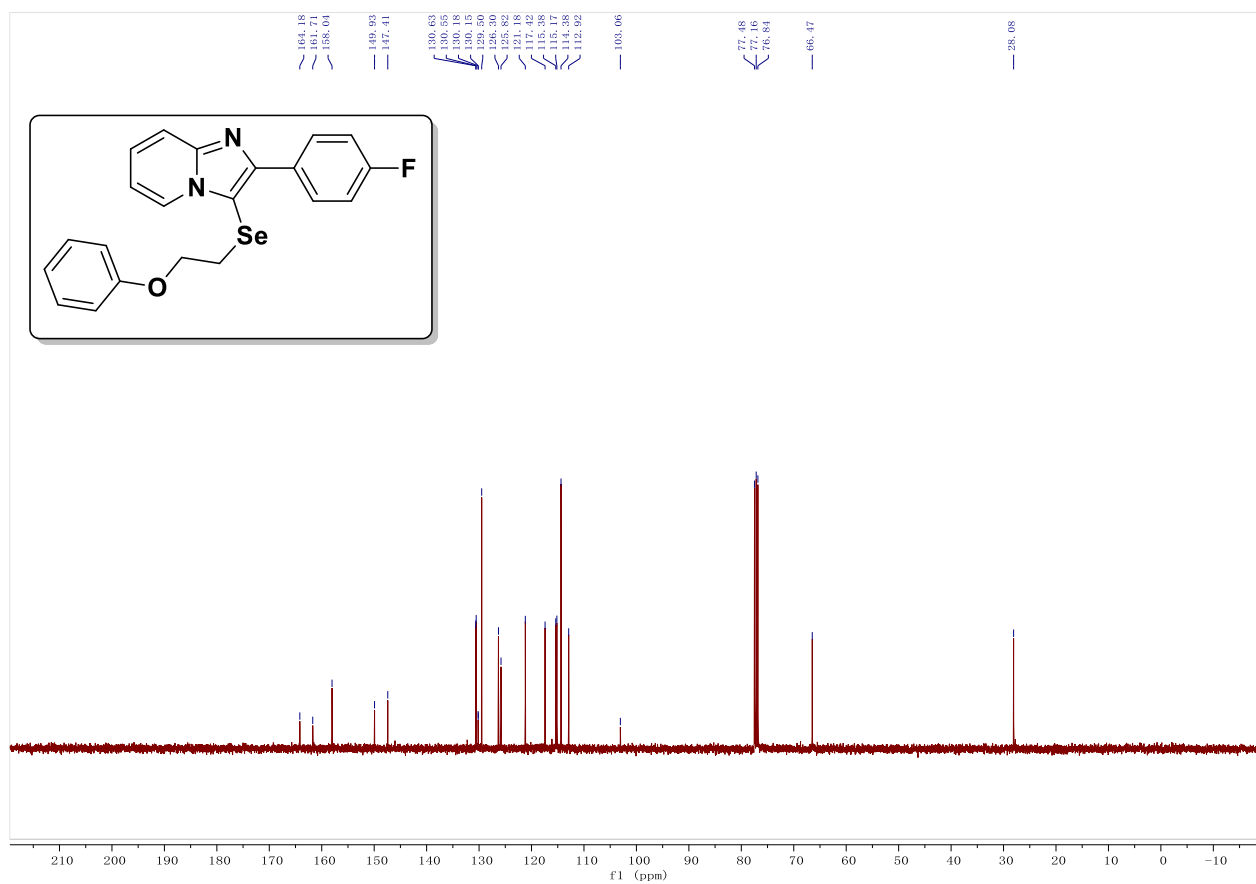
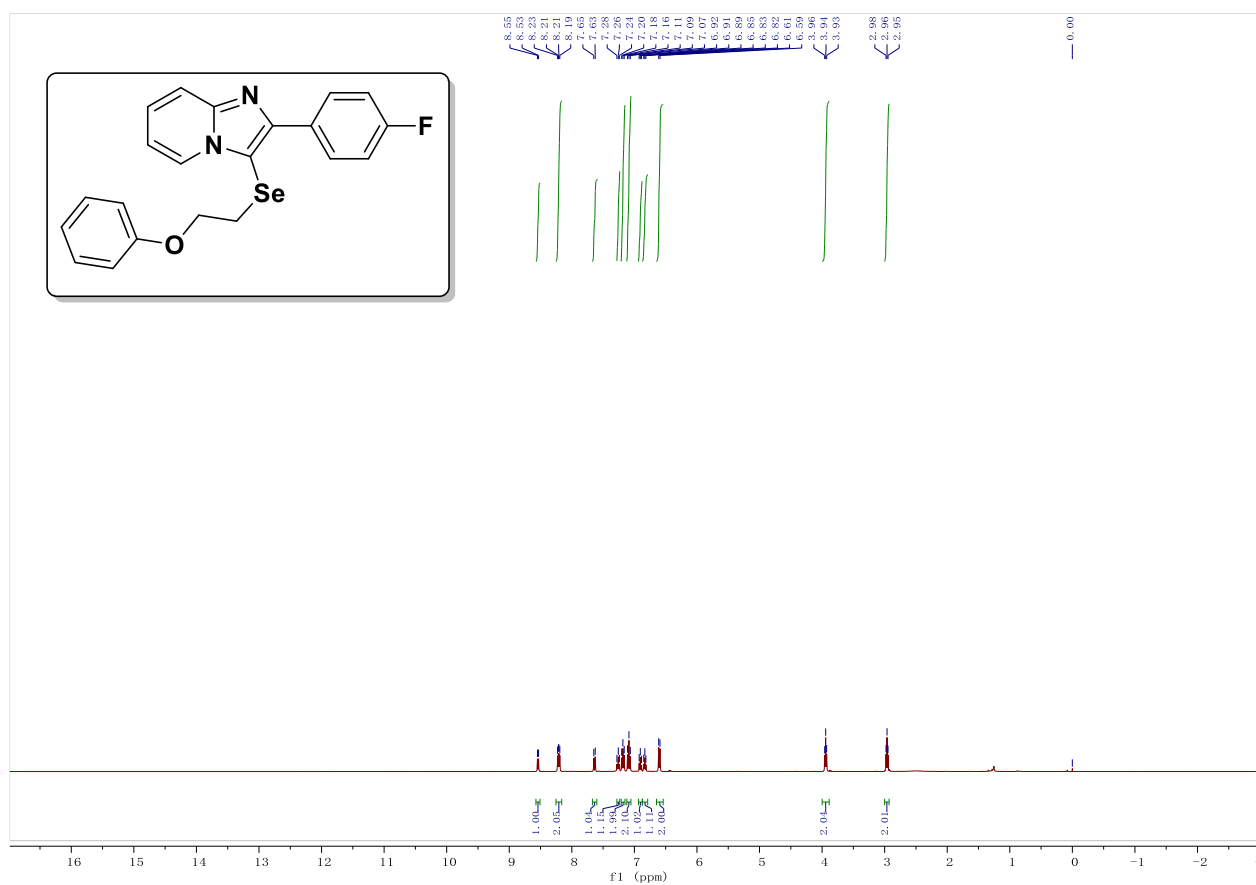
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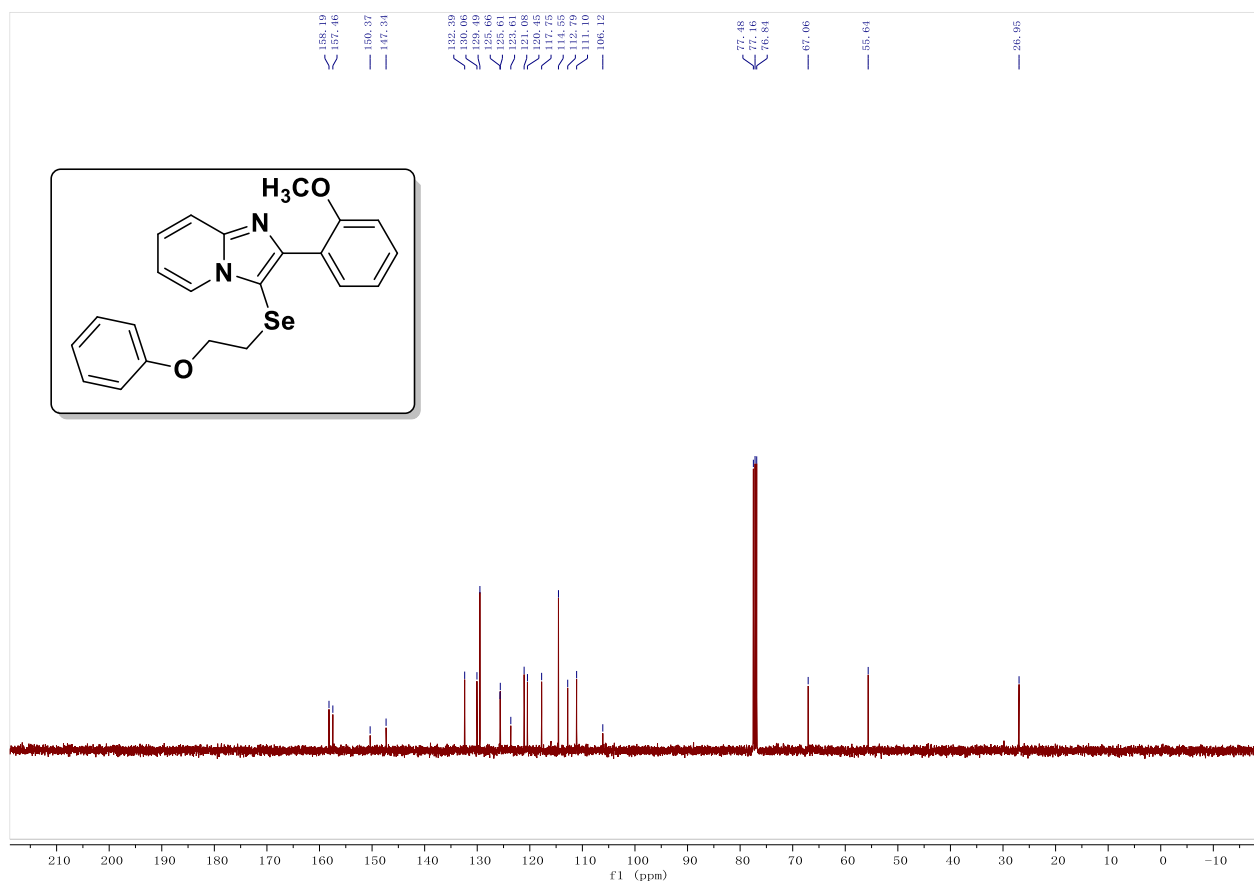
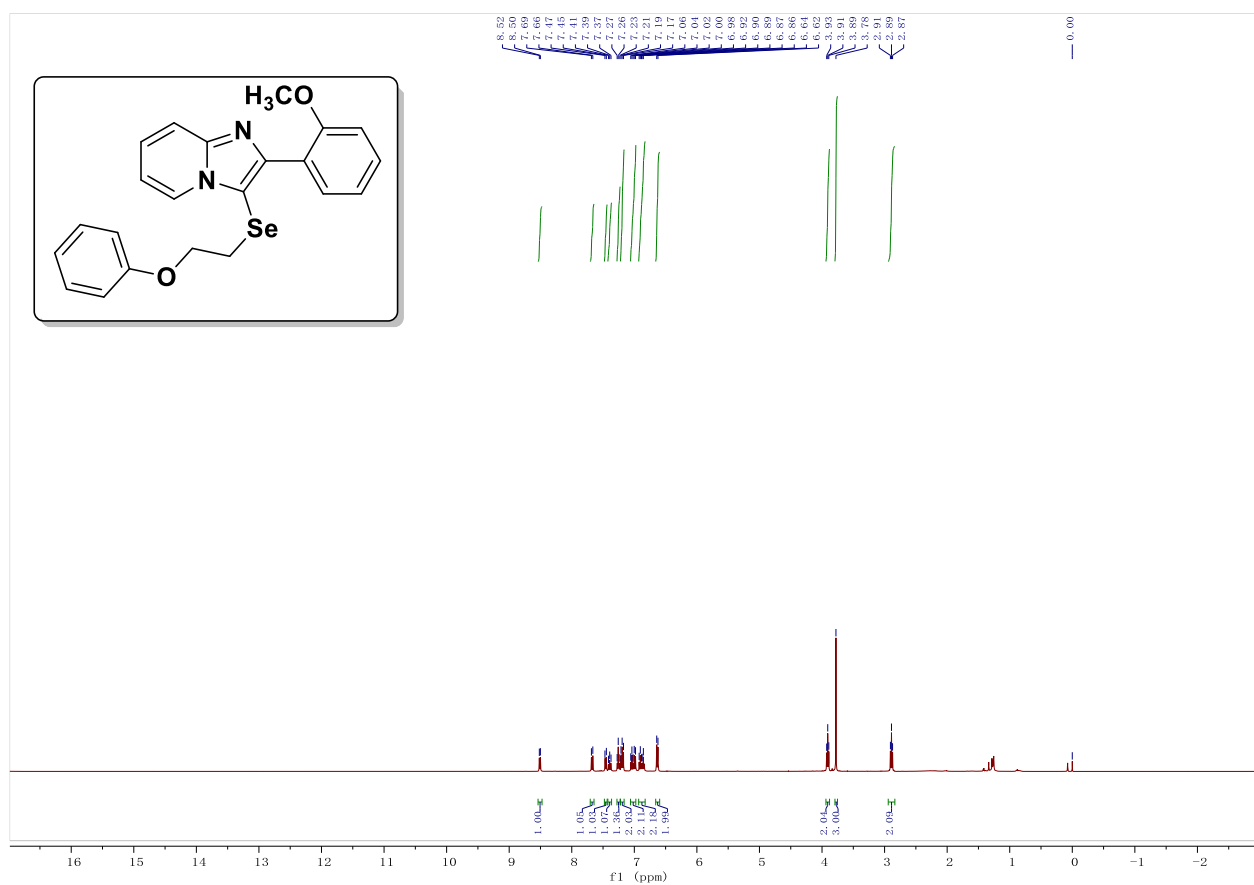
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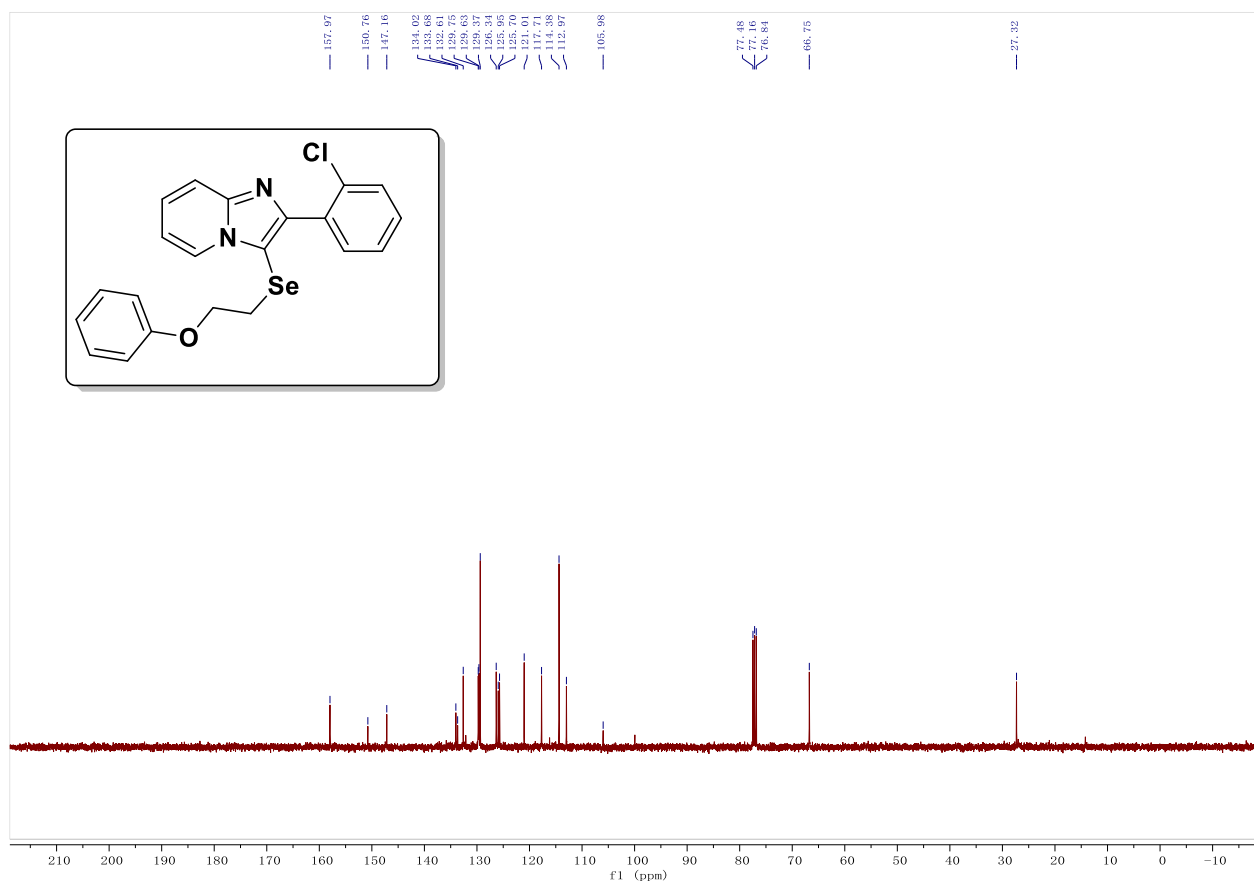
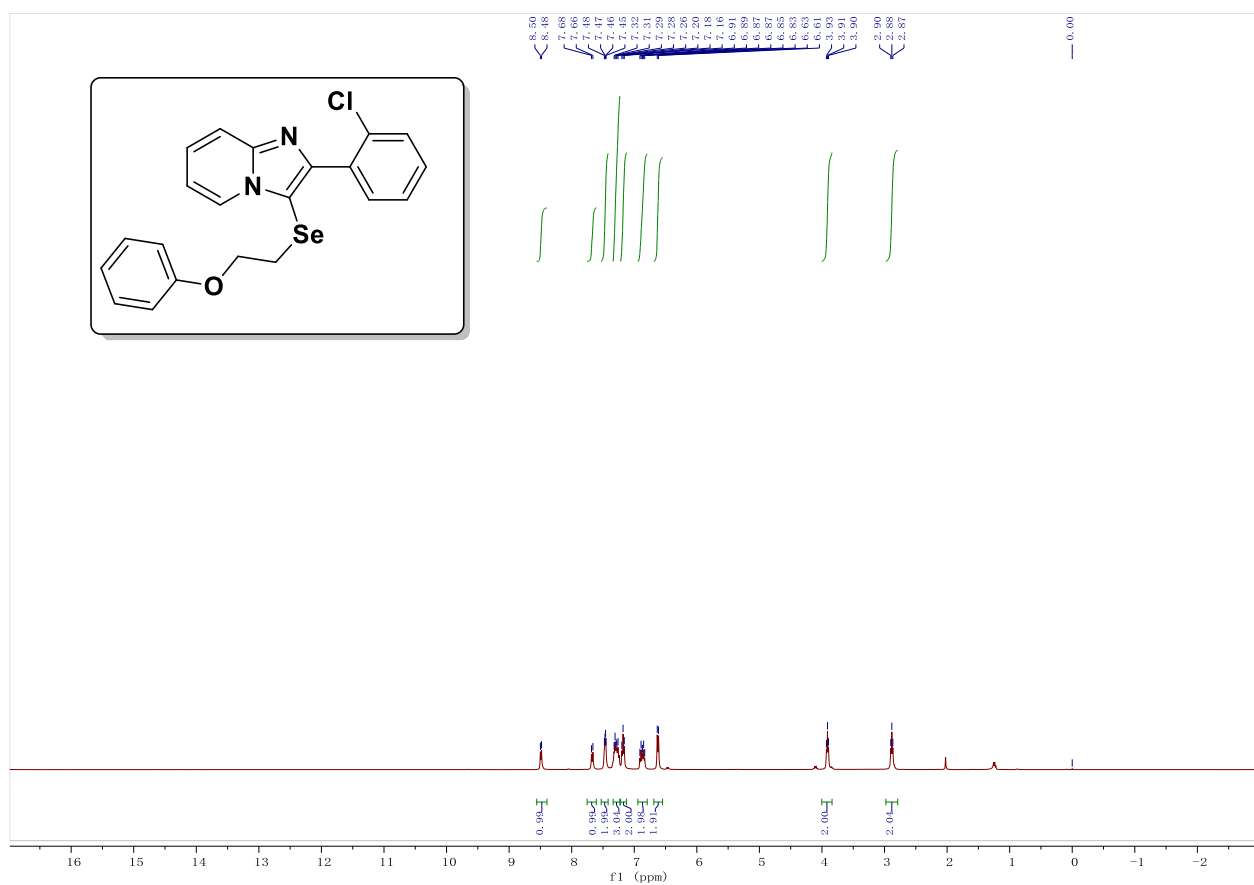


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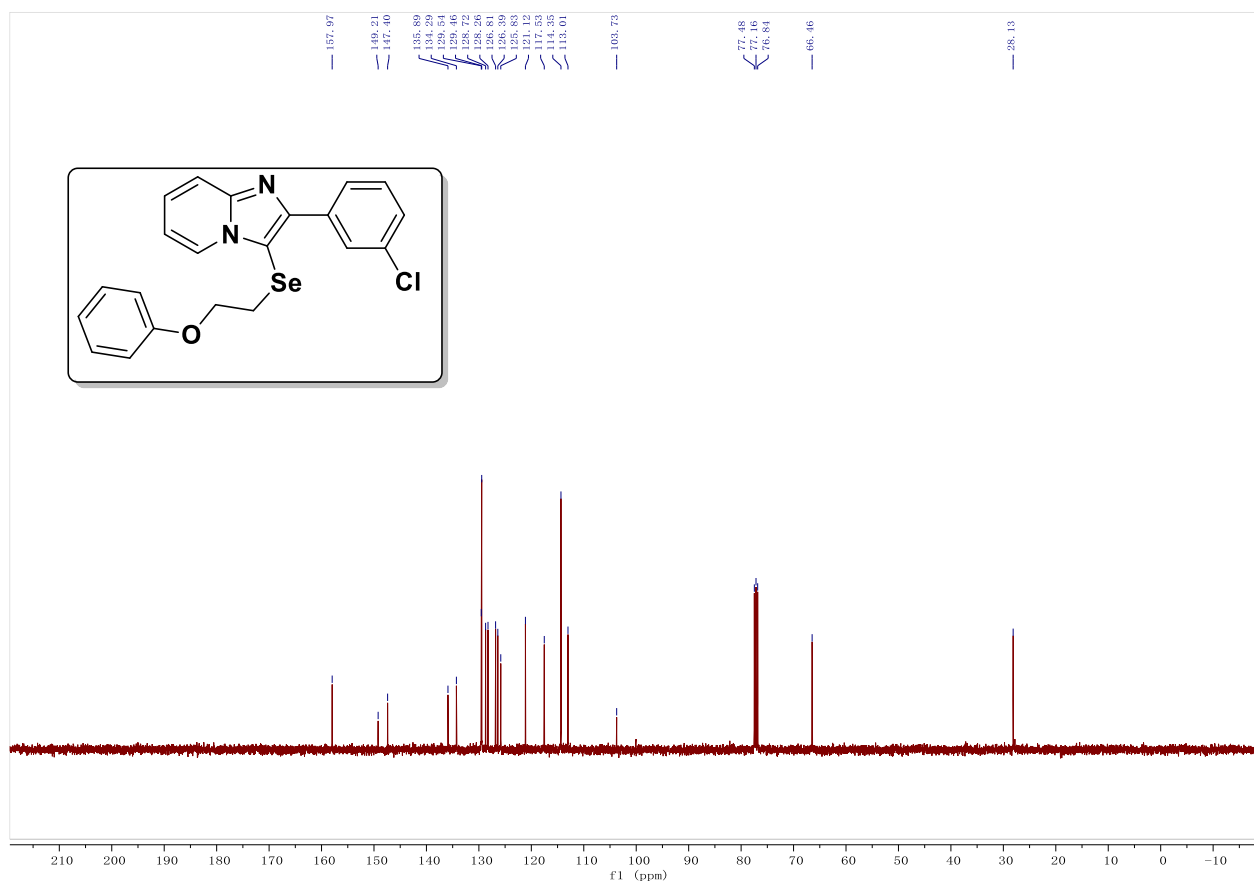
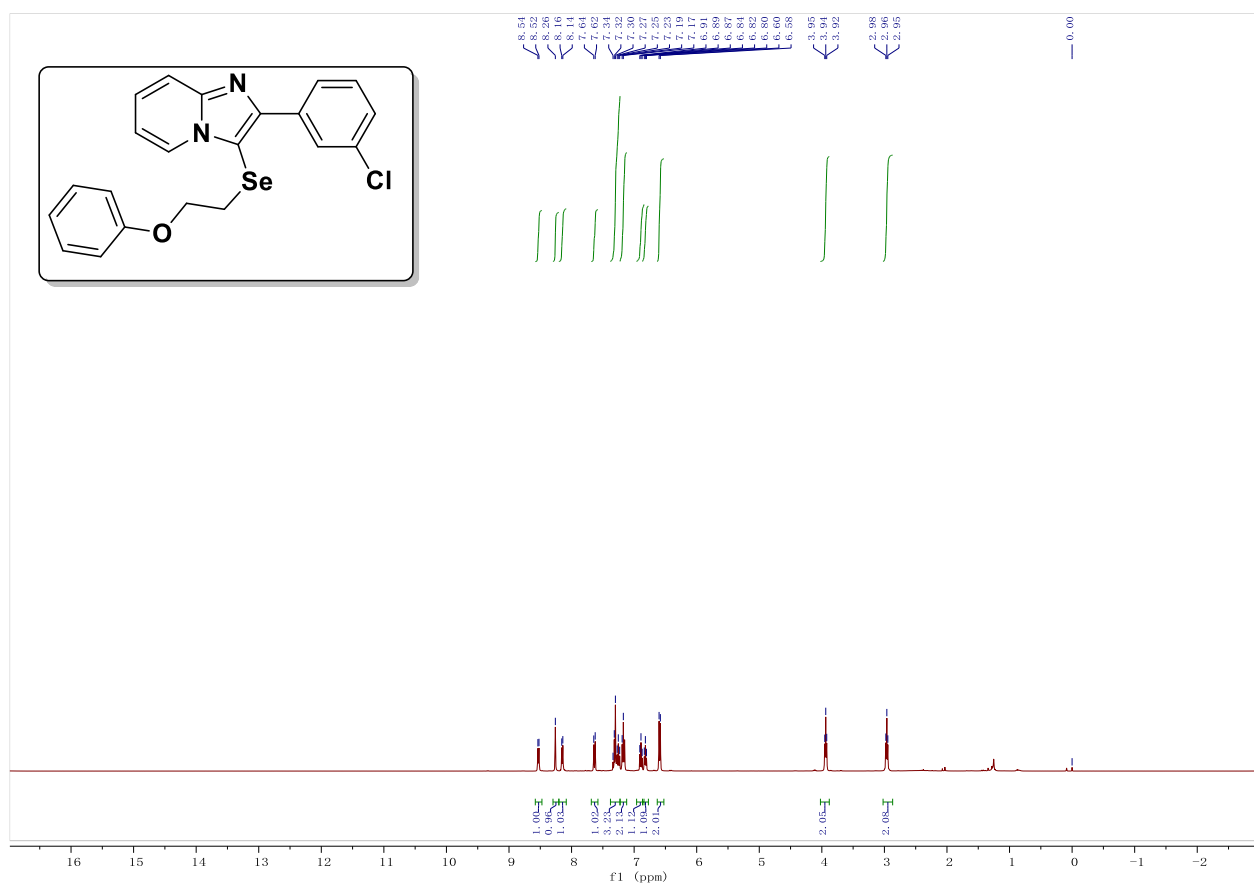




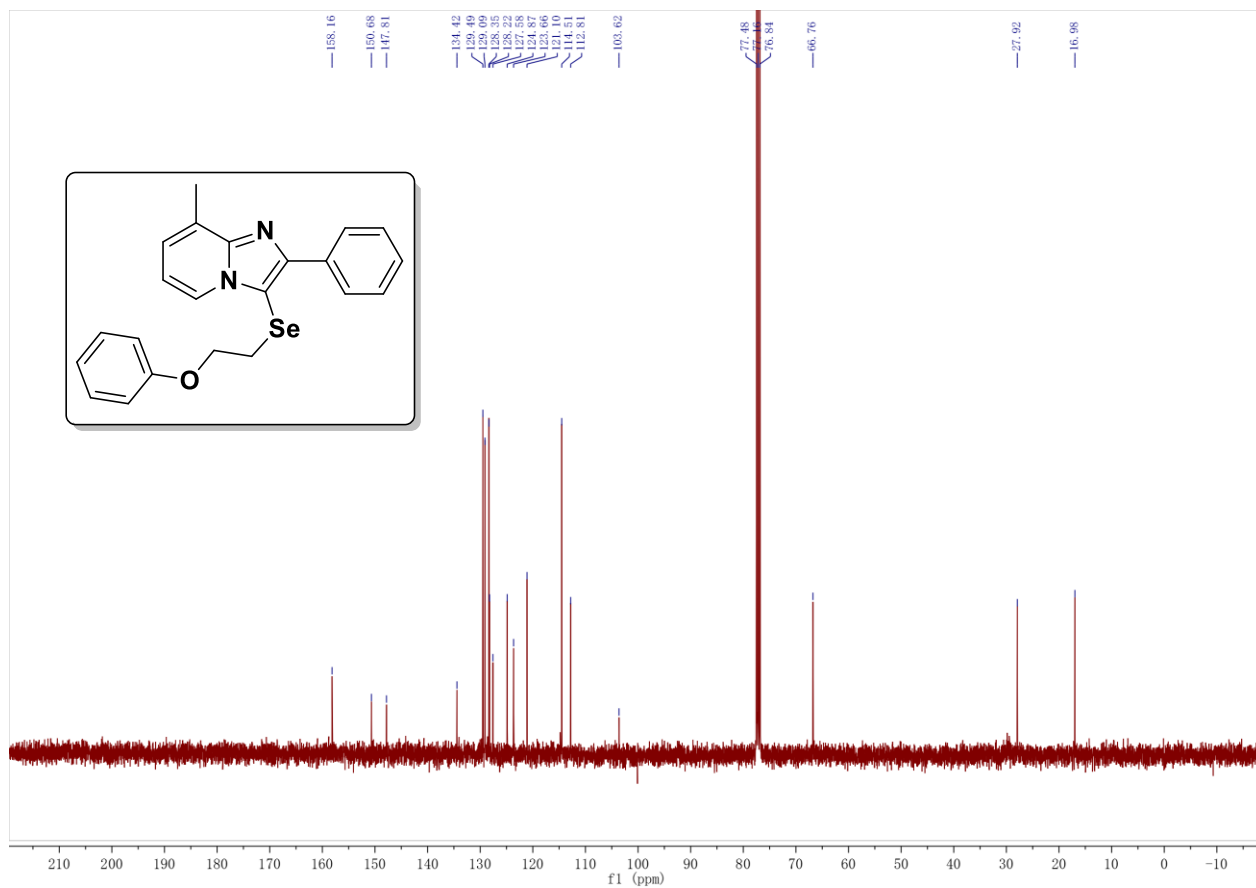
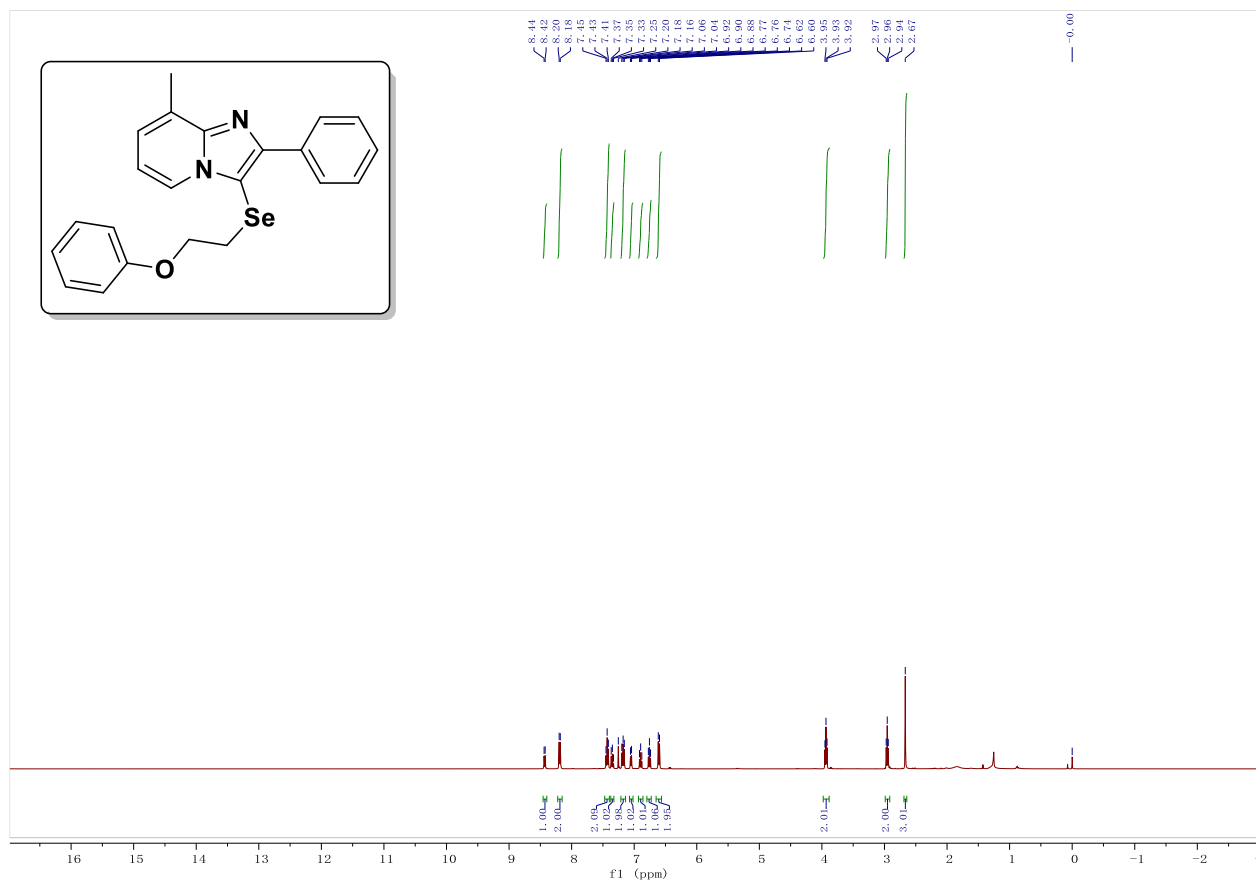
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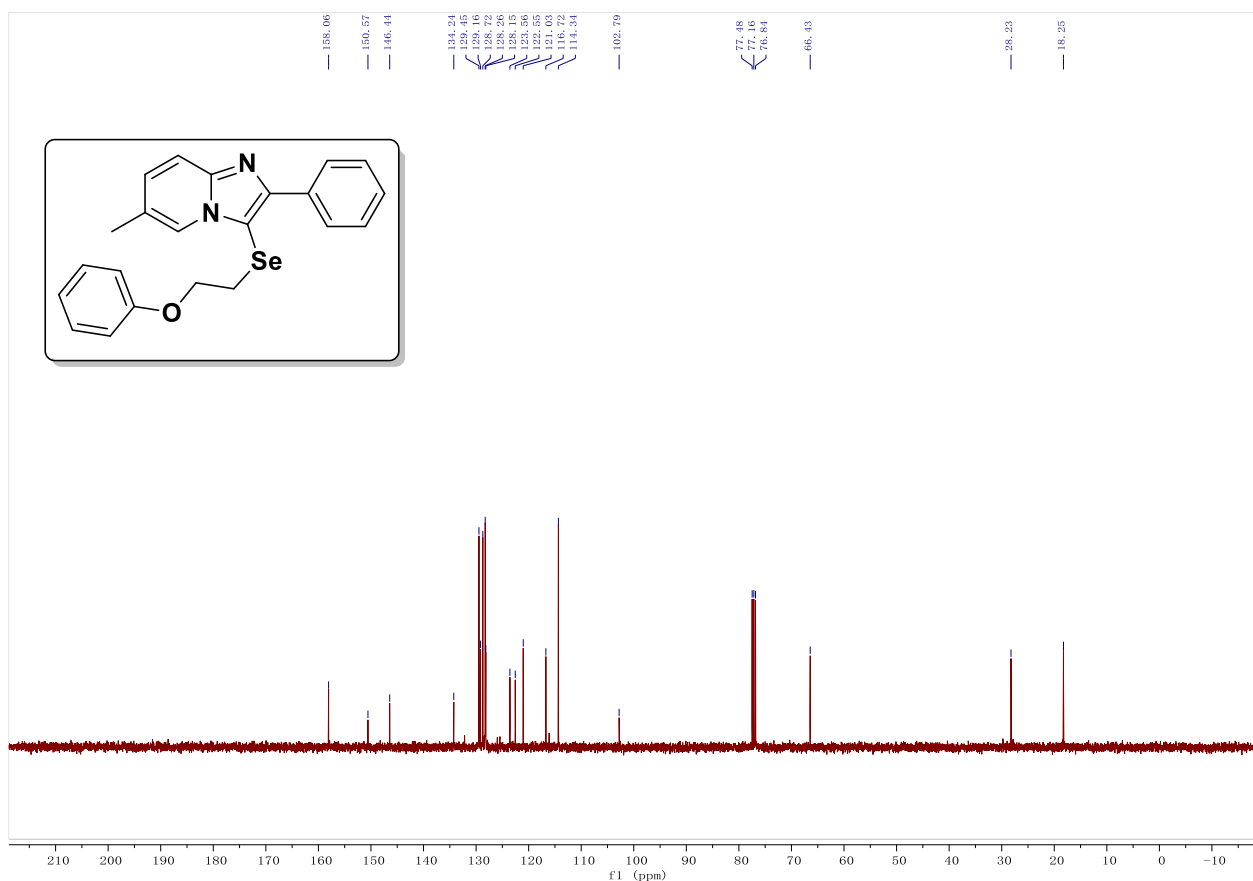
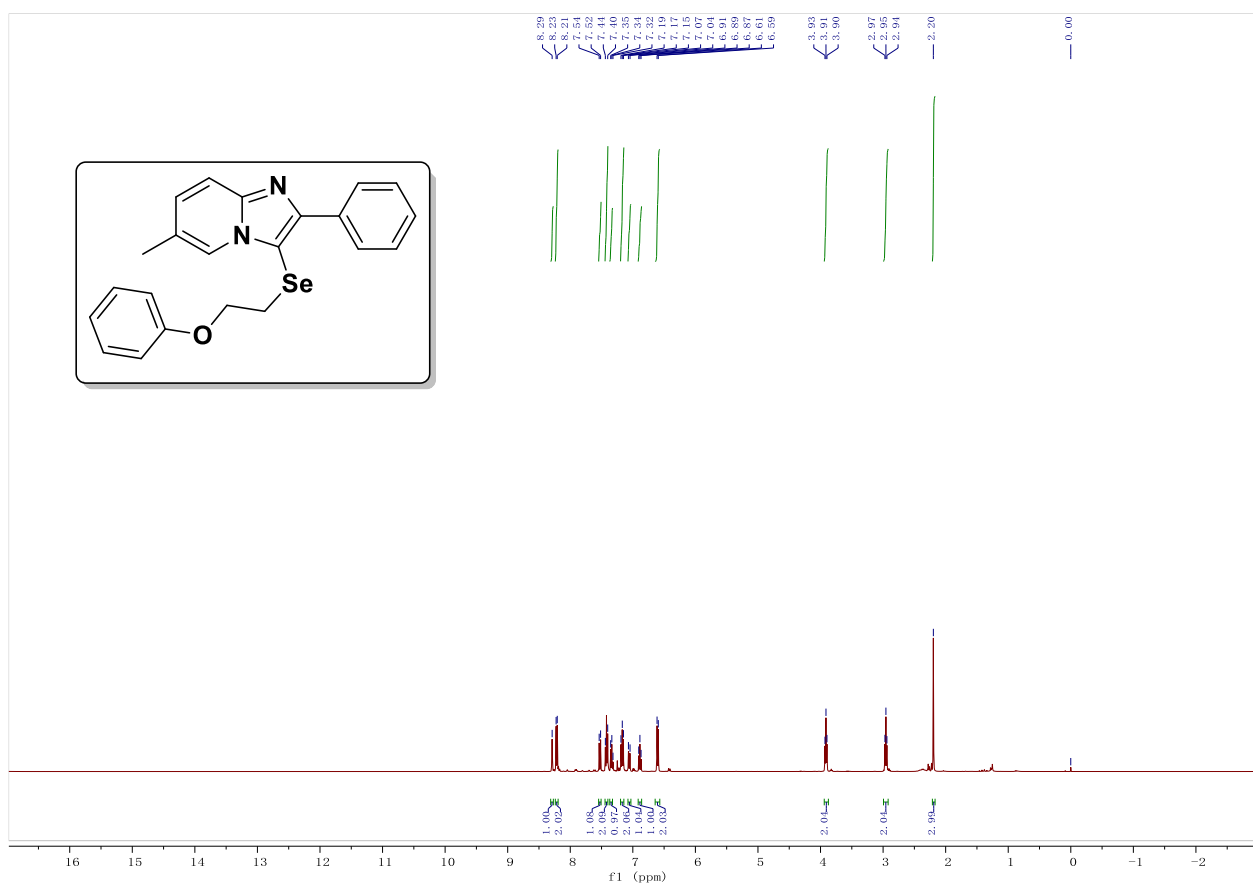
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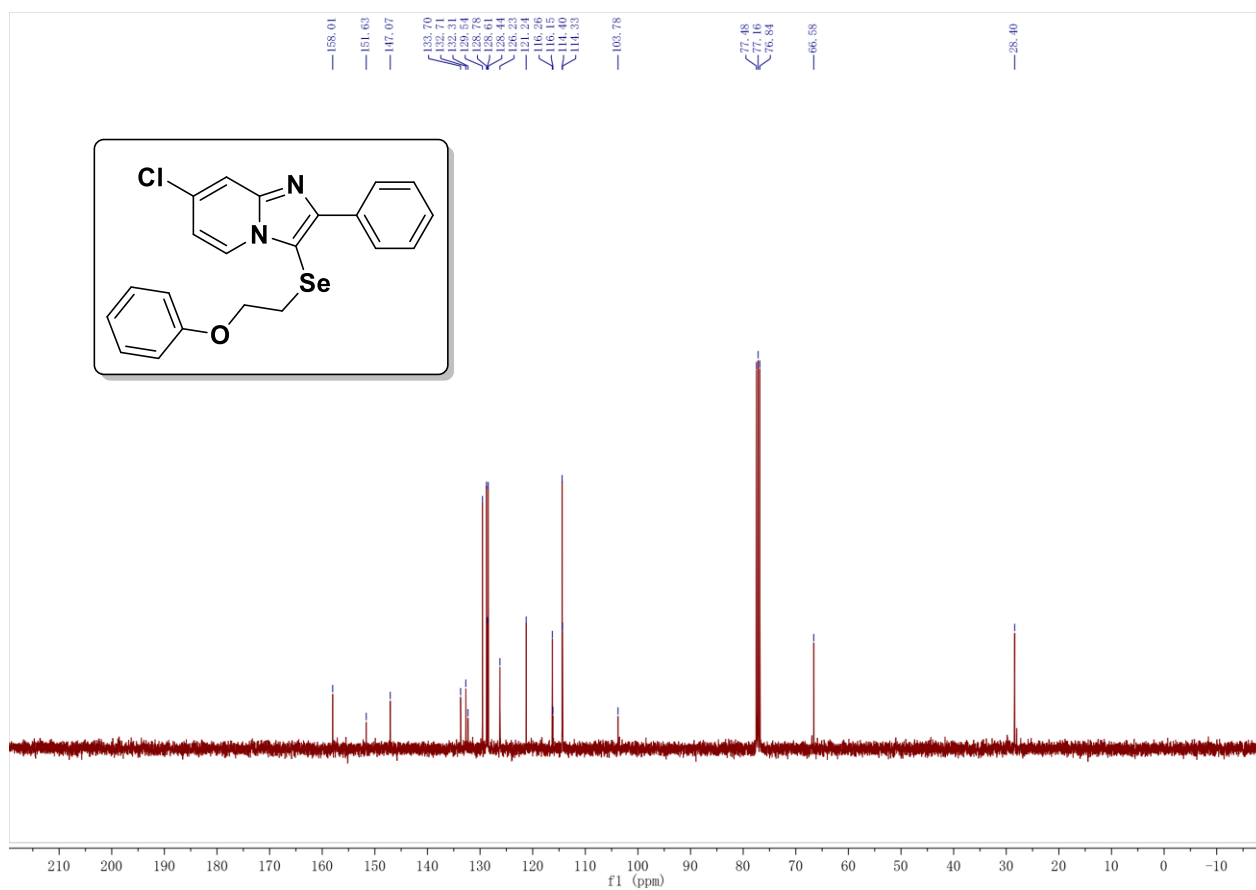
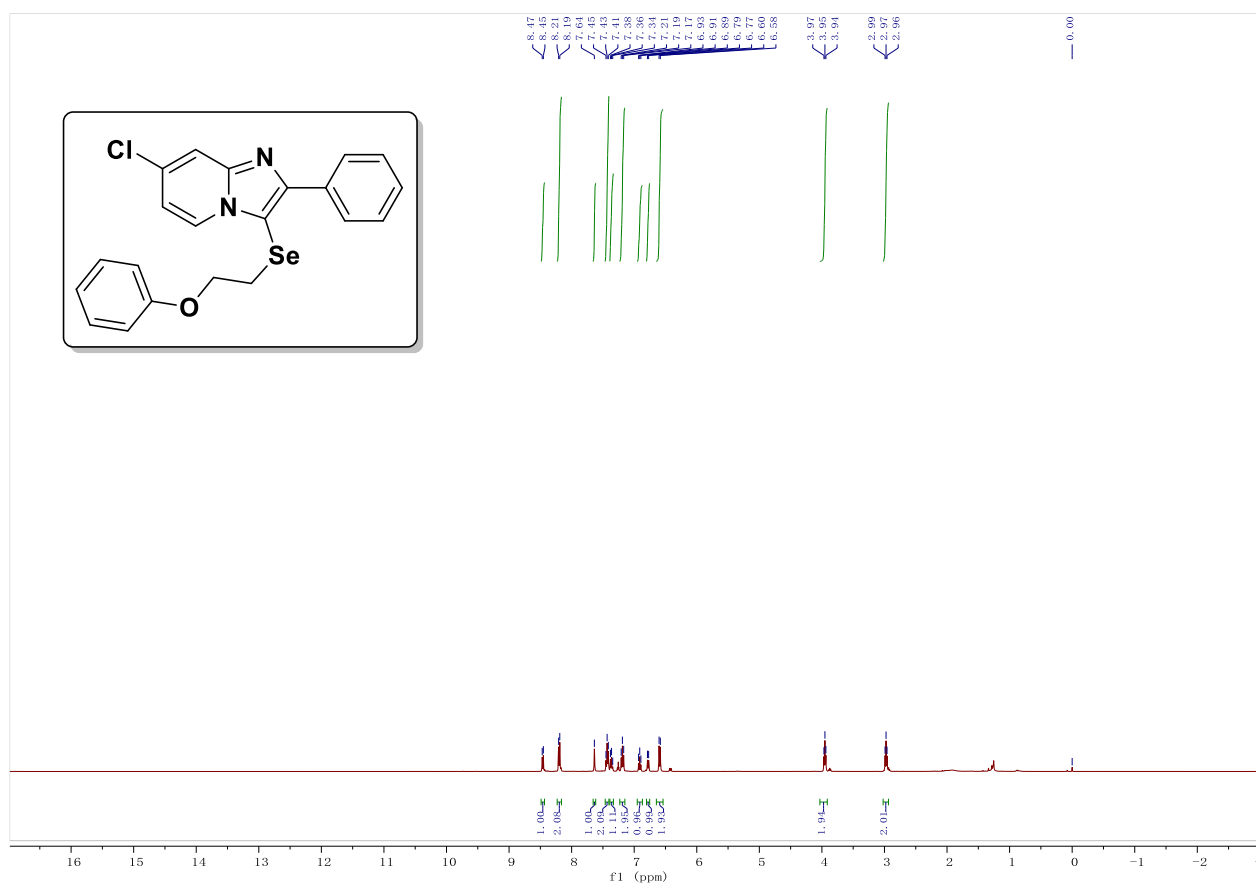
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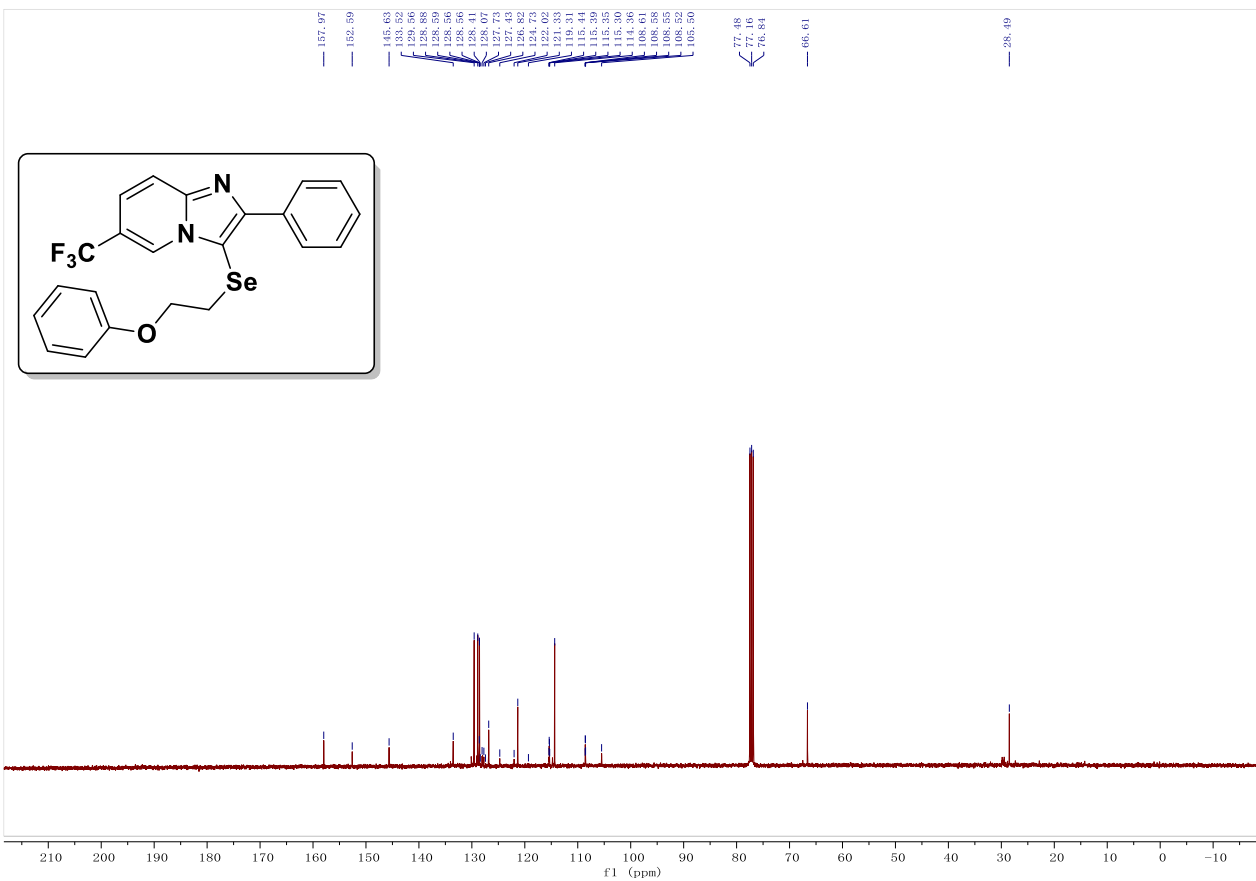
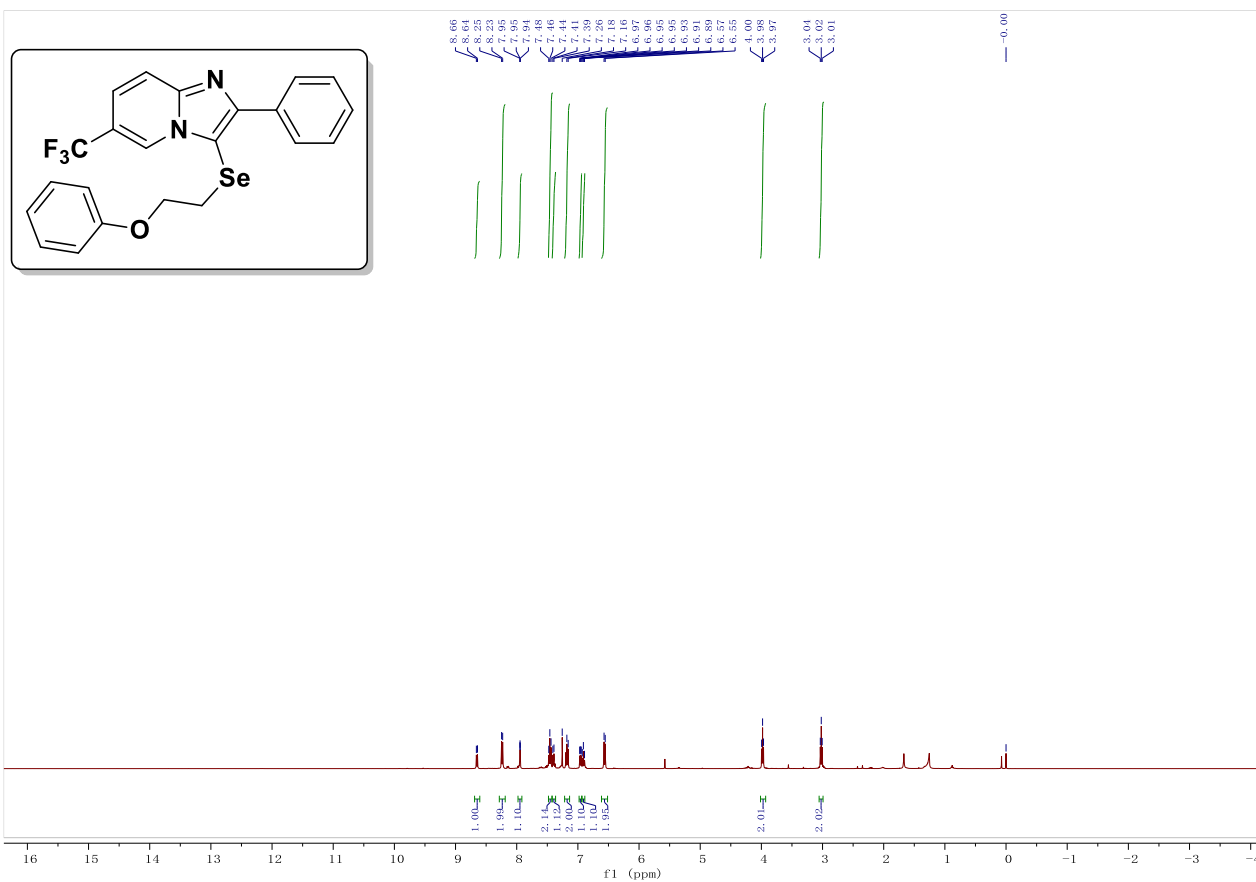
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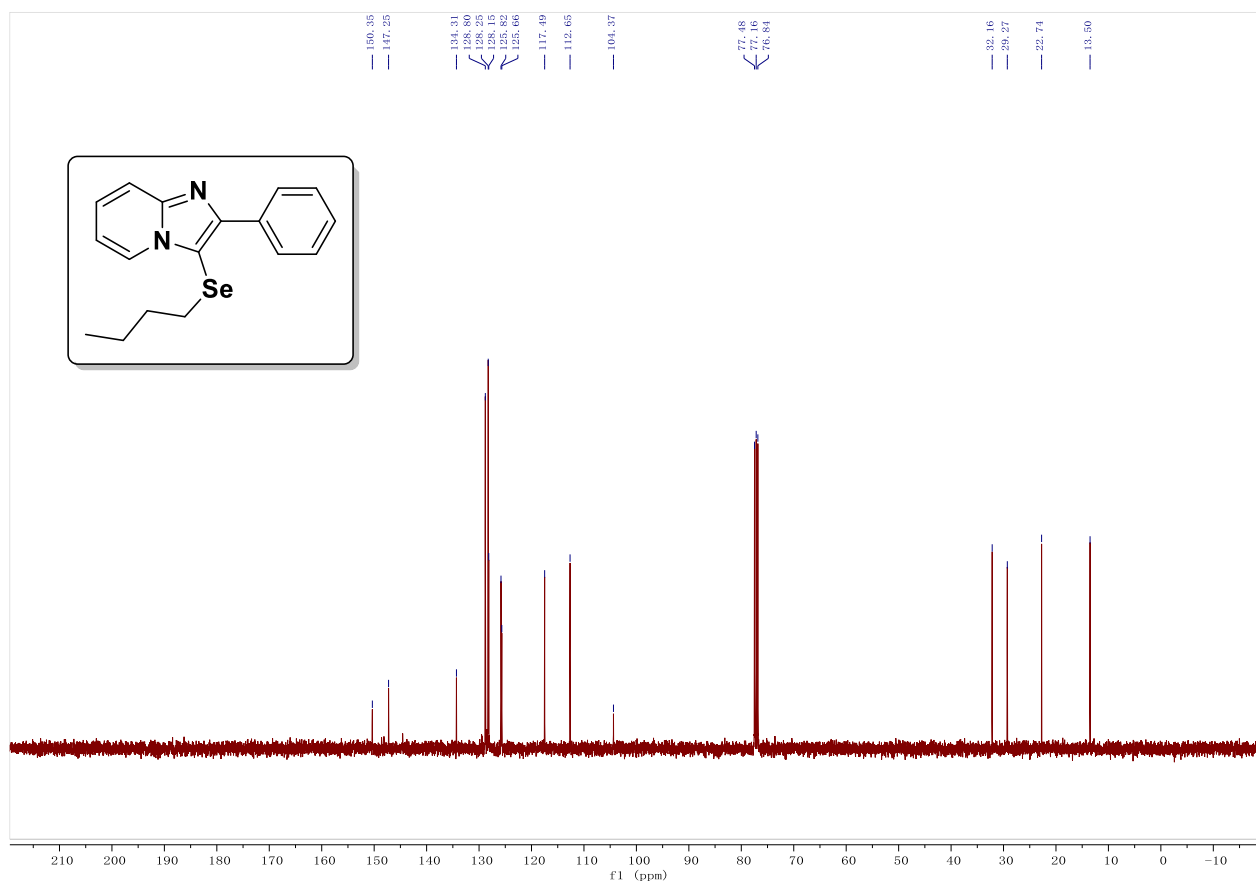
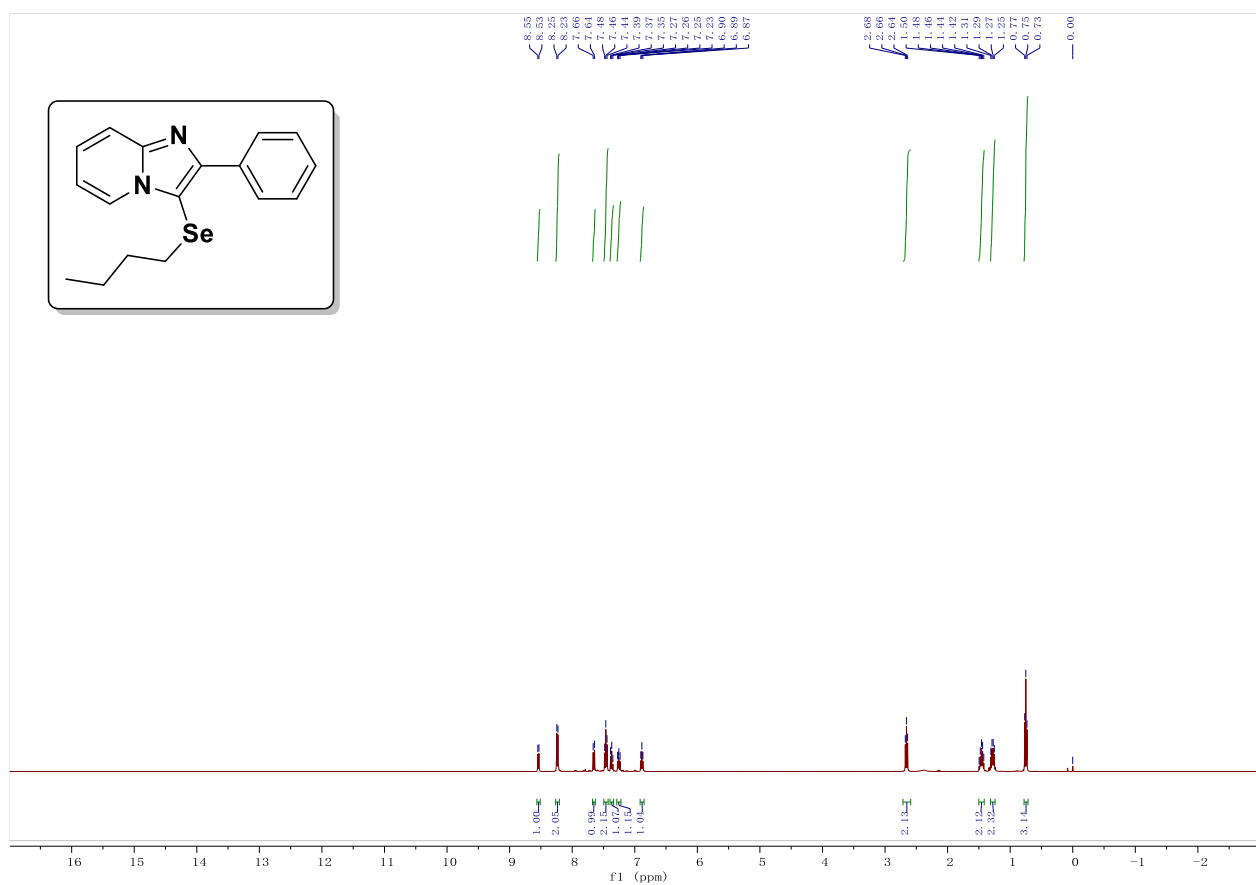
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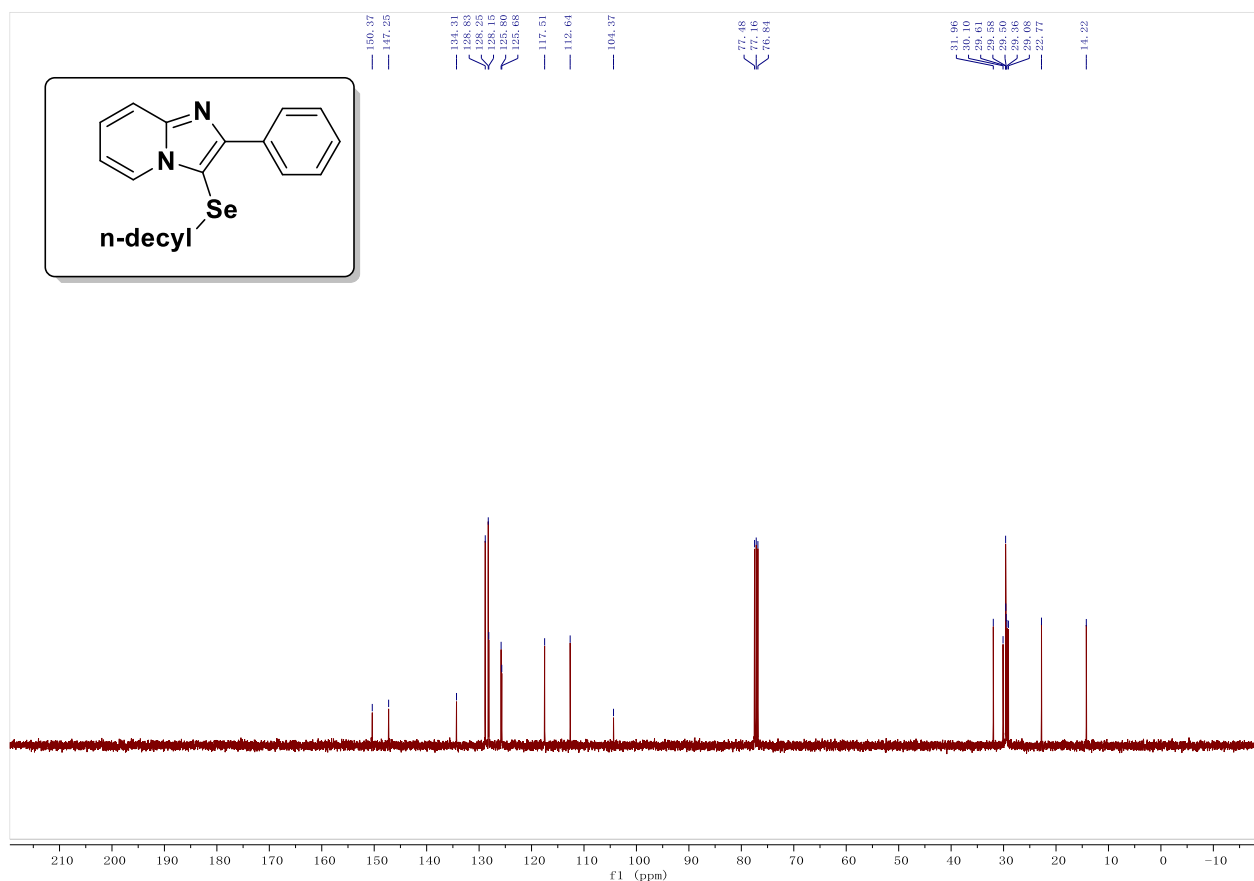
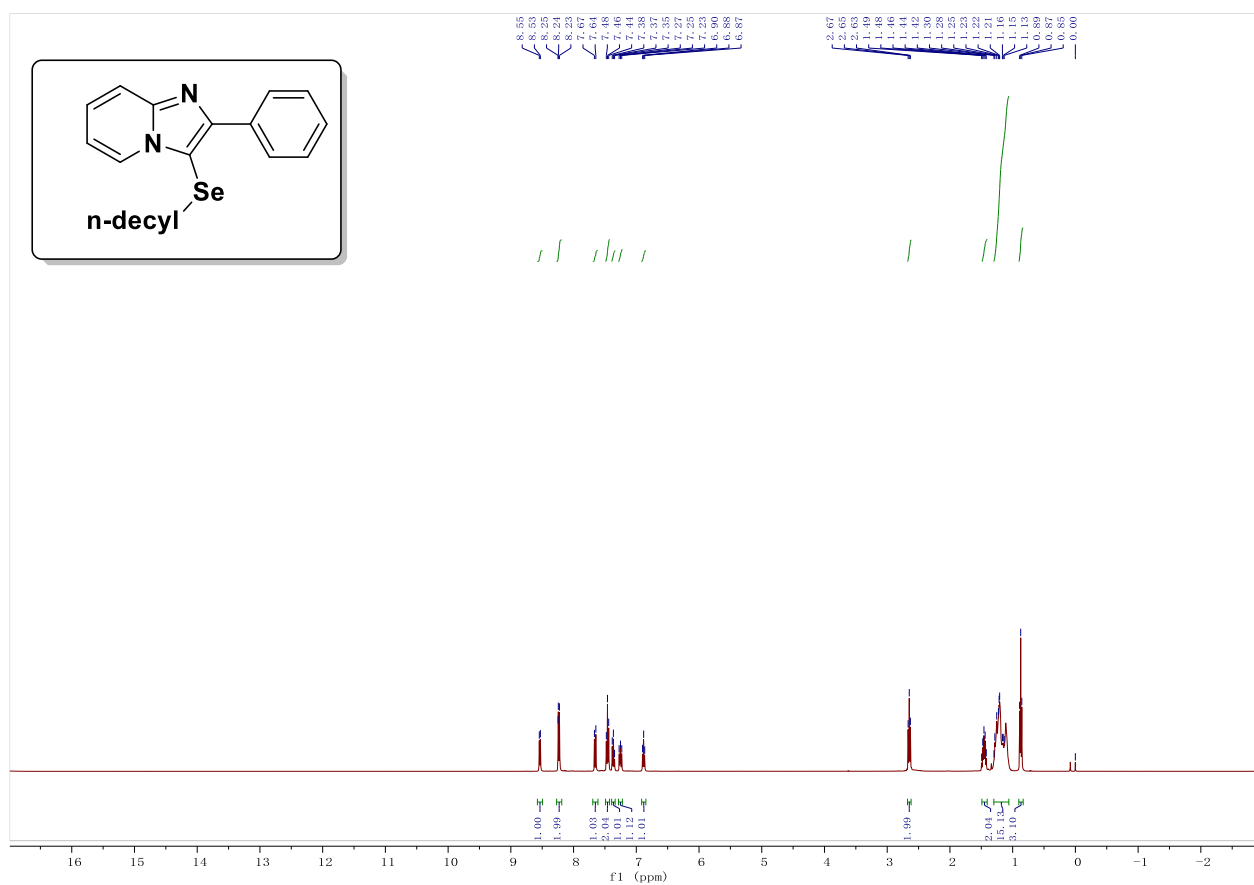
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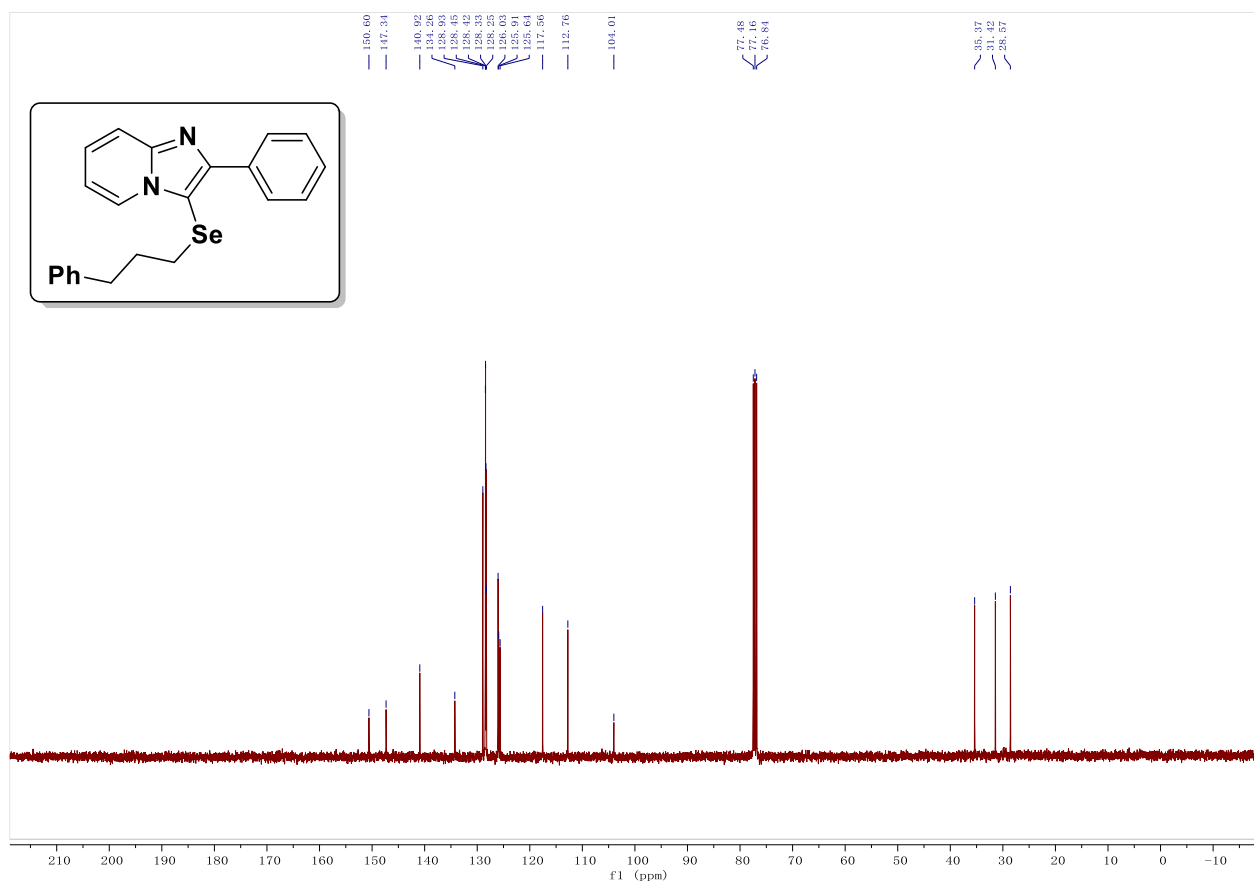
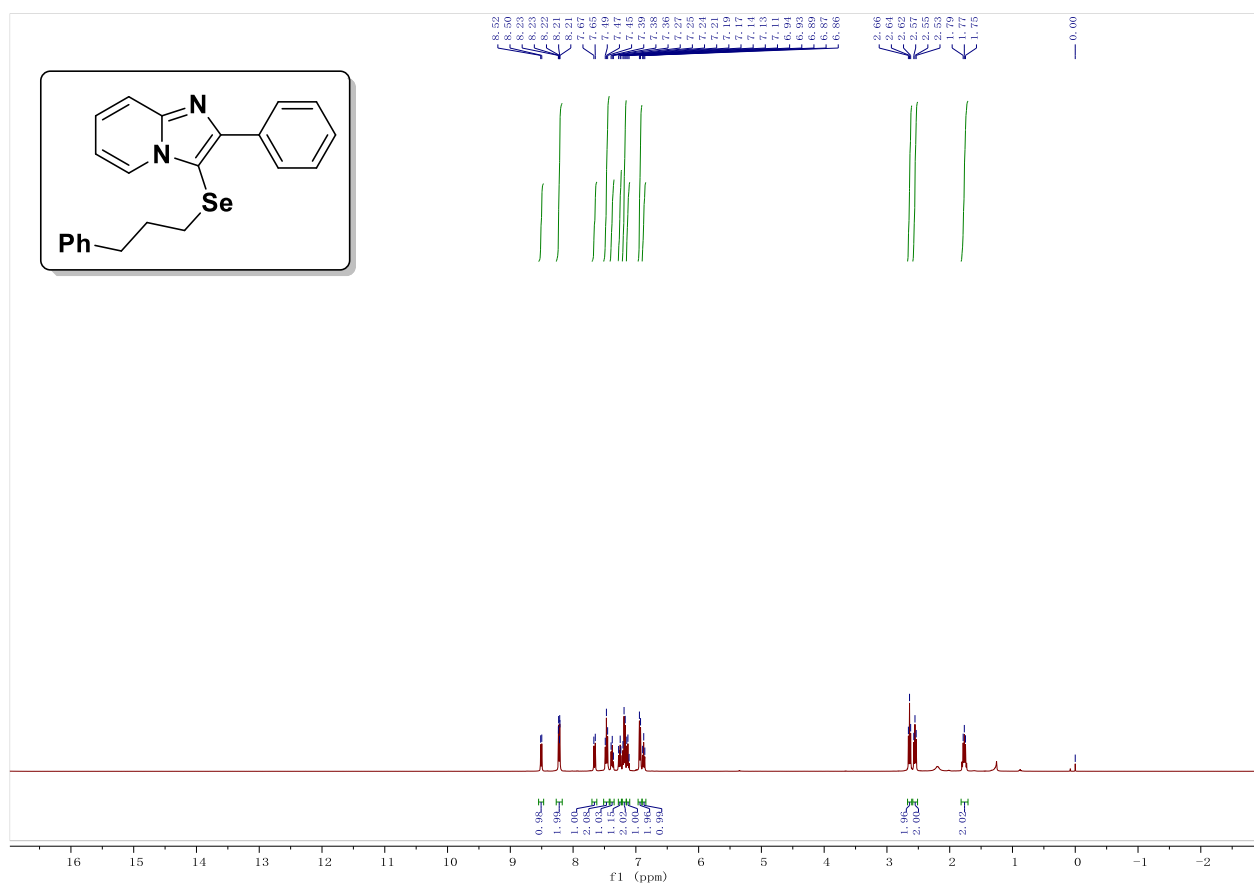


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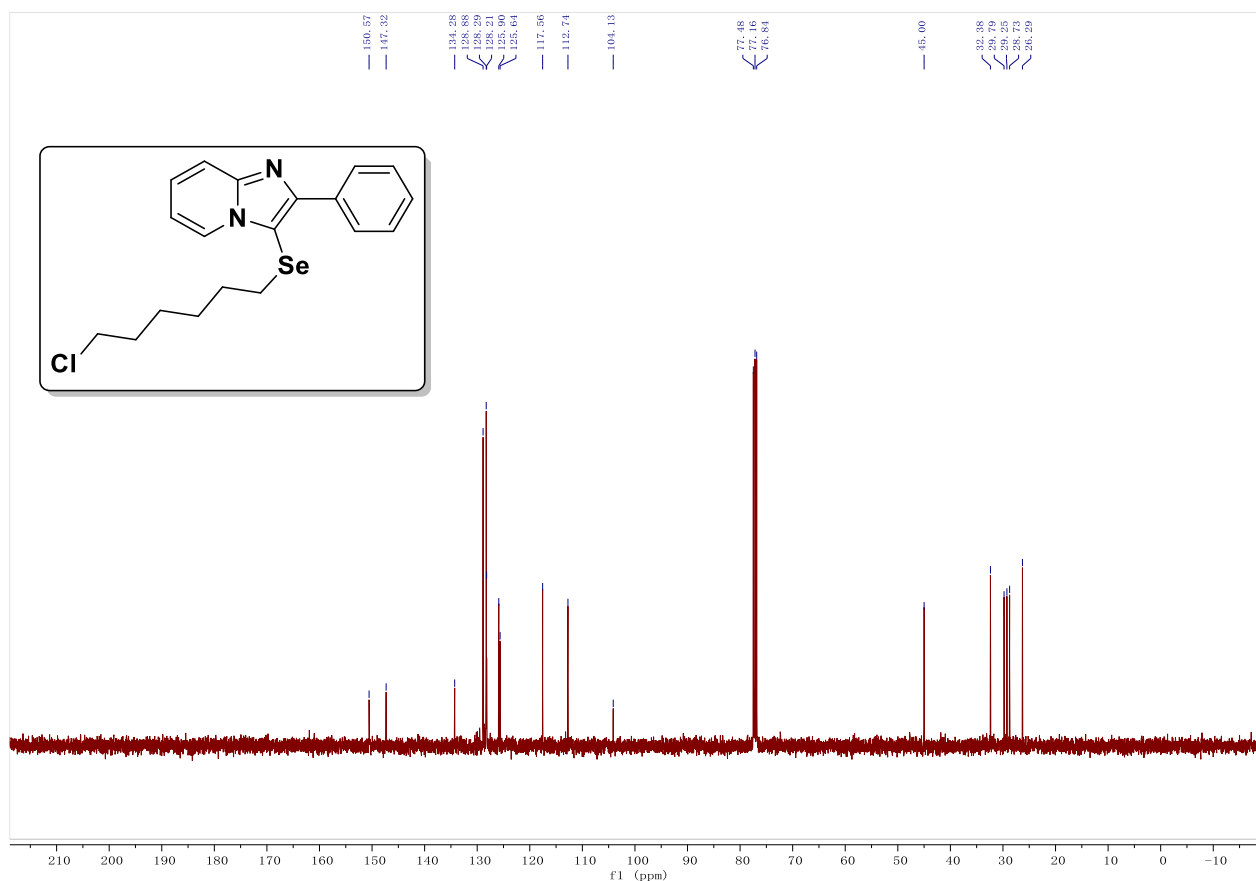
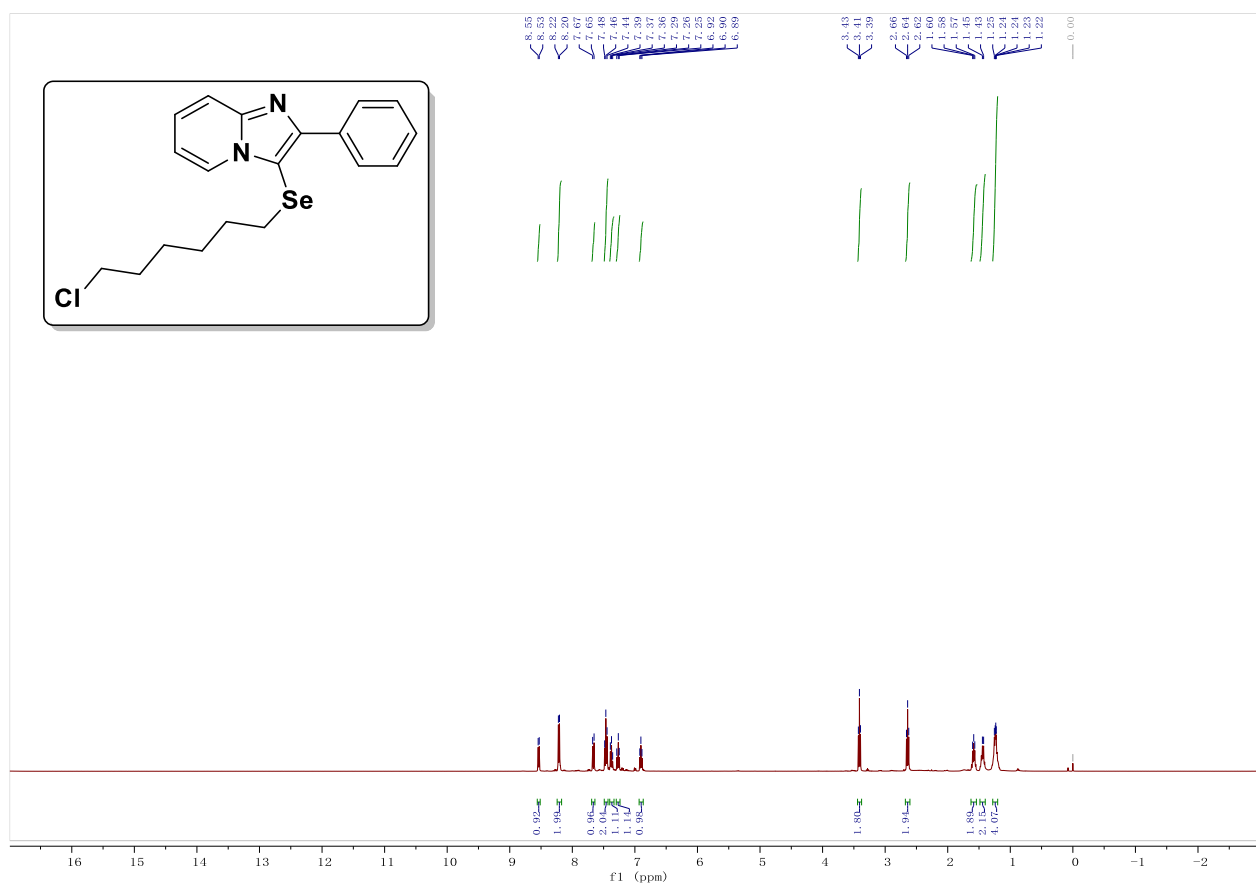




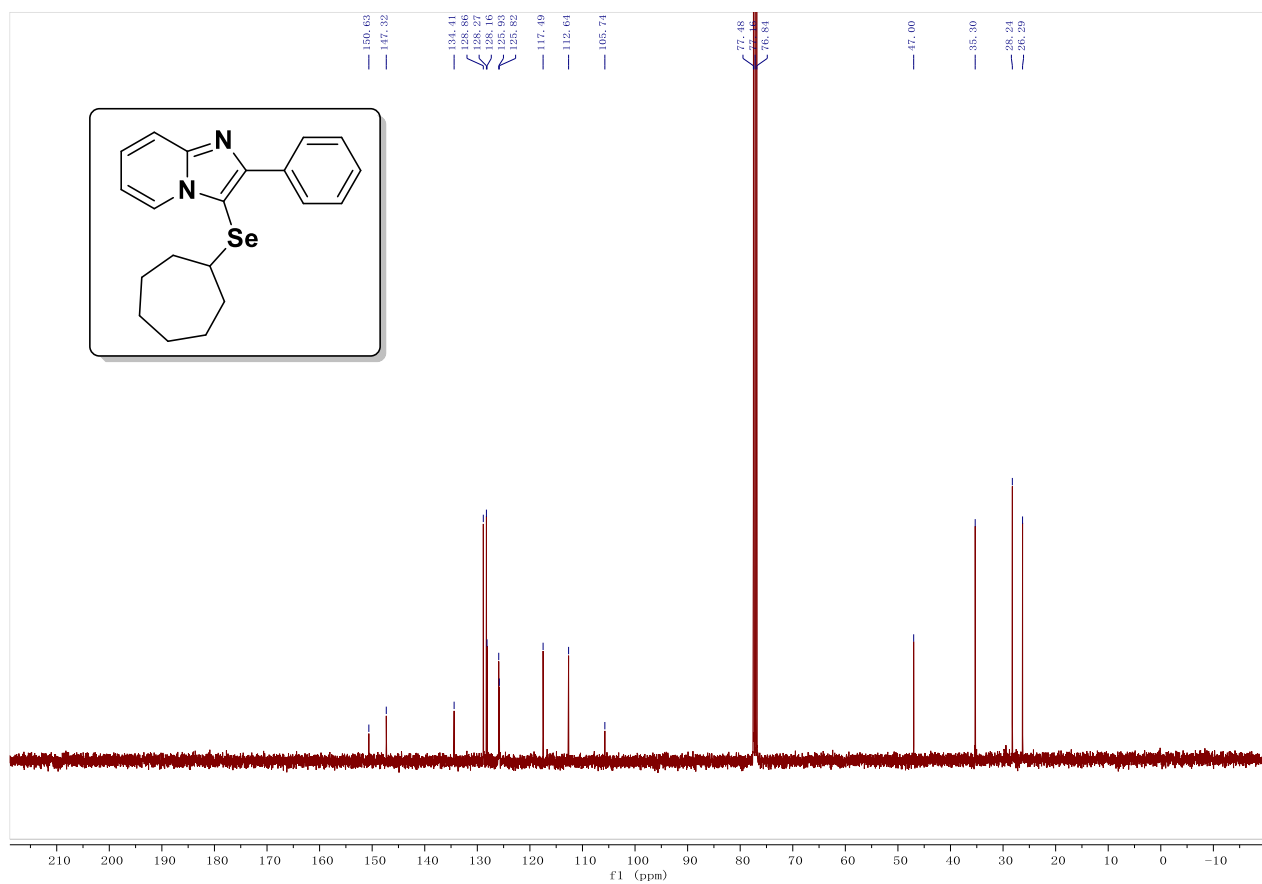
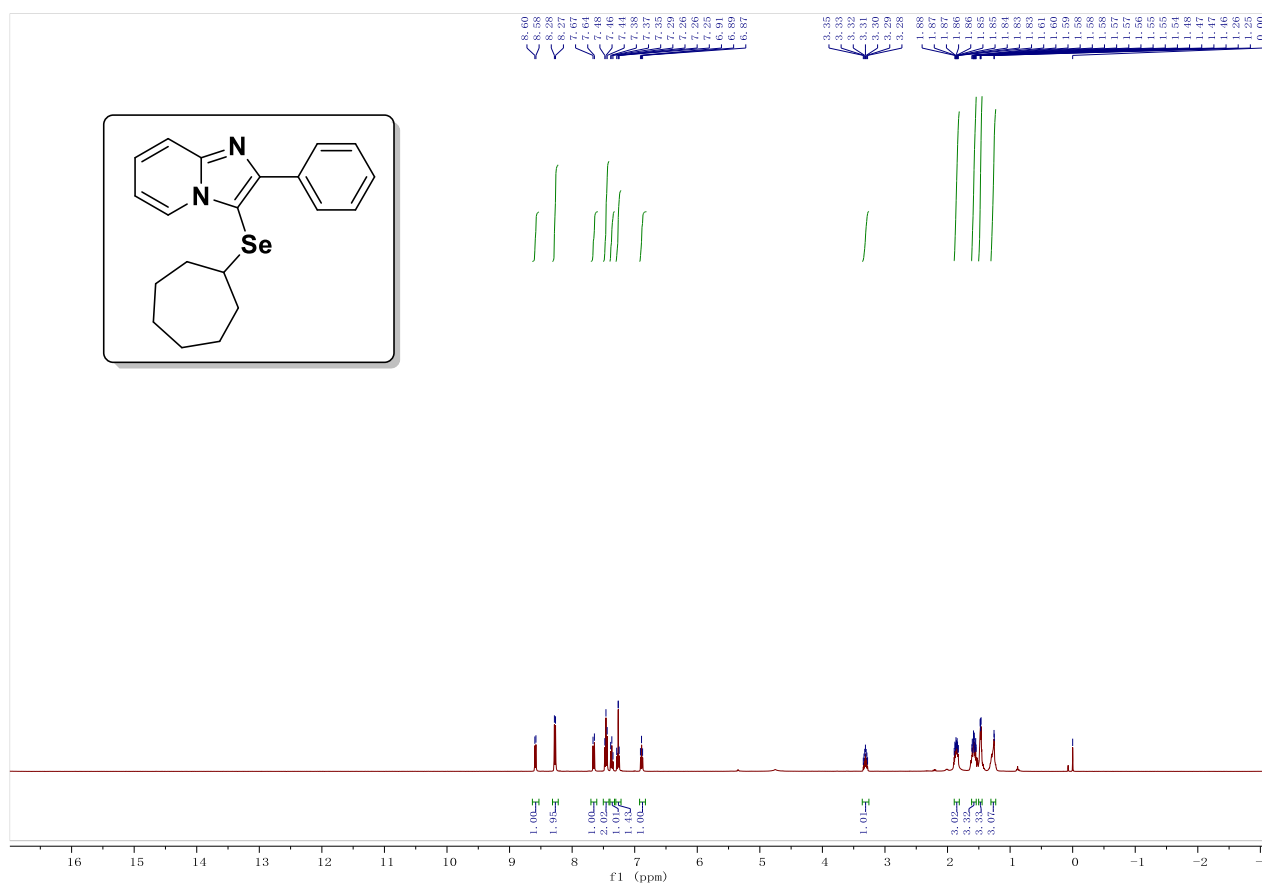
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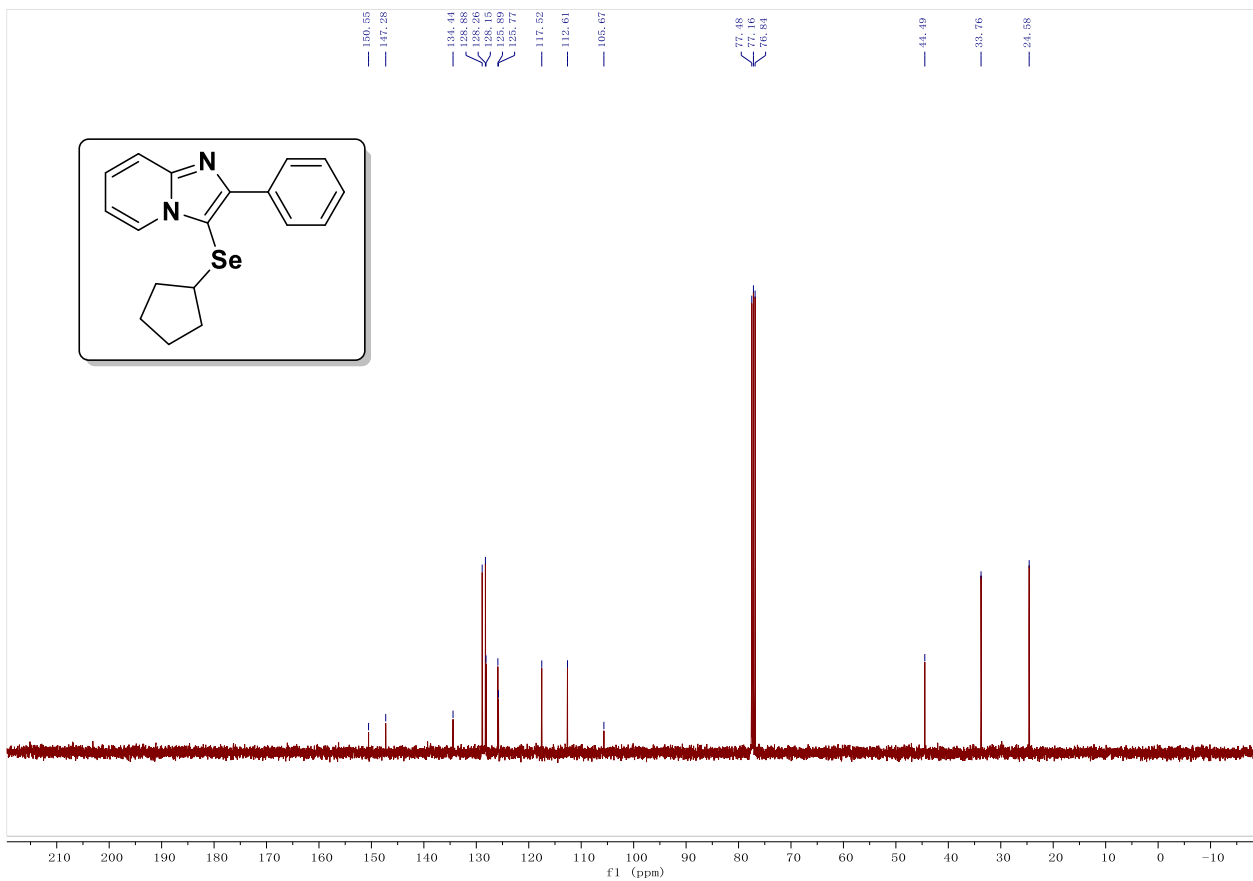
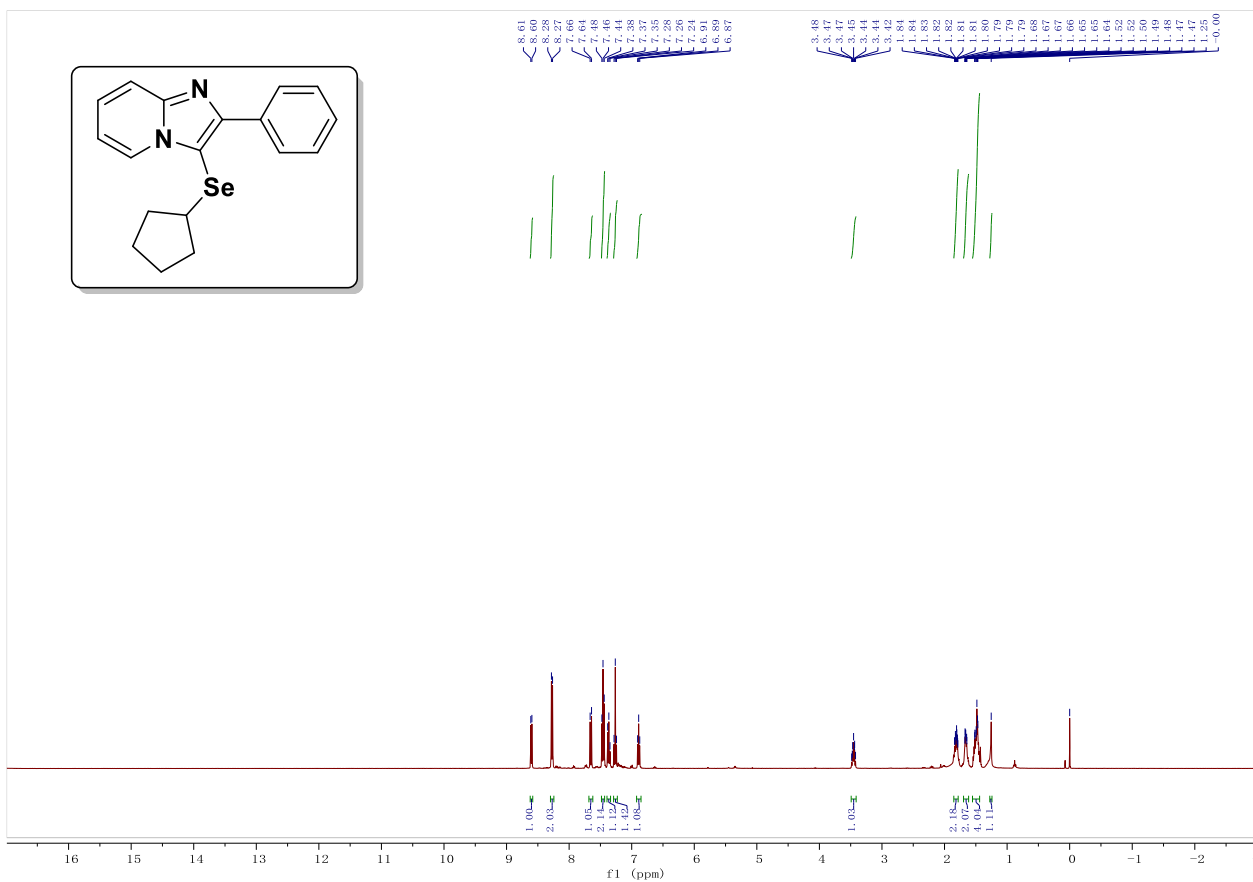
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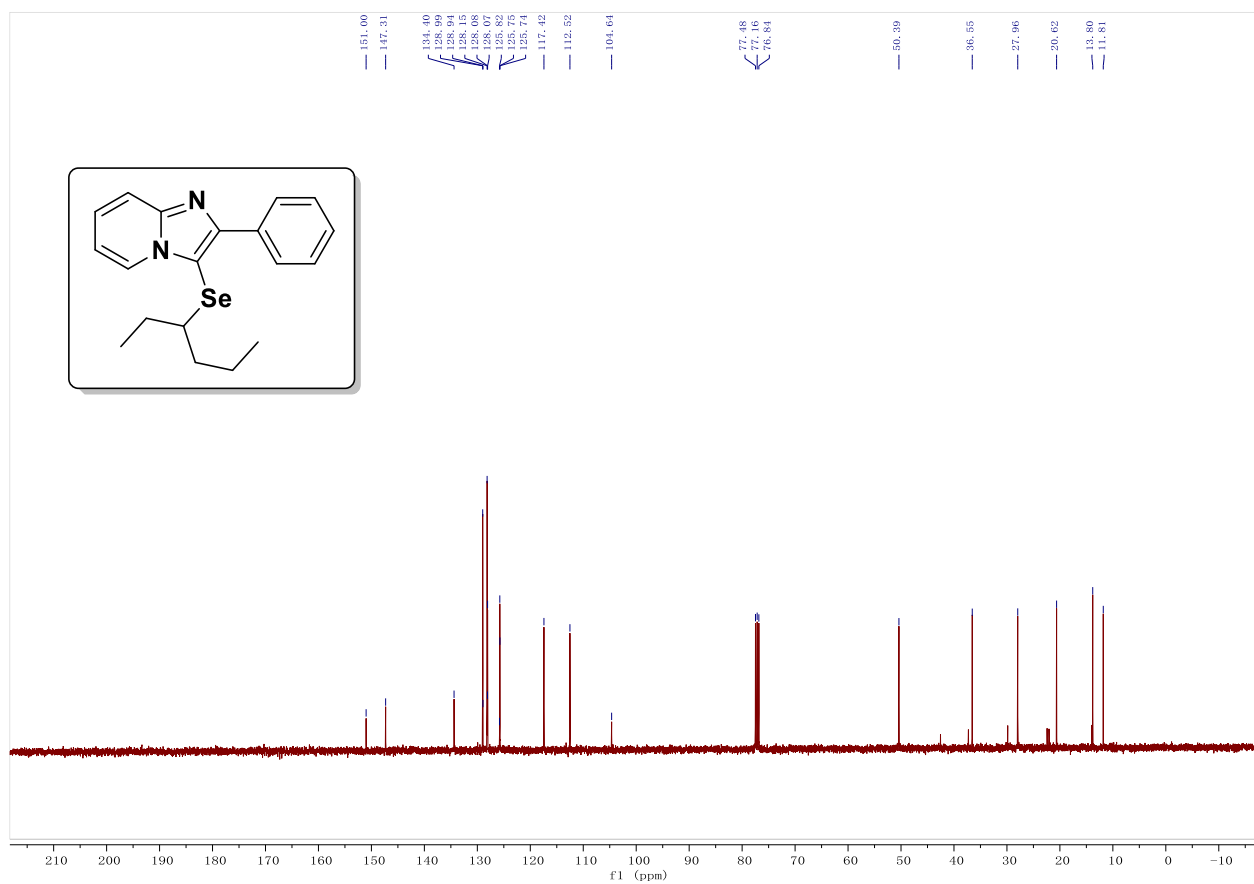
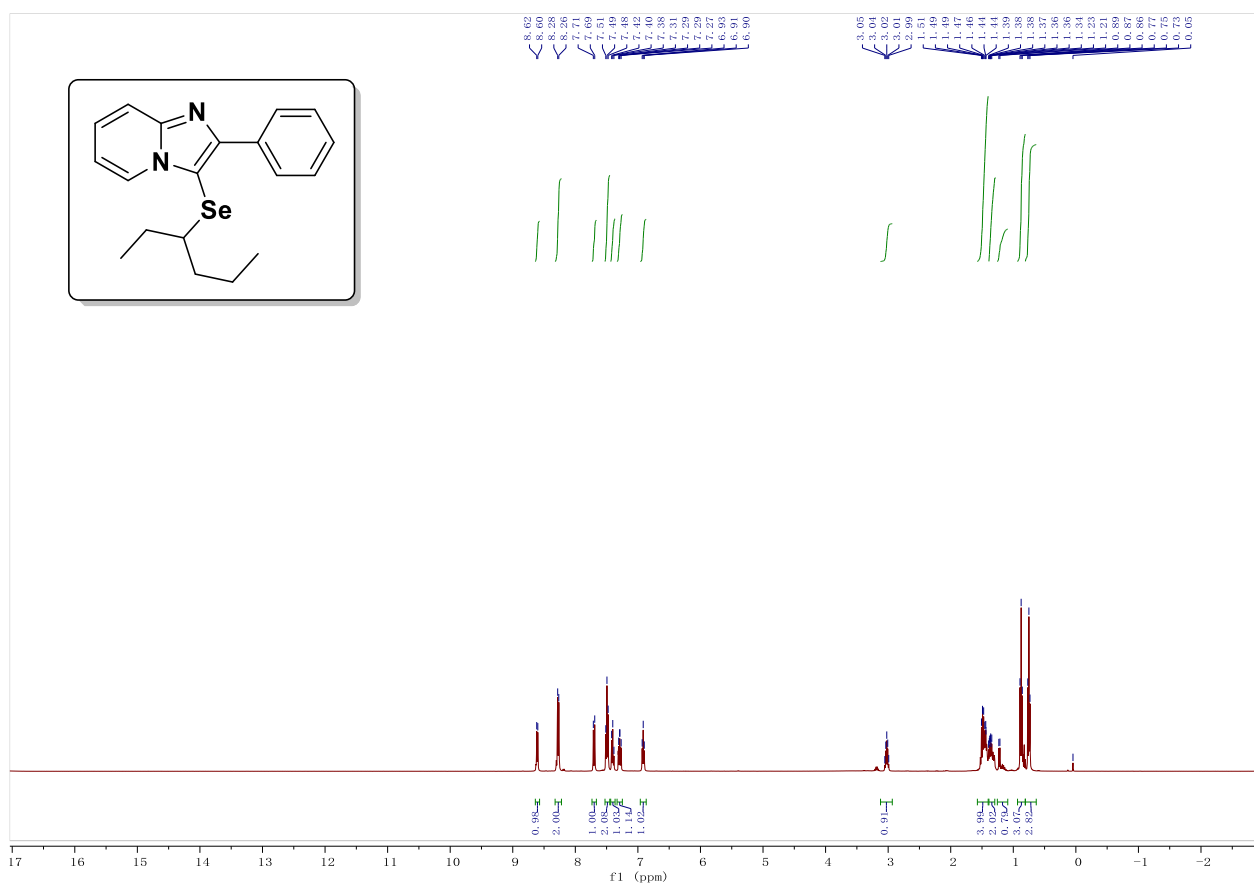
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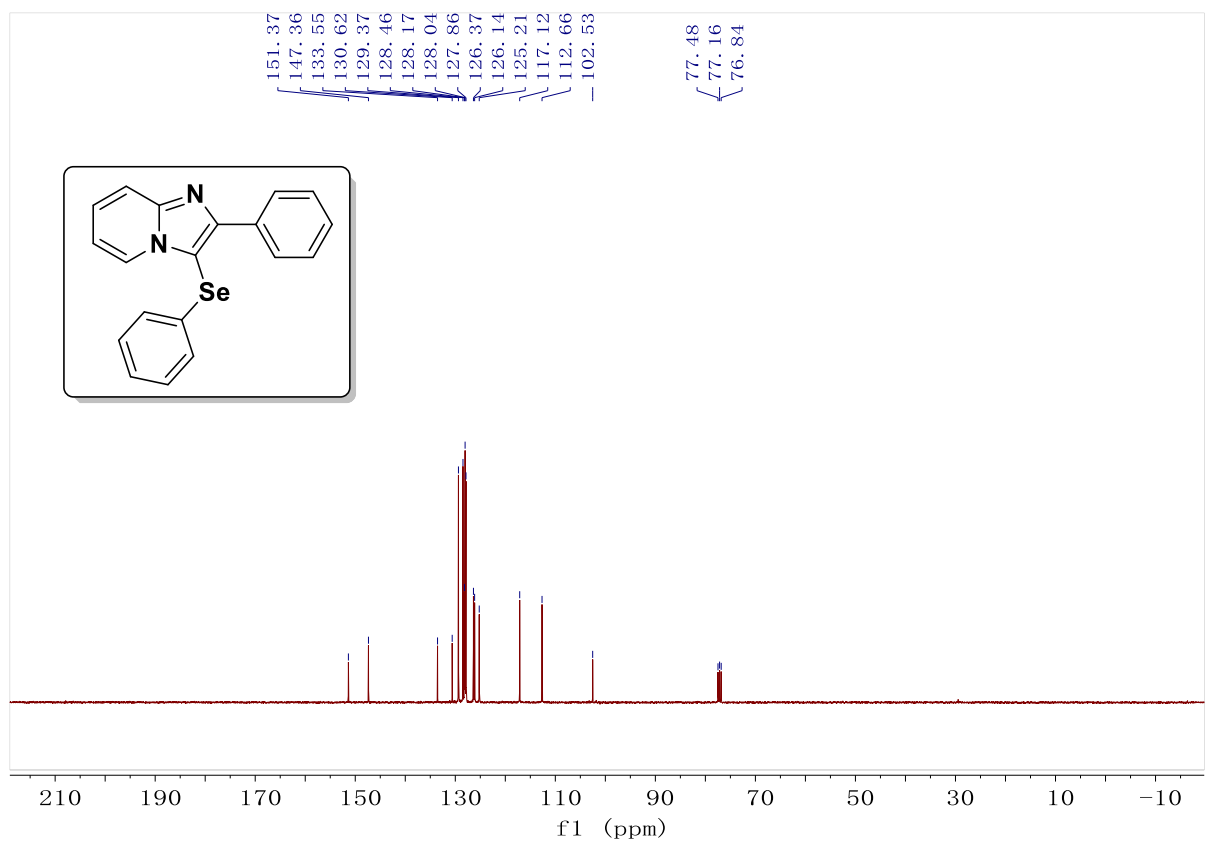
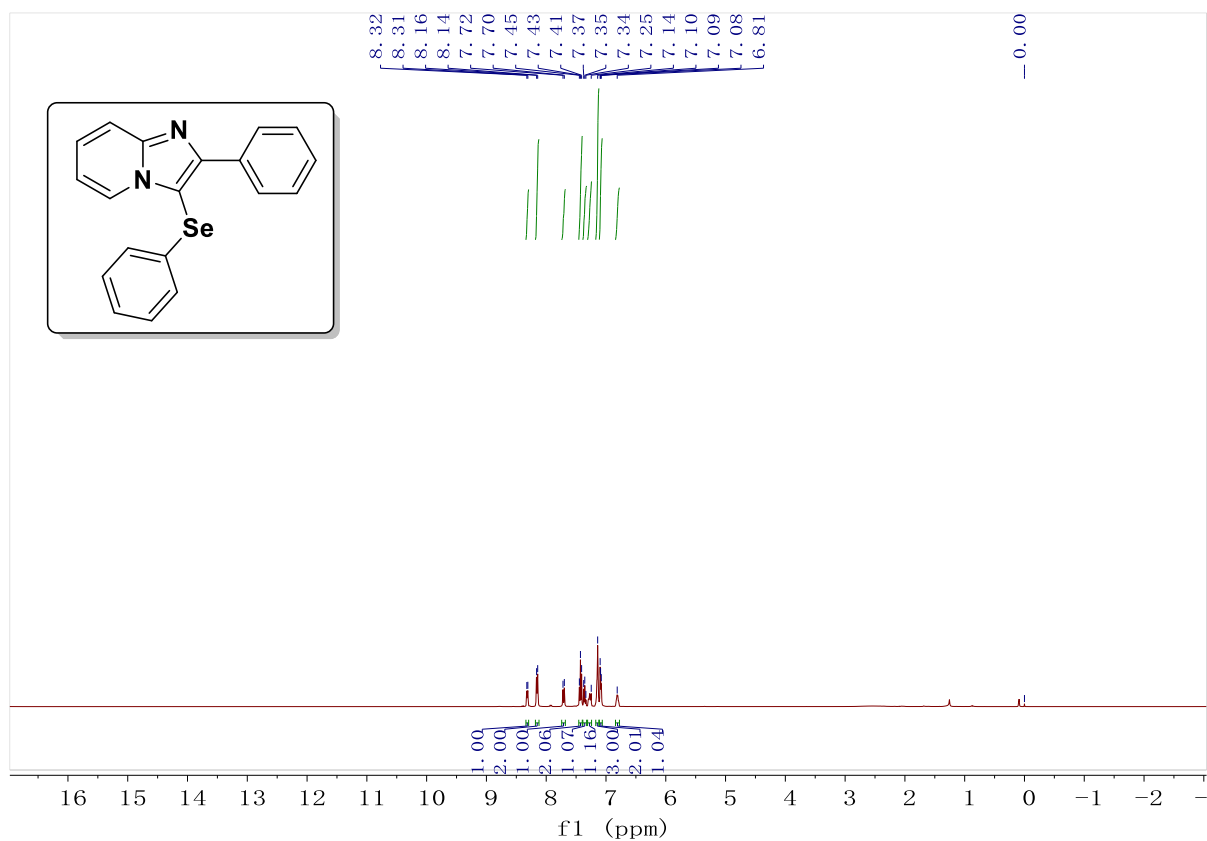
4r:



4s:



4t:



## Detail information of the purchased supplier of reagents

Reagents	Supplier
2-Bromoacetophenone	Macklin
2-Aminopyridine	Energy Chemical
iodine	Chemto
Sodium hydrogen carbonate	Yonghuachem
2-Bromo-4'-methylacetophenone	Energy Chemical
4-(Trifluoromethyl)phenacyl bromide	Energy Chemical
4-Chloro-2'-bromoacetophenone	Energy Chemical
2-Bromo-4'-fluoroacetophenone	Energy Chemical
2-bromo-2'-methoxyacetophenone	Energy Chemical
2-Bromo-2'-chloroacetophenone	Energy Chemical
2-Bromo-3'-chloroacetophenone	Energy Chemical
4-Nitro-2'-bromoacetophenone	Energy Chemical
2-Amino-3-picoline	Energy Chemical
2-Amino-5-methylpyridine	Energy Chemical
2-Amino-4-chloropyridine	Energy Chemical
5-(Trifluoromethyl)pyridin-2-amine	Energy Chemical
6-(Trifluoromethyl)pyridin-2-amine	Energy Chemical
4-Nitropyridin-2-amine	Aladdin
2-Amino-5-cyanopyridine	Macklin
2-Amino-6-methylpyridine	Macklin
2-Amino-6-fluoropyridine	Energy Chemical
DMF	Energy Chemical
DMSO	Energy Chemical
DMA	Energy Chemical
Ethanol	Energy Chemical
CuI	Macklin