

Visible-light-triggered regioselective alkylation of quinoxalin-2(1*H*)-ones via decarboxylation coupling†

Hongdou Zhang, Jun Xu, Min Zhou, Jianming Zhao, Pengfei Zhang and Wanmei Li*

College of Material, Chemistry and Chemical Engineering, Hangzhou Normal University,
Hangzhou 311121 (China).

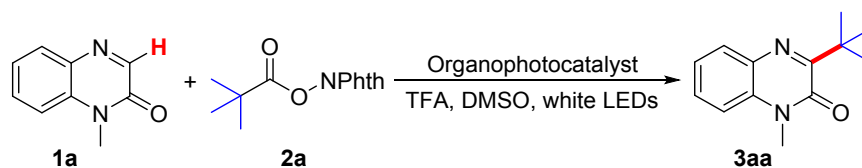
*Email for Wanmei Li: liwanmei@hznu.edu.cn

Supporting Information

Table of contents

1. Optimization of Organophotocatalysts	2
2. Copies of NMR Spectra	3

1. Optimization of Organophotocatalysts ^{a,b}

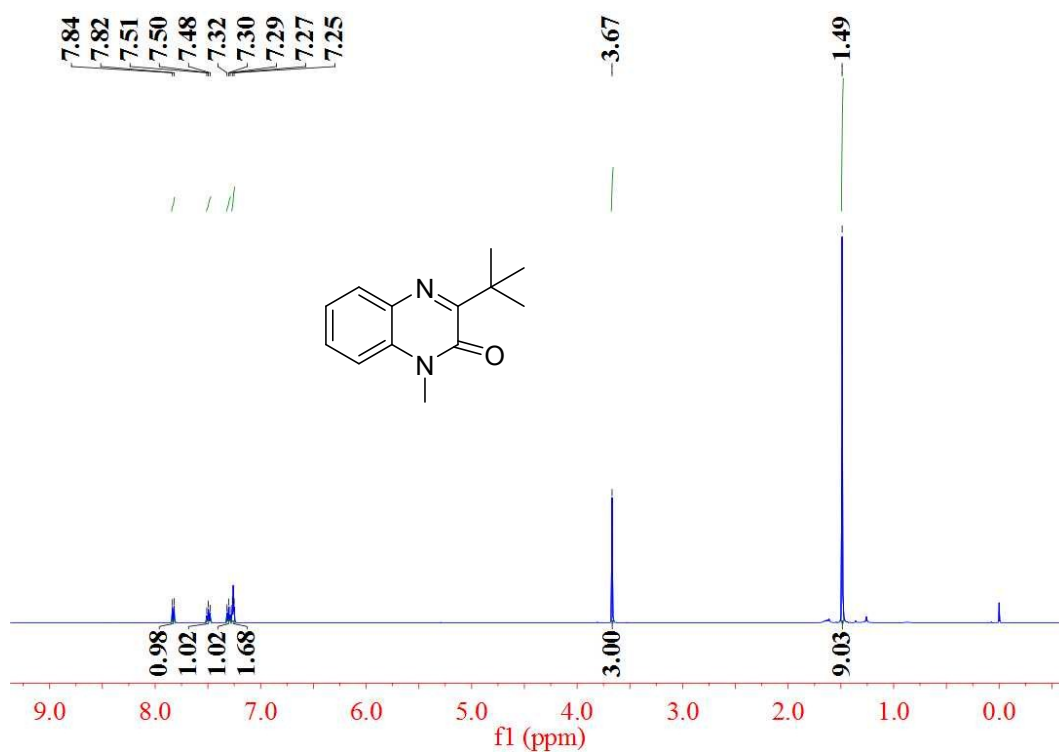


Entry	Photocatalyst	Yield[%] ^b
1	Ir(ppy) ₃	95
2	DDQ	12
3	Rhodamine B	0
4	Sudan Red B	trace
5	Methyl Orange	0
6	5-FAM Hydrate	0
7	Methylene Blue Hydrate	14

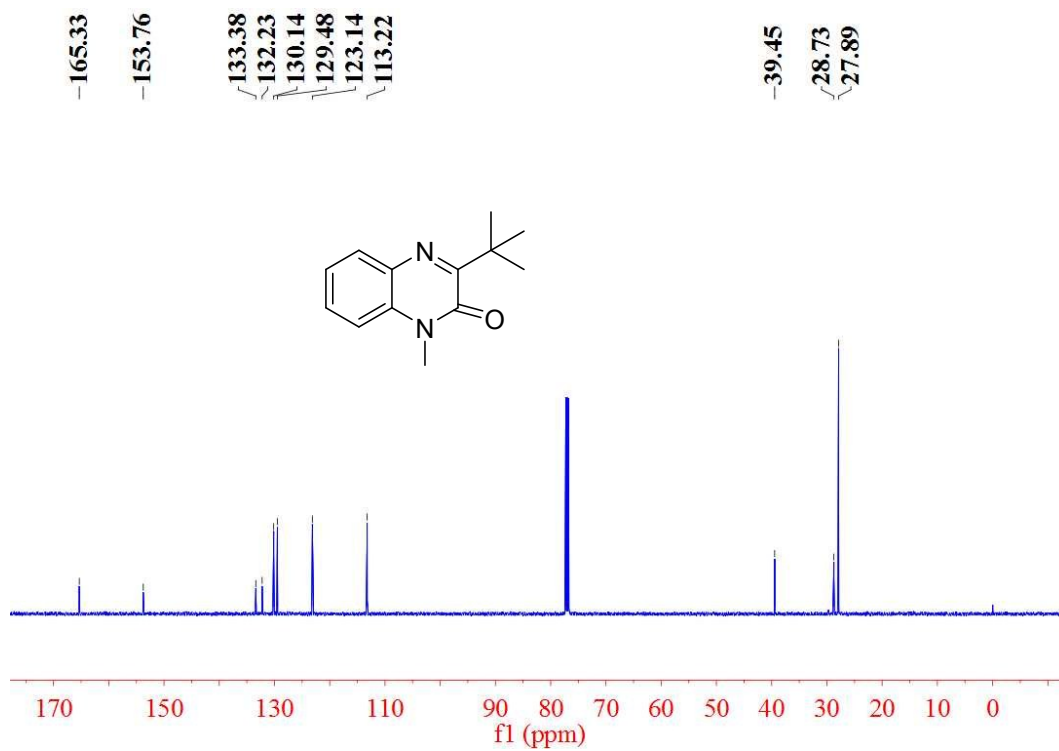
^a Reaction conditions: 1a (0.2 mmol), 2a (2.0 equiv), photocatalyst (2.0 mol %), TFA (0.5 equiv), DMSO (2.0 mL), room temperature, 12 h, N₂. ^b Isolated yields.

2. Copies of NMR Spectra

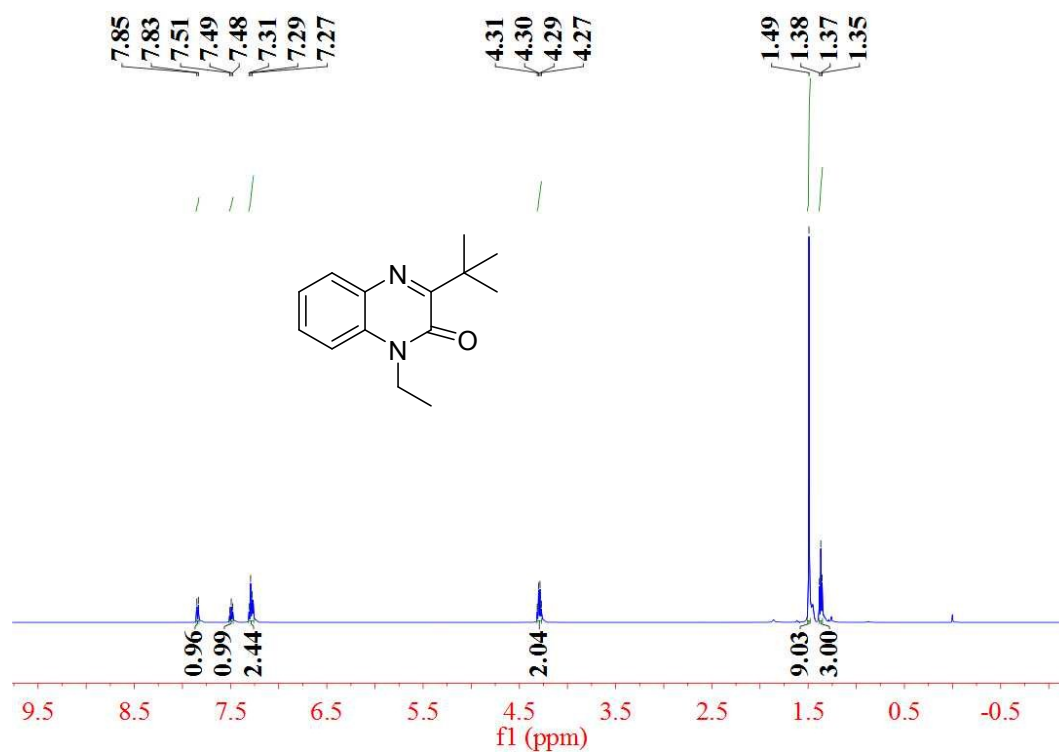
3aa ^1H NMR



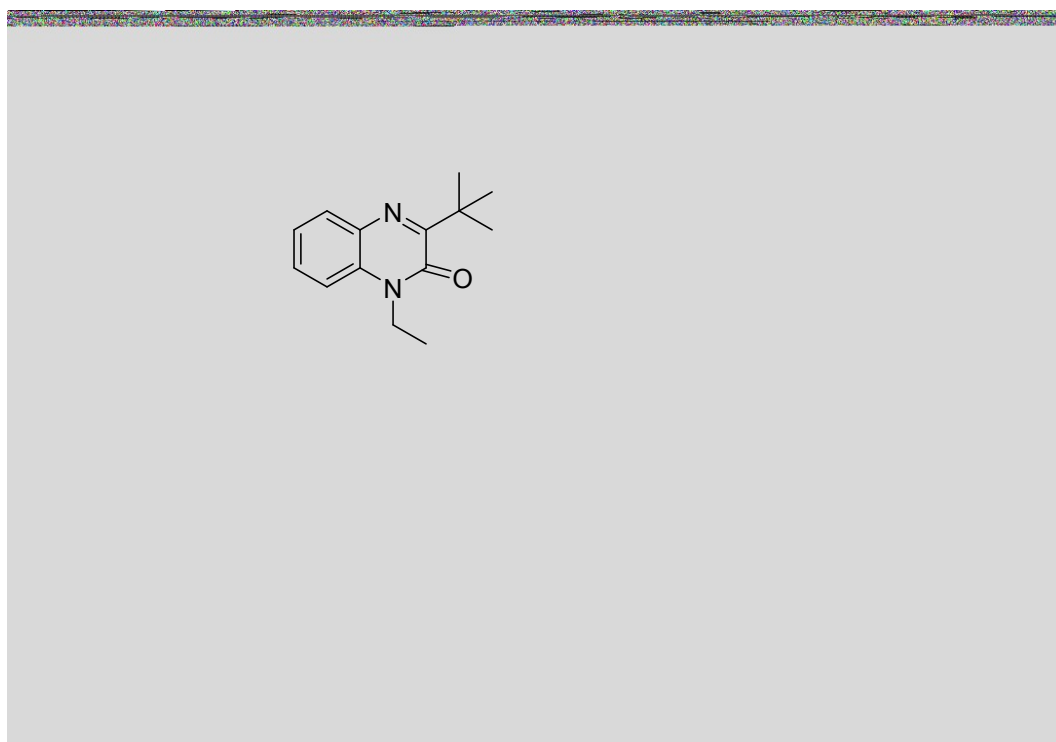
3aa ^{13}C NMR



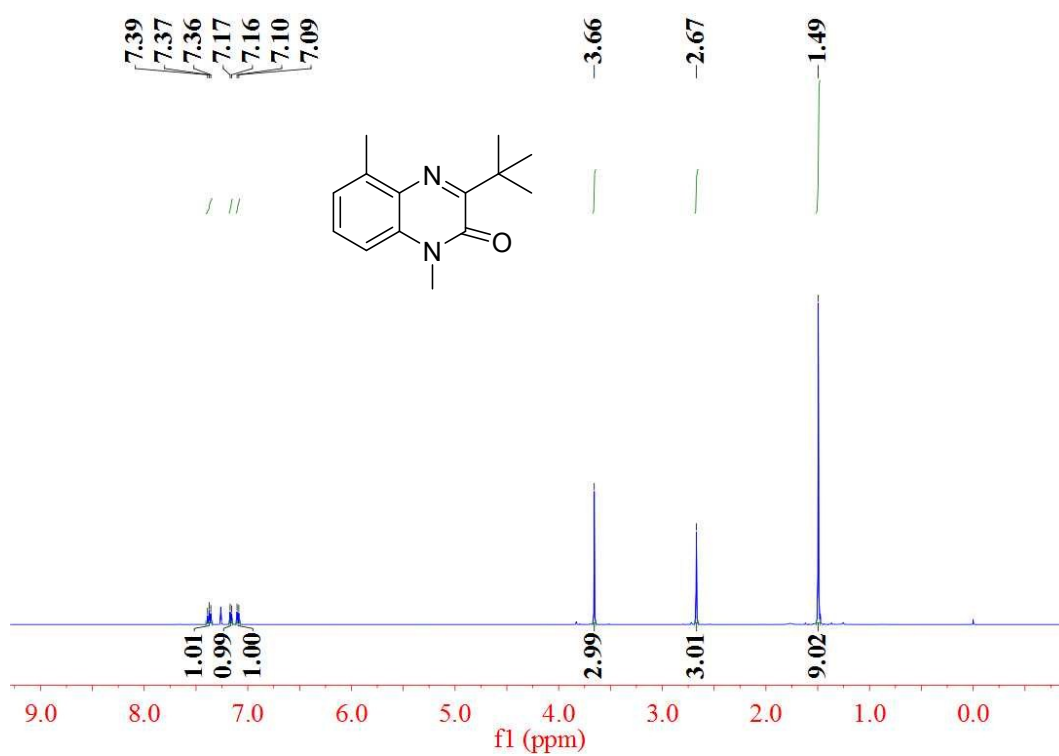
3ab ^1H NMR



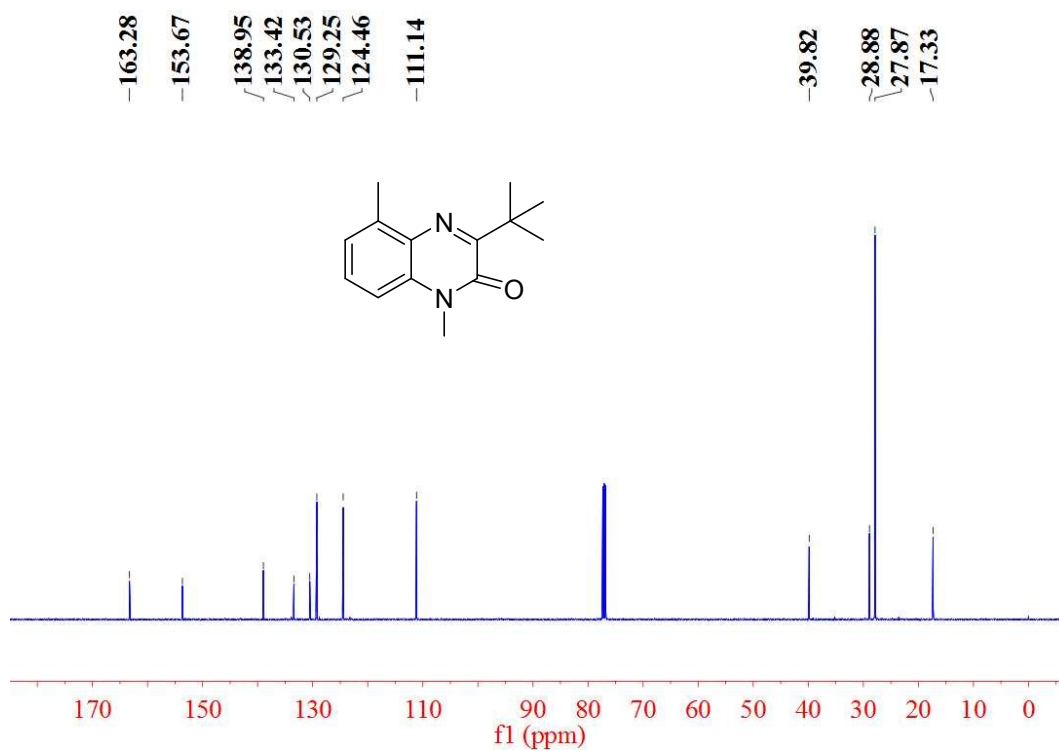
3ab ^{13}C NMR



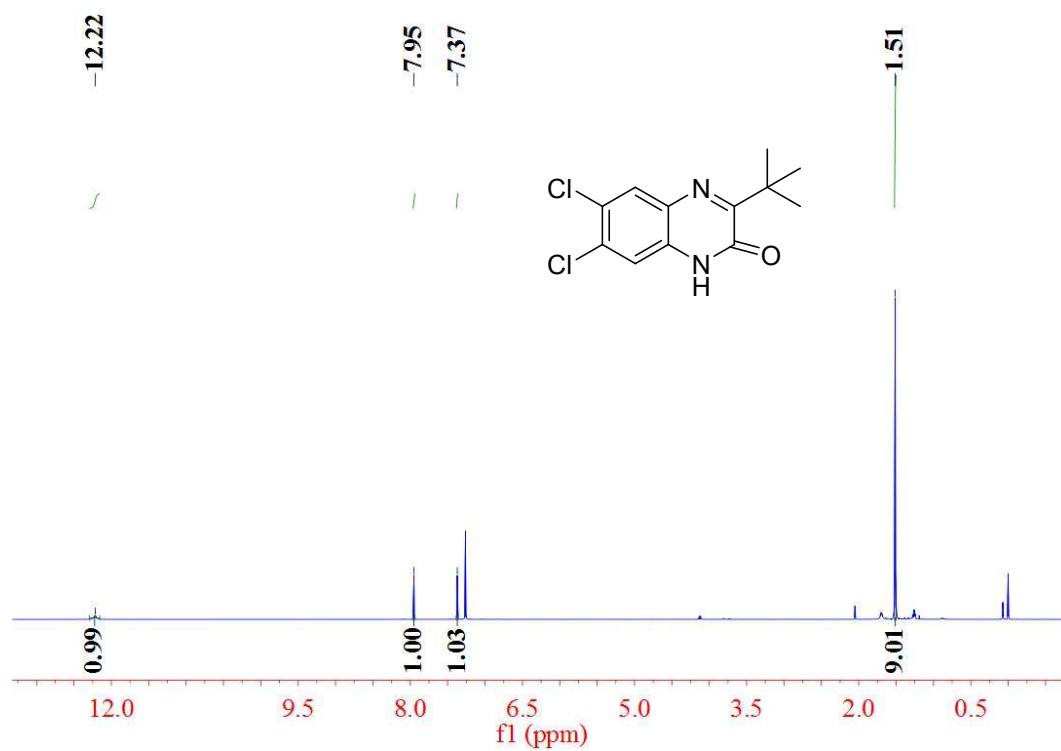
3ac ¹H NMR



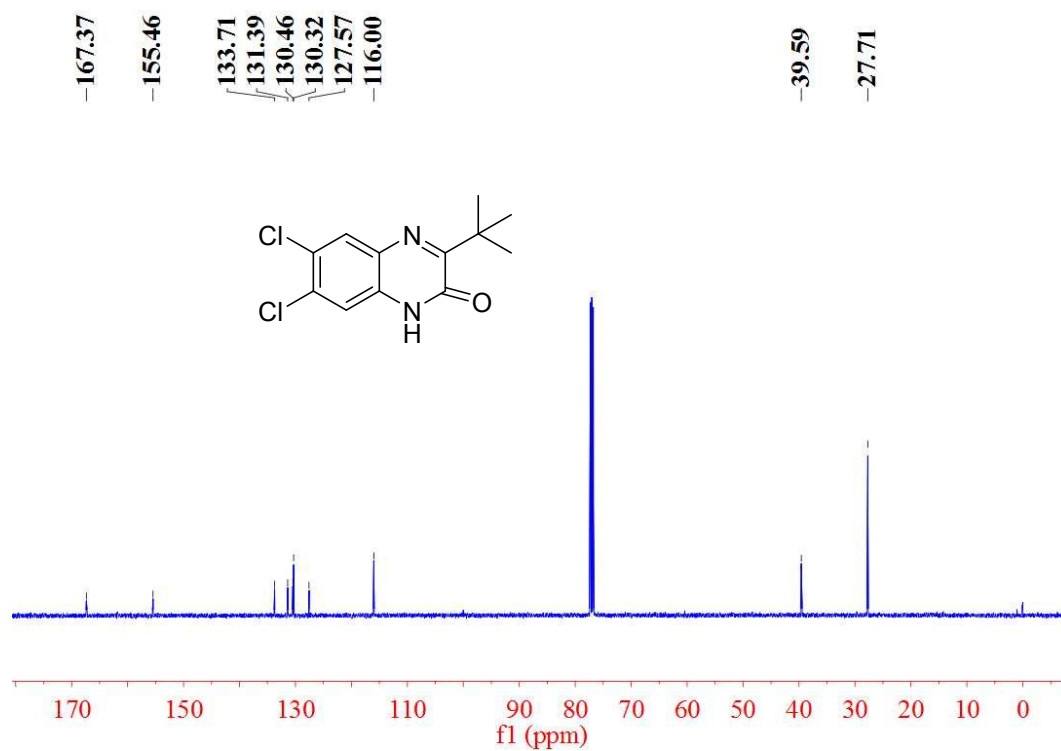
3ac ¹³C NMR



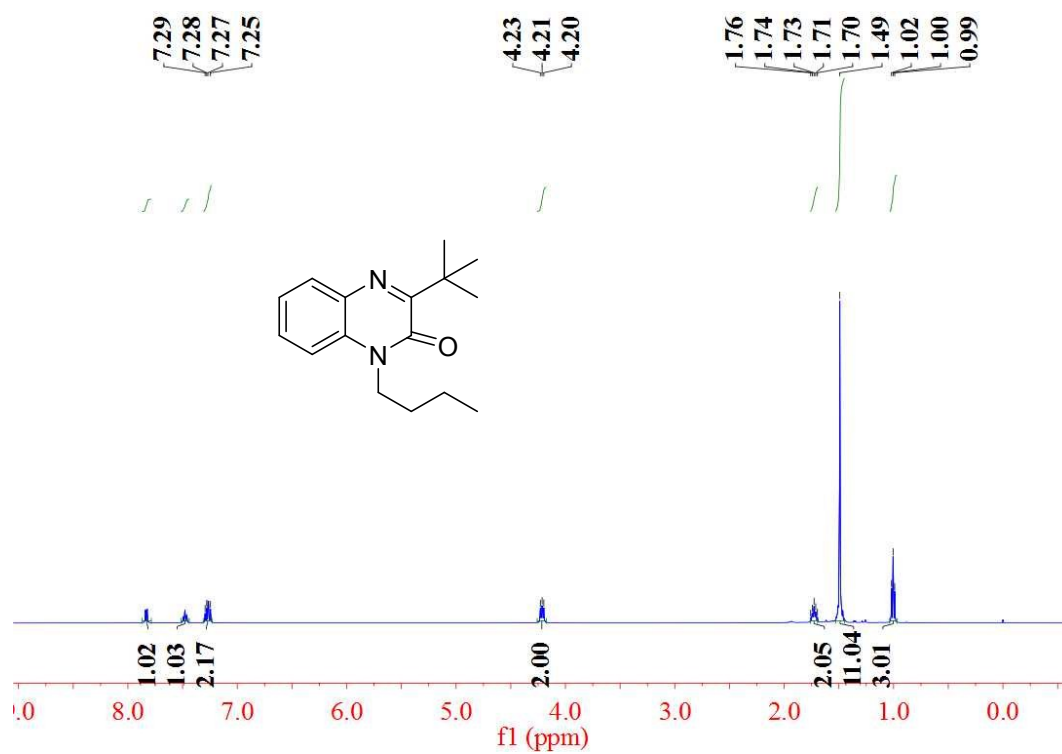
3ad ^1H NMR



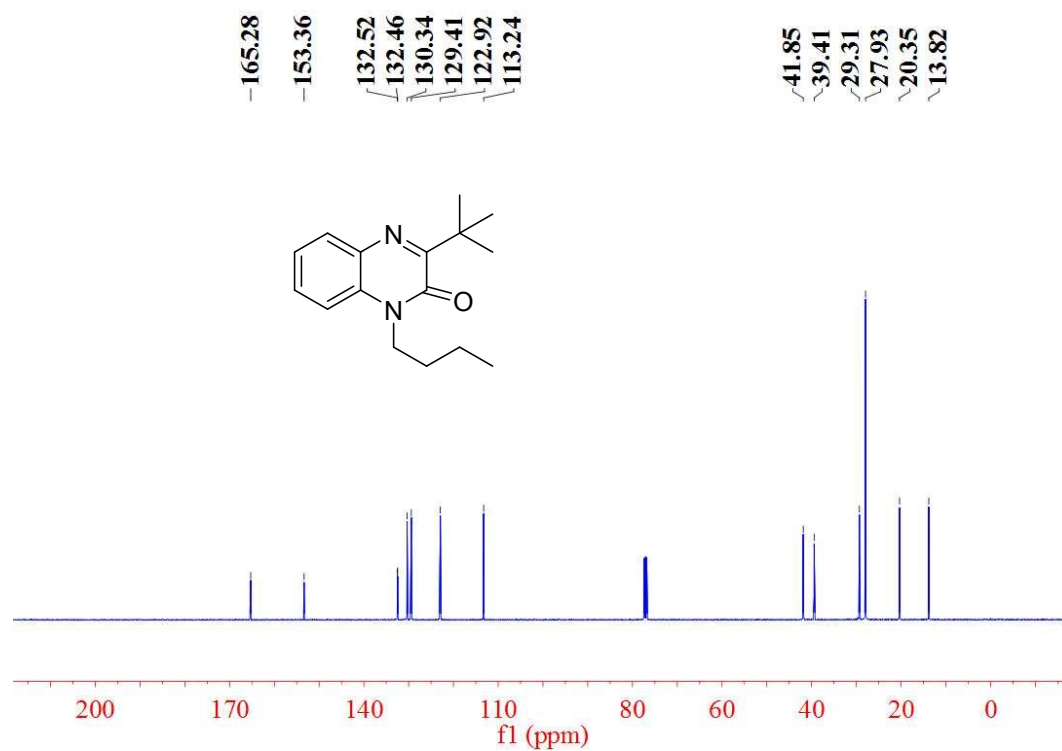
3ad ^{13}C NMR



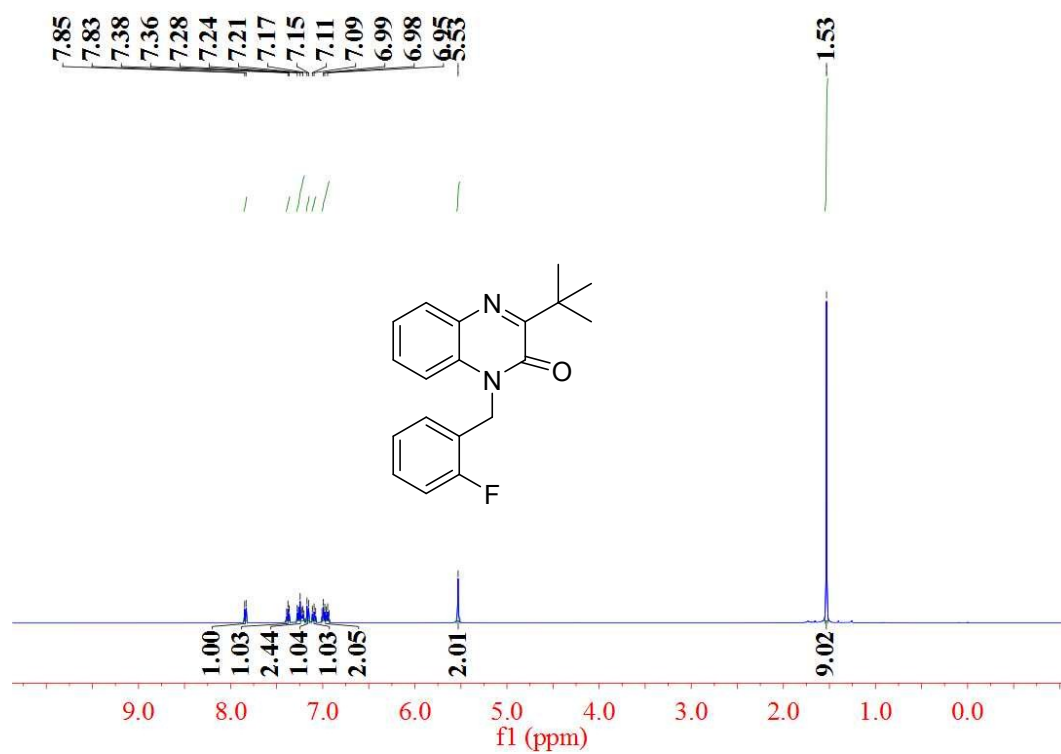
3ae ^1H NMR



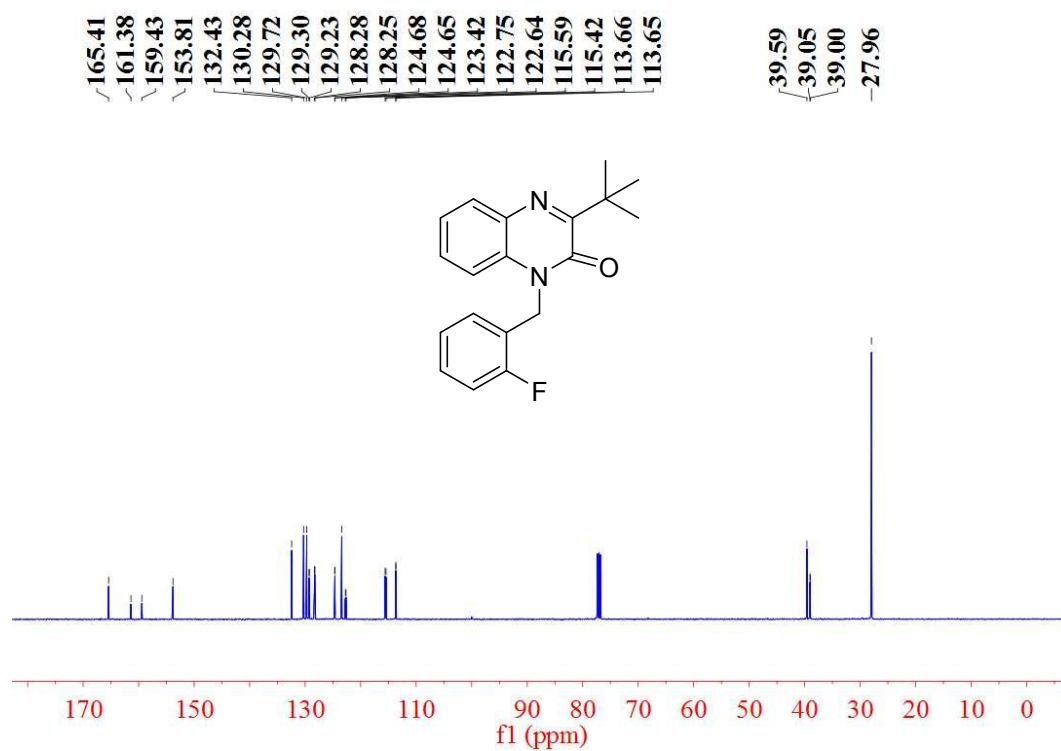
3ae ^{13}C NMR



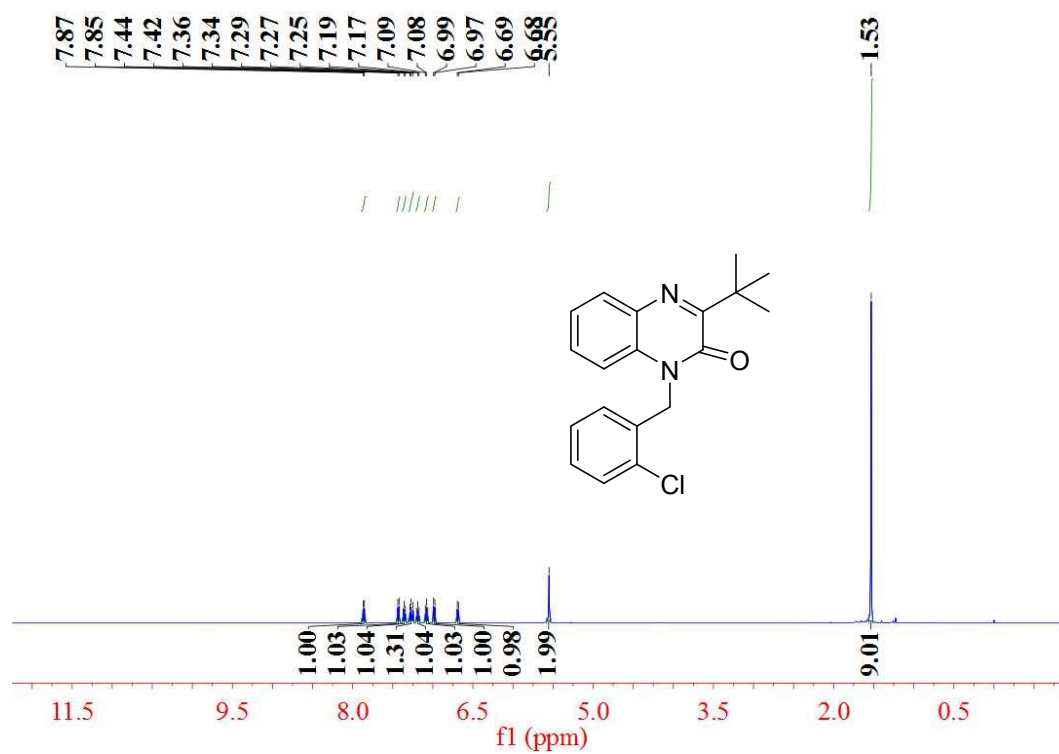
3af ^1H NMR



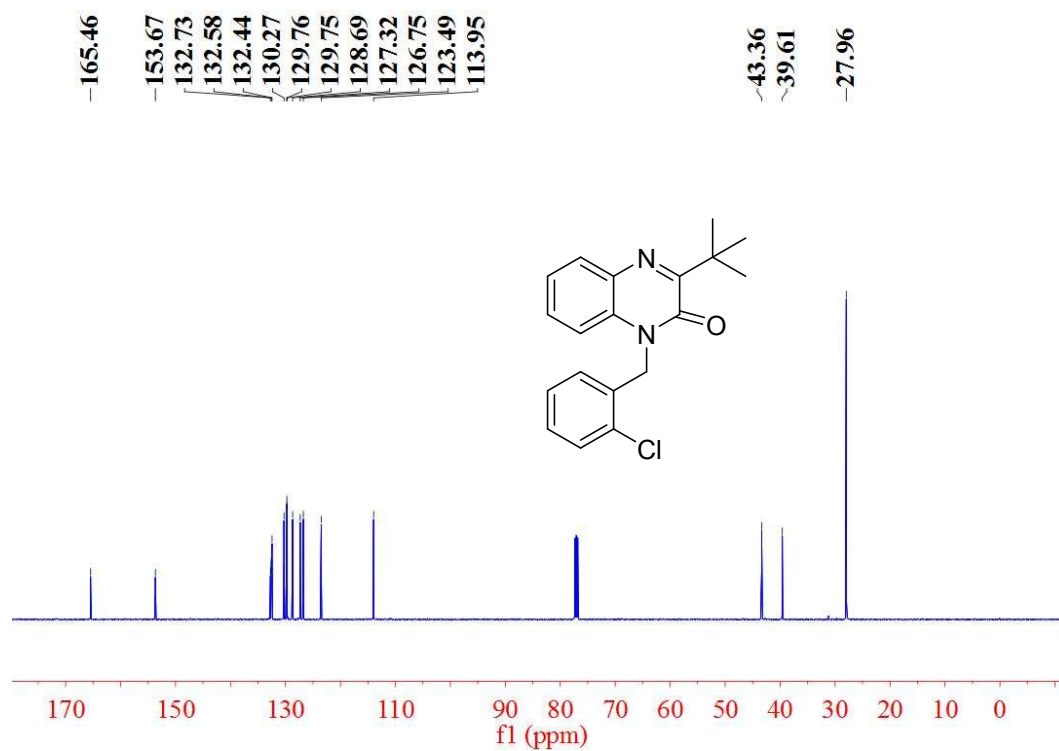
3af ^{13}C NMR



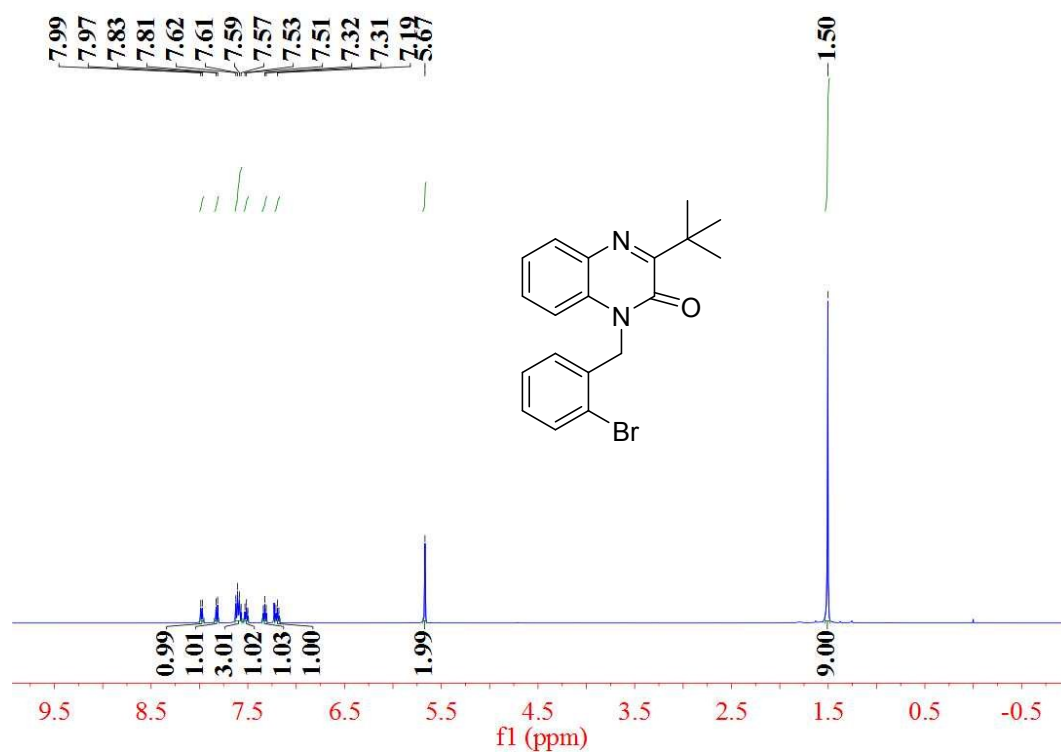
3ag ^1H NMR



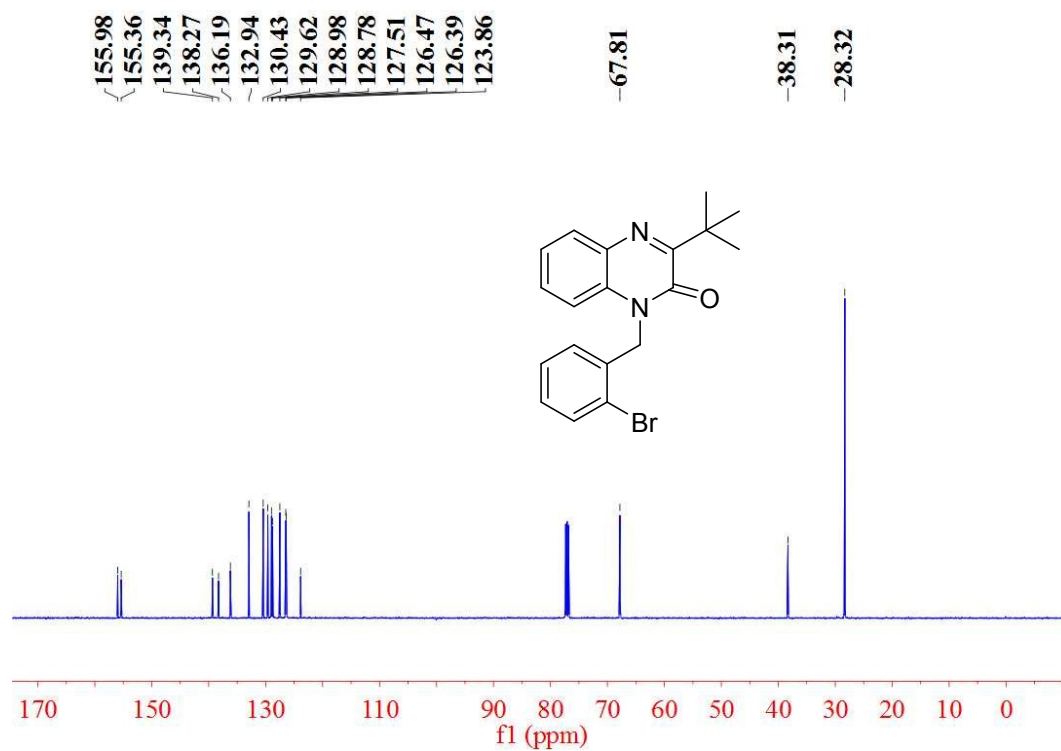
3ag ^{13}C NMR



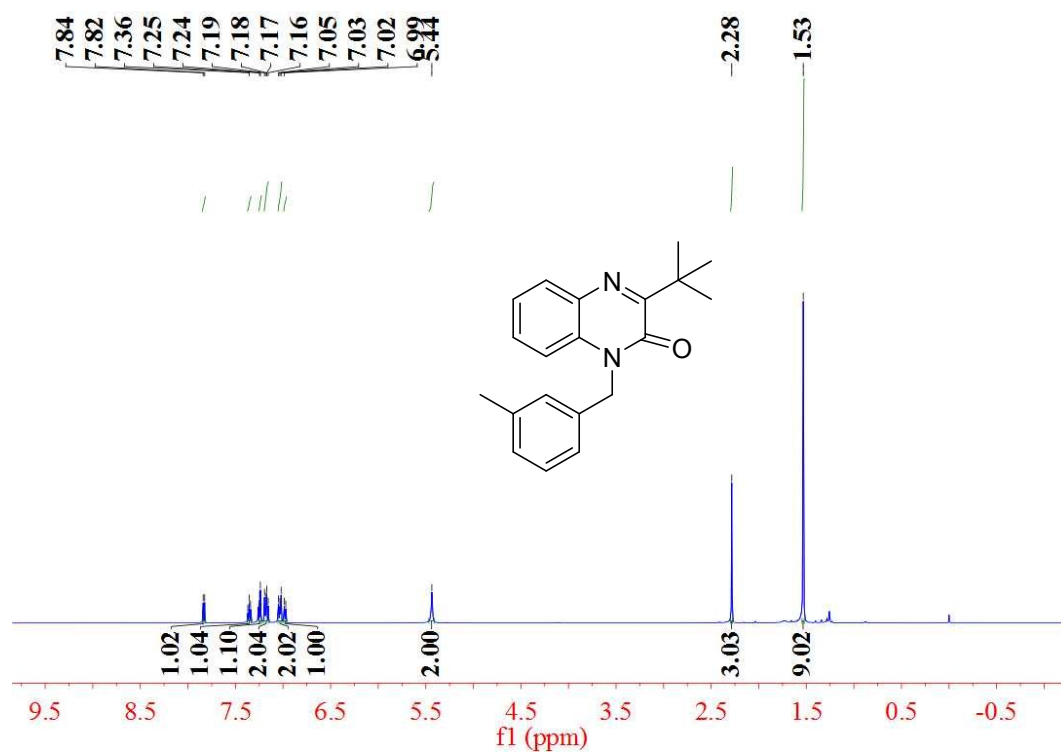
3ah ^1H NMR



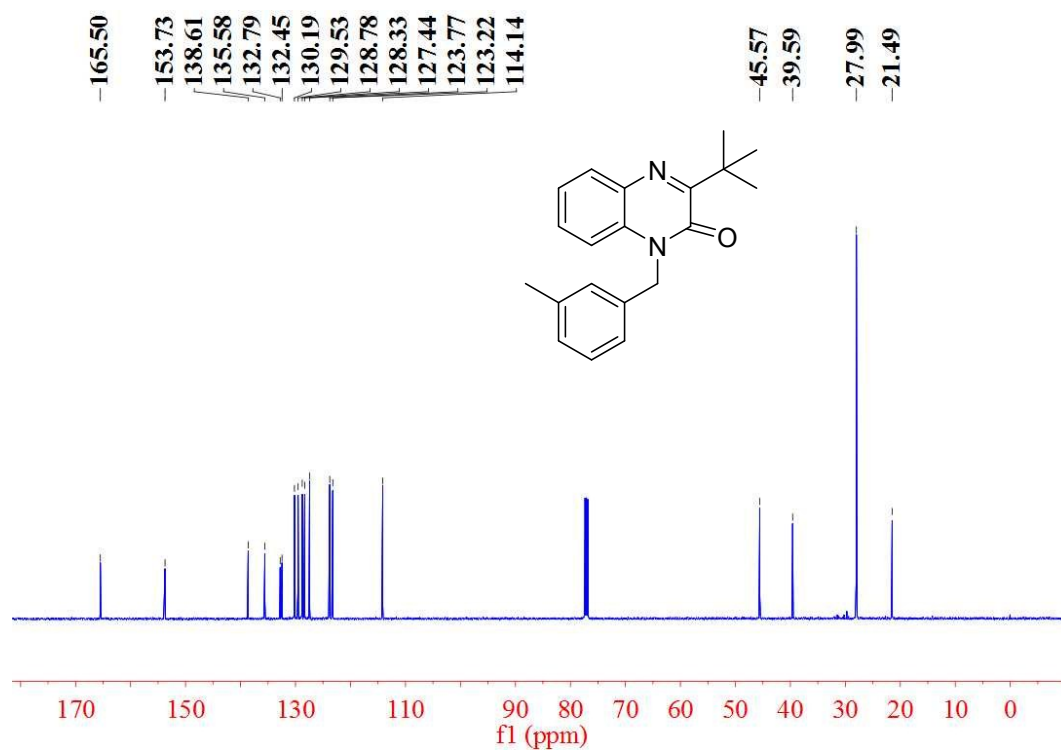
3ah ^{13}C NMR



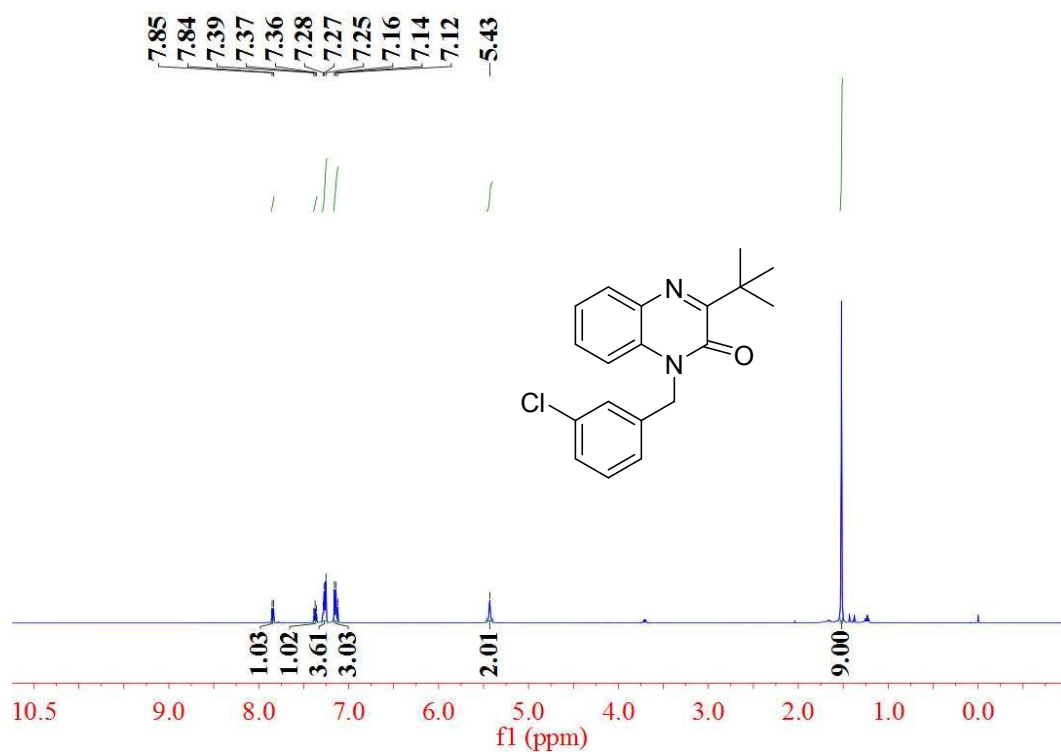
3ai ^1H NMR



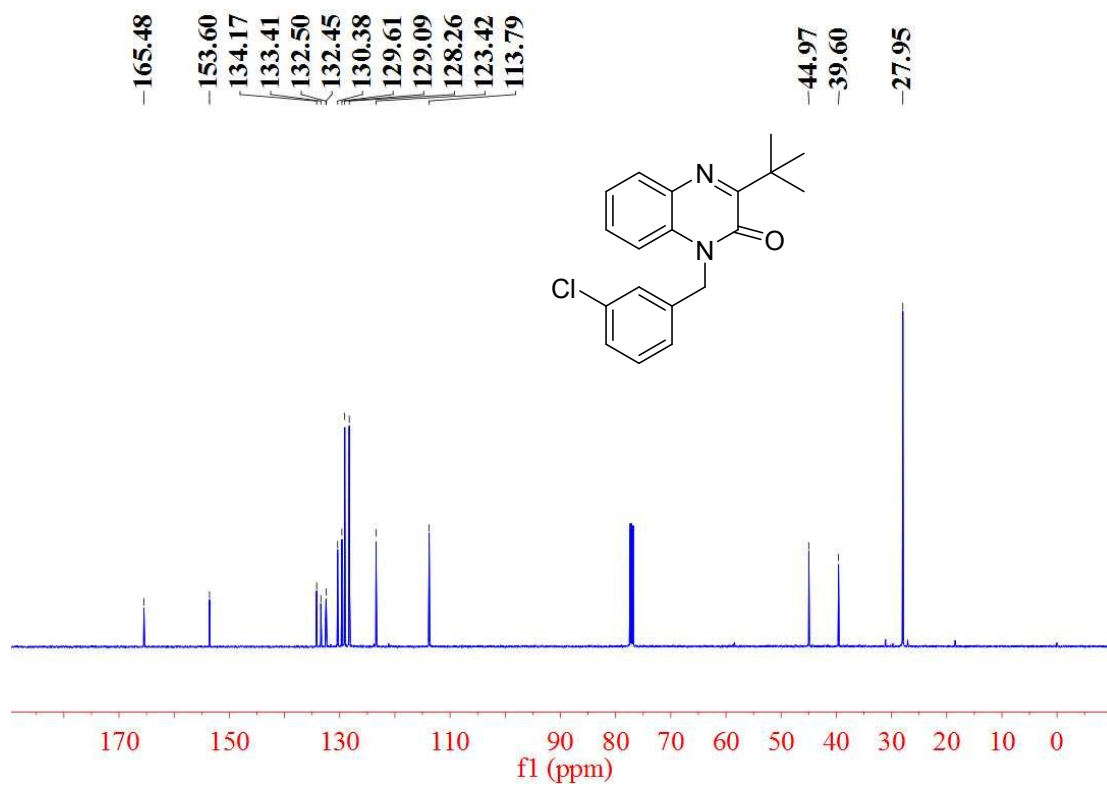
3ai ^{13}C NMR



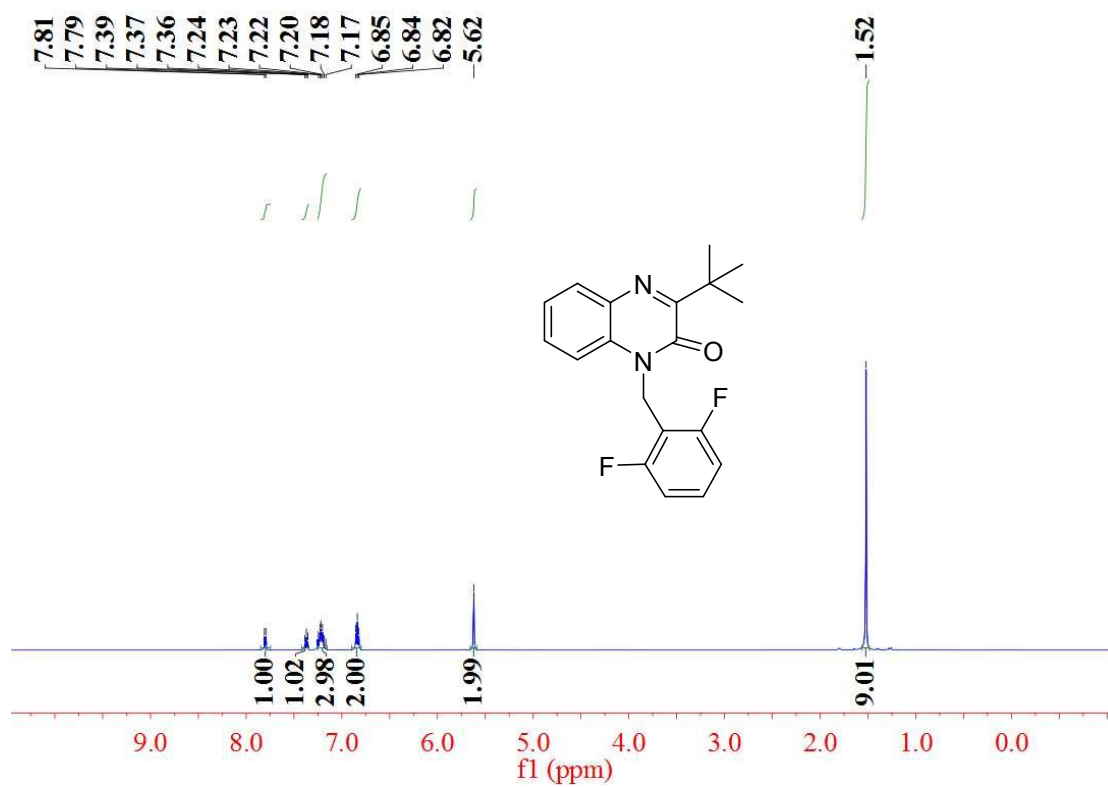
3aj ^1H NMR



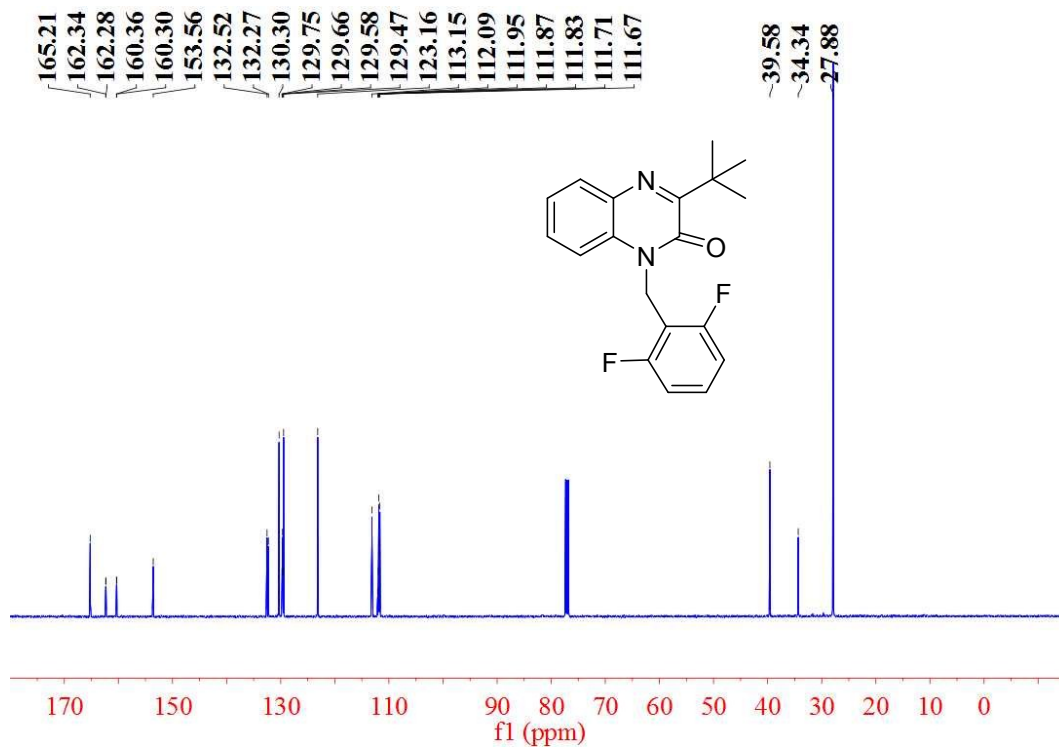
3aj ^{13}C NMR



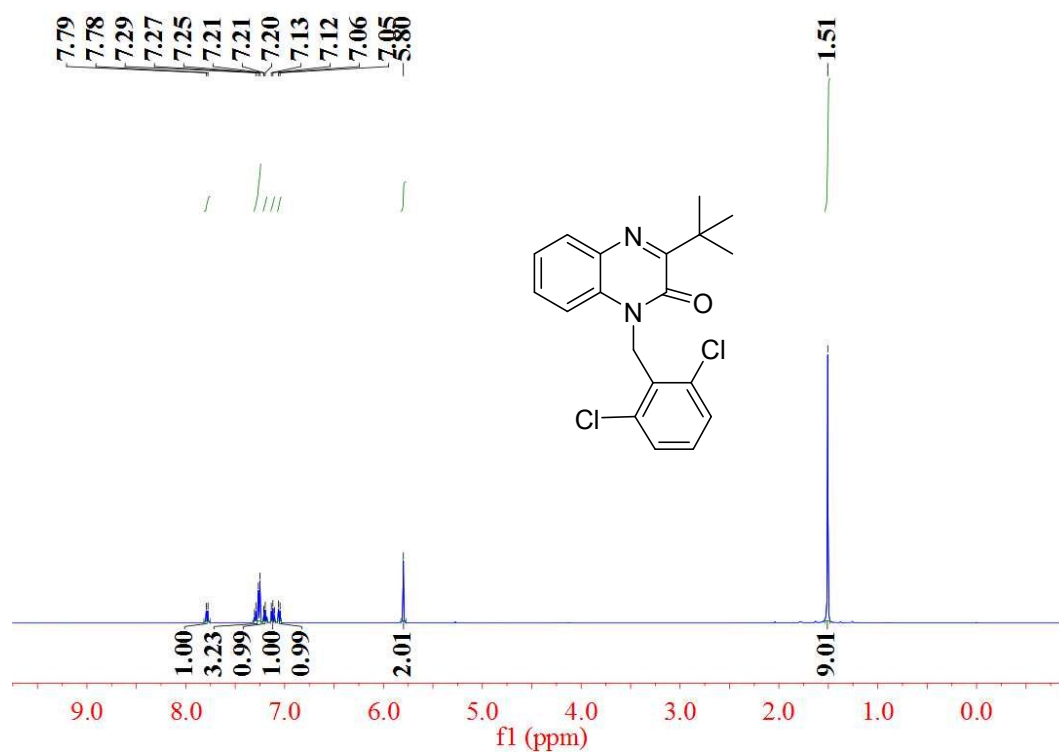
3ak ^1H NMR



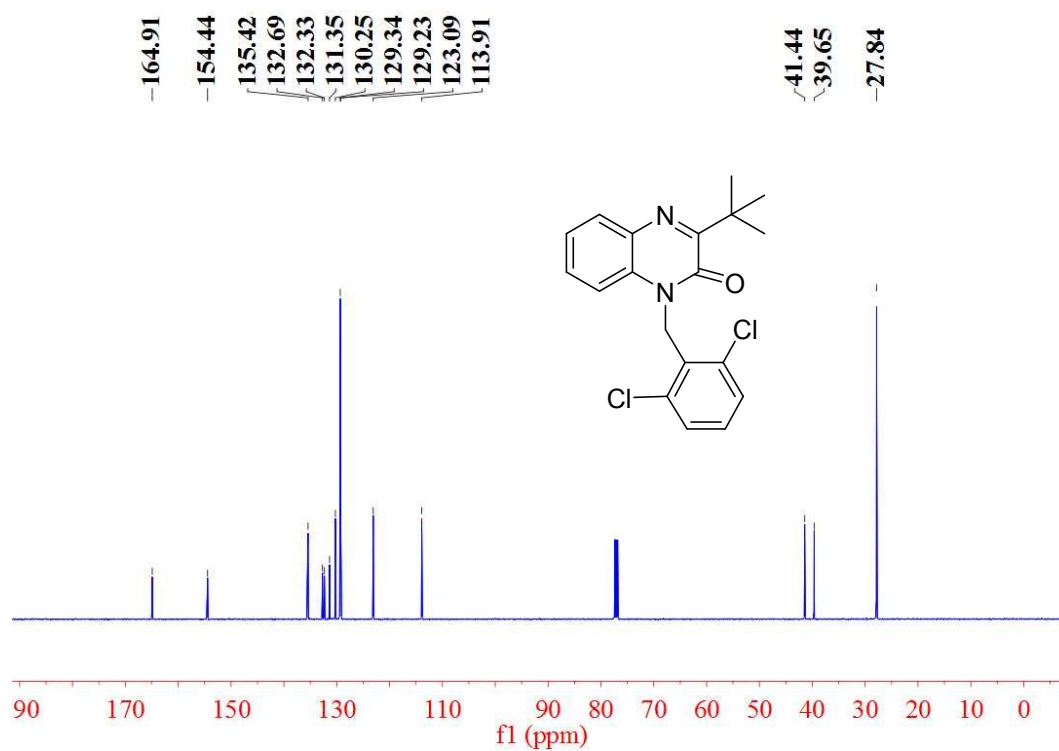
3ak ^{13}C NMR



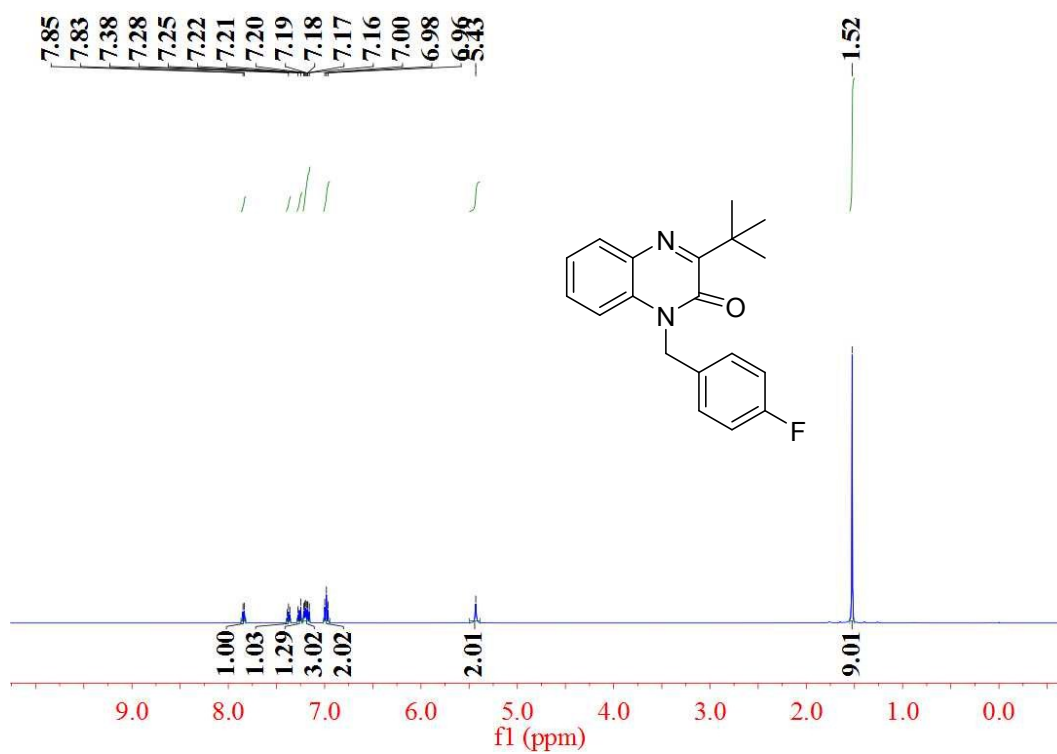
3al ^1H NMR



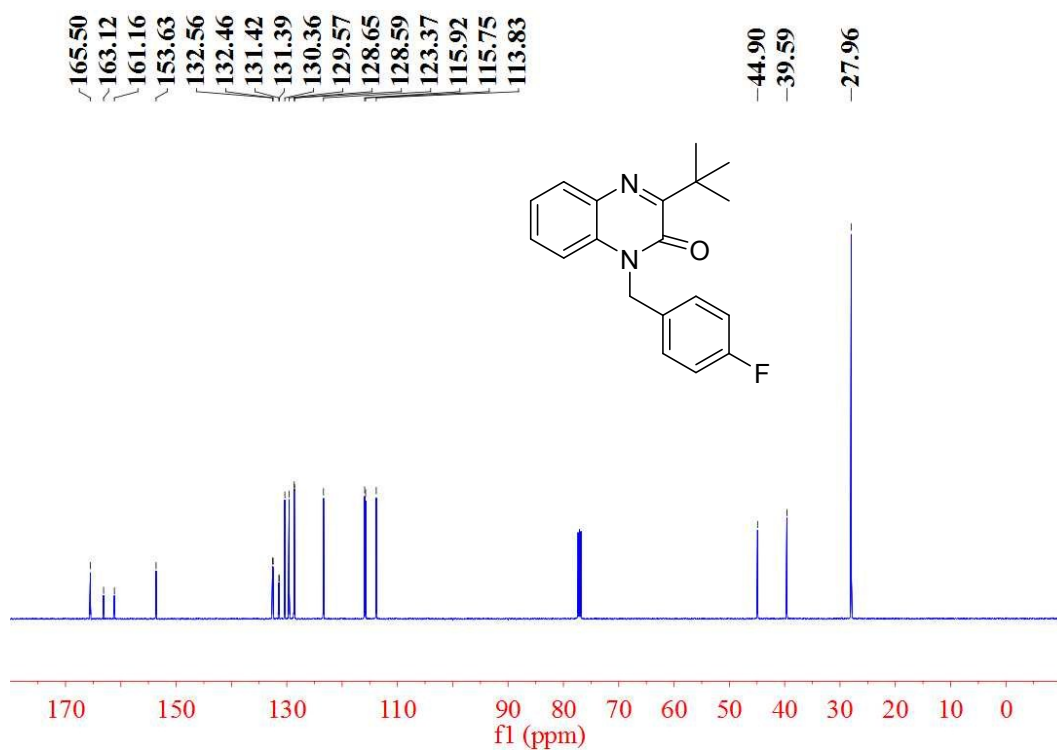
3al ^{13}C NMR



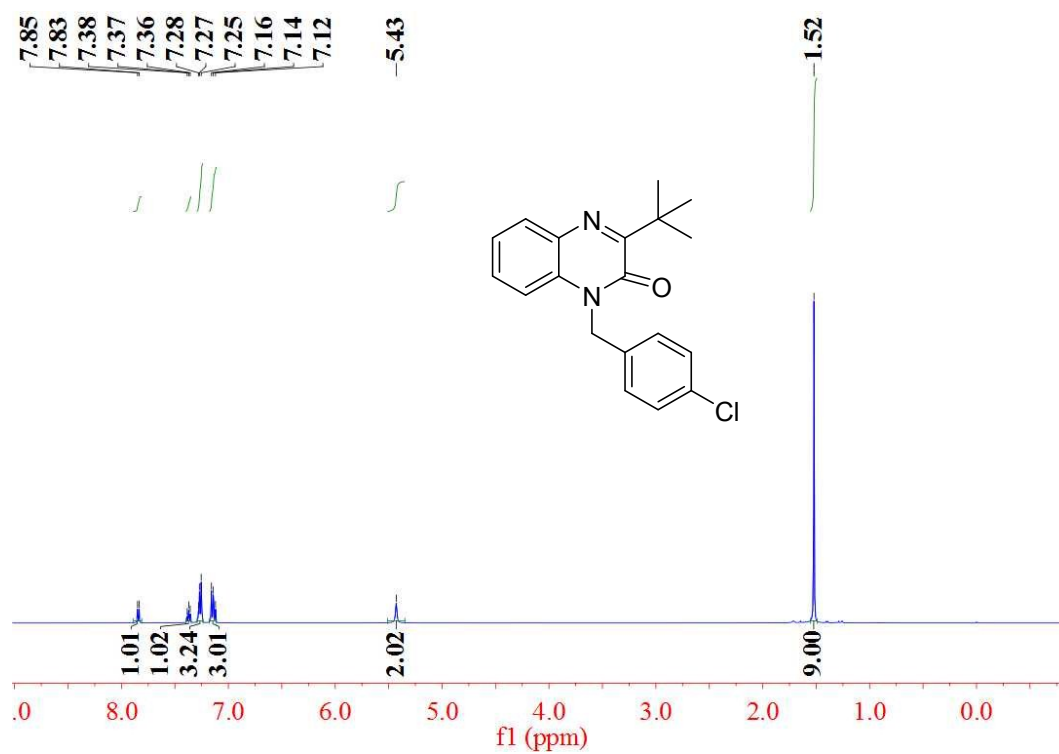
3am ^1H NMR



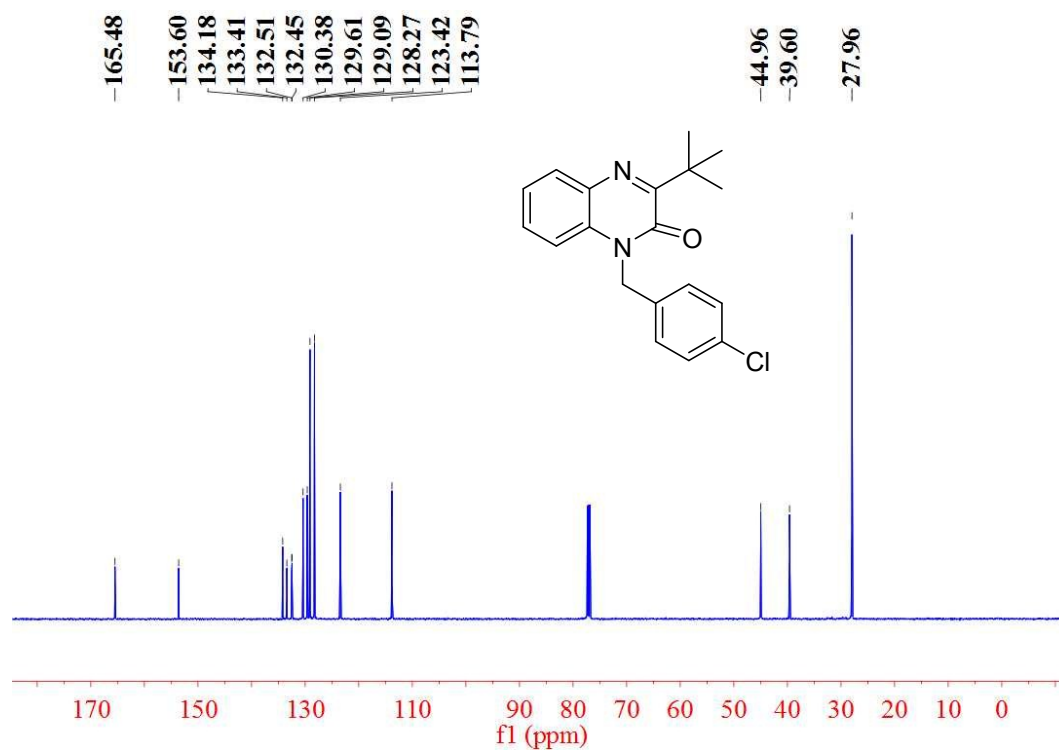
3am ^{13}C NMR



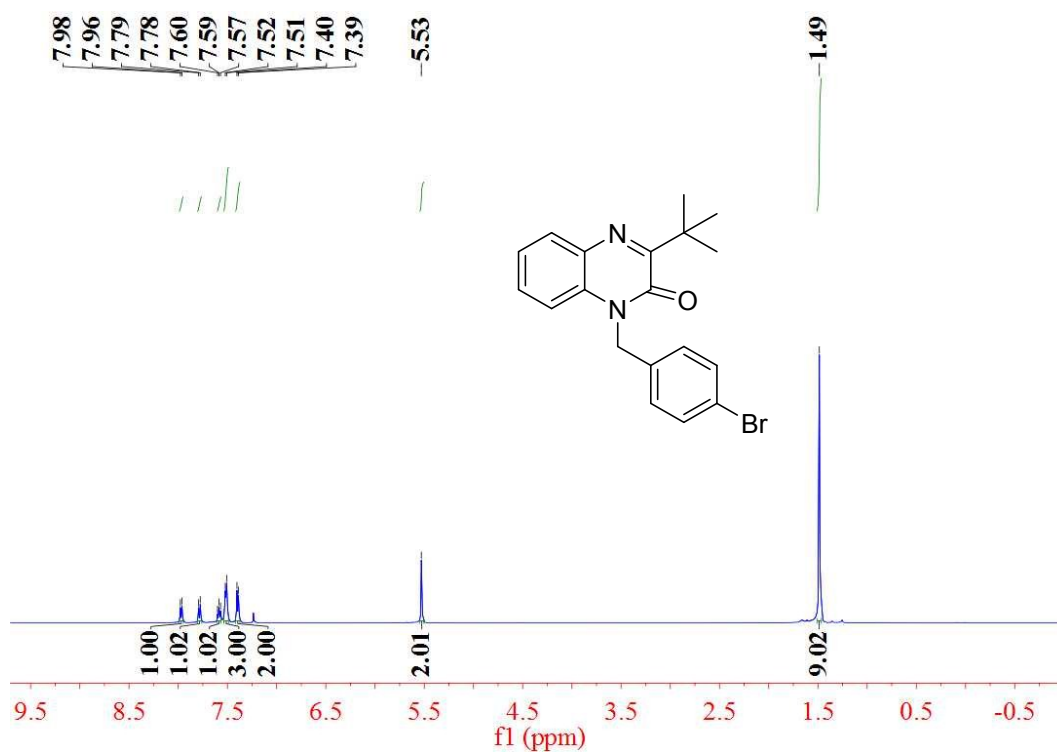
3an ^1H NMR



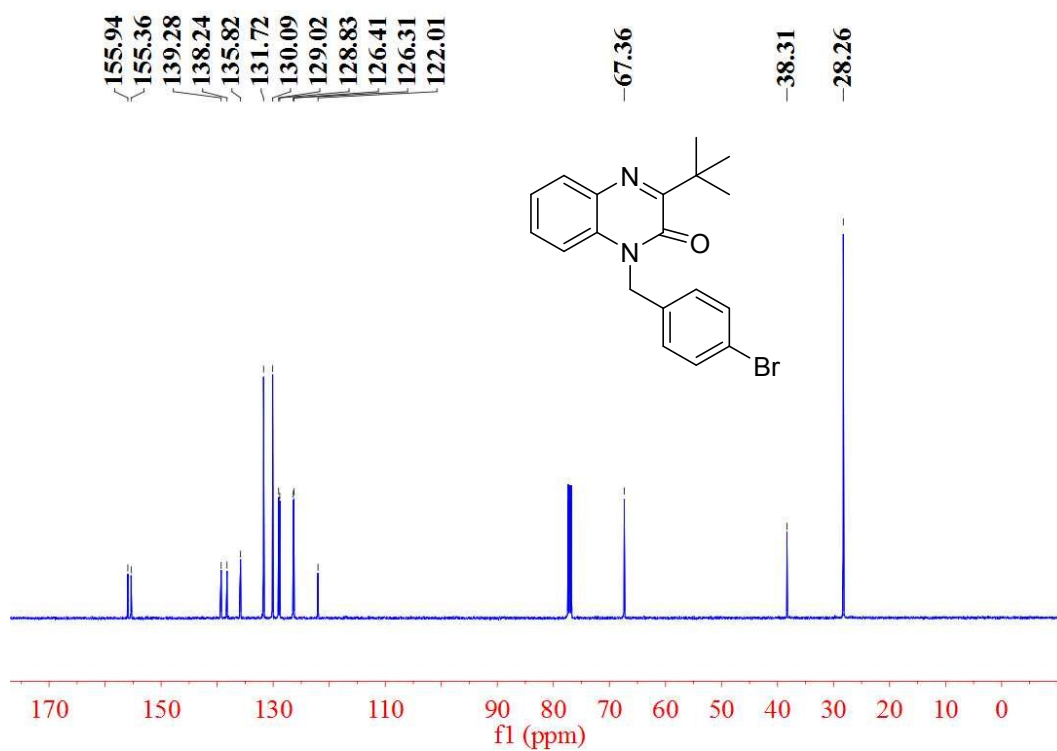
3an ^{13}C NMR



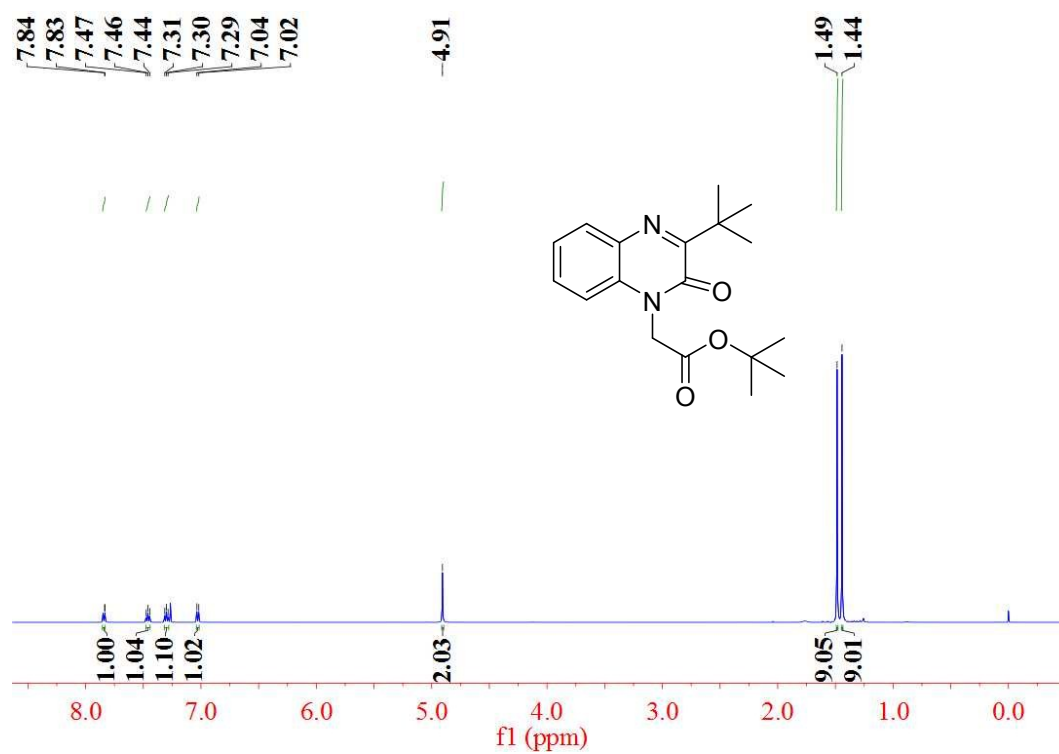
3ao ^1H NMR



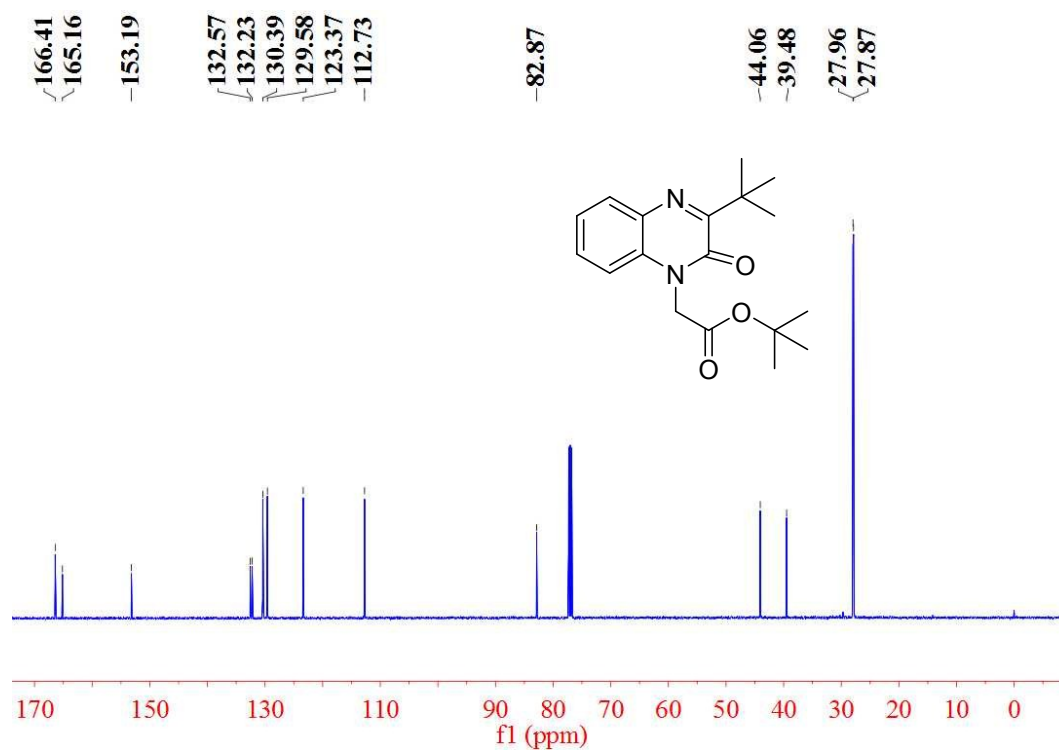
3ao ^{13}C NMR



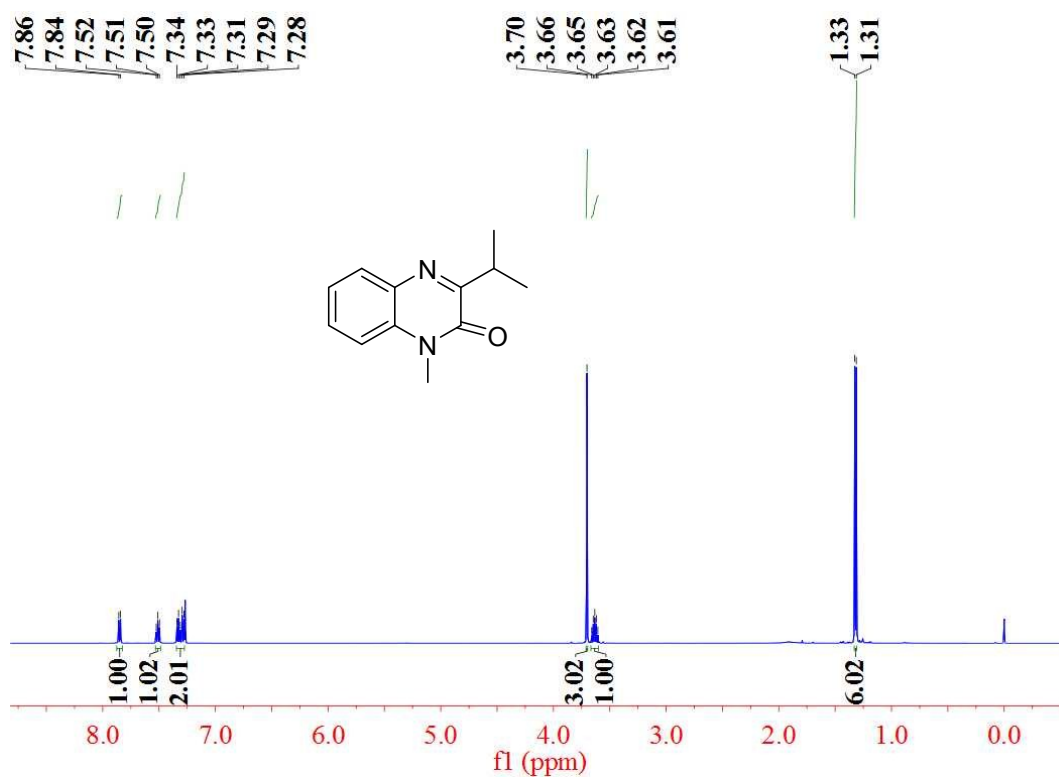
3ap ¹H NMR



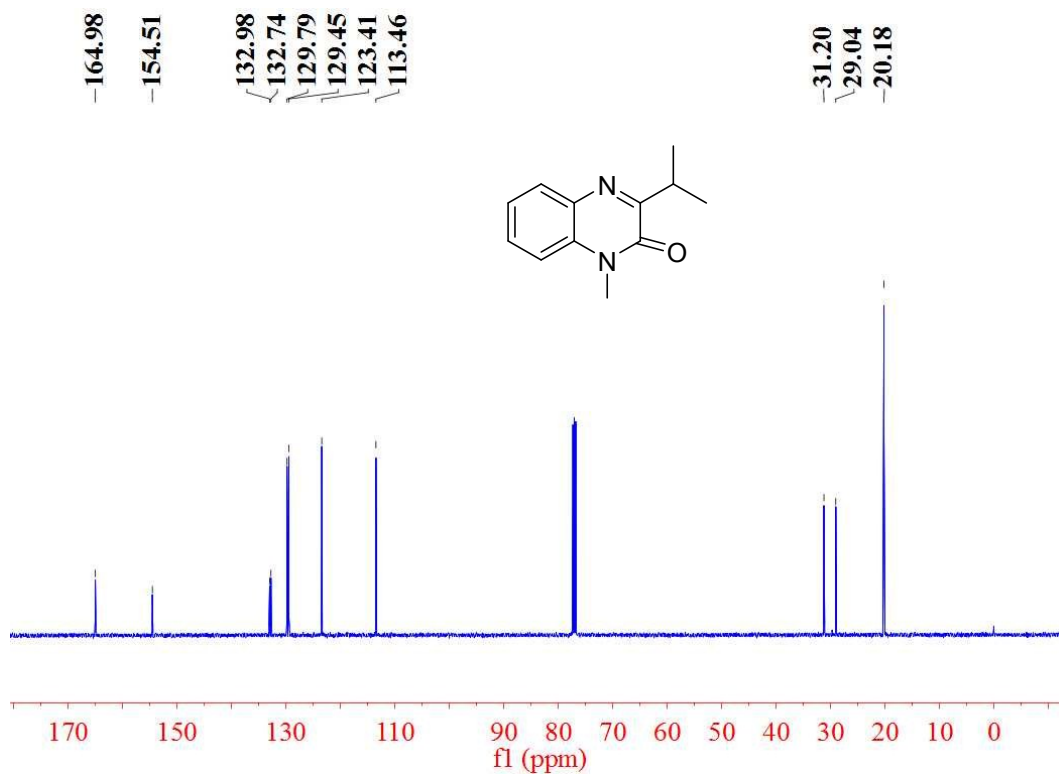
3ap ¹³C NMR



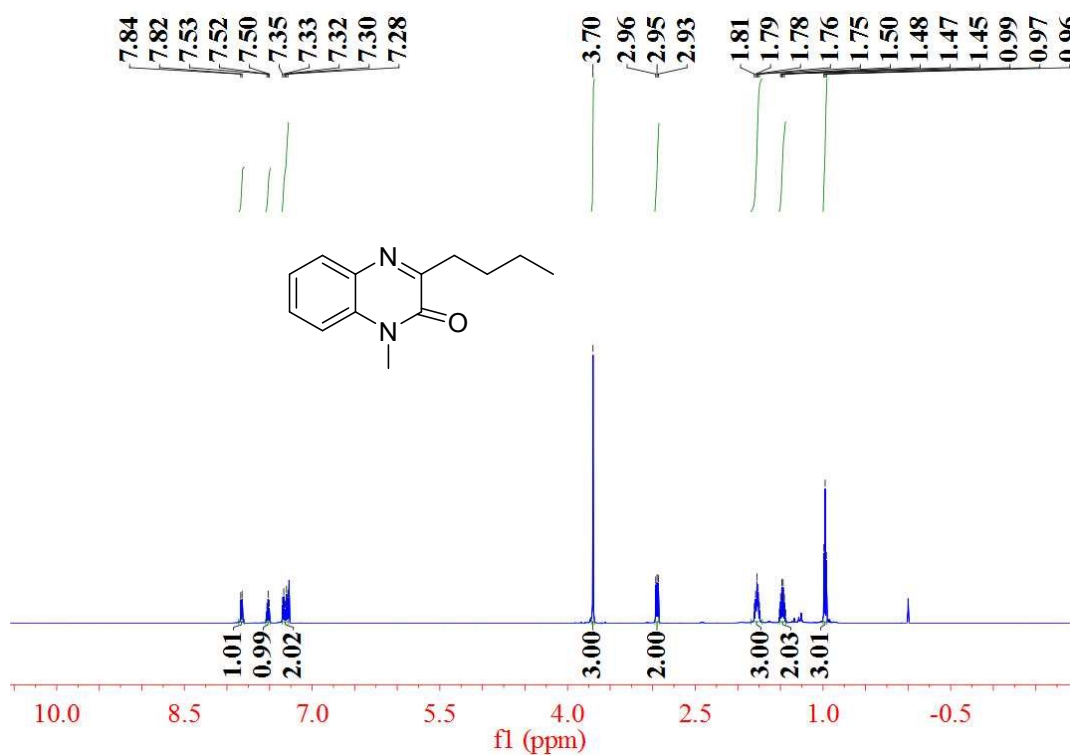
3ba ^1H NMR



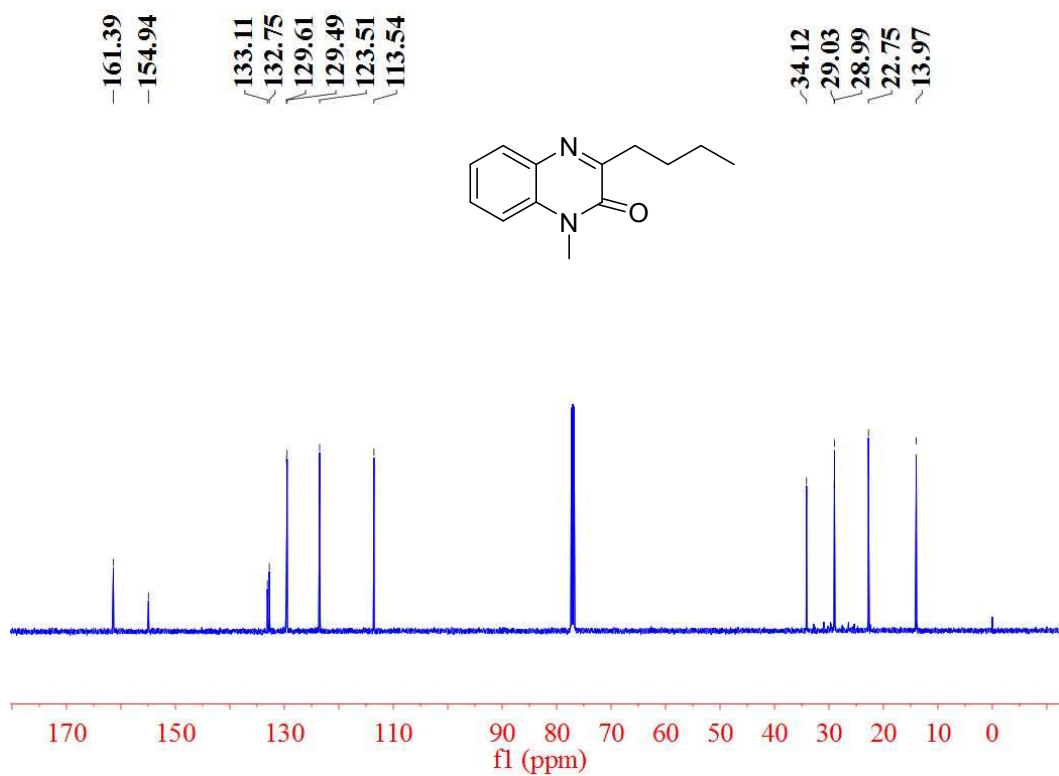
3ba ^{13}C NMR



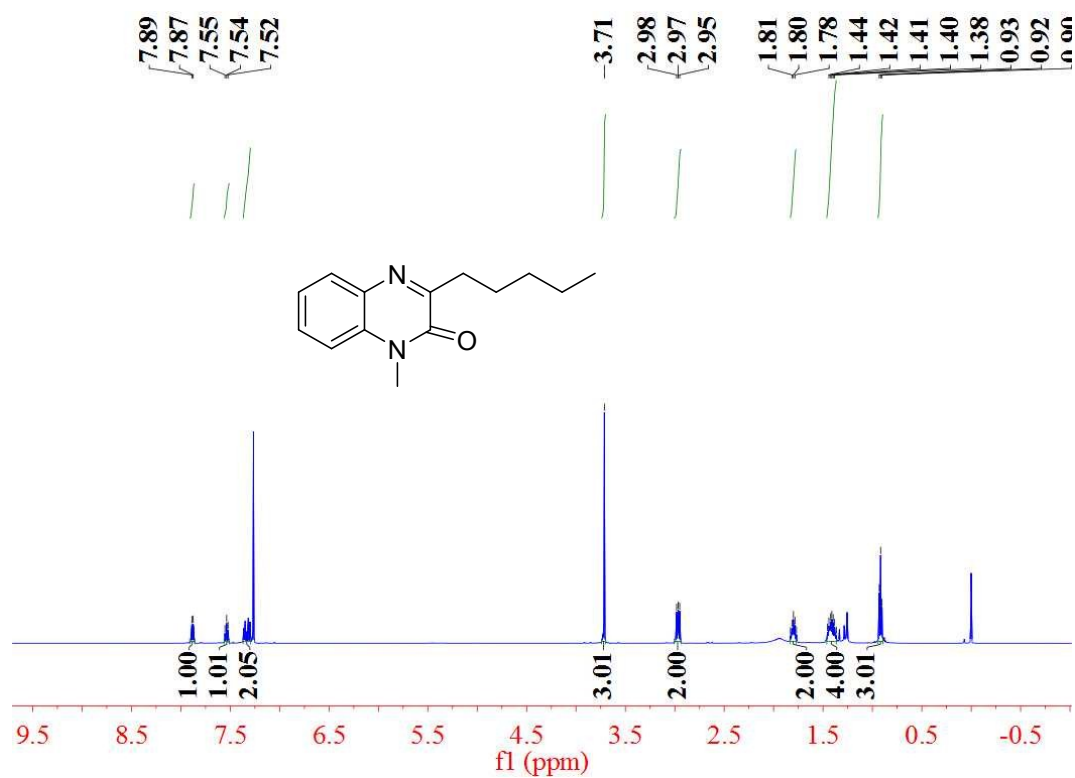
3ca ^1H NMR



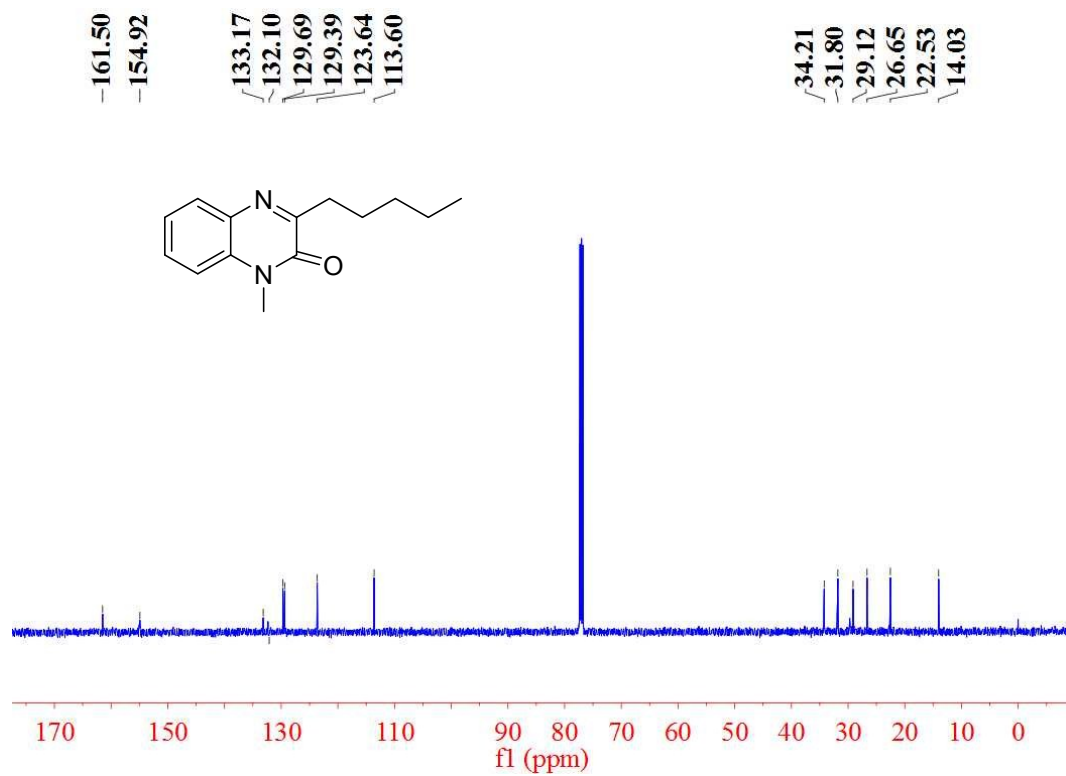
3ca ^{13}C NMR



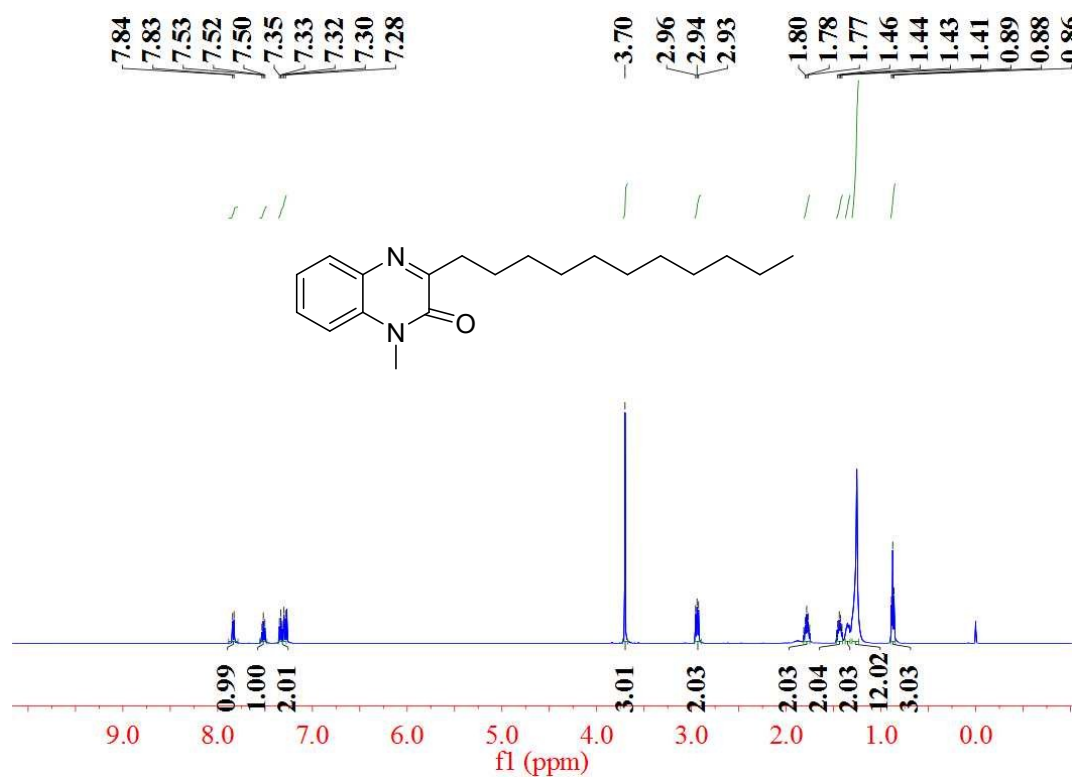
3da ¹H NMR



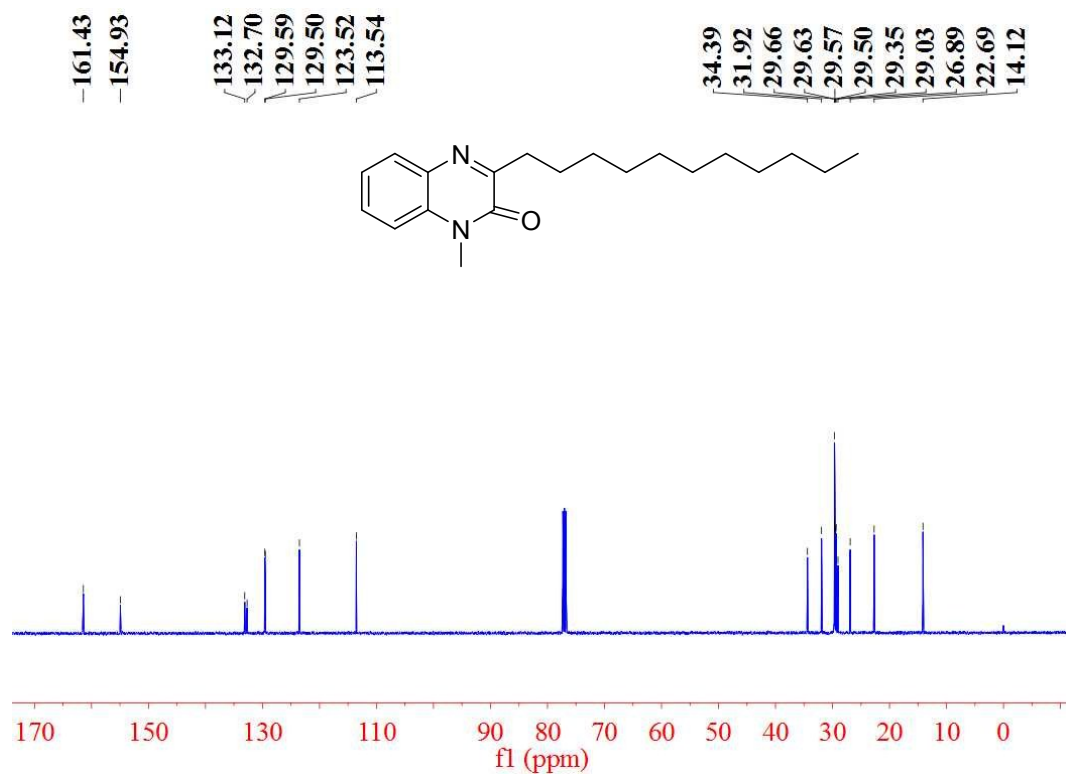
3da ¹³C NMR



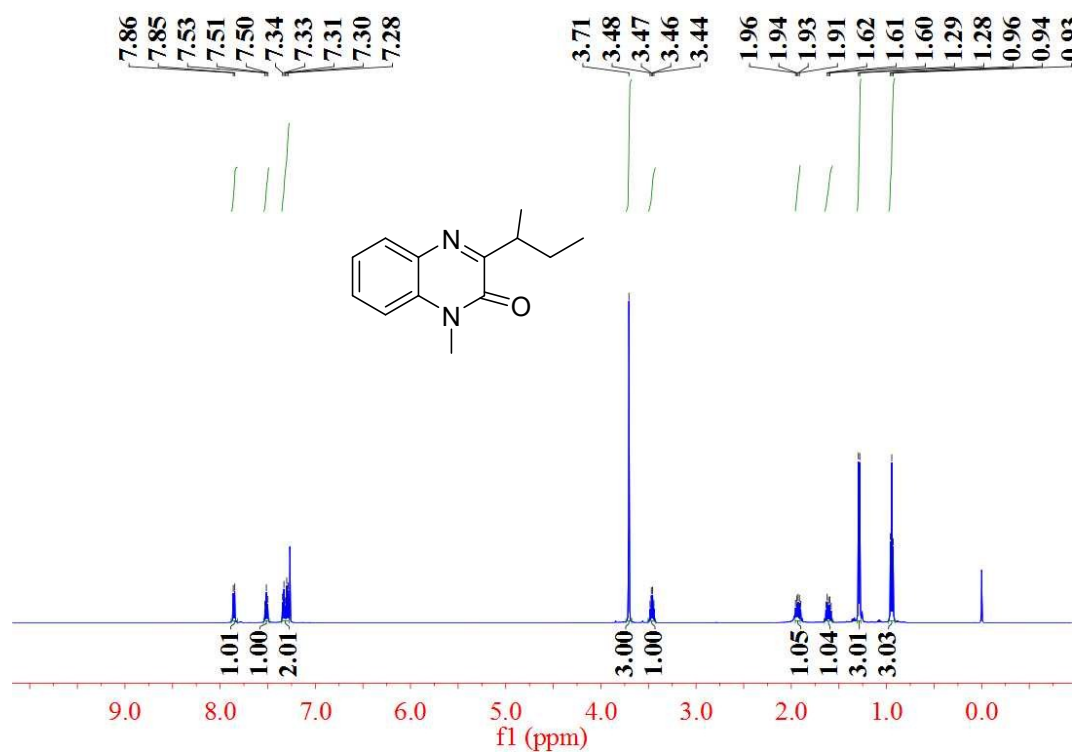
3ea ¹H NMR



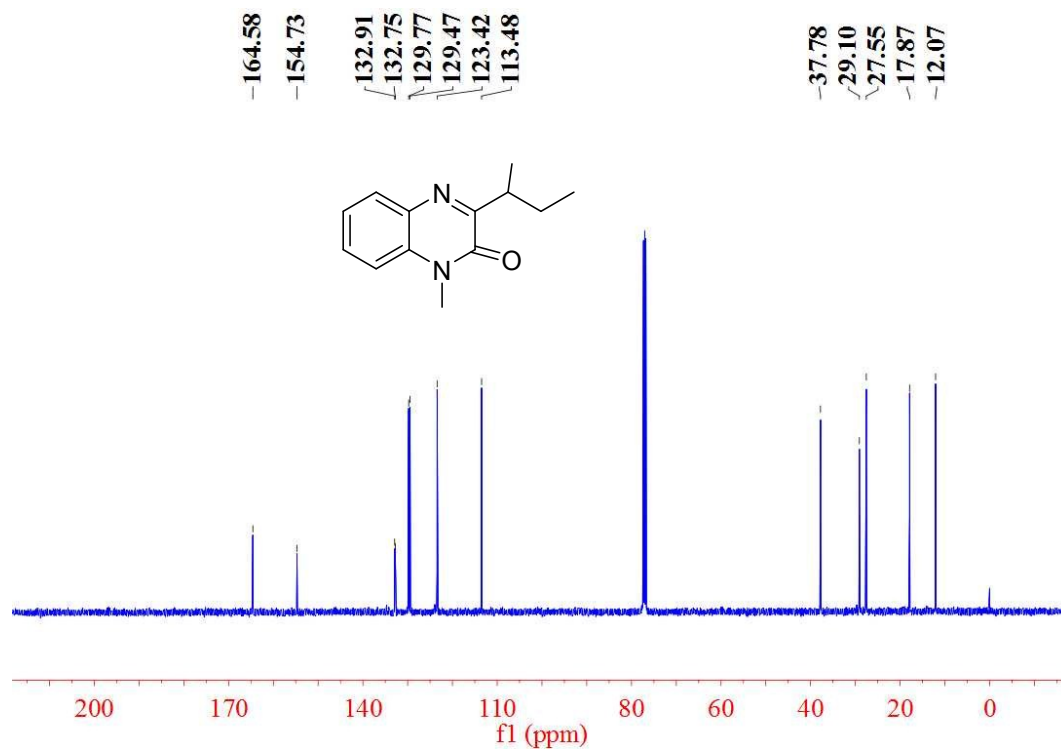
3ea ¹³C NMR



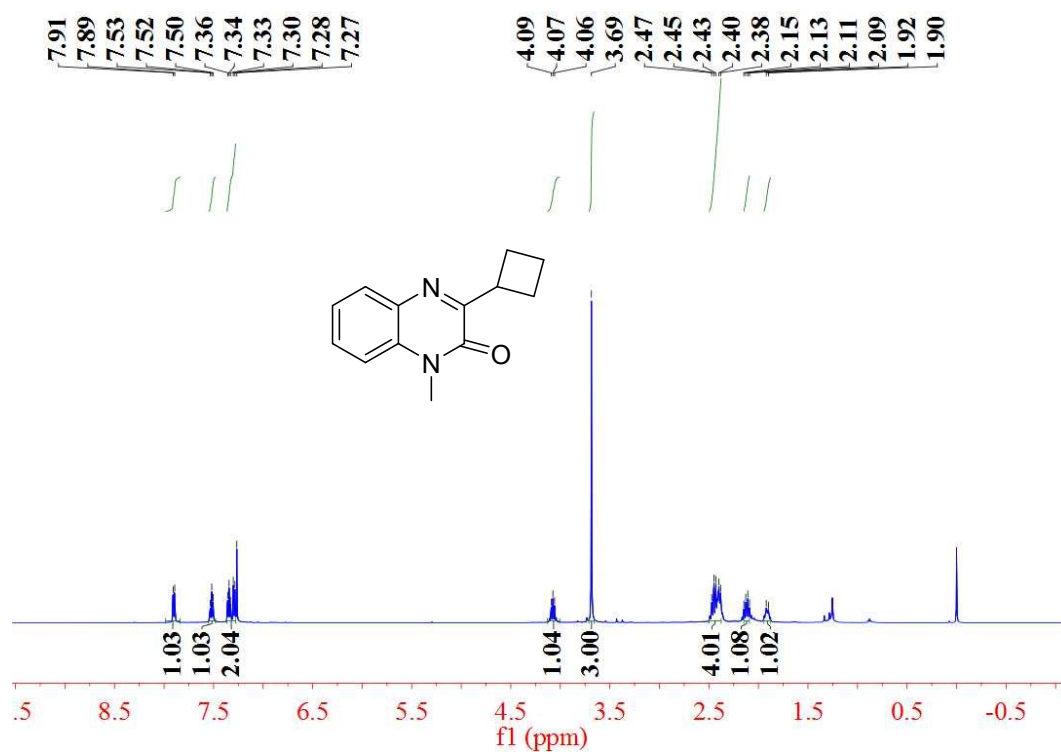
3fa ¹H NMR



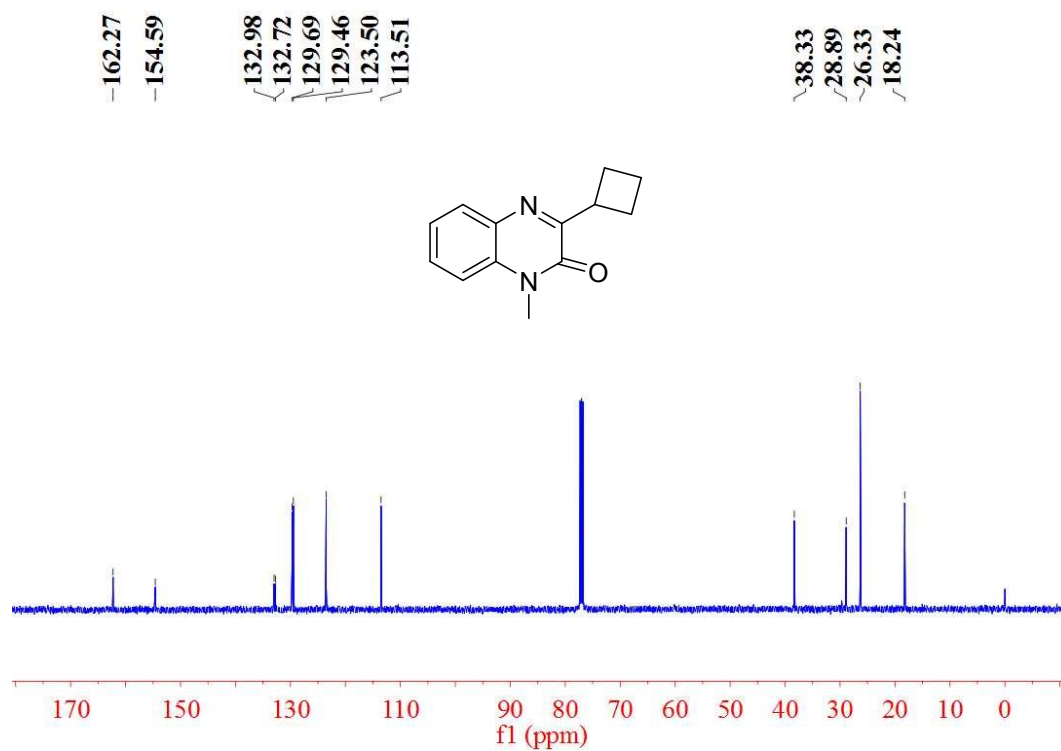
3fa ¹³C NMR



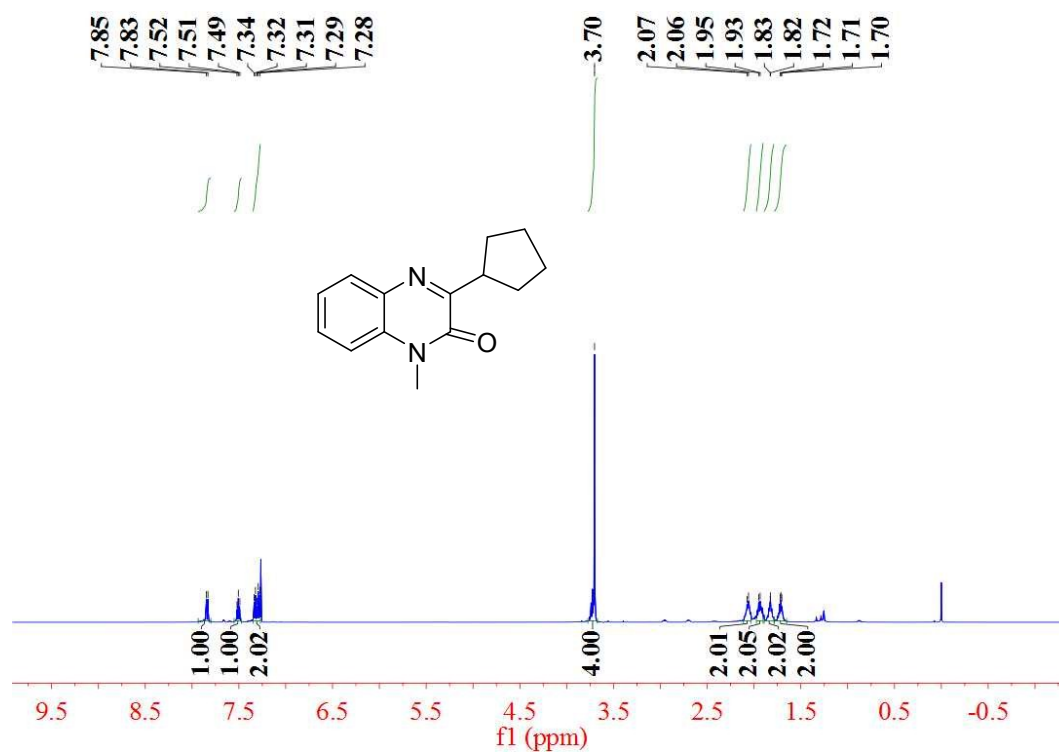
3ga ^1H NMR



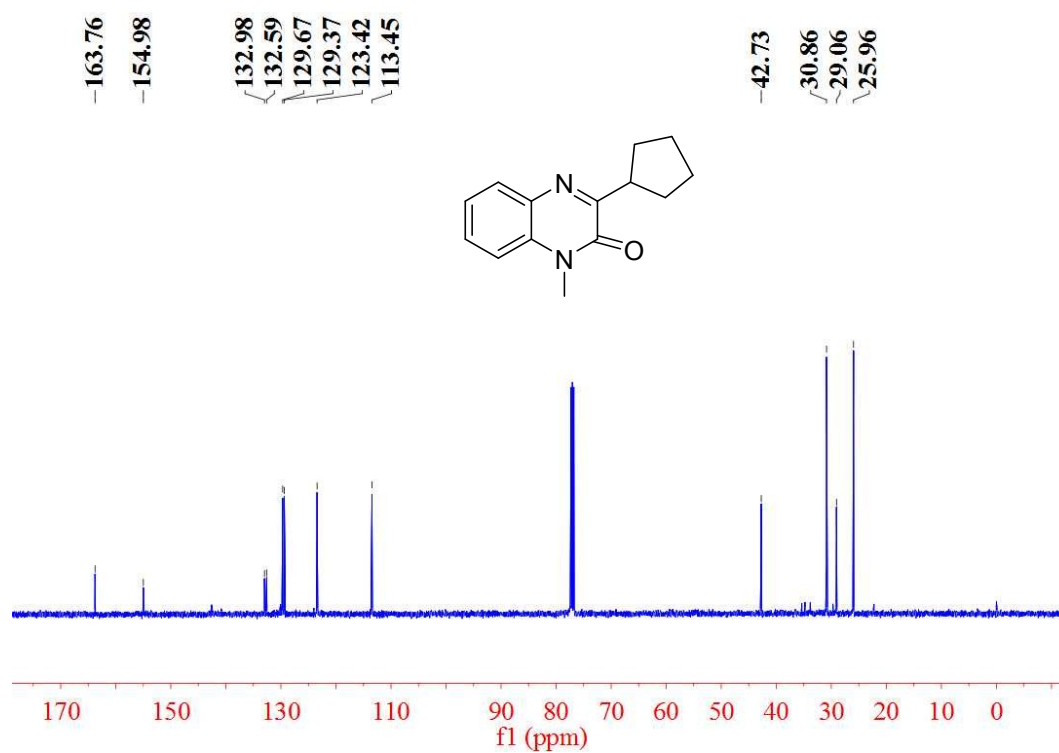
3ga ^{13}C NMR



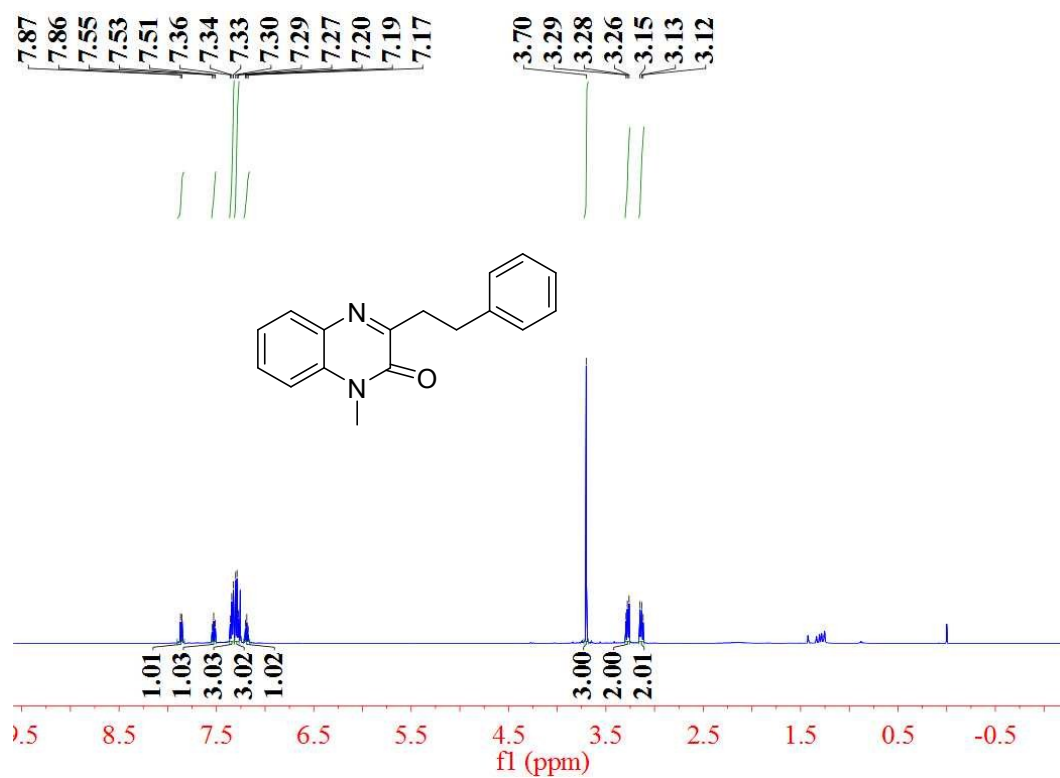
3ha ¹H NMR



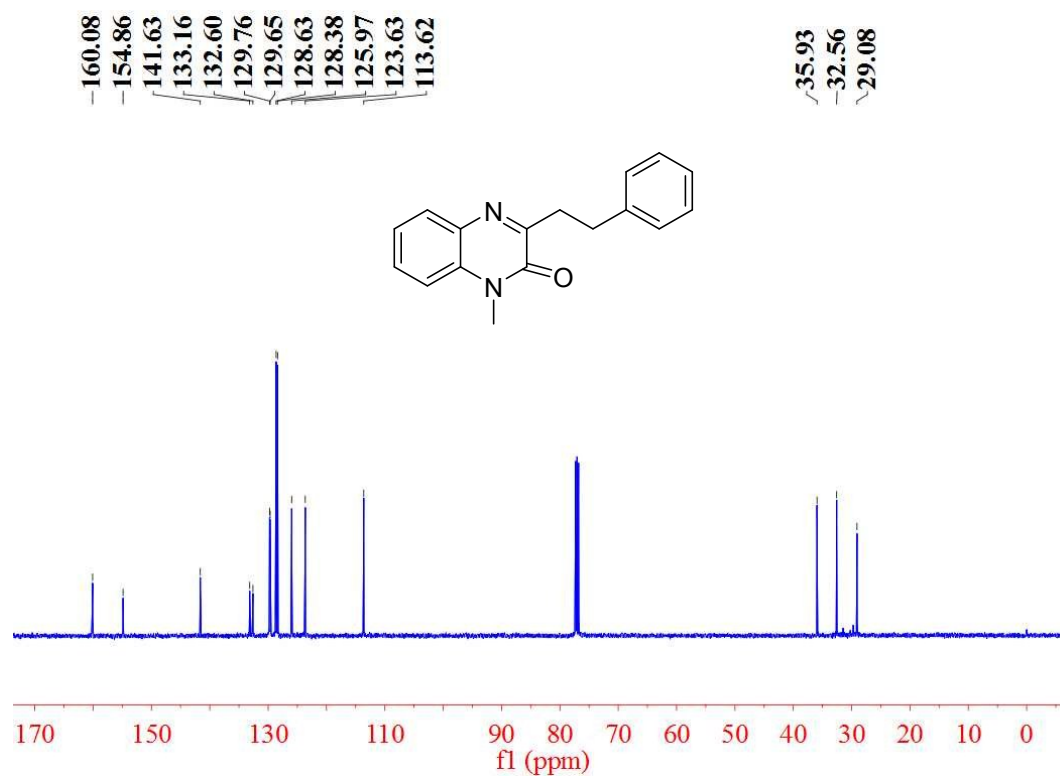
3ha ¹³C NMR



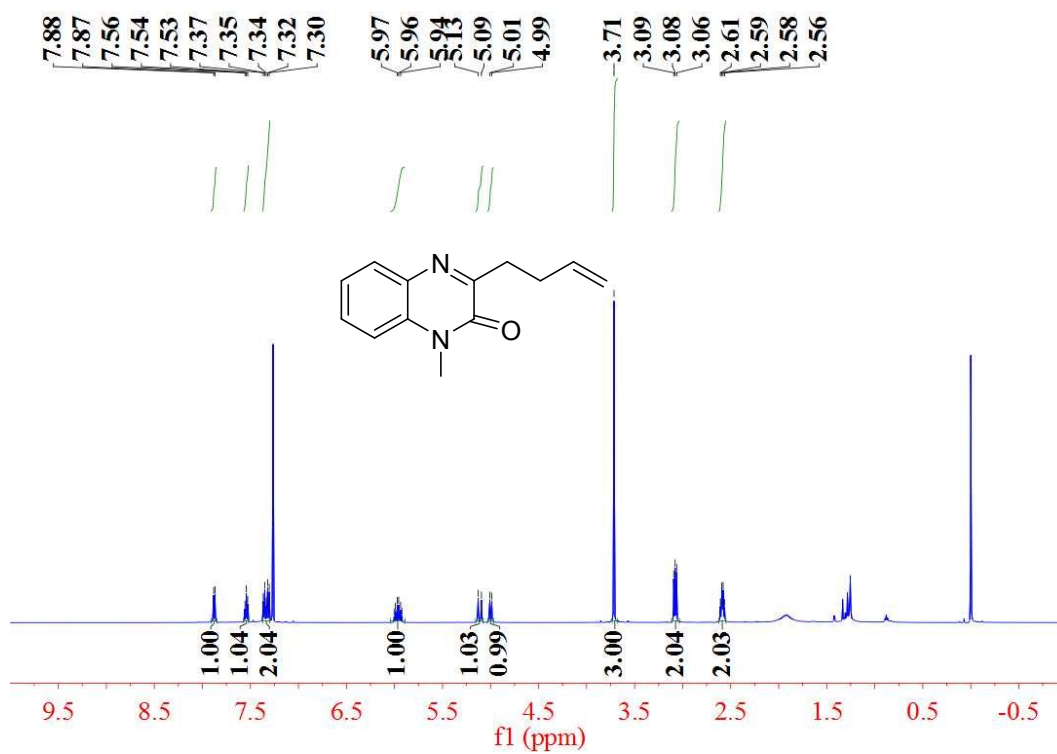
3ia ^1H NMR



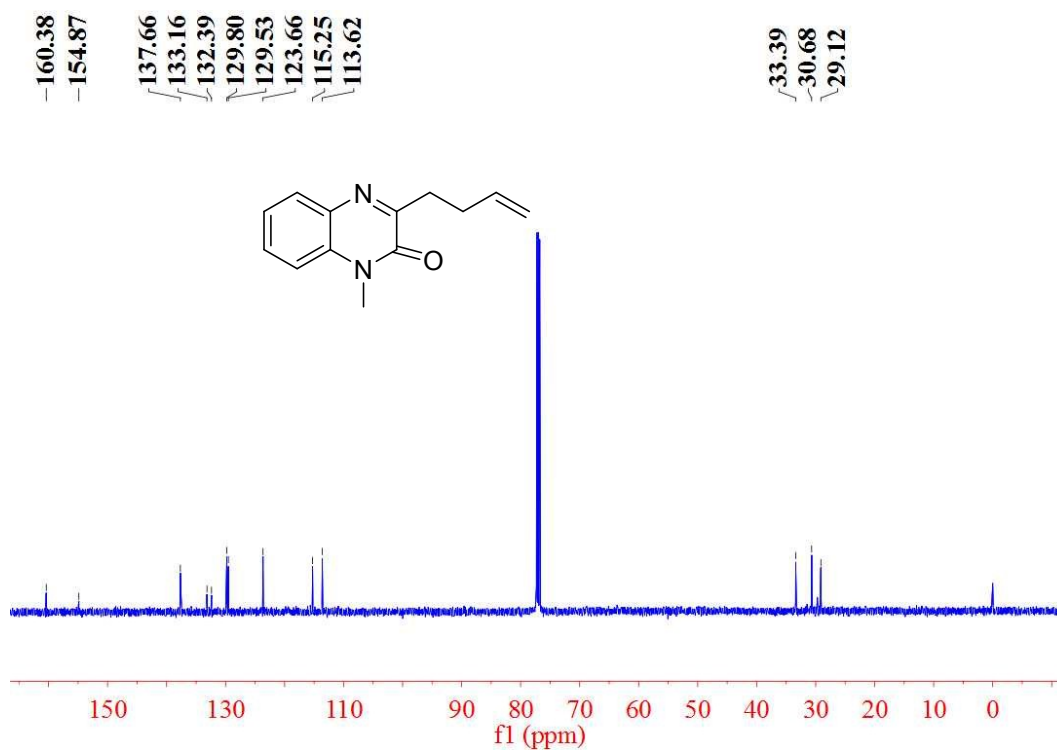
3ia ^{13}C NMR



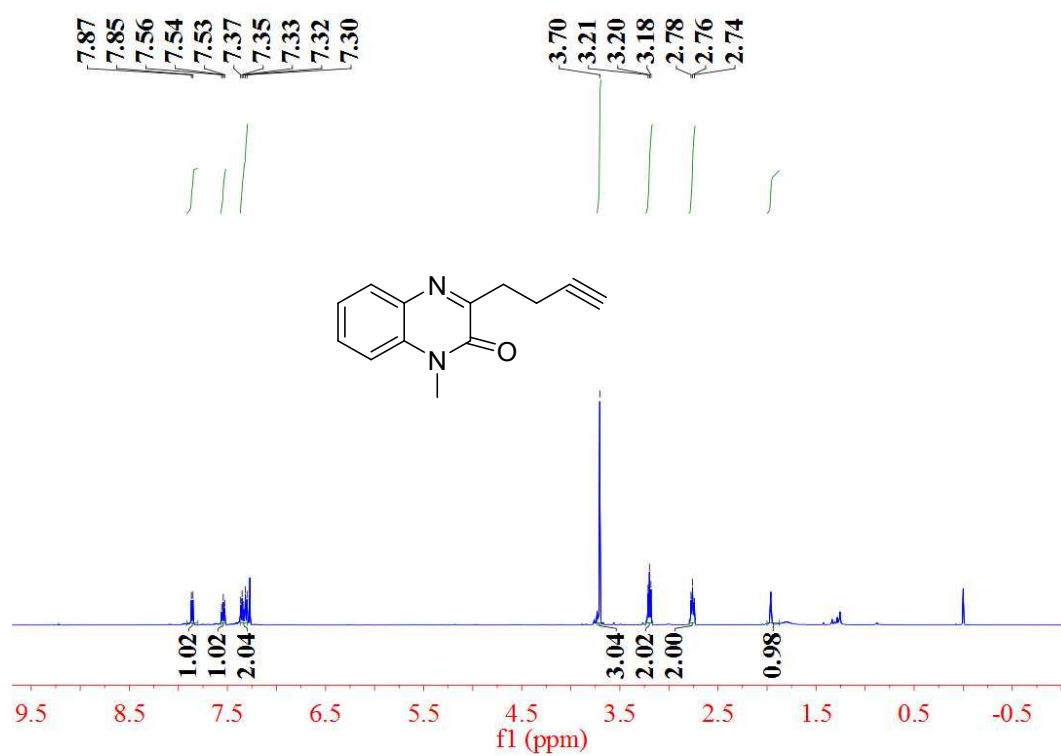
3ja ¹H NMR



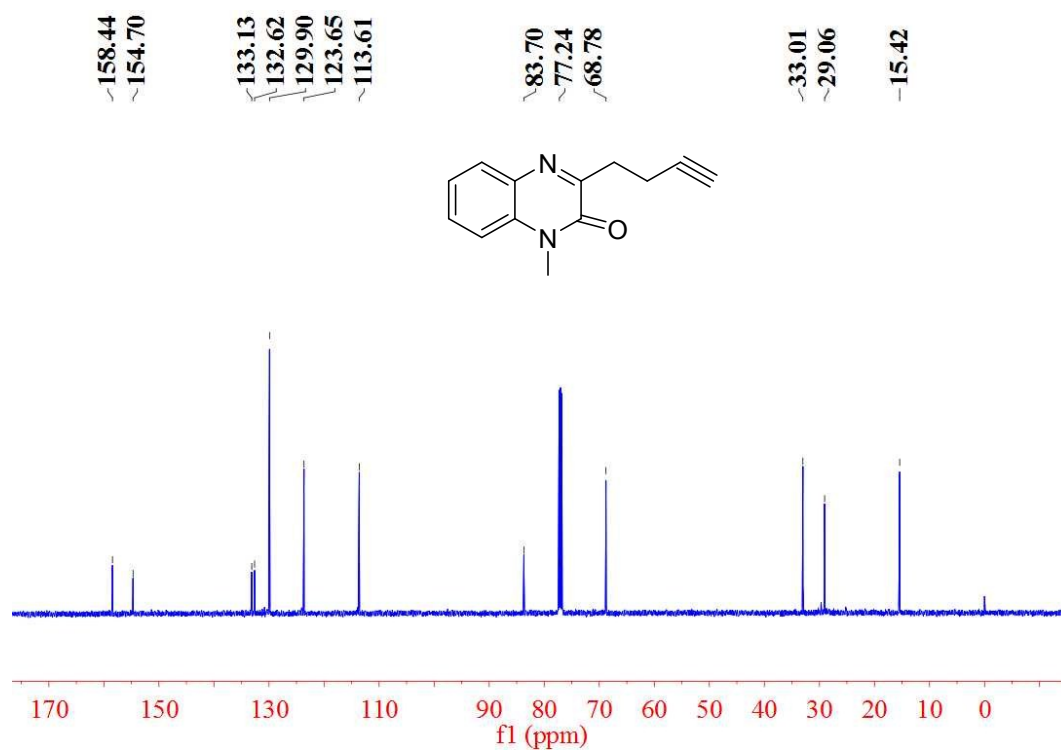
3ja ¹³C NMR



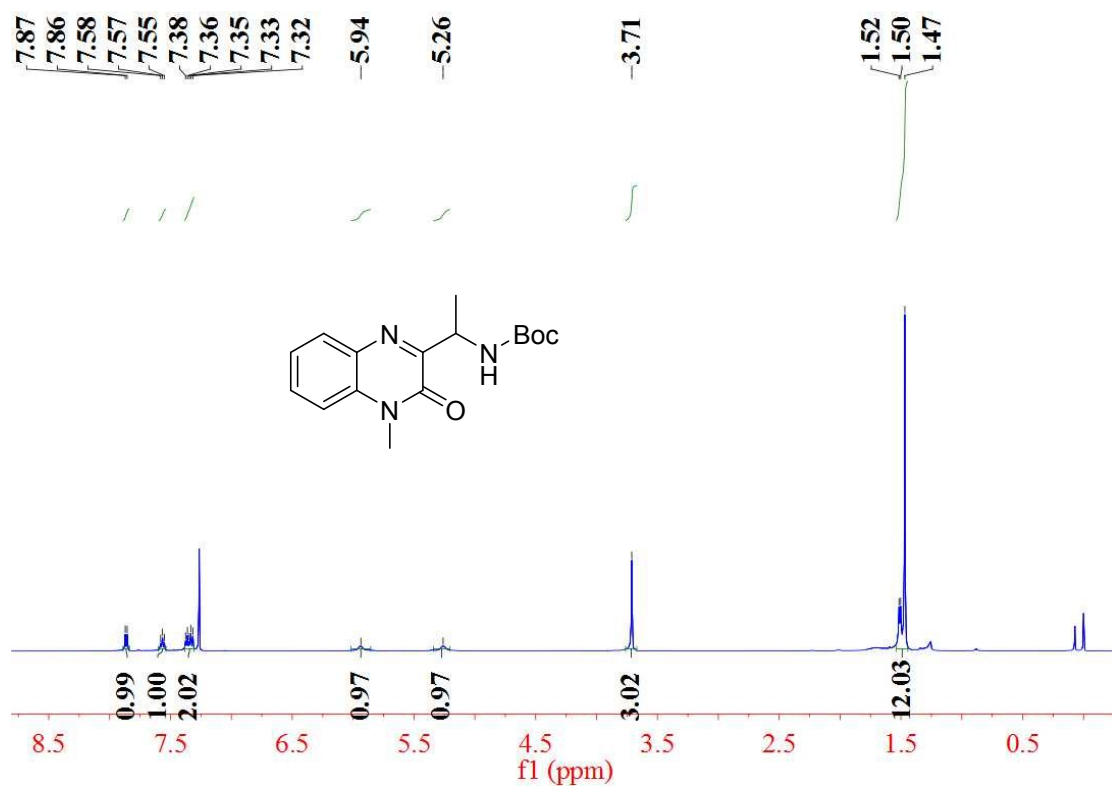
3ka ¹H NMR



3ka ¹³C NMR



3na ¹H NMR



3na ¹³C NMR

