

## Supplementary Material

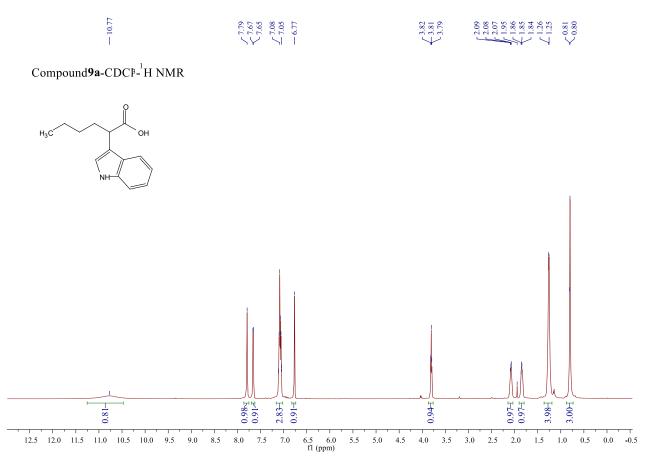
#### **Contents**

Copes of <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra of the synthetic compounds 9a~9c, 10a~10i, 12a~12b, 13a~13d, and 14a~14f

#### 1 Supplementary Tables and Figures

#### 1.1 Supplementary Figures

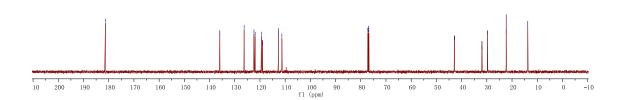
Copes of  $^1H$  NMR and  $^{13}C$  NMR spectra of the synthetic compounds  $9a{\sim}9c$ ,  $10a{\sim}10i$ ,  $12a{\sim}12b$ ,  $13a{\sim}13d$ , and  $14a{\sim}14f$ .



<sup>1</sup>H NMR spectrum of compound **9a** 



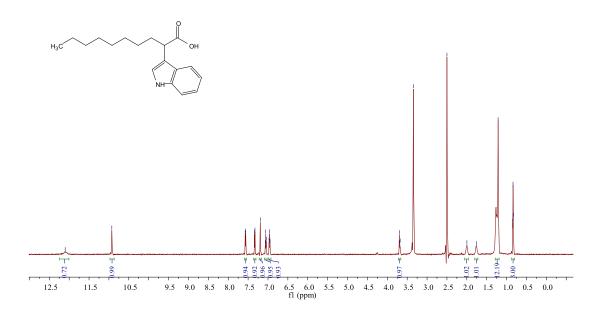
### Compound**9a**-CDCF-<sup>1</sup>H NMR



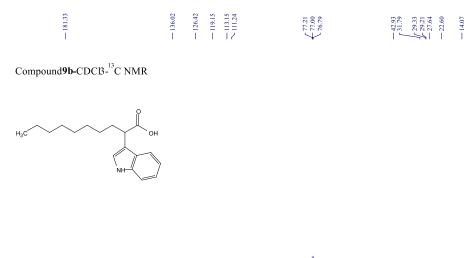
## <sup>13</sup>C NMR spectrum of compound **9a**



#### Compound9b-DMSO-d6-<sup>1</sup>H NMR

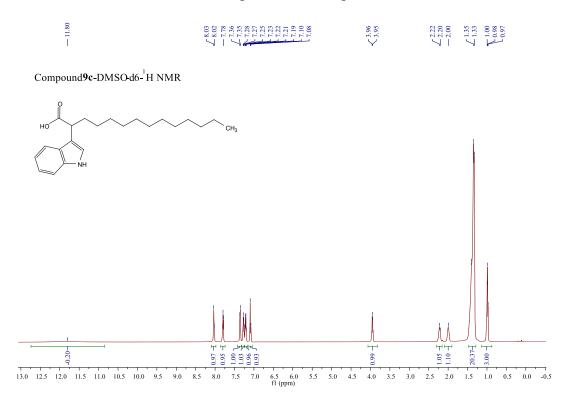


<sup>1</sup>H NMR spectrum of compound **9b** 



210 200 190 180 170 160 150 140 130 120 110 (ppm) 90 80 70 60 50 40 30 20 10 0

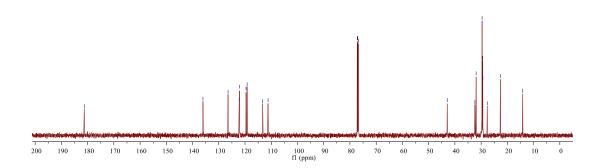
 $^{13}$ C NMR spectrum of compound  ${\bf 9b}$ 



<sup>1</sup>H NMR spectrum of compound **9c** 

$$\begin{array}{c} -181.29 \\ -136.03 \\ -126.46 \\ -112.12 \\ -113.26 \\ -111.22$$

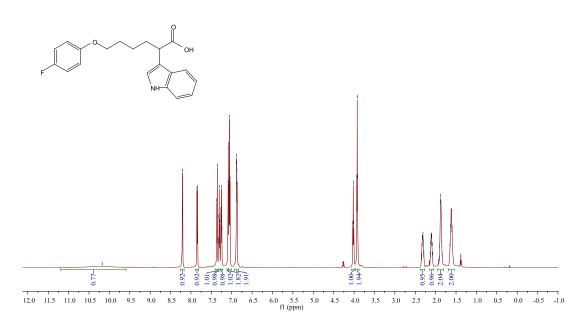
### Compound**9c**-CDCF-<sup>13</sup>C NMR



### <sup>13</sup>C NMR spectrum of compound **9c**

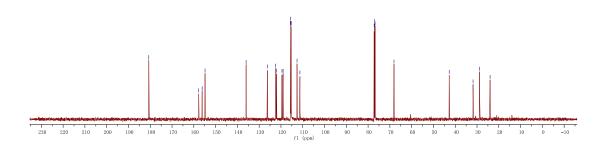


#### Compound10a-DMSO-1H NMR

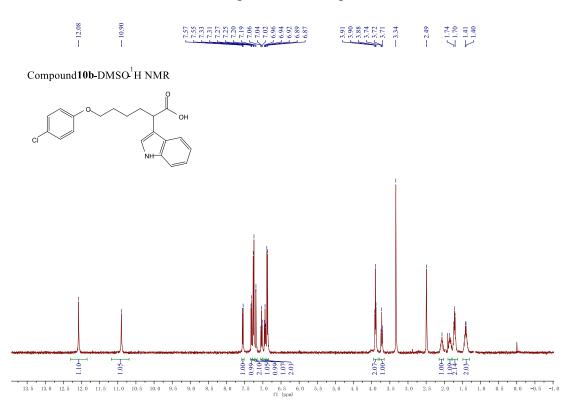


<sup>1</sup>H NMR spectrum of compound **10a** 

### Compound10a-CDCF-13C NMR

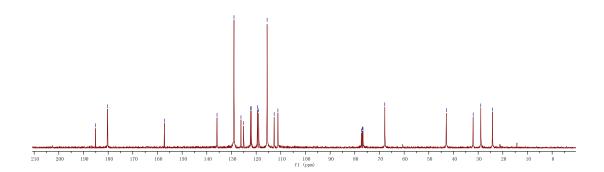


### <sup>13</sup>C NMR spectrum of compound **10a**



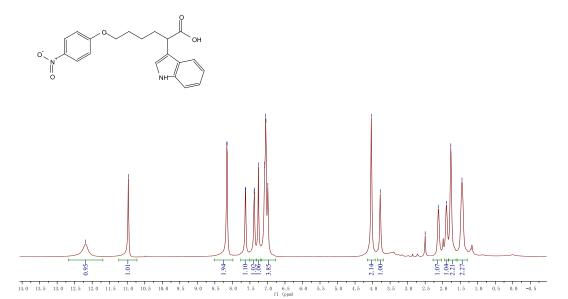
 $^{1}H$  NMR spectrum of compound 10b

#### Compound10b-CDCB-1H NMR

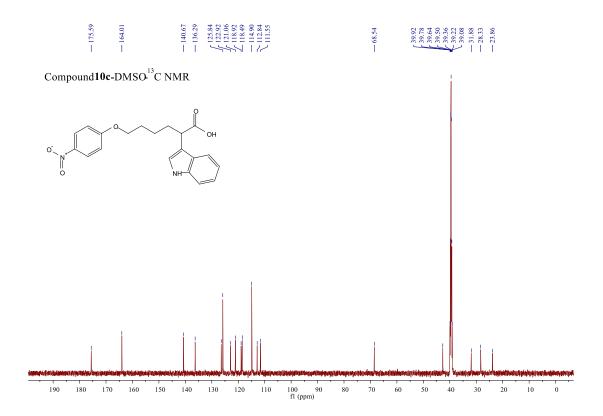


## <sup>13</sup>C NMR spectrum of compound **10b**

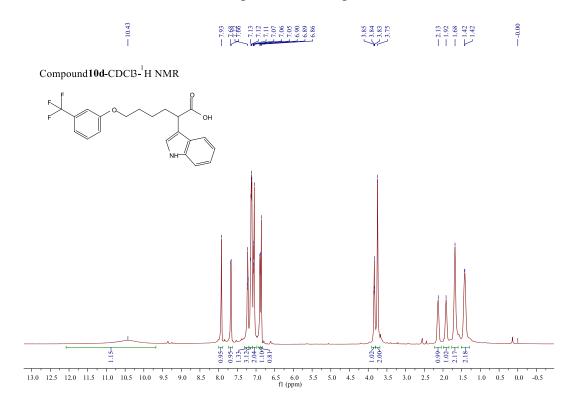
### Compound10c-DMSO-1H NMR



 $^{1}H$  NMR spectrum of compound 10c

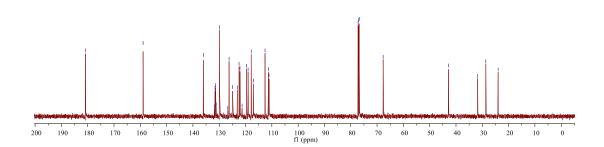


 $^{13}$ C NMR spectrum of compound 10c

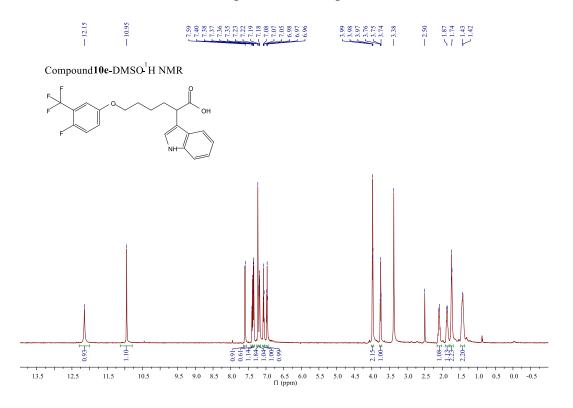


<sup>1</sup>H NMR spectrum of compound **10d** 

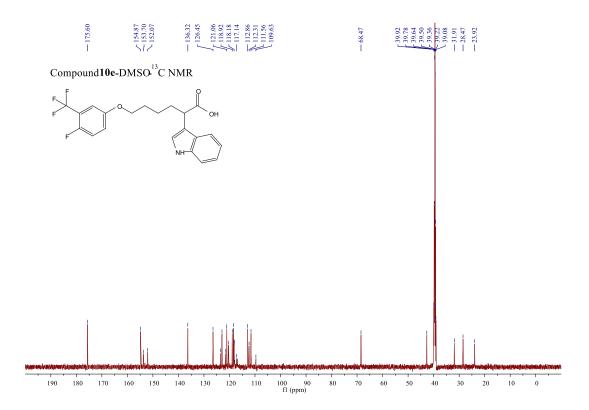




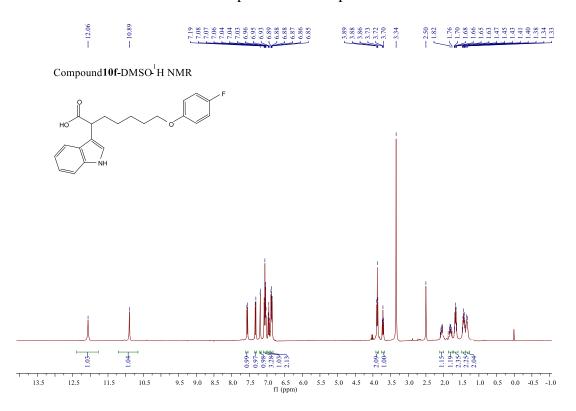
 $^{13}$ C NMR spectrum of compound **10d** 



<sup>1</sup>H NMR spectrum of compound **10e** 

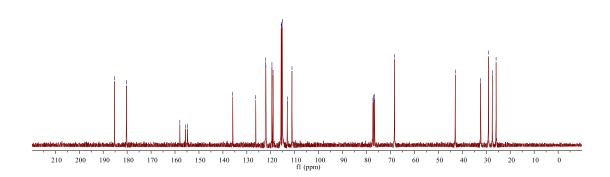


 $^{13}$ C NMR spectrum of compound 10e

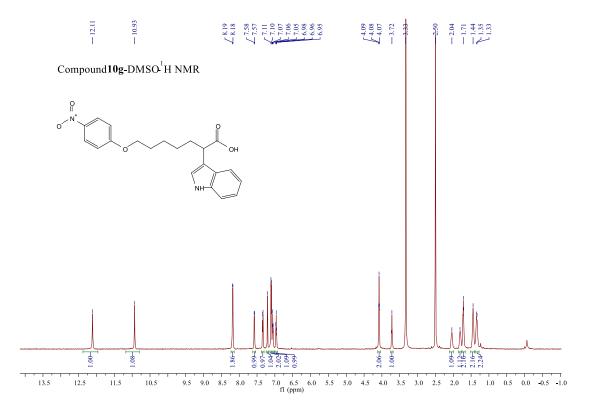


<sup>1</sup>H NMR spectrum of compound **10f** 

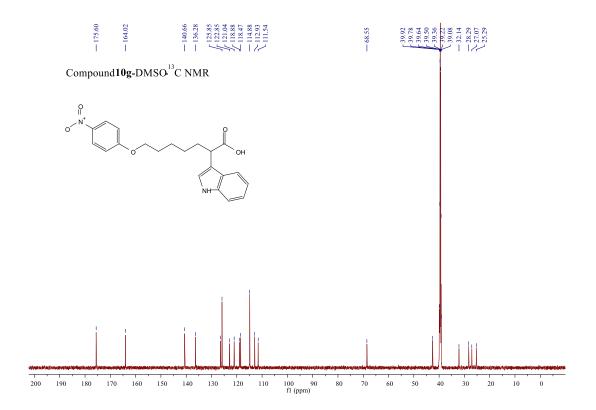
Compound10f-CDCB-<sup>13</sup>C NMR



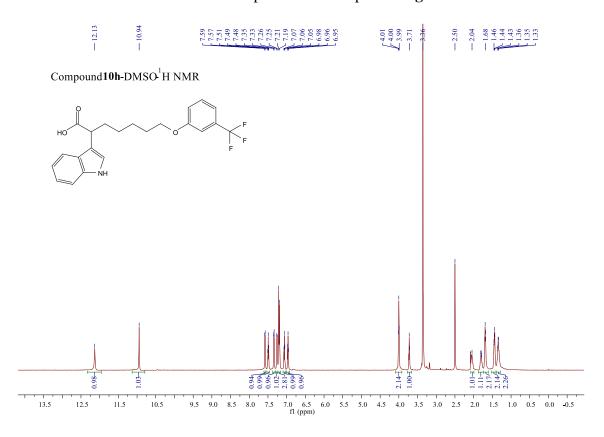
<sup>13</sup>C NMR spectrum of compound **10f** 



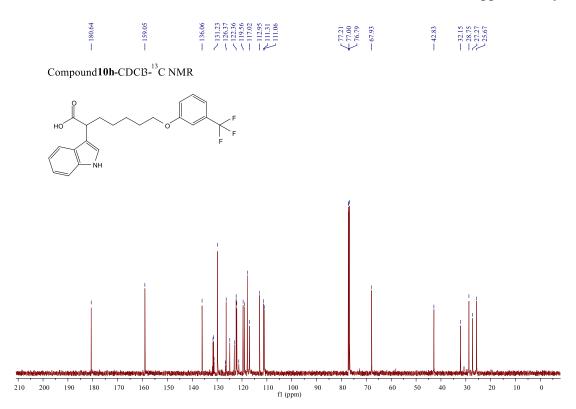
<sup>1</sup>H NMR spectrum of compound **10g** 



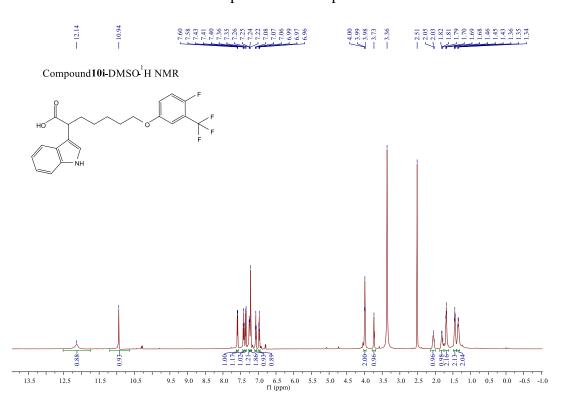
# $^{13}$ C NMR spectrum of compound 10g



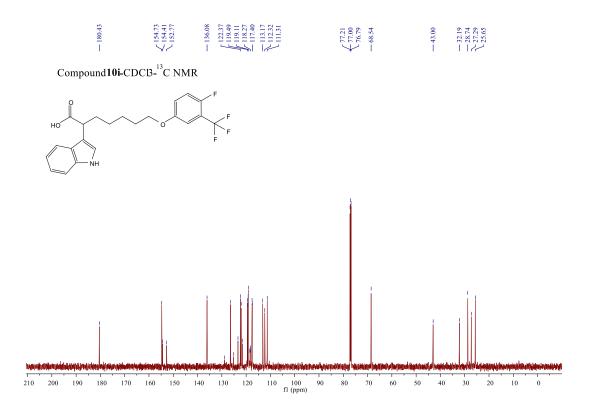
<sup>1</sup>H NMR spectrum of compound **10h** 



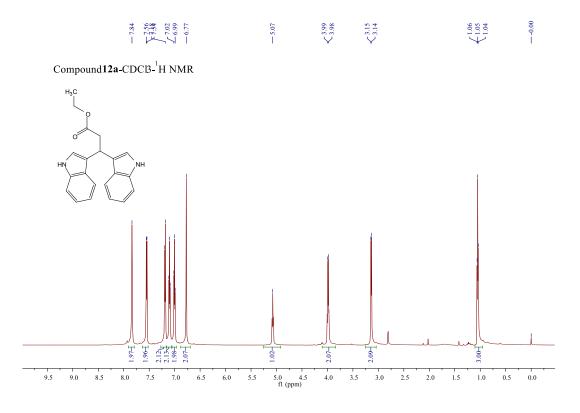
### <sup>13</sup>C NMR spectrum of compound **10h**



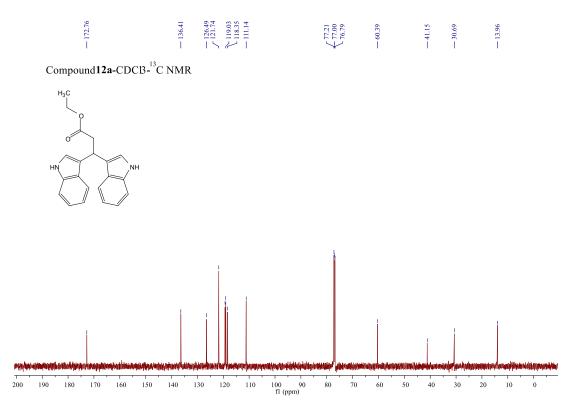
<sup>1</sup>H NMR spectrum of compound **10i** 



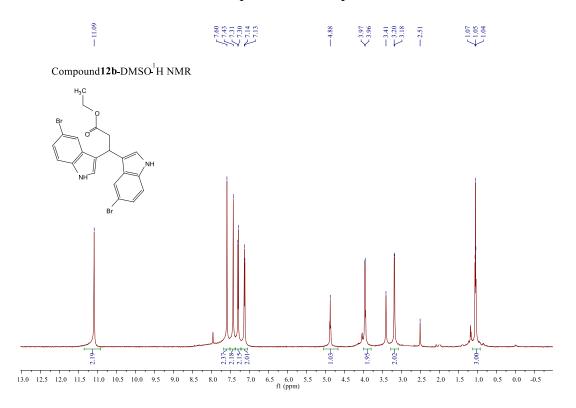
<sup>13</sup>C NMR spectrum of compound **10i** 



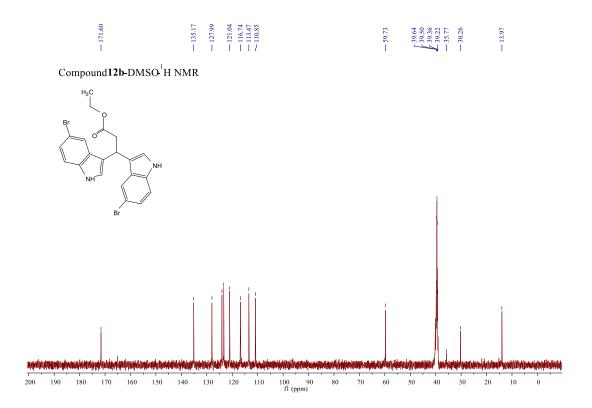
<sup>1</sup>H NMR spectrum of compound **12a** 



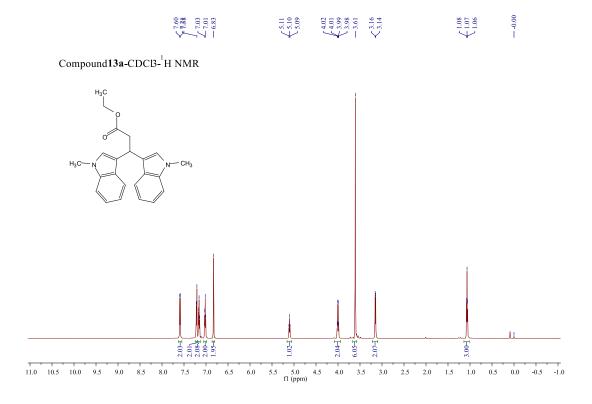
# <sup>13</sup>C NMR spectrum of compound **12a**



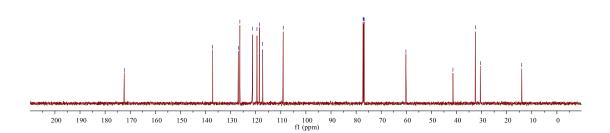
<sup>1</sup>H NMR spectrum of compound **12b** 



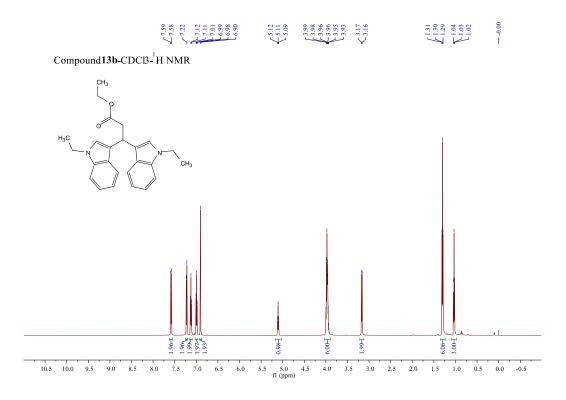
# $^{13}$ C NMR spectrum of compound **12b**



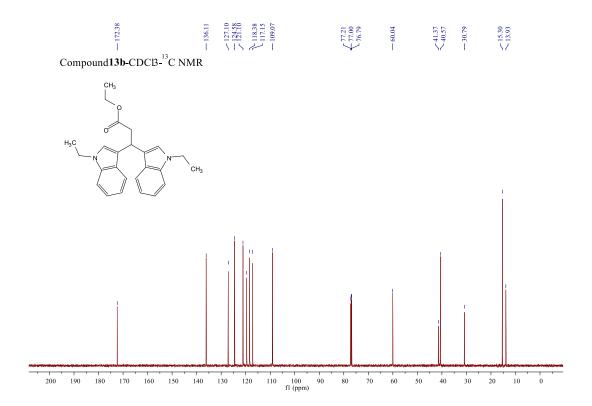
<sup>1</sup>H NMR spectrum of compound **13a** 



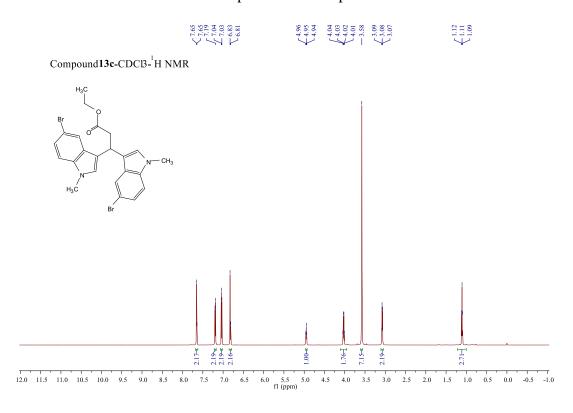
### <sup>13</sup>C NMR spectrum of compound **13a**



<sup>1</sup>H NMR spectrum of compound 13b



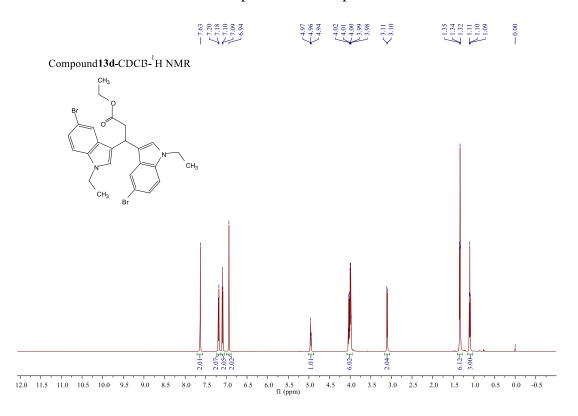
<sup>13</sup>C NMR spectrum of compound **13b** 



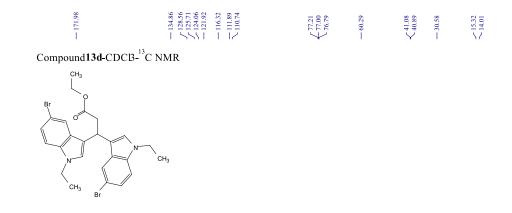
<sup>1</sup>H NMR spectrum of compound **13c** 

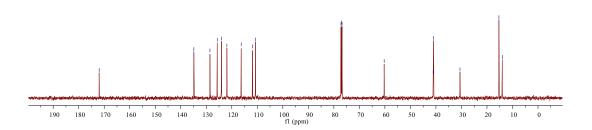
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 fl (ppm)

<sup>13</sup>C NMR spectrum of compound **13c** 

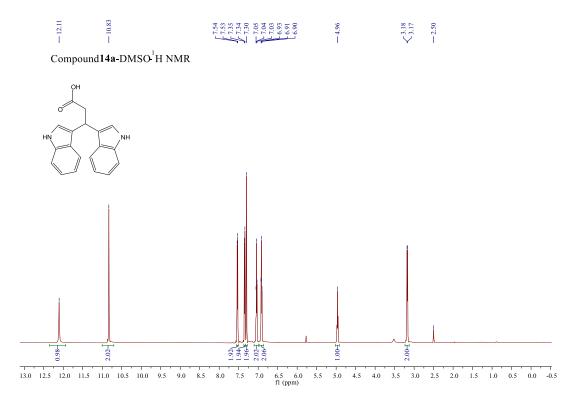


<sup>1</sup>H NMR spectrum of compound **13d** 

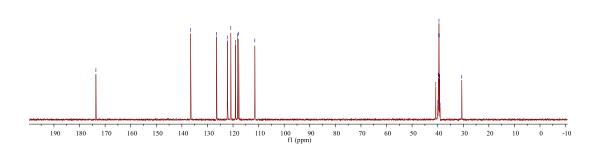




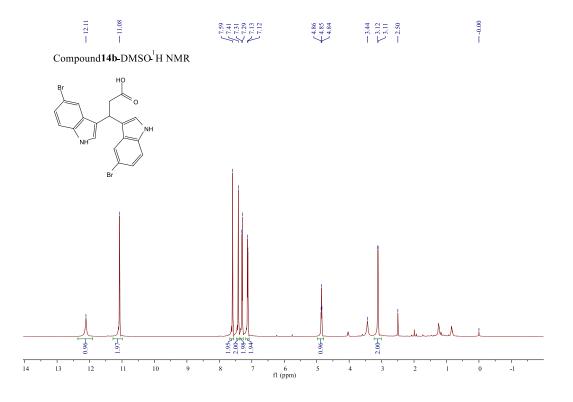
<sup>13</sup>C NMR spectrum of compound **13d** 



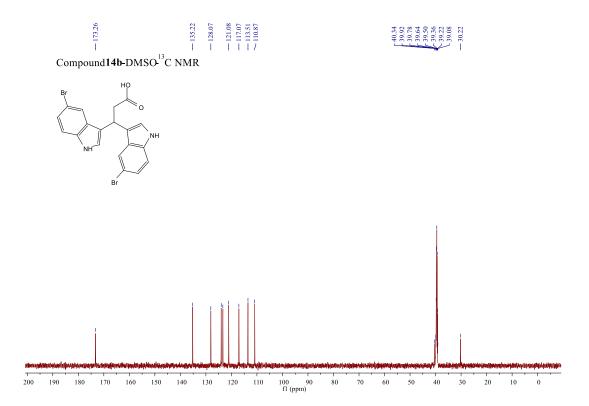
<sup>1</sup>H NMR spectrum of compound **14a** 



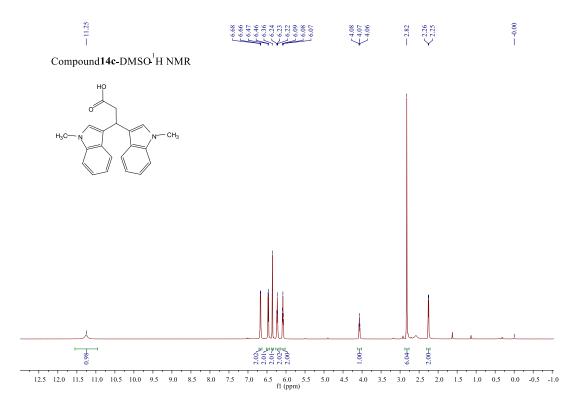
## <sup>13</sup>C NMR spectrum of compound **14a**



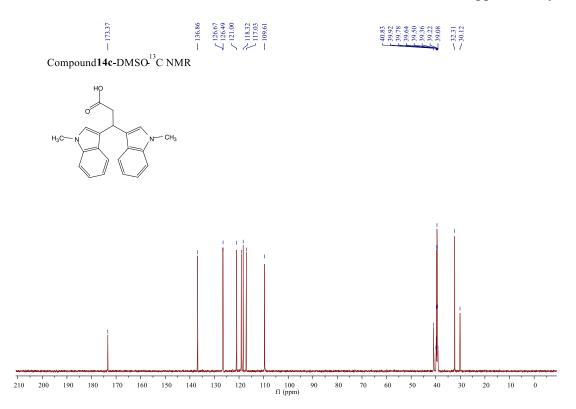
<sup>1</sup>H NMR spectrum of compound **14b** 



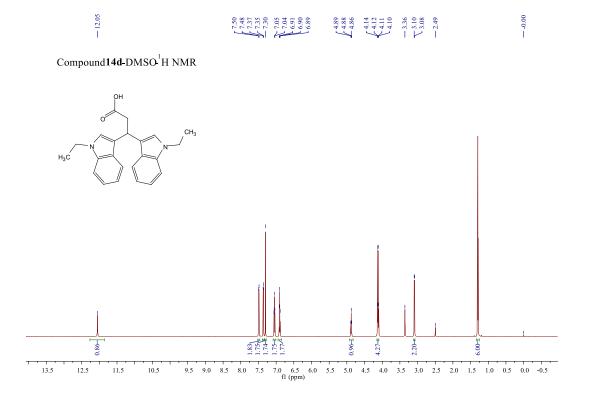
<sup>13</sup>C NMR spectrum of compound **14b** 



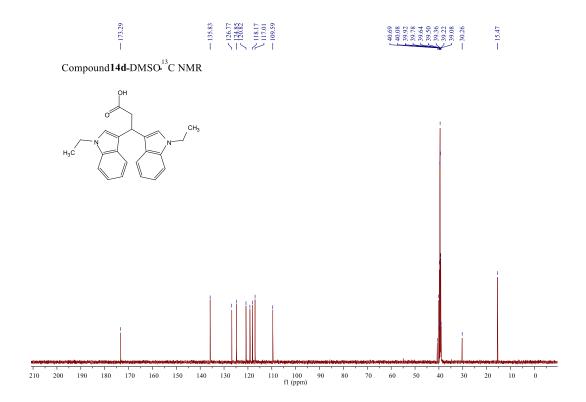
 $^{1}H$  NMR spectrum of compound 14c



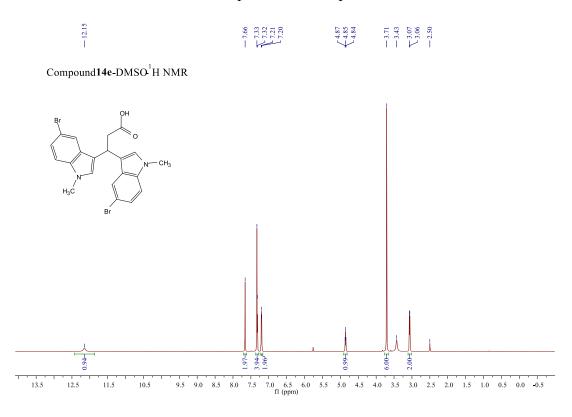
<sup>13</sup>C NMR spectrum of compound **14c** 



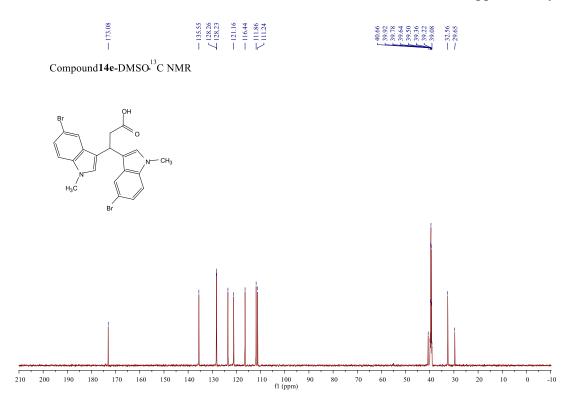
<sup>1</sup>H NMR spectrum of compound **14d** 



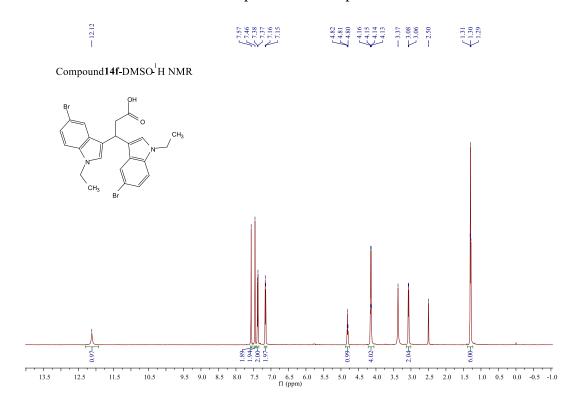
<sup>13</sup>C NMR spectrum of compound **14d** 



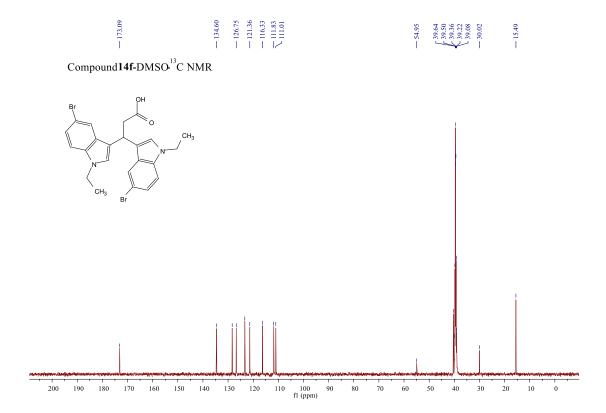
<sup>1</sup>H NMR spectrum of compound **14e** 



<sup>13</sup>C NMR spectrum of compound **14e** 



<sup>1</sup>H NMR spectrum of compound **14f** 



<sup>13</sup>C NMR spectrum of compound **14f**