

Electronic Supplementary Materials

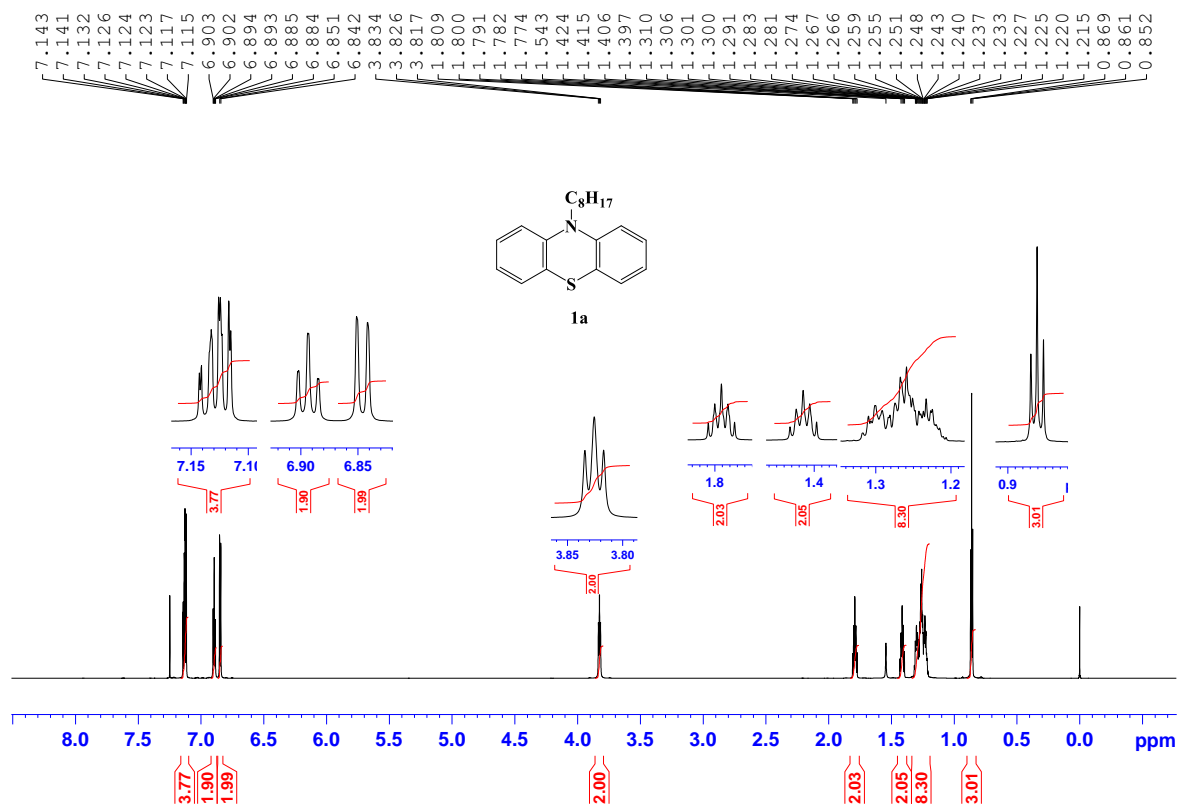


Figure S1. ¹H NMR spectrum in CDCl₃ of **1a**.

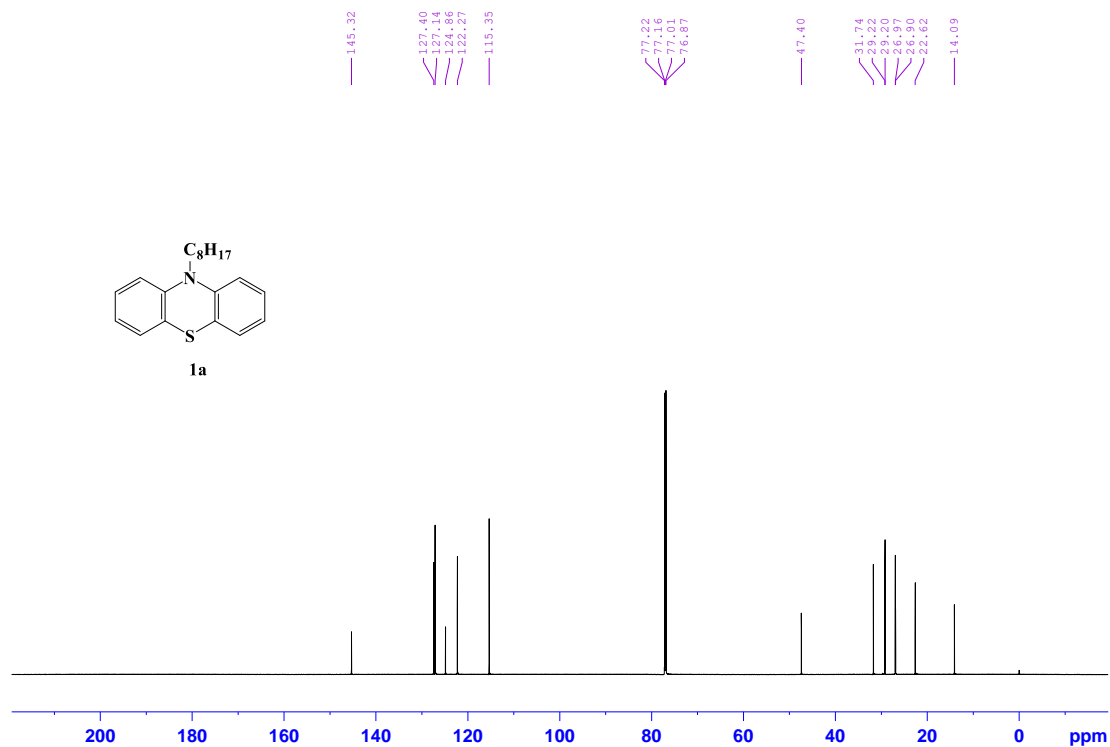


Figure S2. ¹³C NMR spectrum in CDCl₃ of **1a**.

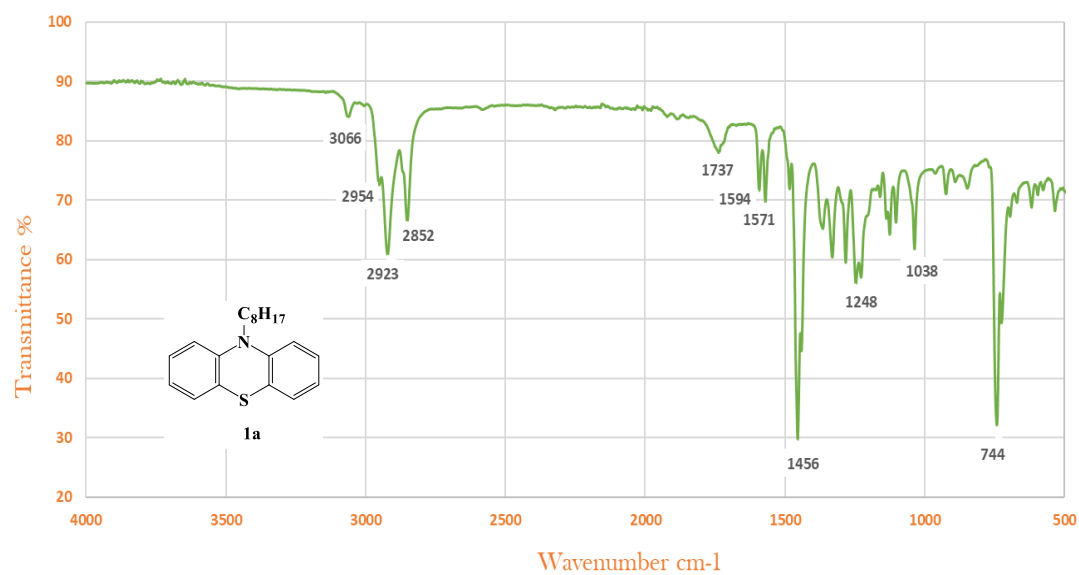


Figure S3. FTIR spectrum of **1a**.

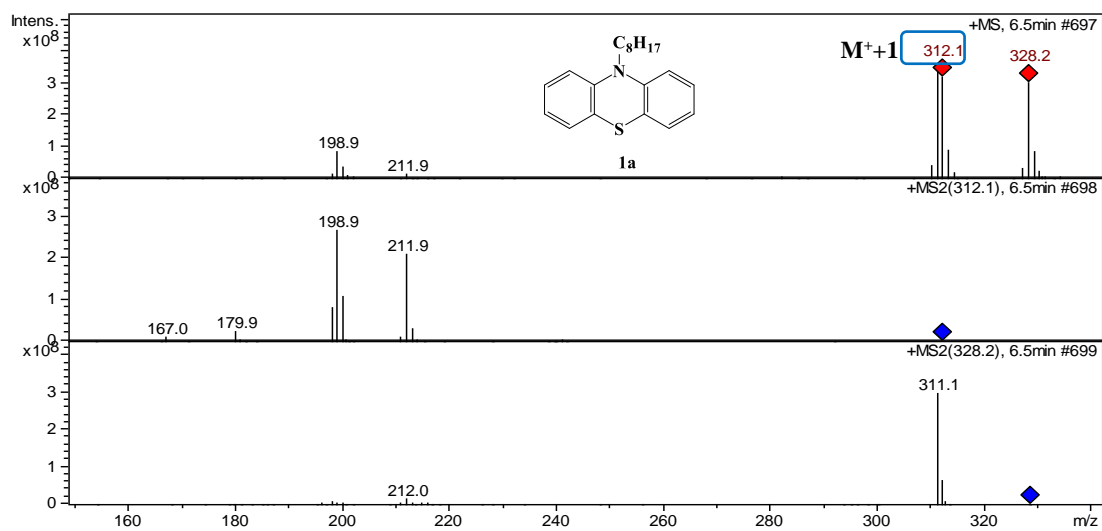


Figure S4. Mass spectrum of **1a**.

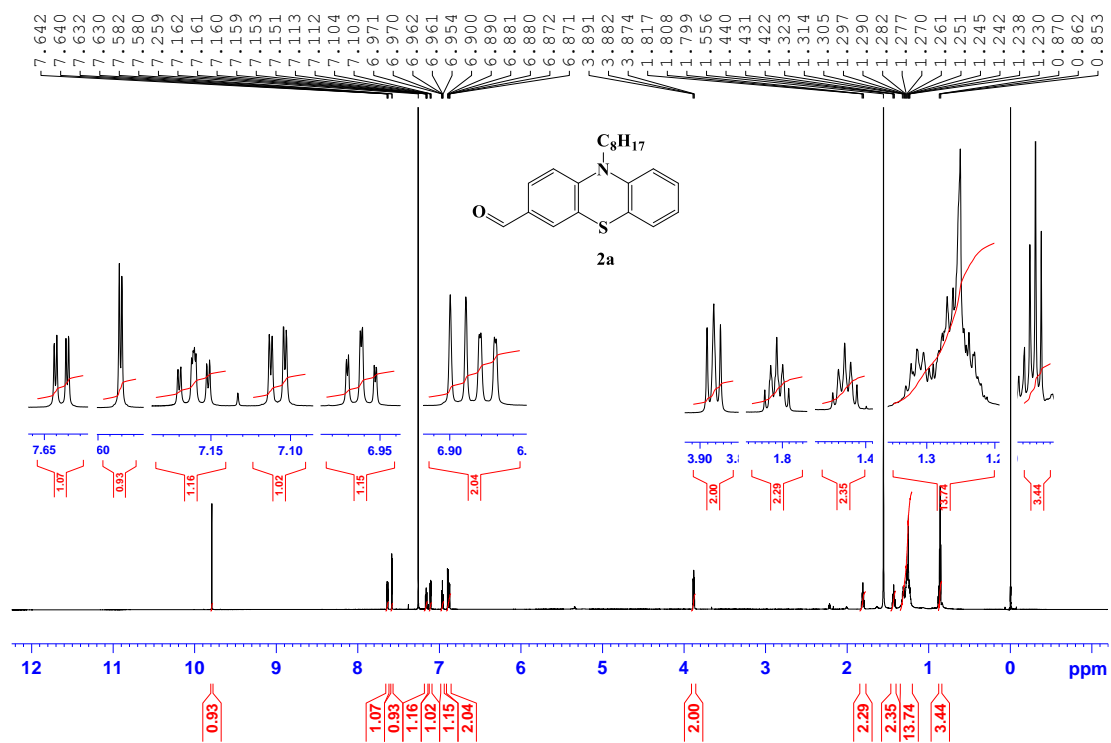


Figure S5. ¹H NMR spectrum in CDCl₃ of 2a.

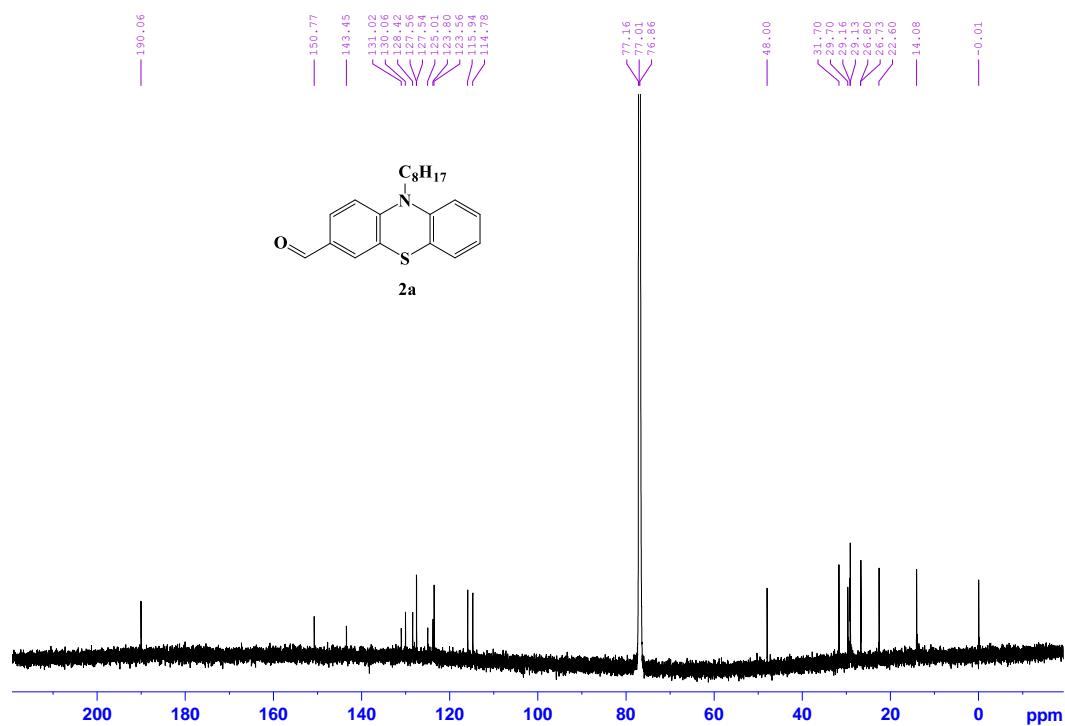


Figure S6. ¹³C NMR spectrum in CDCl₃ of 2a.

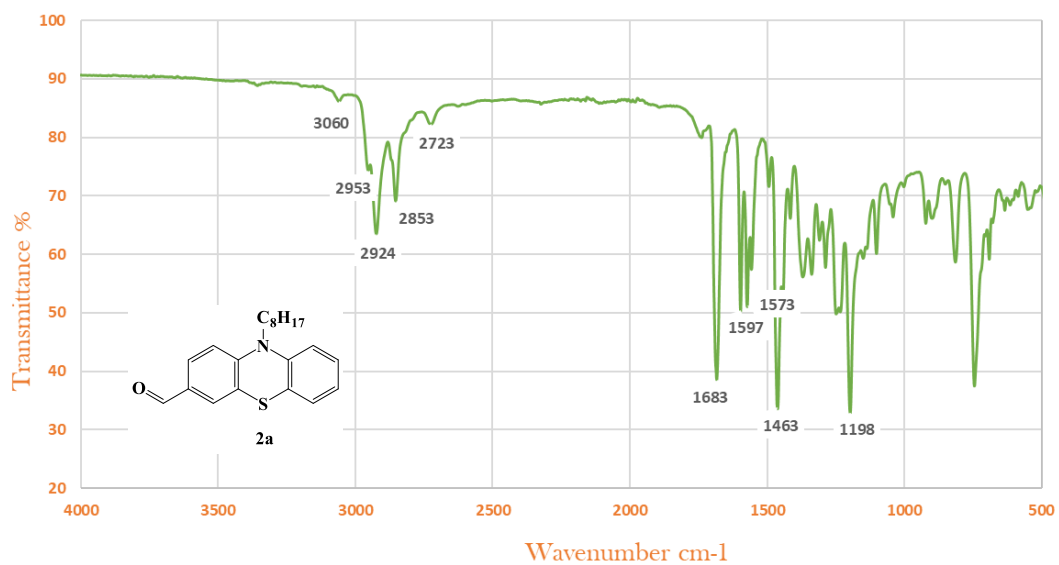


Figure S7. FTIR spectrum of **2a**.

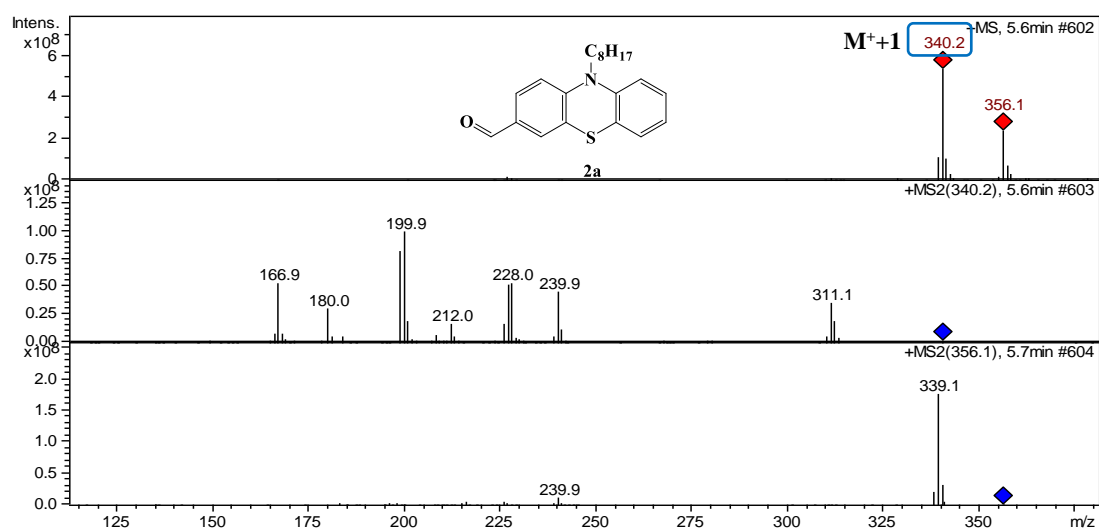


Figure S8. Mass spectrum of **2a**.

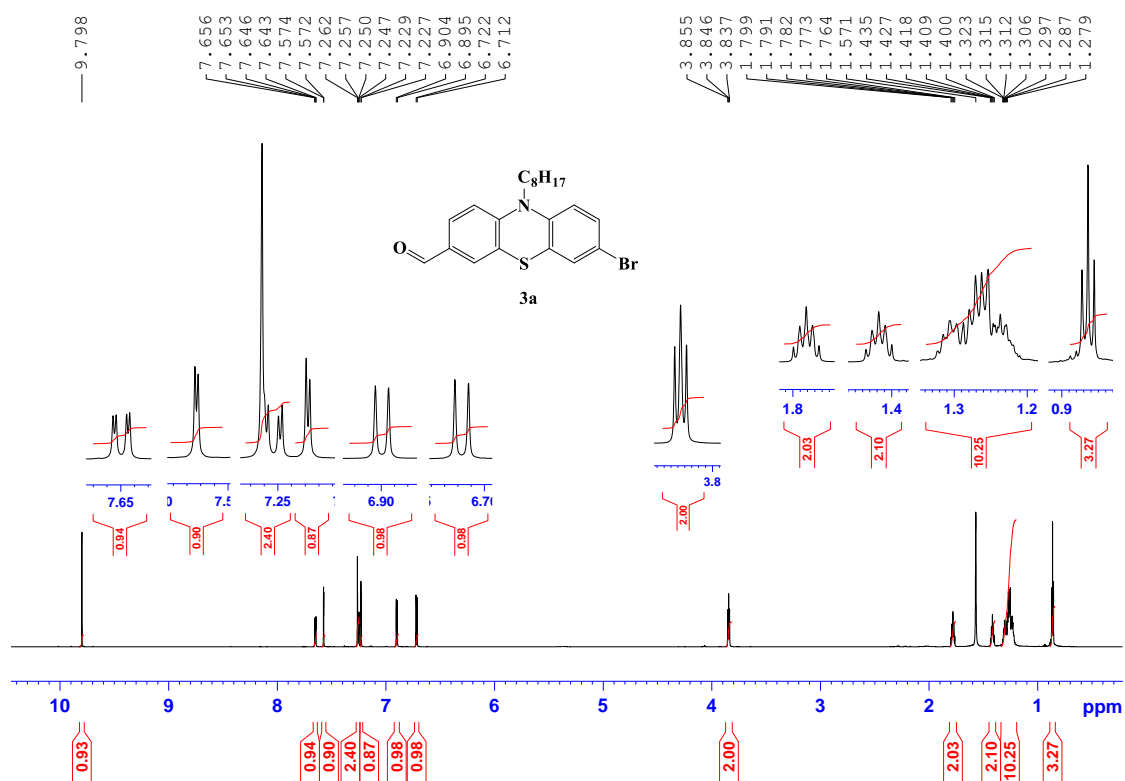


Figure S9. ¹H NMR spectrum in CDCl₃ of **3a**.

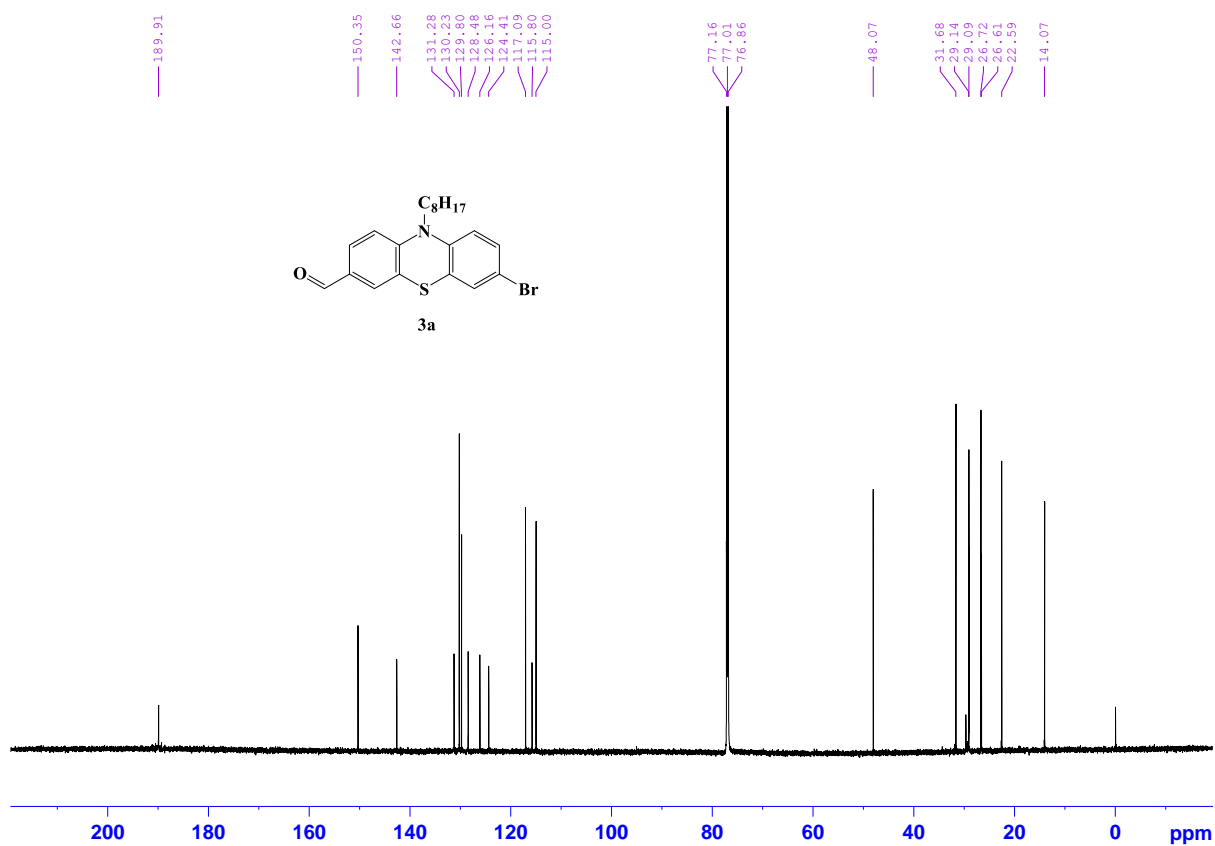


Figure S10. ¹³C NMR spectrum in CDCl₃ of **3a**.

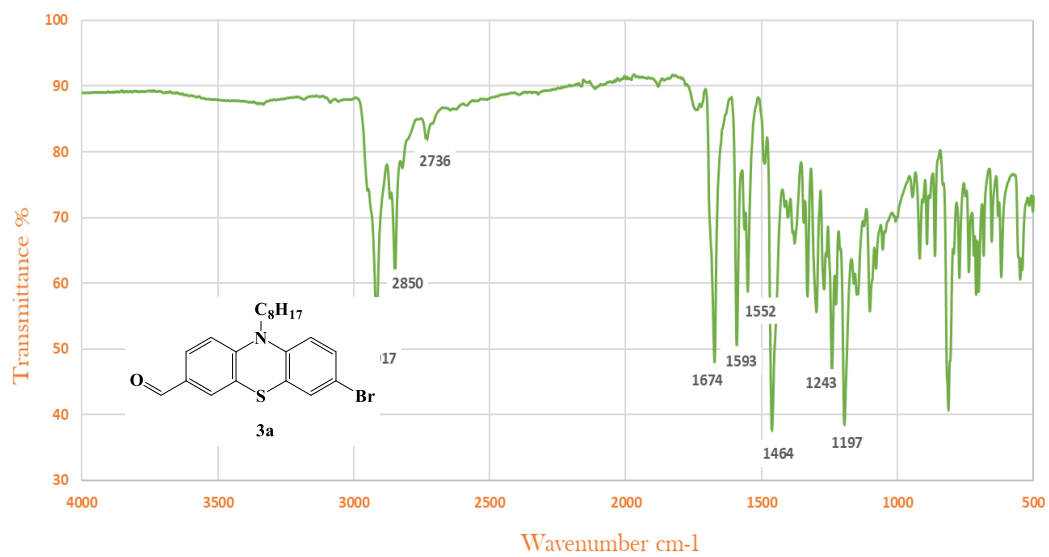


Figure S11. FTIR spectrum of **3a**.

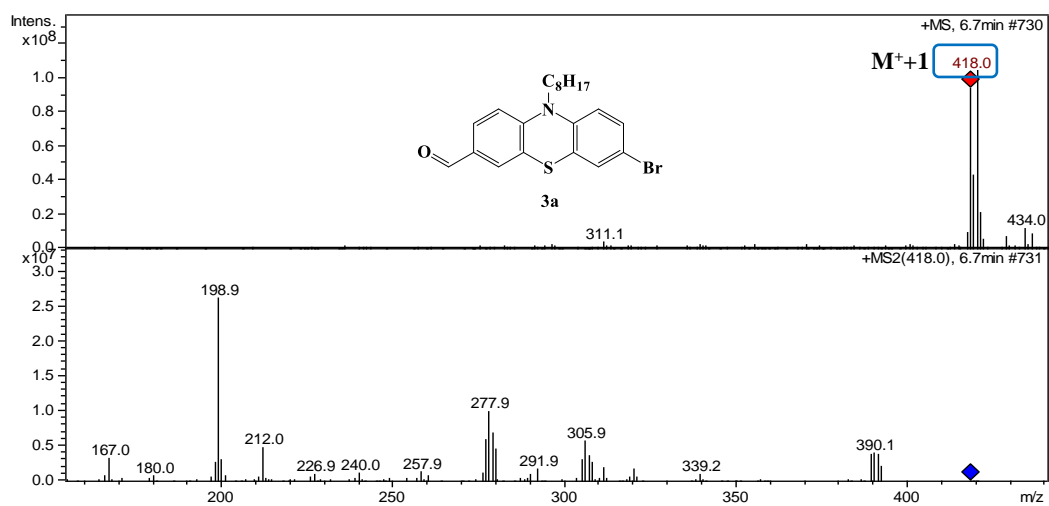


Figure S12. Mass spectrum of **3a**.

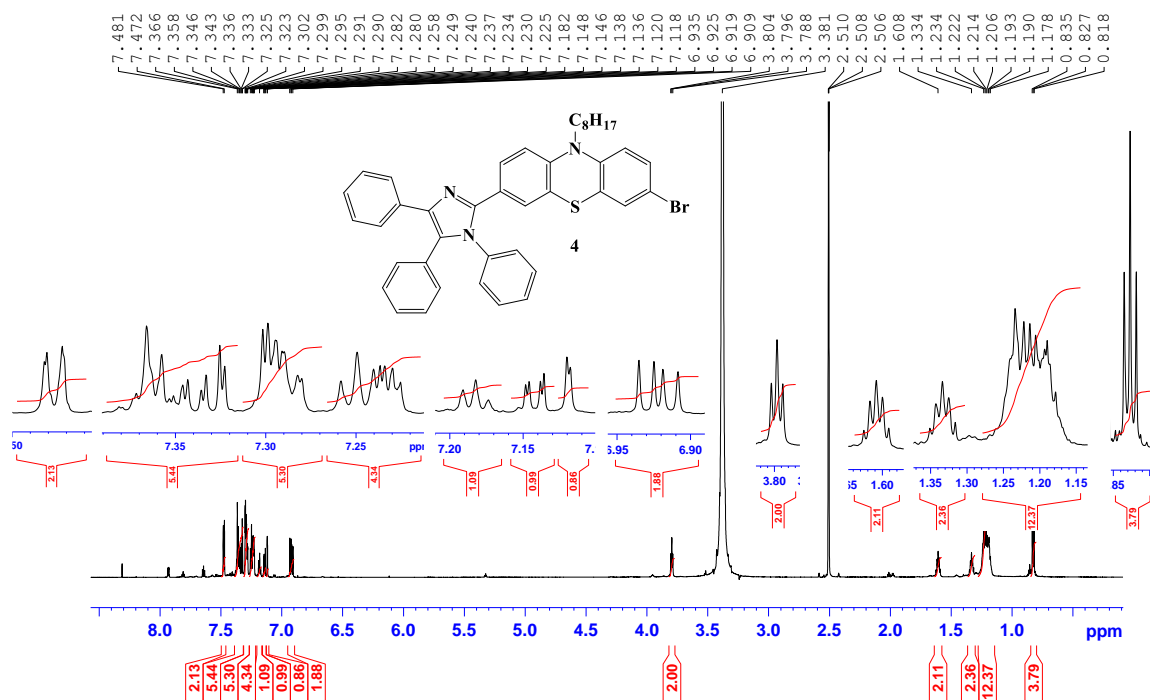


Figure S13. ¹H NMR spectrum in DMSO-d₆ of 4.

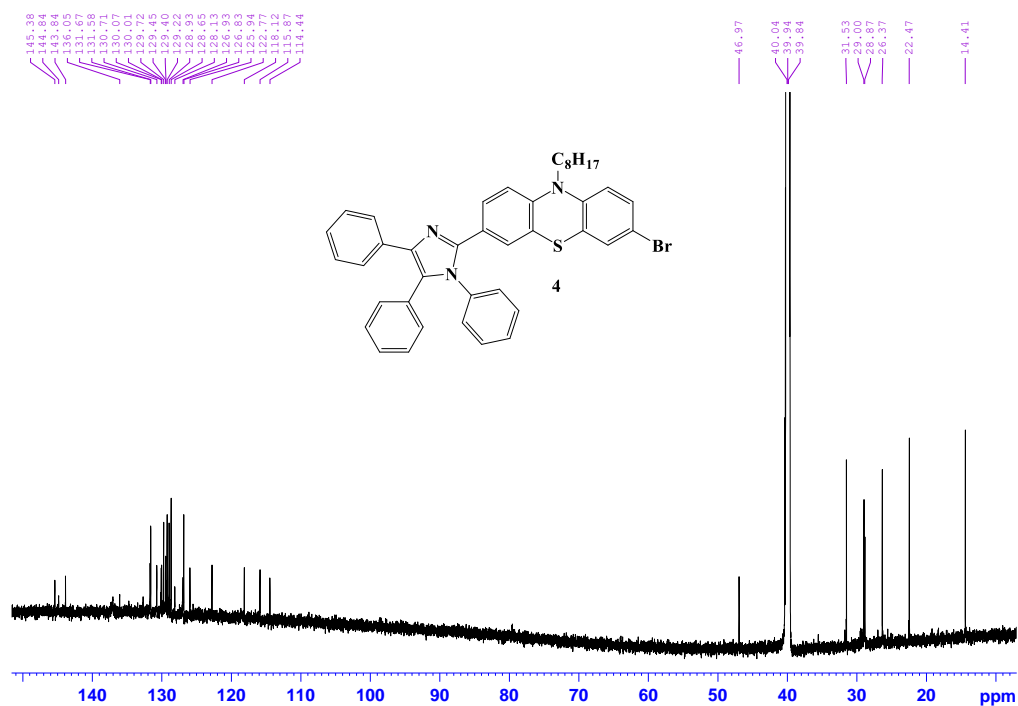


Figure S14. ¹³C NMR spectrum in DMSO-d₆ of 4.

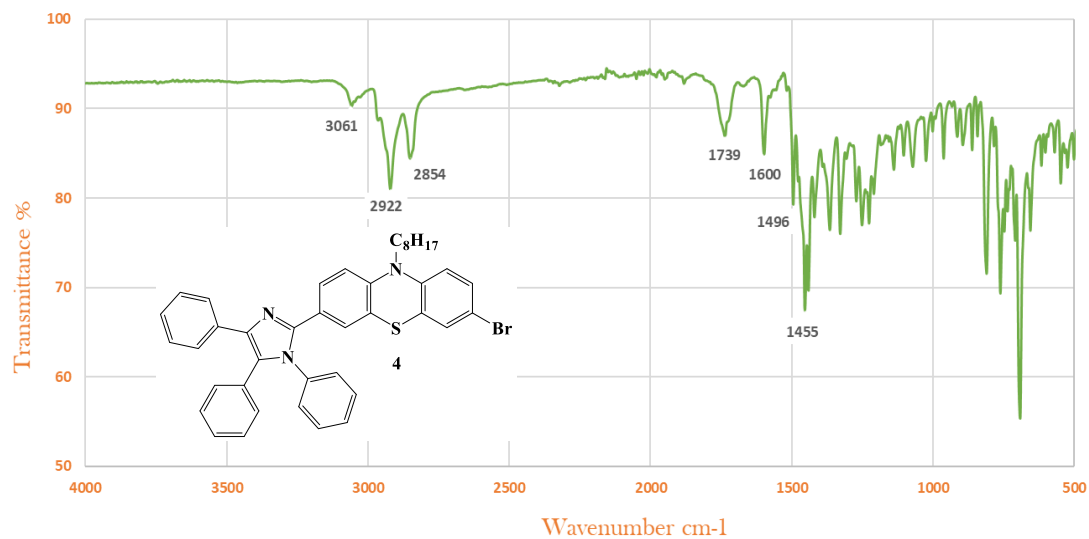


Figure S15. FTIR spectrum of **4**.

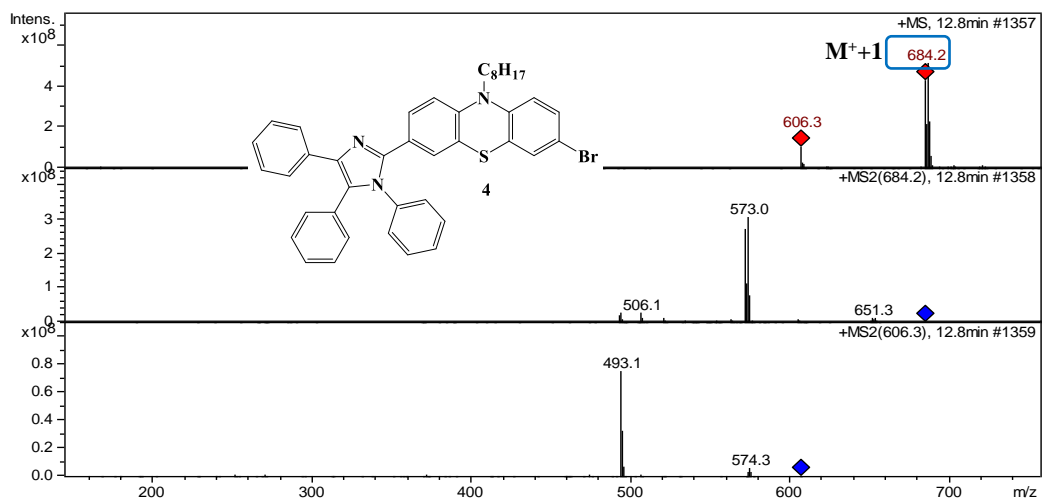


Figure S16. Mass spectrum of **4**.

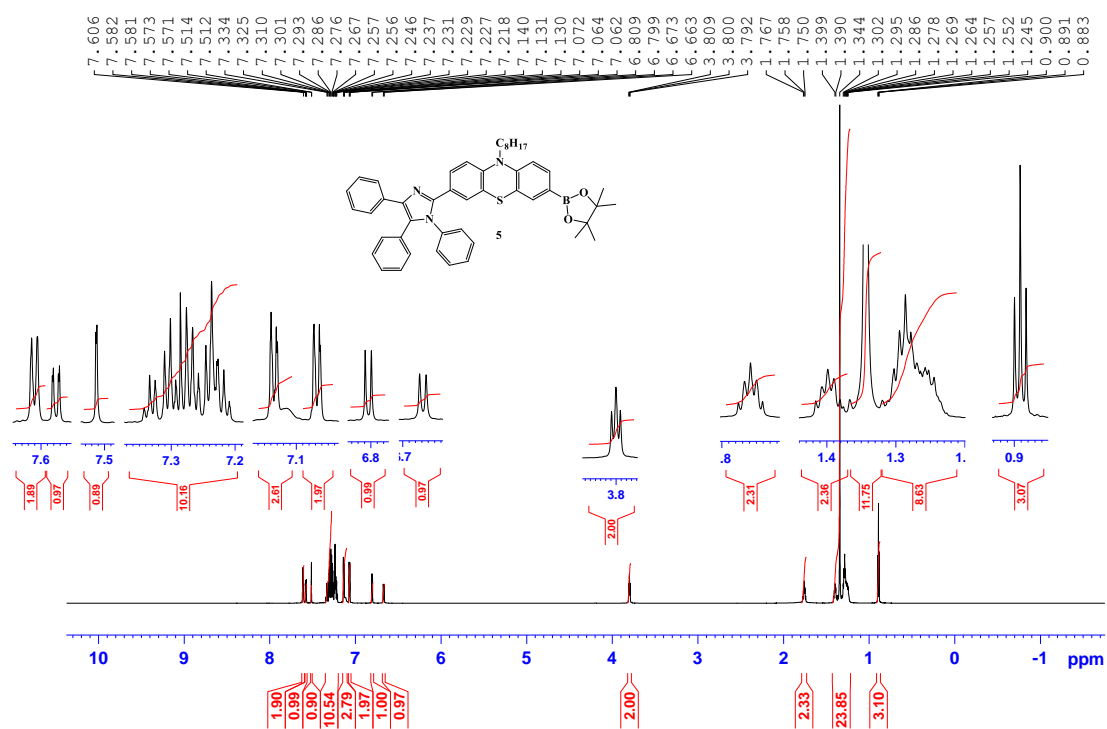


Figure S17. ¹H NMR spectrum in CDCl₃ of **5**.

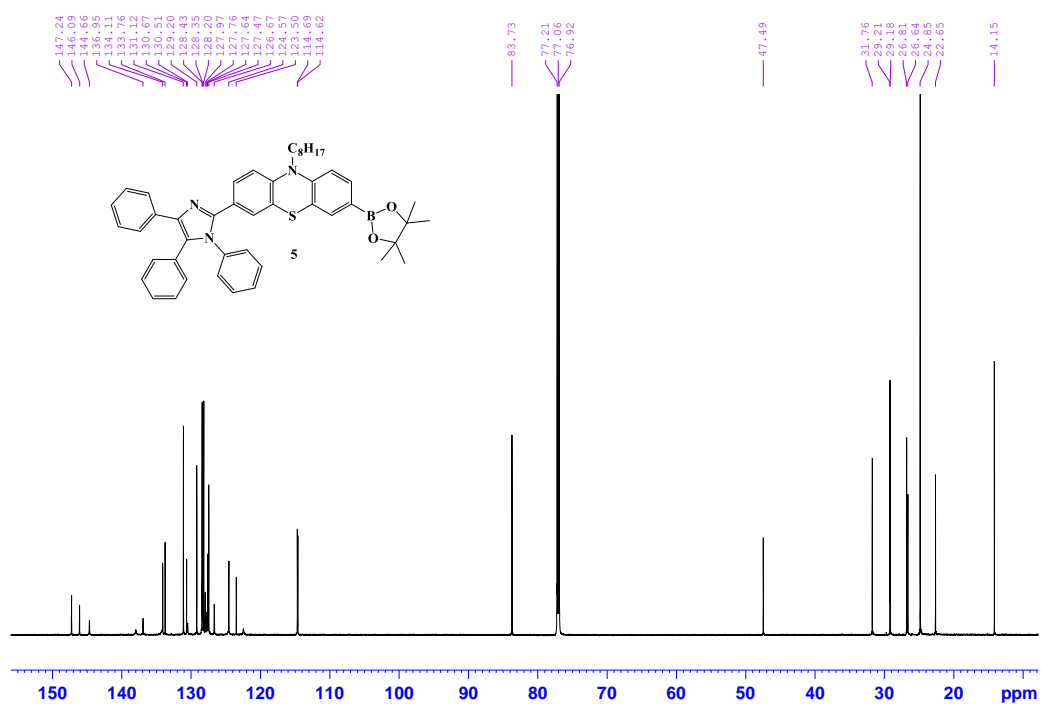


Figure S18. ¹³C NMR spectrum in CDCl₃ of **5**.

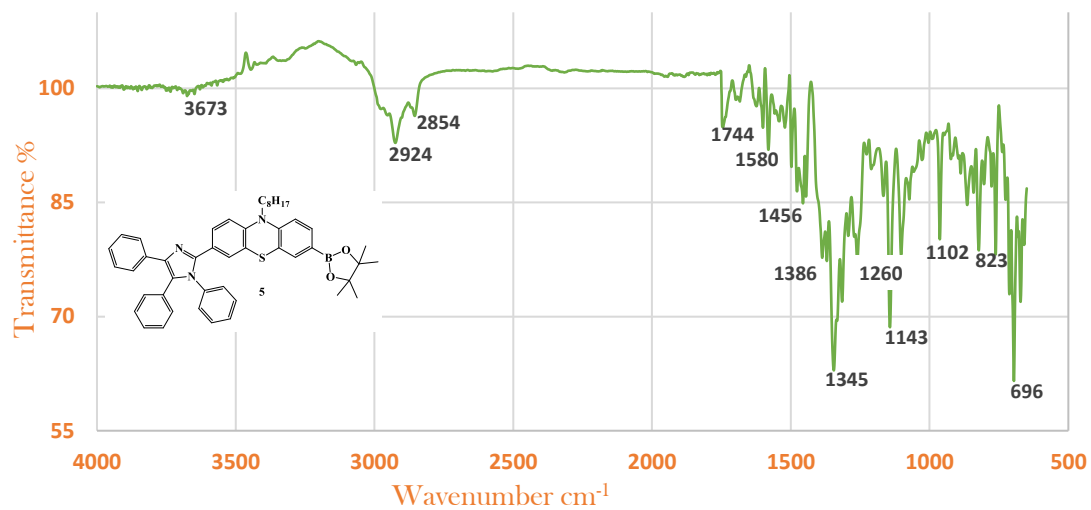


Figure S19. FTIR spectrum of **5**.

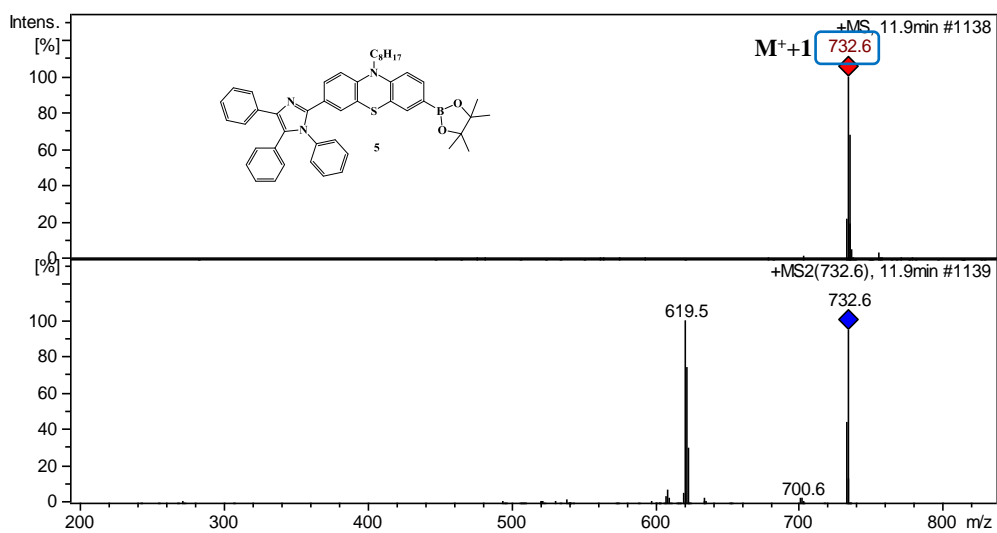
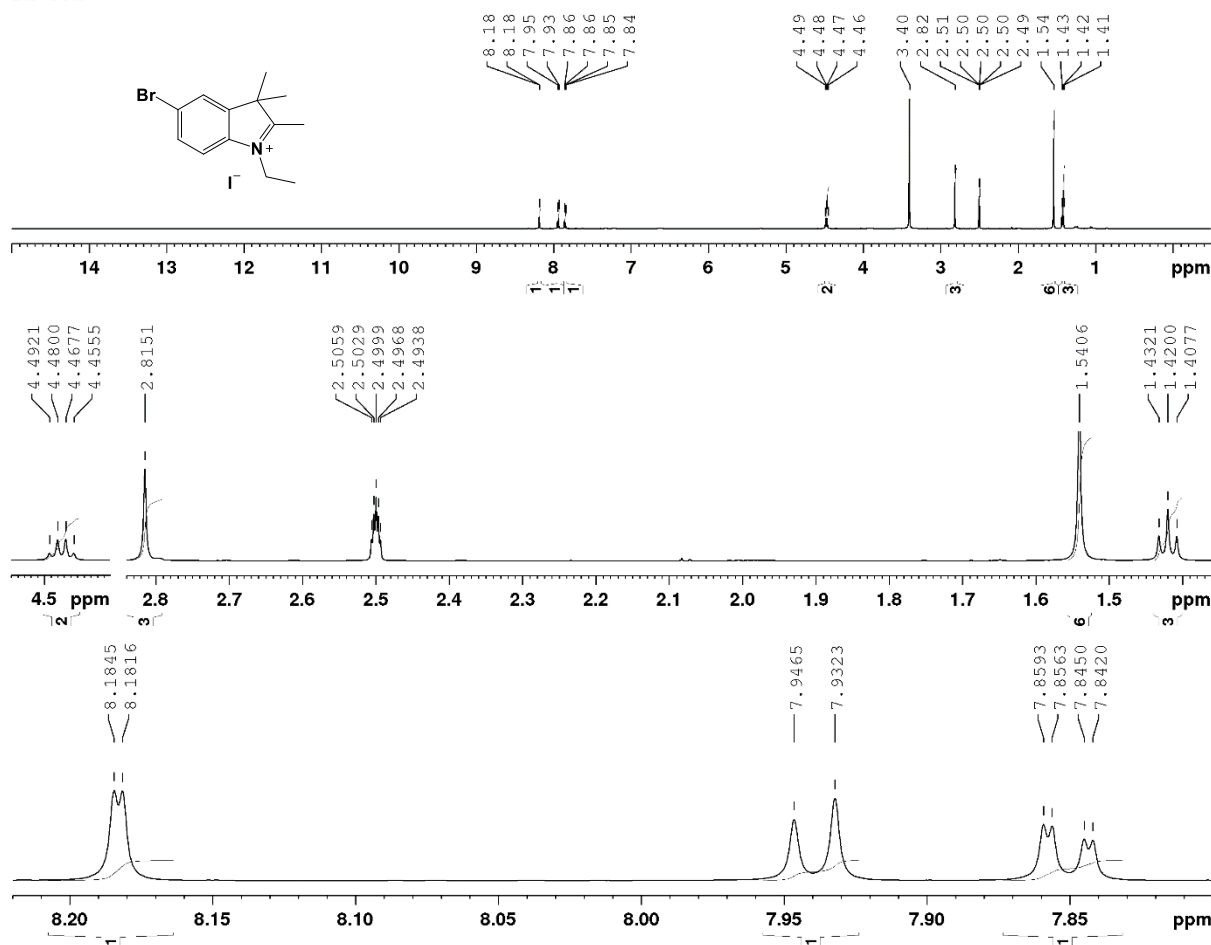


Figure S20. Mass spectrum of **5**.

^1H -NMR



^{13}C -NMR

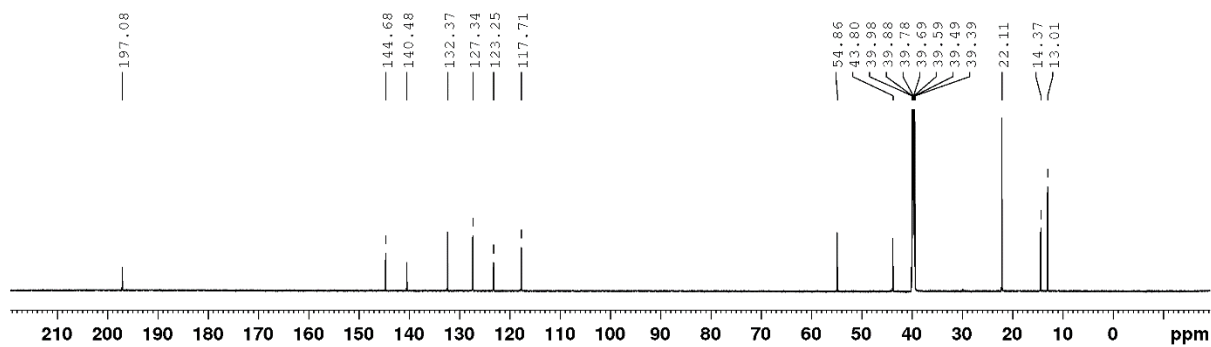


Figure S21. ^1H NMR and ^{13}C NMR spectra in $\text{DMSO}-\text{D}_6$ of **11**.

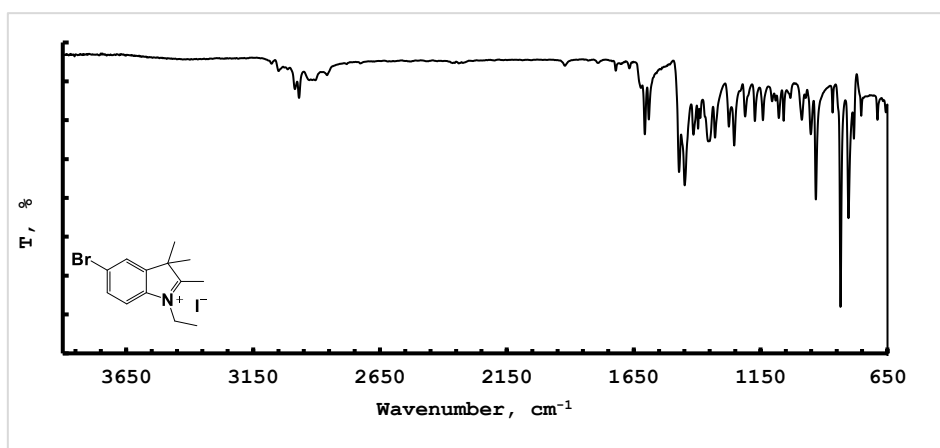
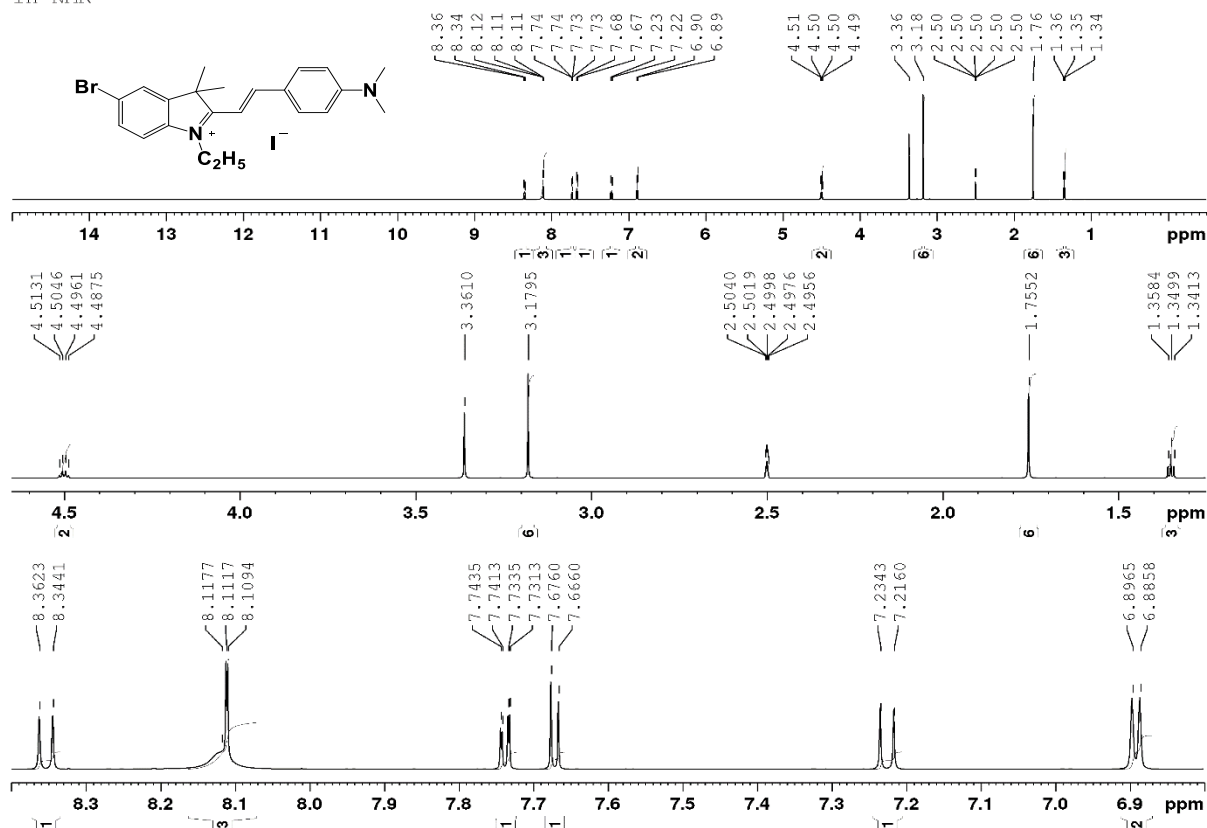
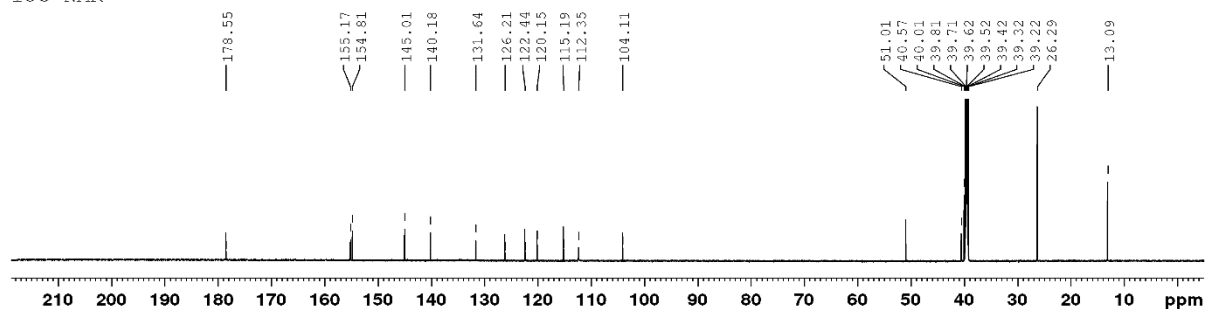


Figure S22. FTIR spectrum of **11**.

¹H-NMR



¹³C-NMR



DEPT

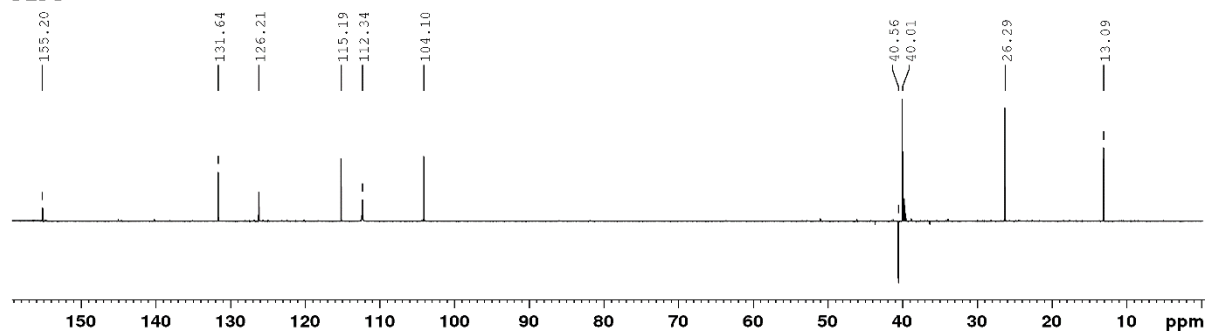


Figure S23. ¹H NMR, ¹³C NMR and DEPT spectra in DMSO-*D*₆ of **12**.

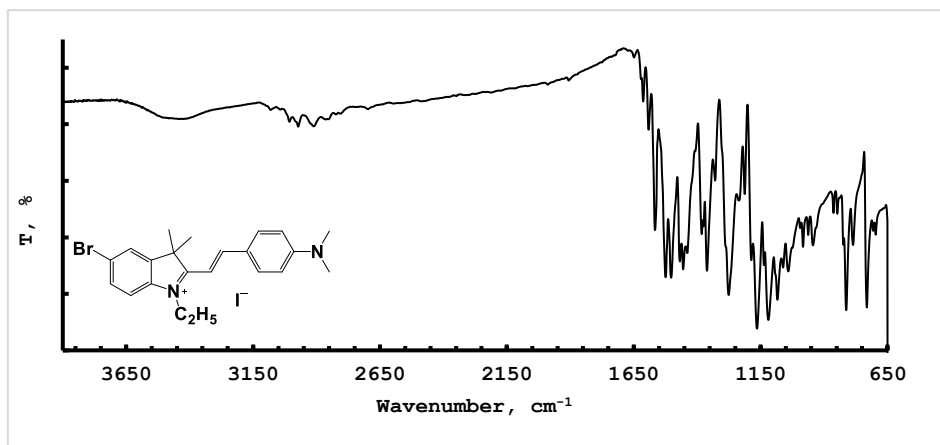
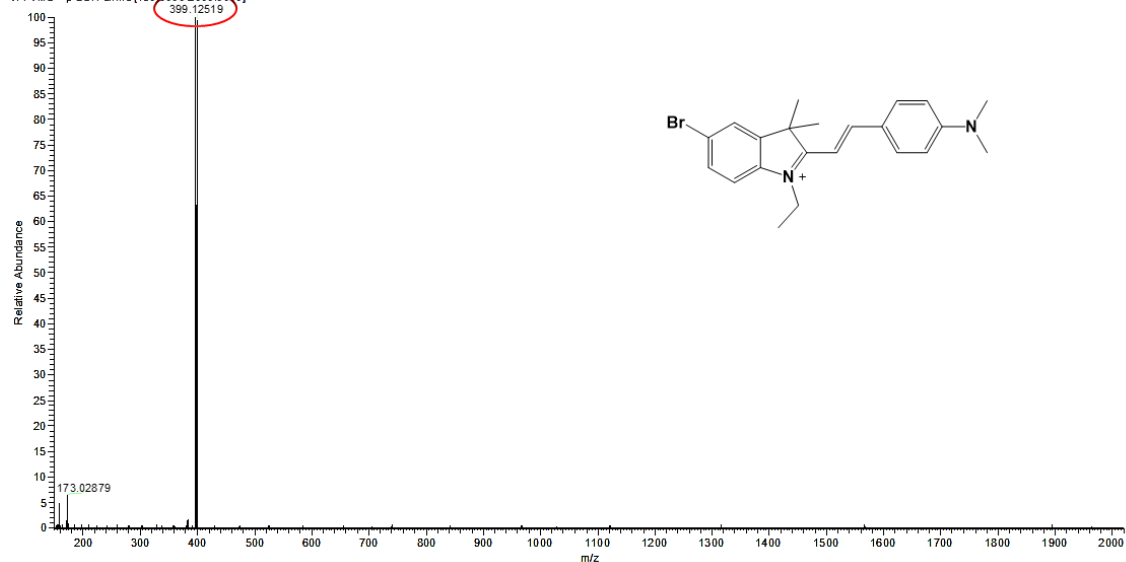


Figure S24. FTIR spectrum of **12**.

D:\DATA\FSV2021\11002100519esi+EI-20

02/04/21 13:43:26

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T: FTMS + p ESI Fullms [150.0000-2000.0000]



D:\DATA\FSV2021\11002100519esi+EI-20

02/04/21 13:43:26

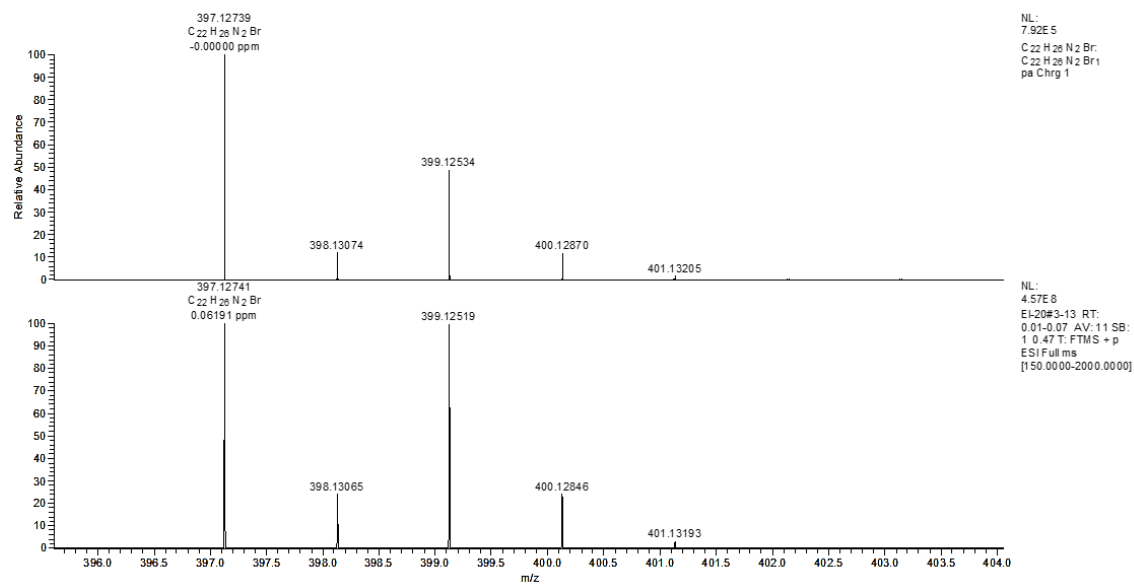
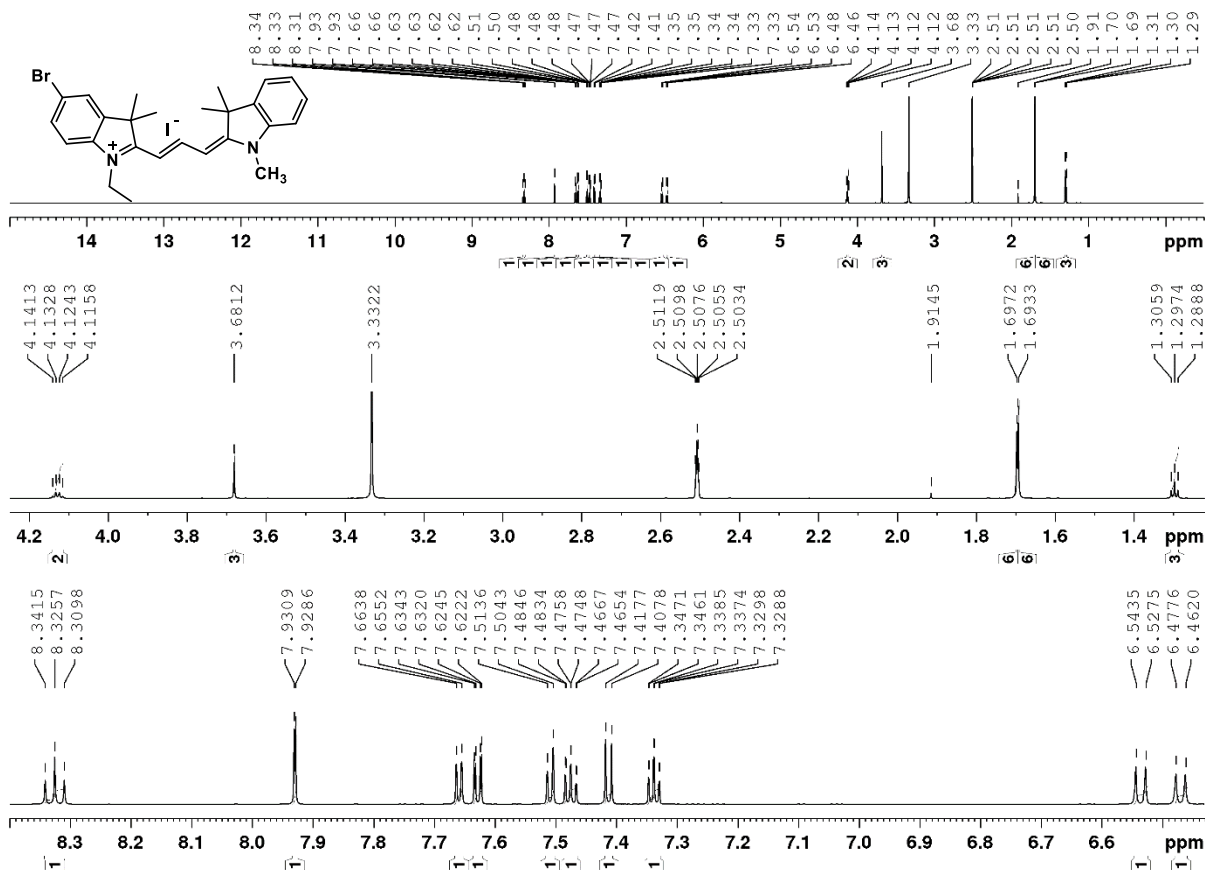
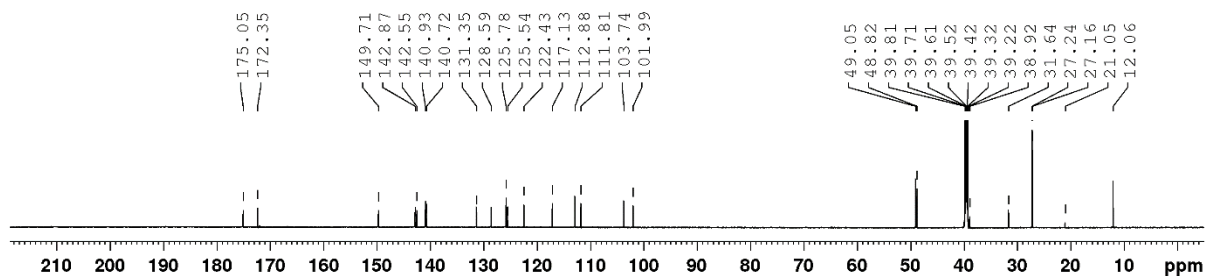


Figure S25. Mass spectrum of **12**.

¹H-NMR



¹³C-NMR



DEPT

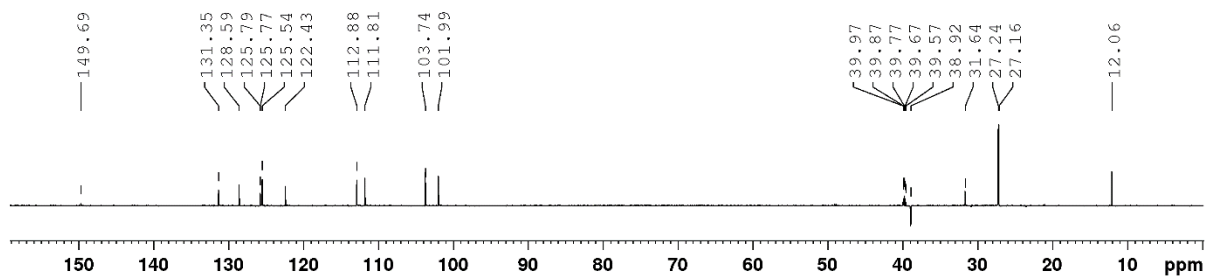


Figure S26. ¹H NMR, ¹³C NMR and DEPT spectra in DMSO-D₆ of 13.

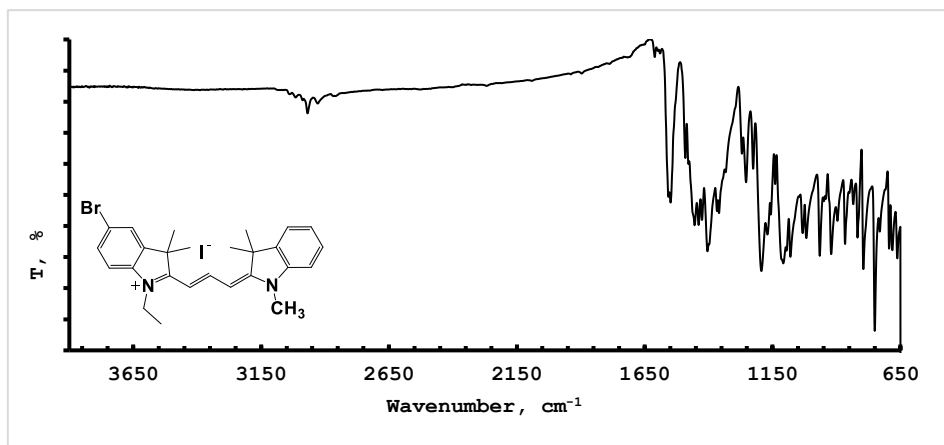


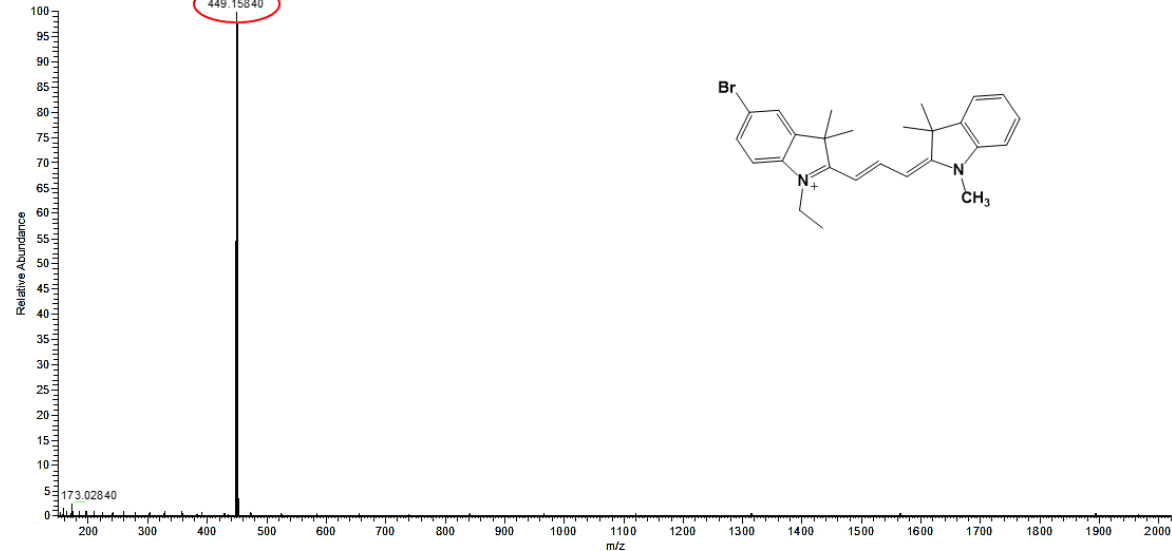
Figure S27. FTIR spectrum of **13**.

D:\DATA\FS\202111002100519\esi+VEI-30

02/04/21 13:49:53

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T: FTMS + p ESI Full ms [150.0000-2000.0000]



D:\DATA\FS\202111002100519\esi+VEI-30

02/04/21 13:49:53

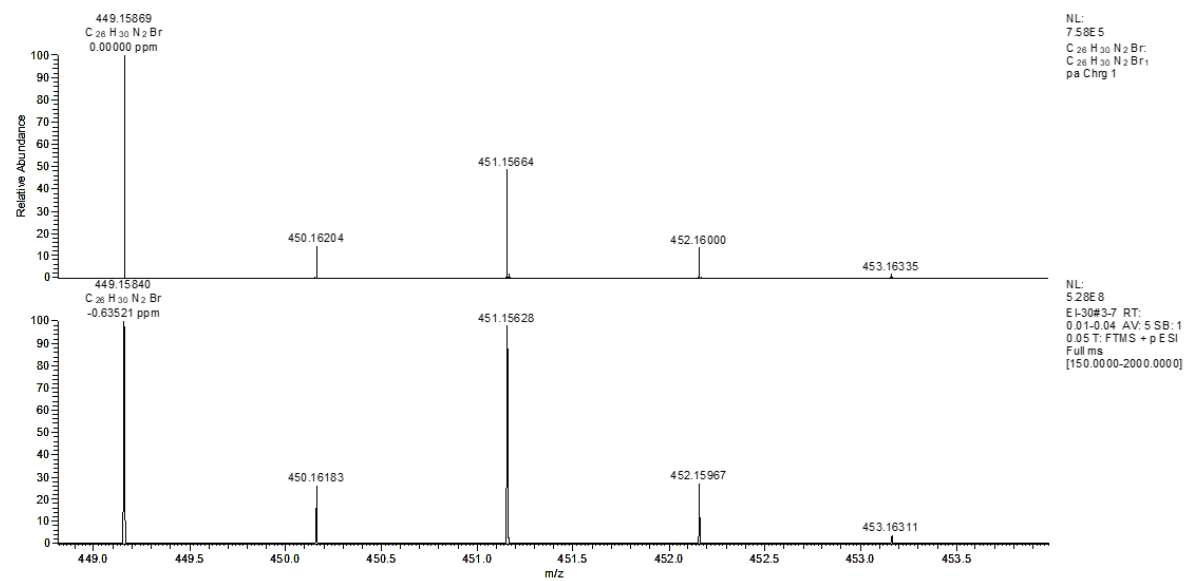


Figure S28. Mass spectrum of **13**.

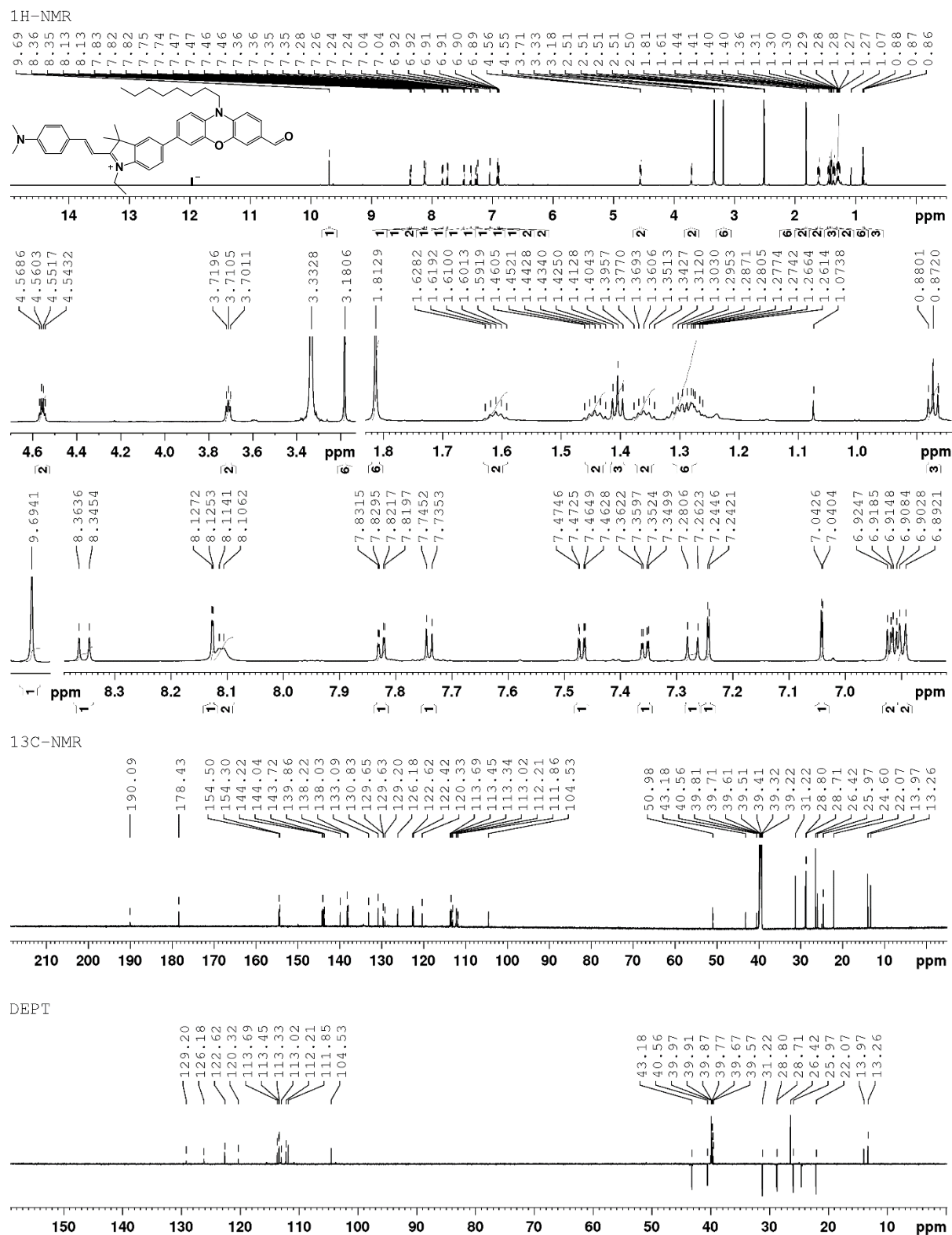


Figure S29. ¹H NMR, ¹³C NMR and DEPT spectra in DMSO-D₆ of **14**.

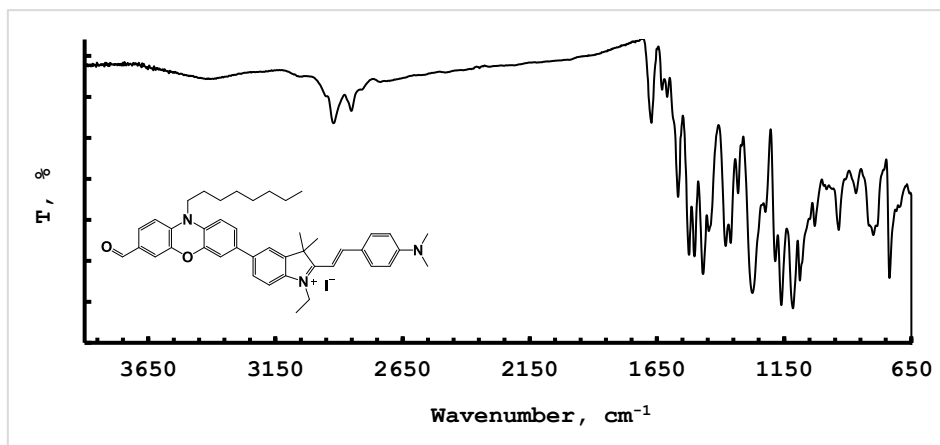
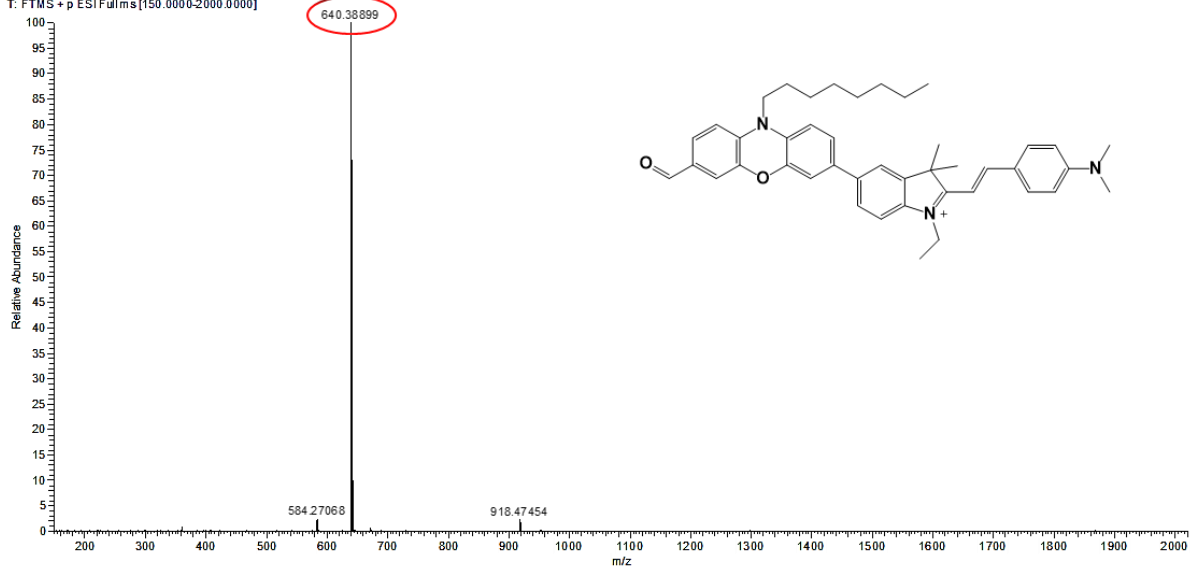


Figure S30. FTIR spectrum of **14**.

D:\DATA\FS\2021\11002100519\esi+EI-21

02/07/21 11:00:02

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D:\DATA\FS\2021\11002100519\esi+EI-21

02/07/21 11:00:02

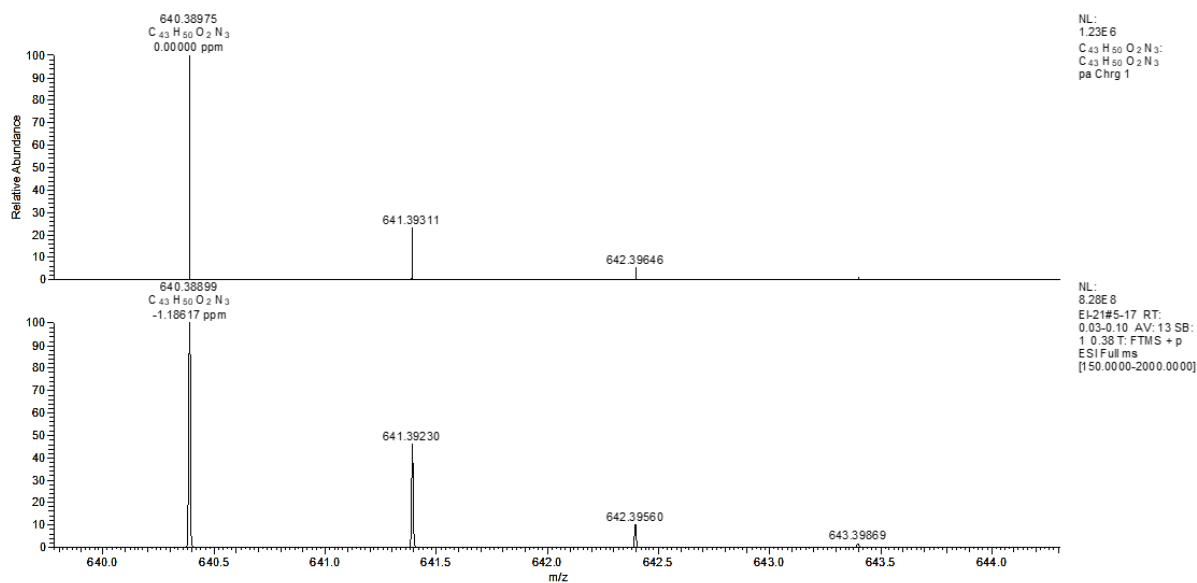


Figure S31. Mass spectrum of **14**.

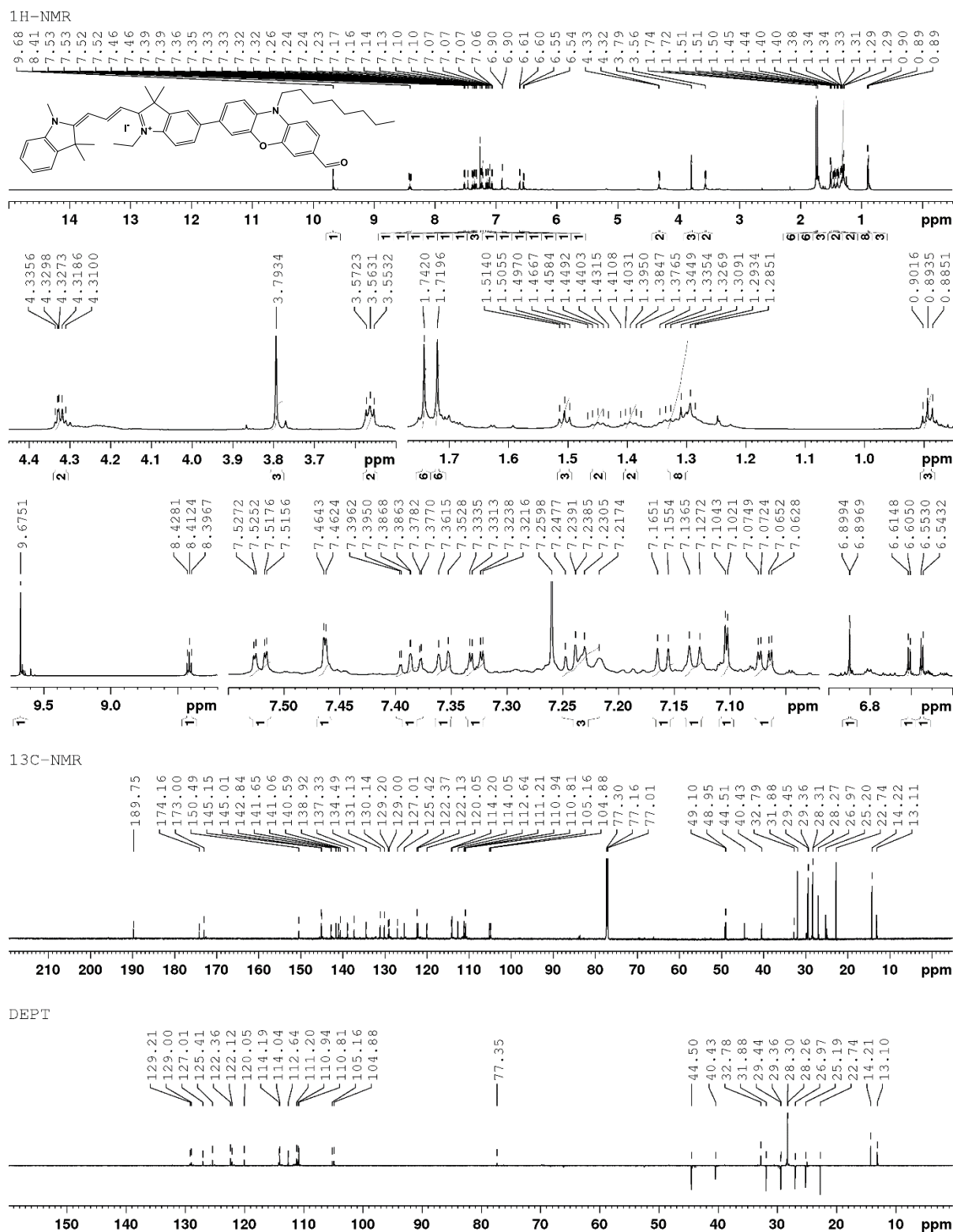


Figure S32. ¹H NMR, ¹³C NMR and DEPT spectra in DMSO-D₆ of **15a**.

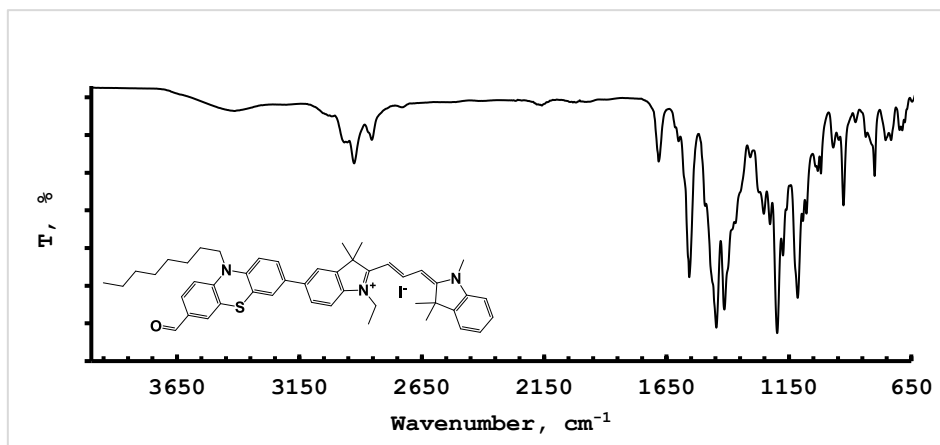
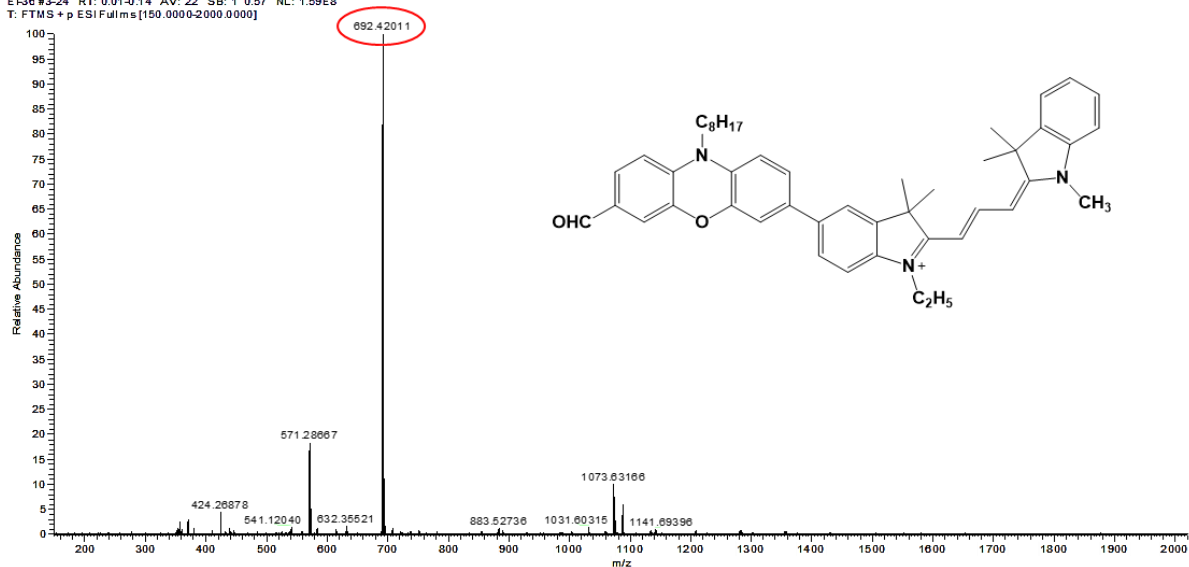


Figure S33. FTIR spectrum of 15a.

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02/07/21 11:17:39

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D:\DATA\FS\202111002100519\esi+IEI-36

02/07/21 11:17:39

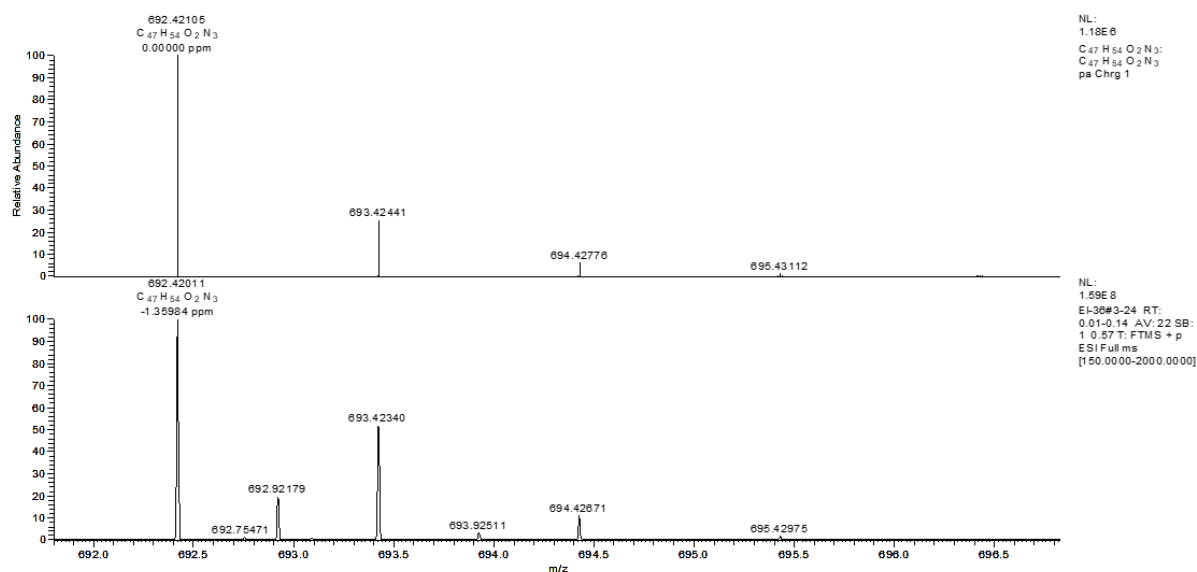


Figure S34. Mass spectrum of 15a.

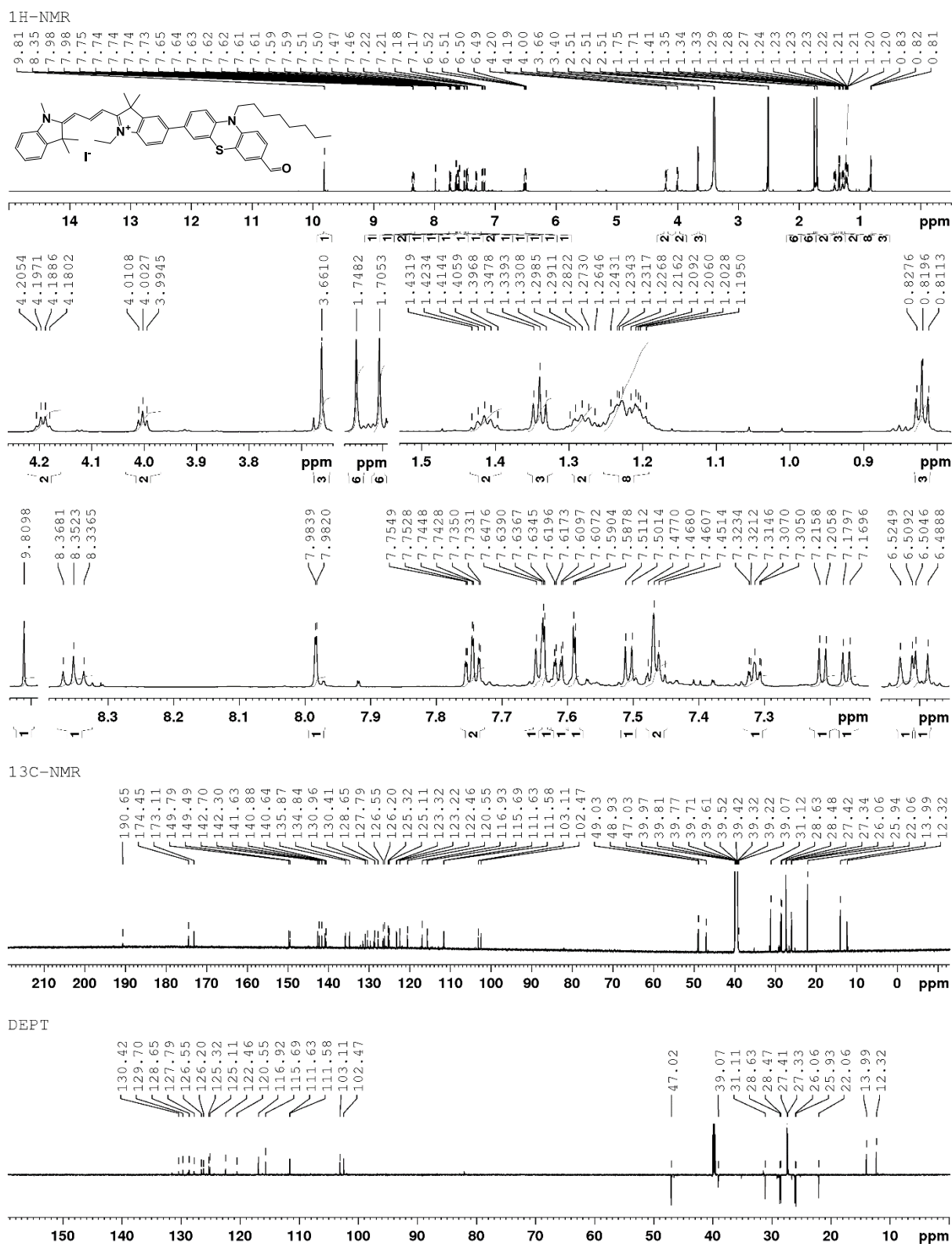


Figure S35. ¹H NMR, ¹³C NMR and DEPT spectra in DMSO-D₆ of **15b**.

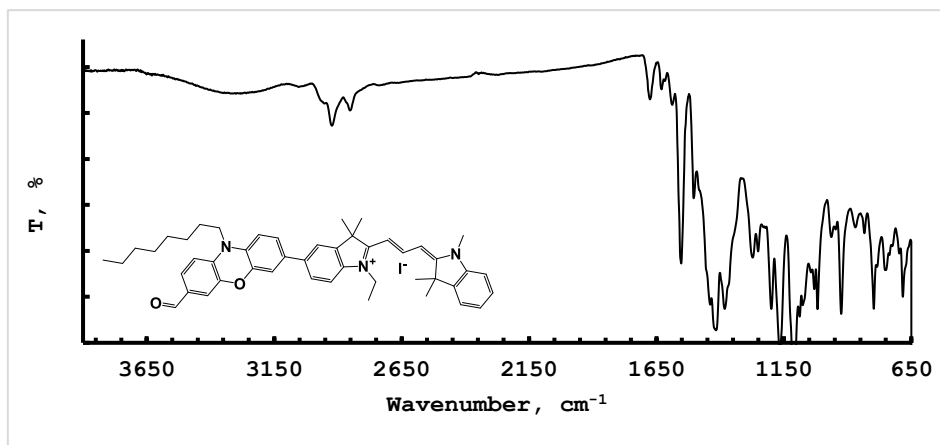


Figure S36. FTIR spectrum of **15b**.

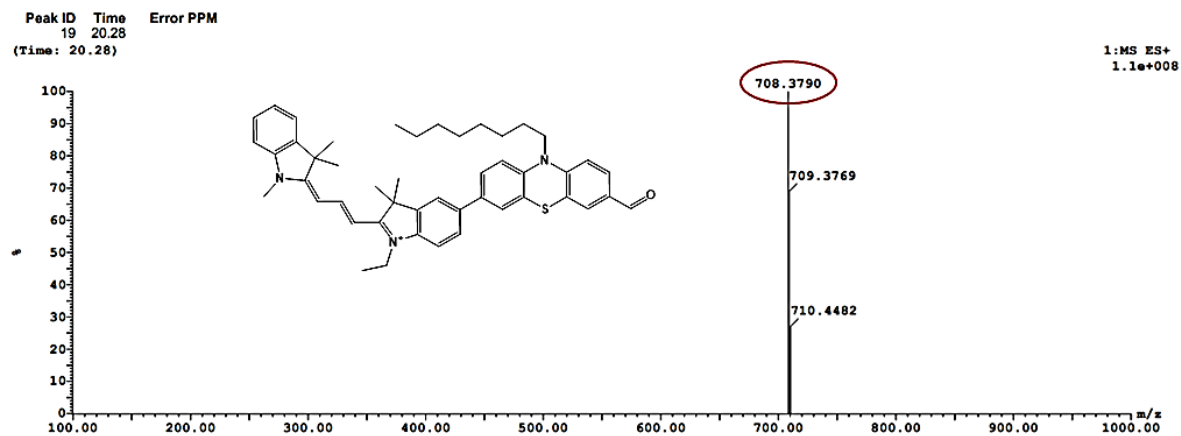


Figure S37. Mass spectrum of **15b**.

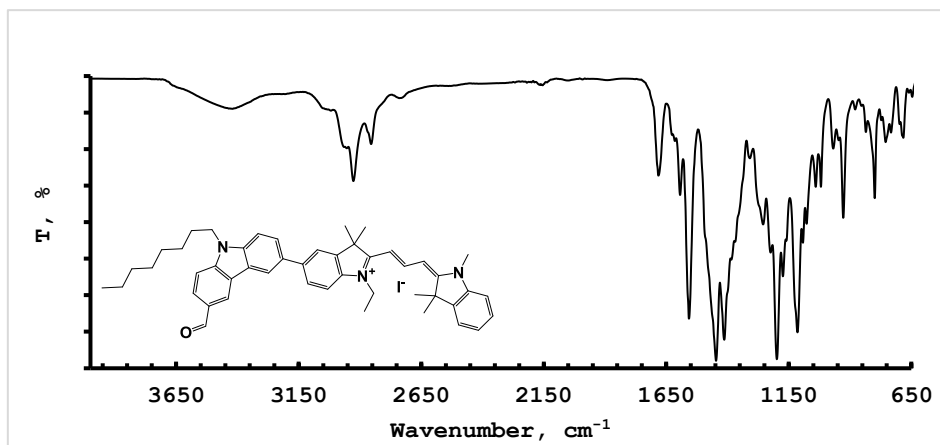


Figure S39. FTIR spectrum of **15c**.

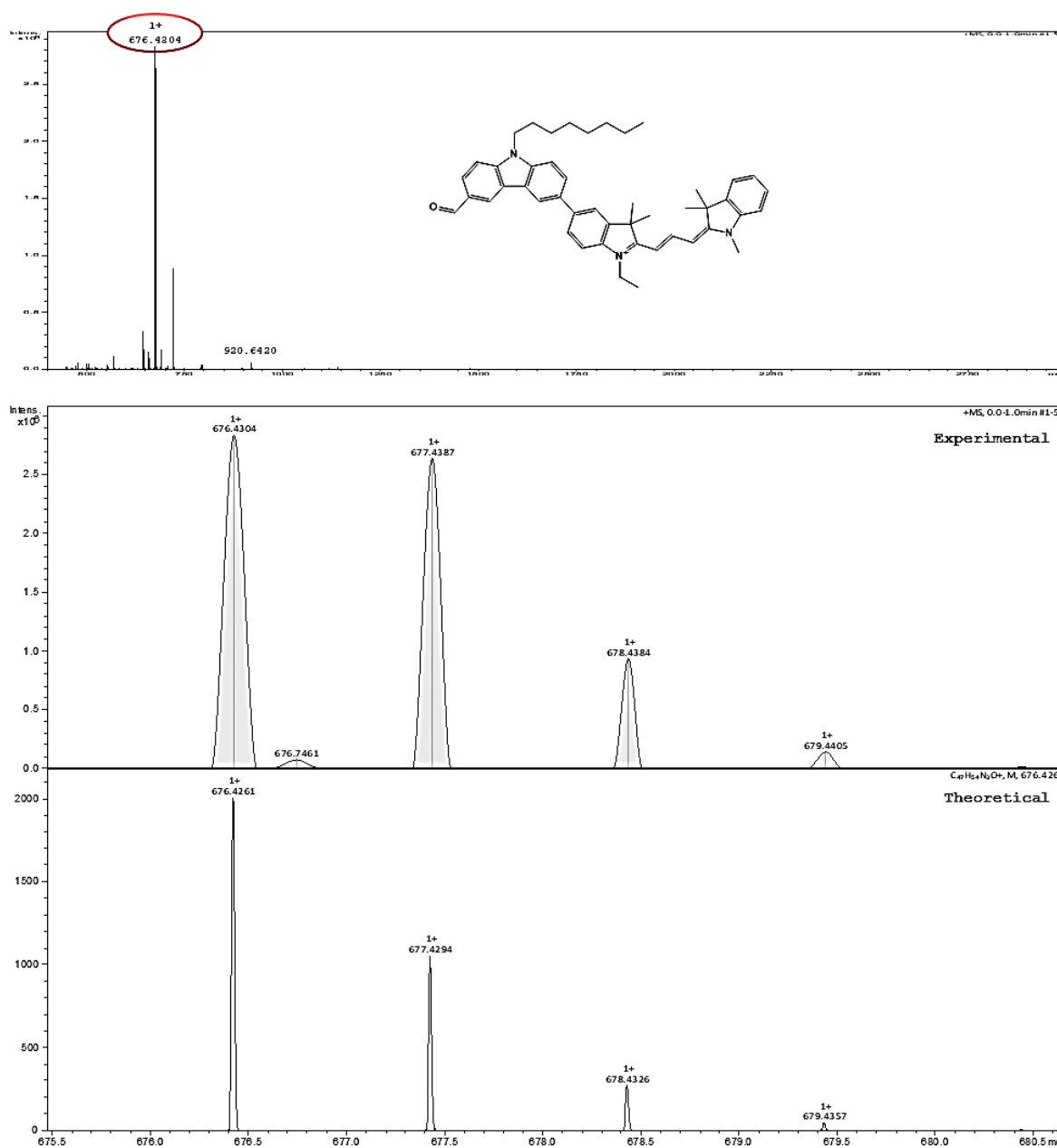


Figure S40. Mass spectrum of **15c**.

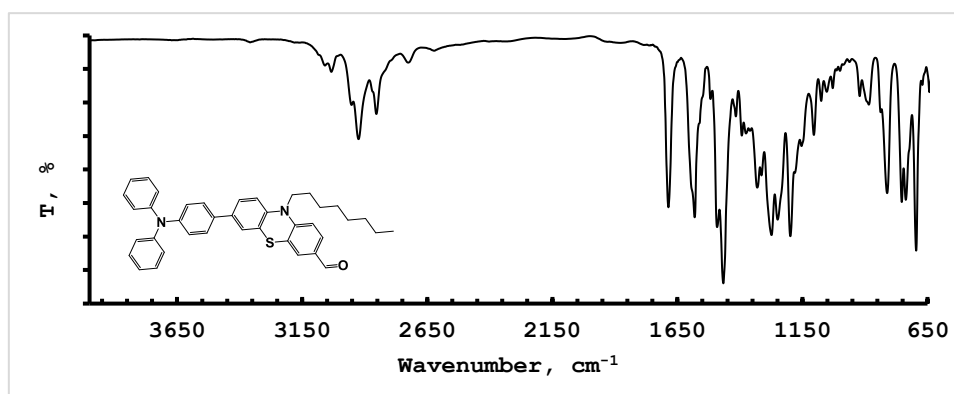


Figure S42. FTIR spectrum of **16**.

Benzo[c][1,2,5]thiadiazole
CDCl₃
1H-NMR, 600 MHz

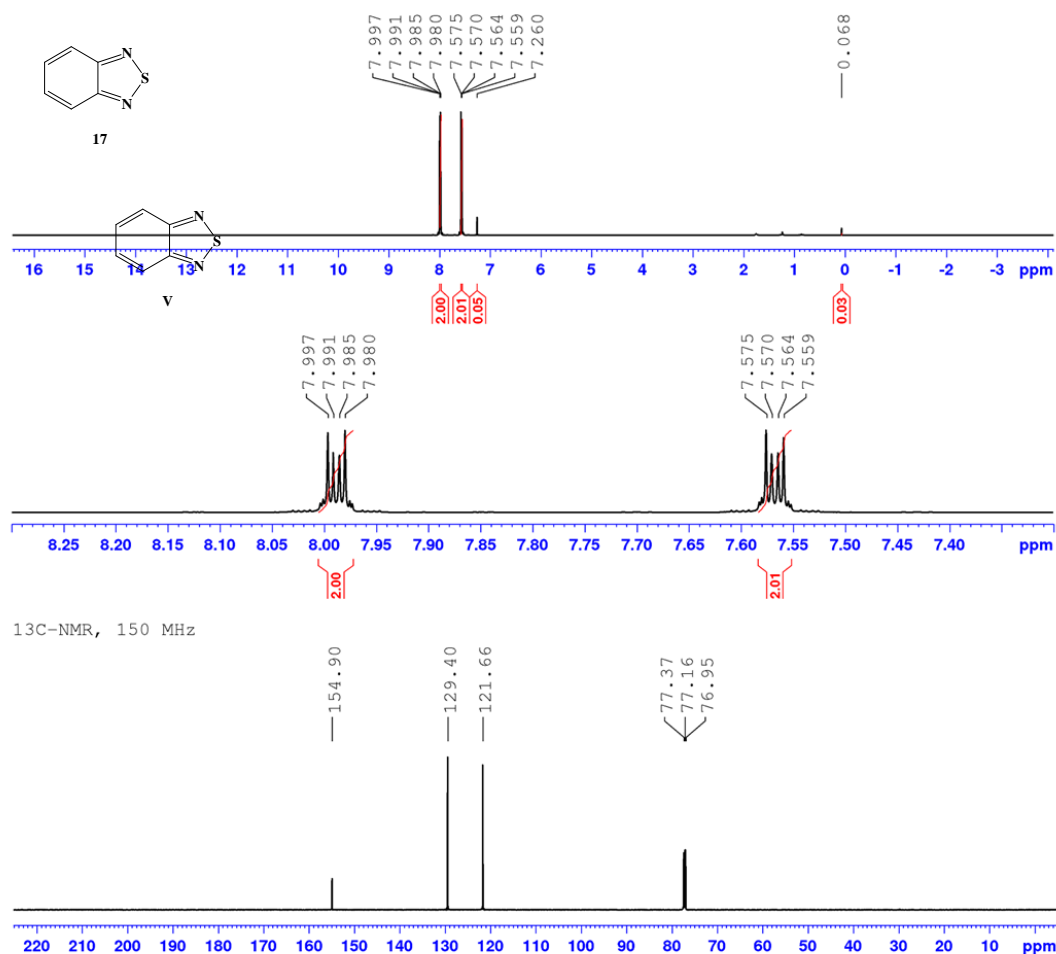


Figure S44. ¹H-NMR and ¹³C-NMR spectra in CDCl₃ of **17**.

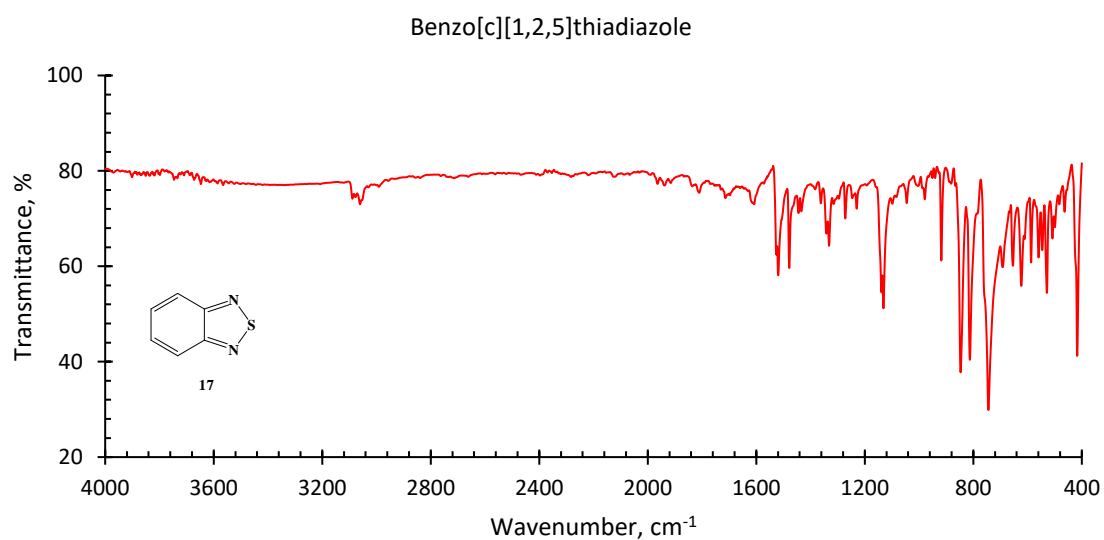
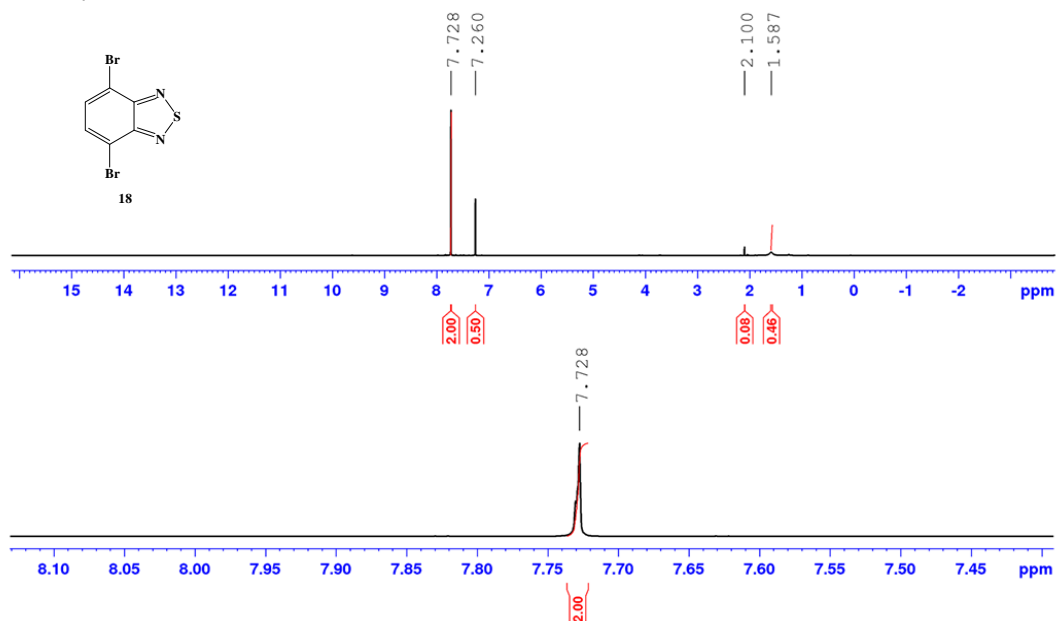


Figure S45. FTIR spectrum of **17**.

4,7-Dibromobenzo[c][1,2,5]thiadiazole
CDCl₃
1H-NMR, 850 MHz



¹³C-NMR, 213 MHz

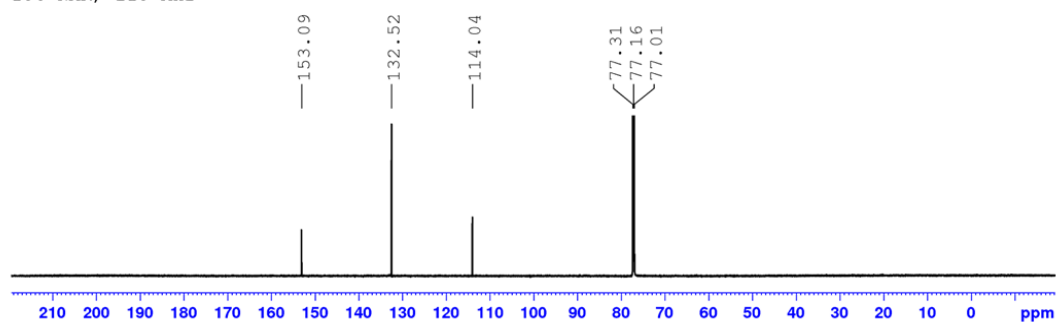


Figure S46. ¹H-NMR and ¹³C-NMR spectra in CDCl₃ of **18**.

4,7-Dibromobenzo[c][1,2,5]thiadiazole

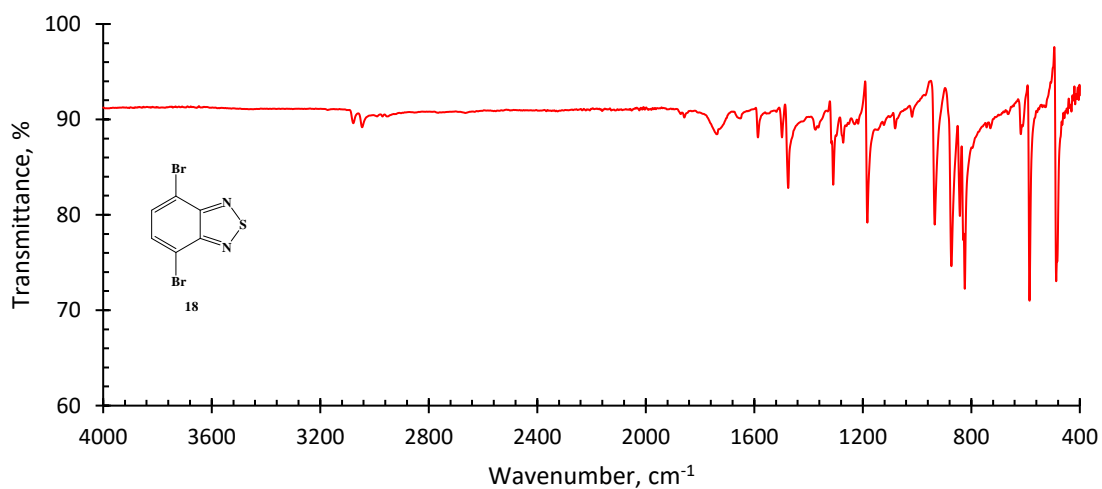
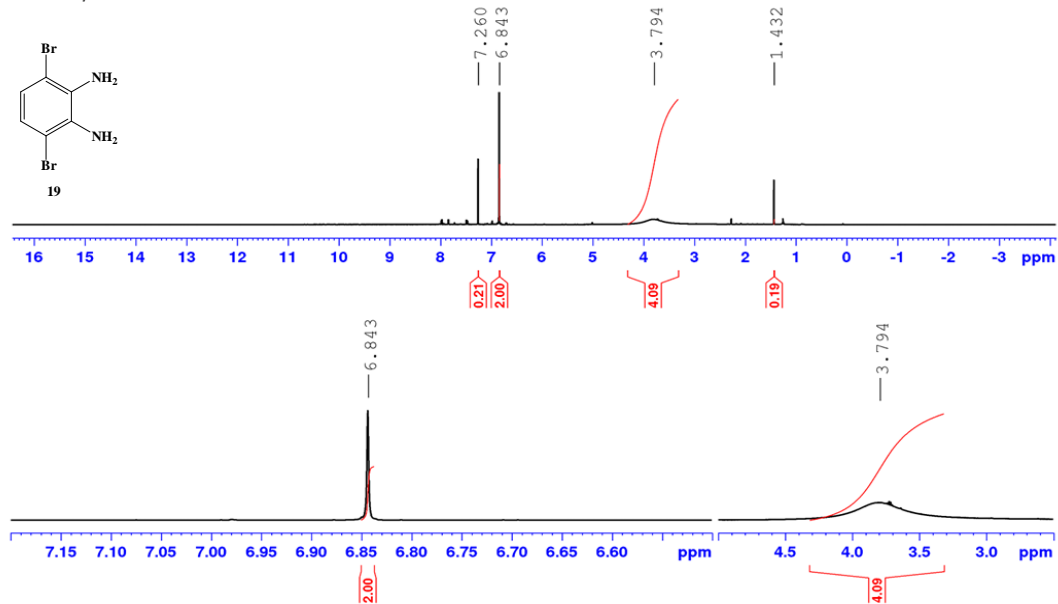


Figure S47. FTIR spectrum of **18**.

3,6-Dibromobenzene-1,2-diamine
CDCl₃
1H-NMR, 600 MHz



13C-NMR, 213 MHz

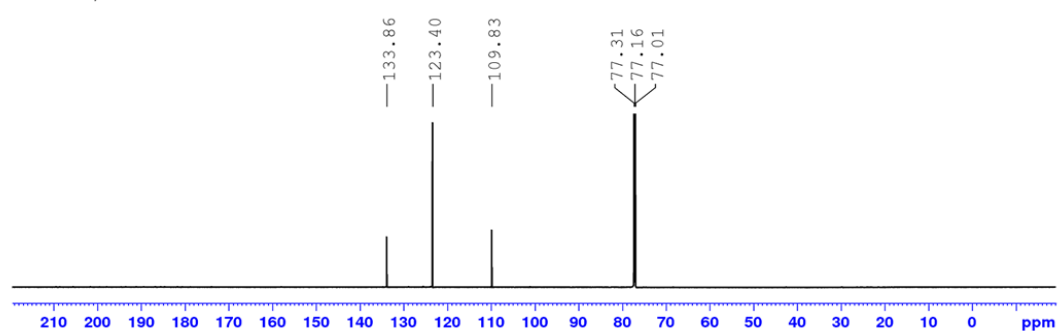


Figure S48. ¹H-NMR and ¹³C-NMR spectra in CDCl₃ of **19**.

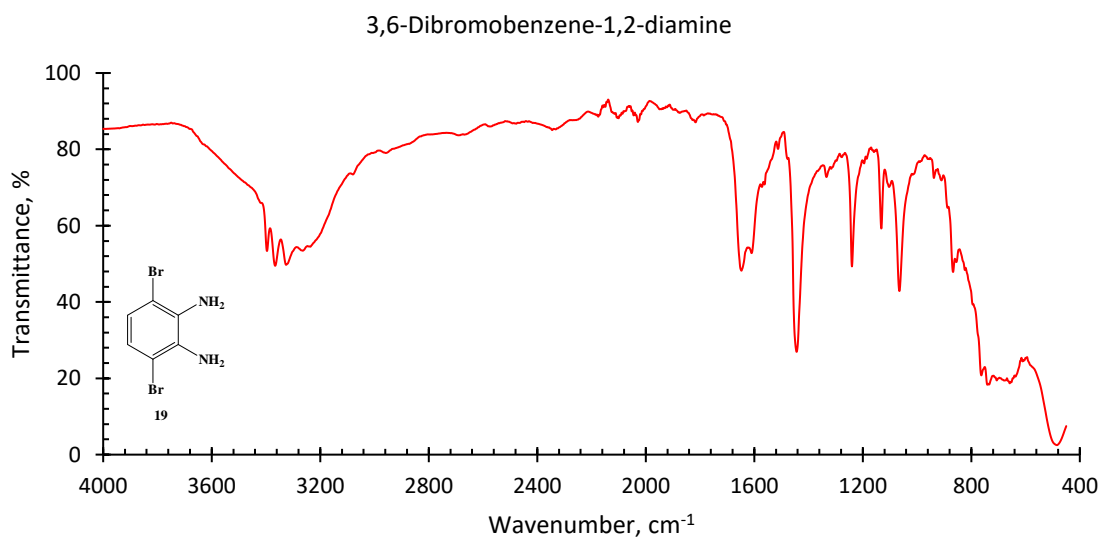


Figure S49. FTIR spectrum of **19**.

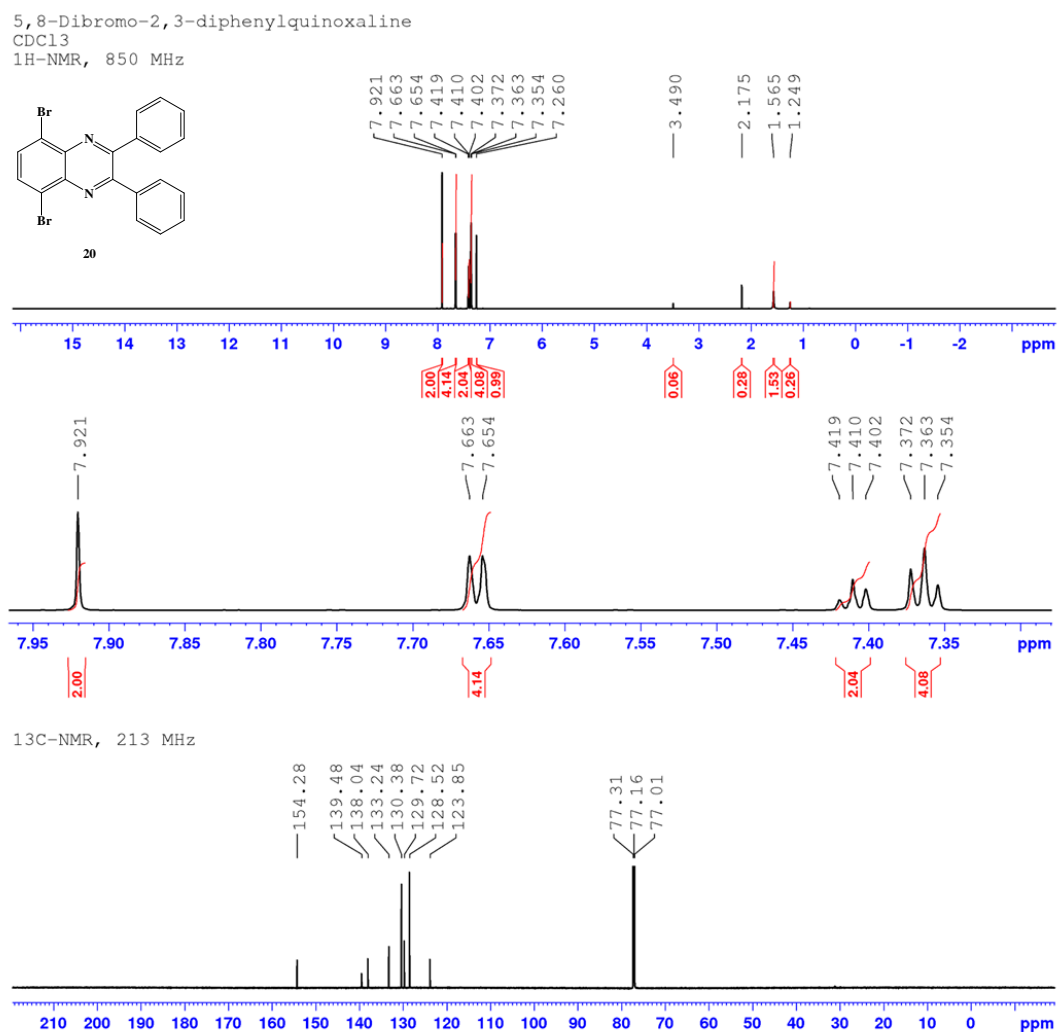


Figure S50. ¹H-NMR and ¹³C-NMR spectra in CDCl₃ of **20**.

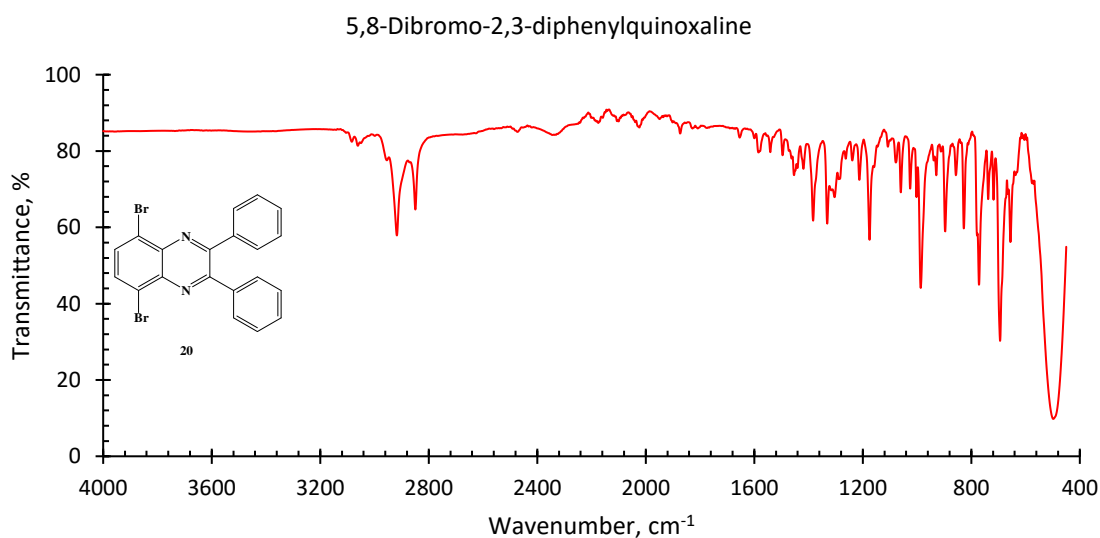
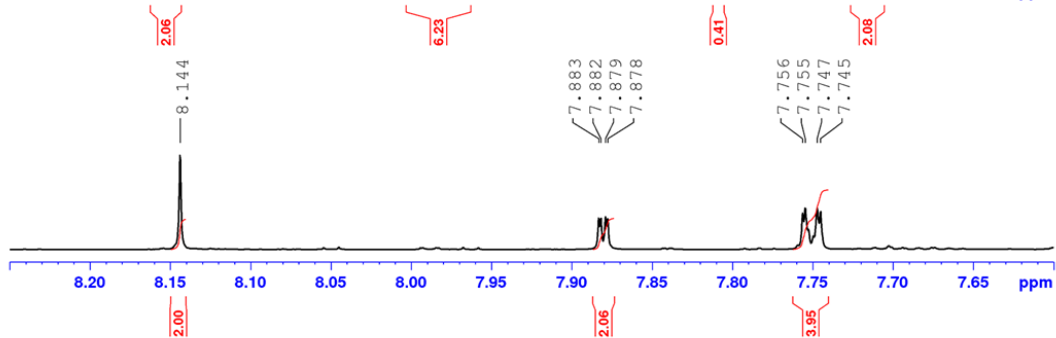
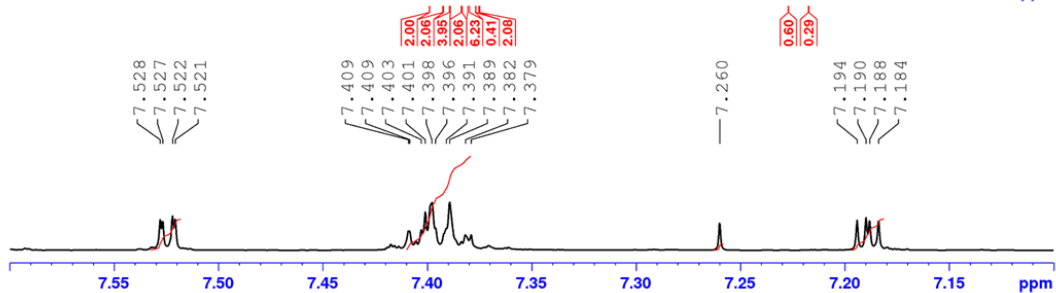
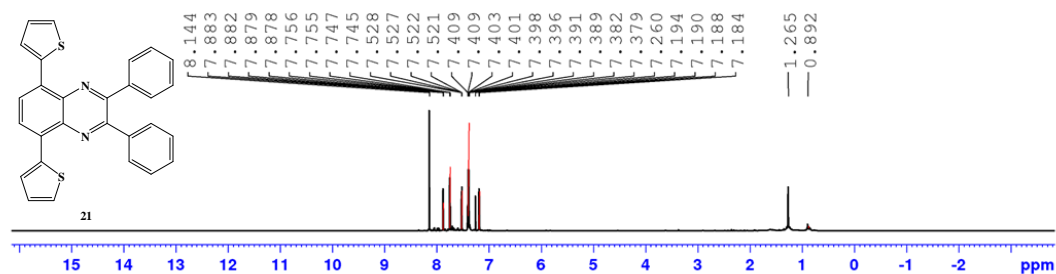
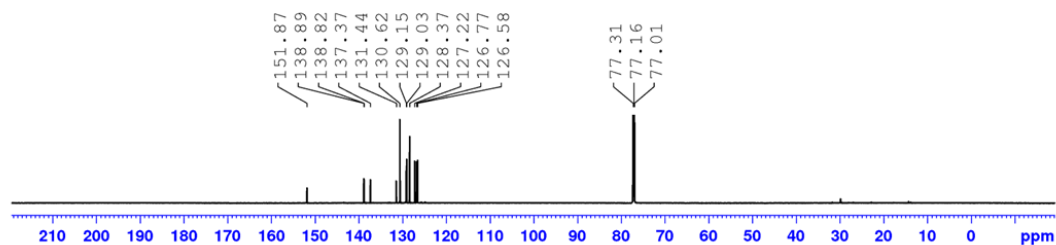


Figure S51. FTIR spectrum of **20**.

2,3-Diphenyl-5,8-di(thiophen-2-yl)quinoxaline
 CDCl₃
 1H-NMR, 850 MHz



¹³C-NMR, 213 MHz



DEPT-135, 213 MHz

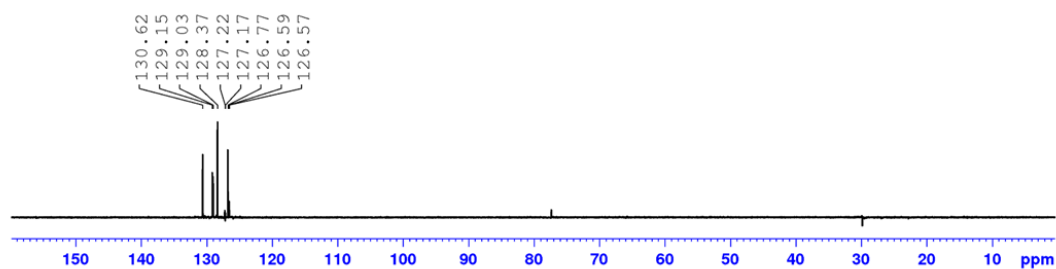


Figure S52. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **21**.

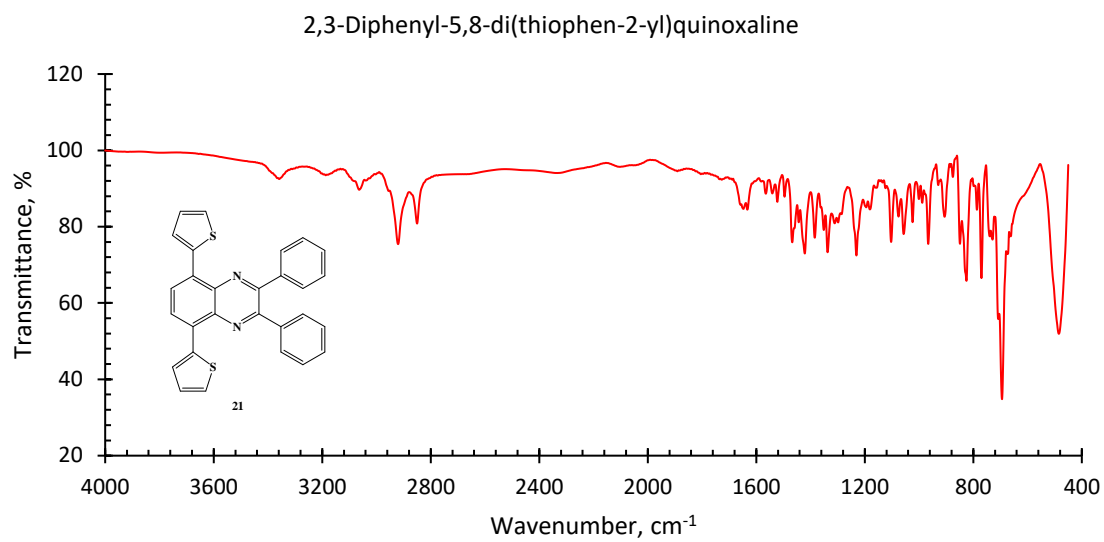


Figure S53. FTIR spectrum of **21**.

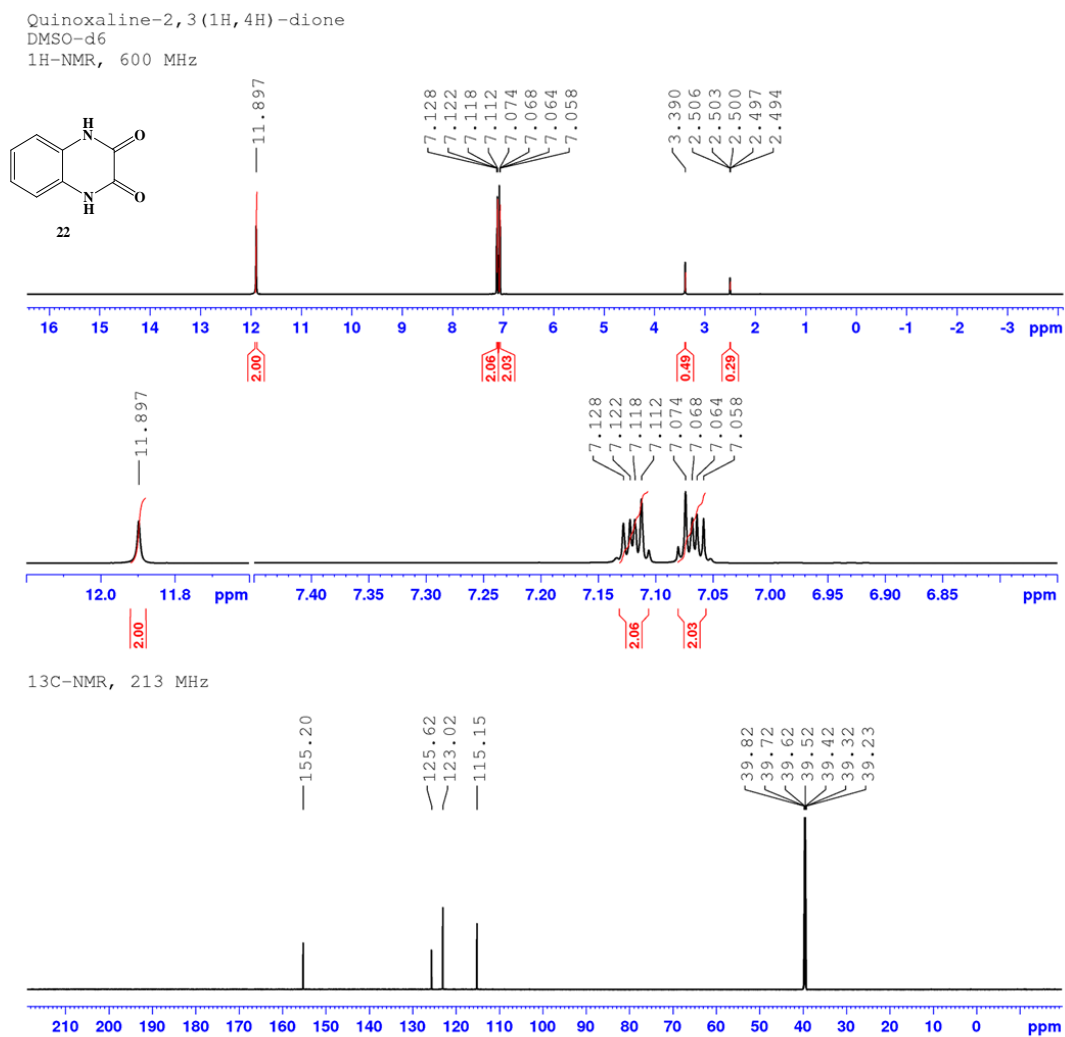


Figure S54. ¹H-NMR and ¹³C-NMR spectra in DMSO-*d*₆ of **22**.

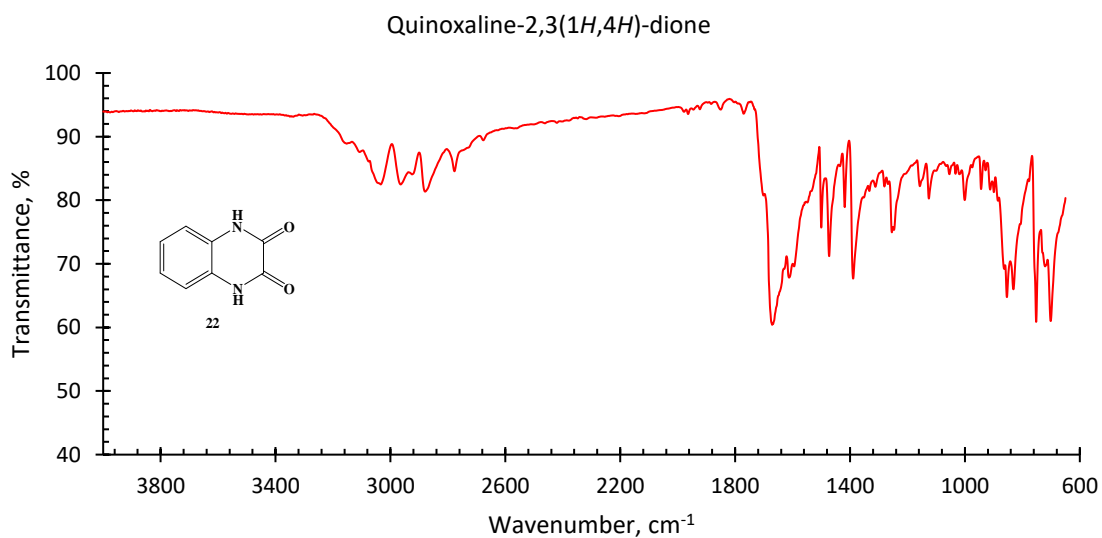
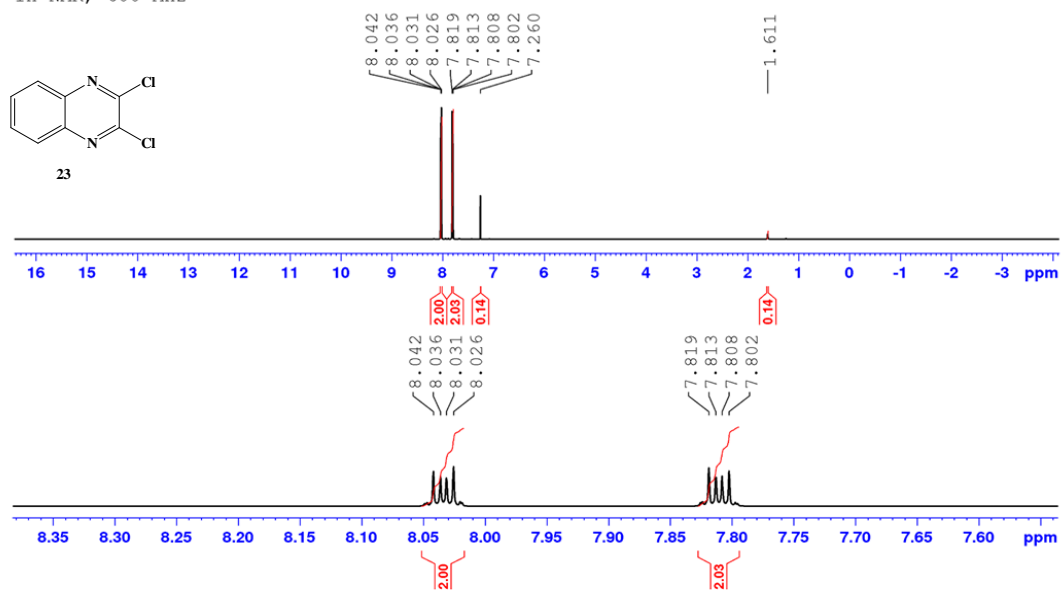


Figure S55. FTIR spectrum of **22**.

2,3-Dichloroquinoxaline
CDCl₃
1H-NMR, 600 MHz



13C-NMR, 213 MHz

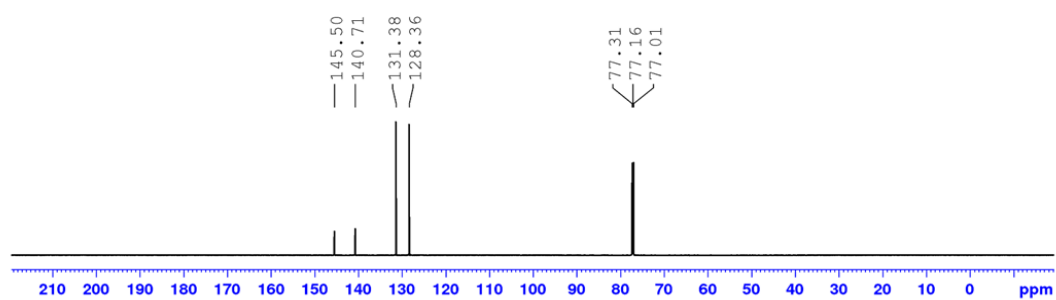


Figure S56. ¹H-NMR and ¹³C-NMR spectra in CDCl₃ of **23**.

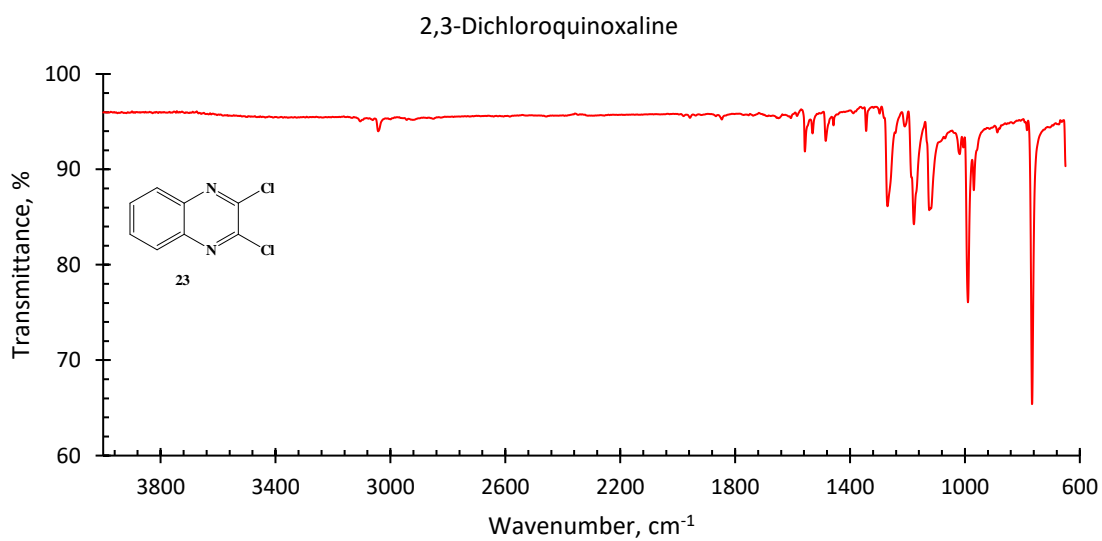


Figure S57. FTIR spectrum of **23**.

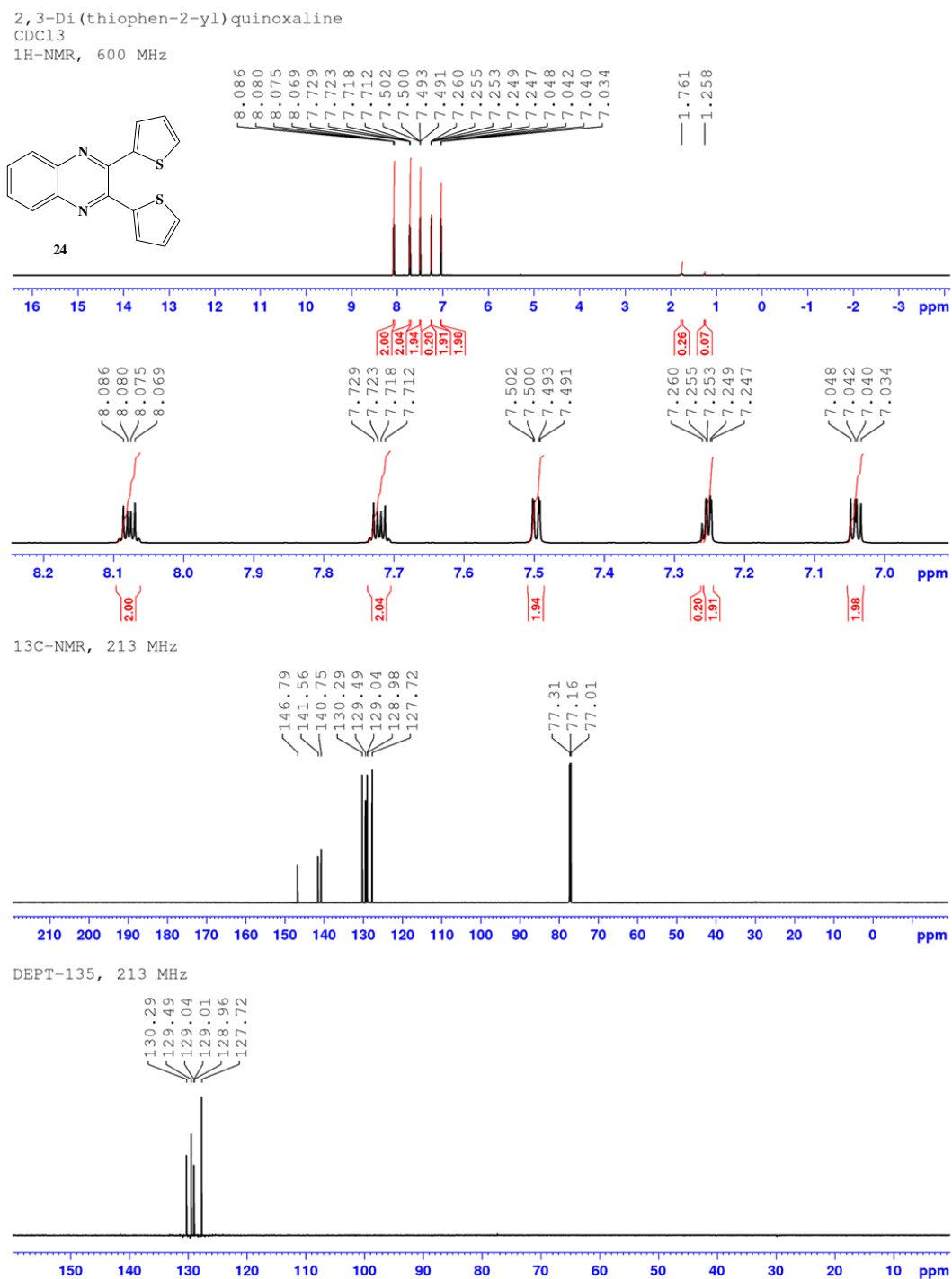


Figure S58. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **24**.

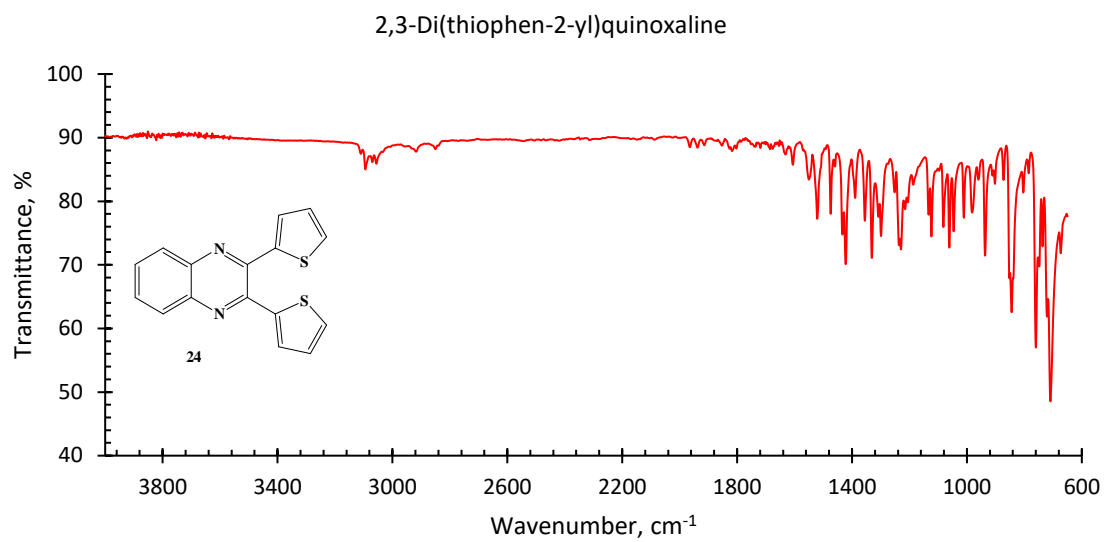
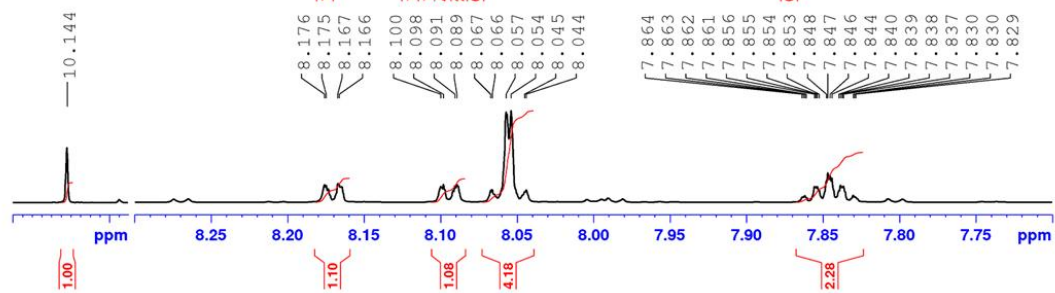
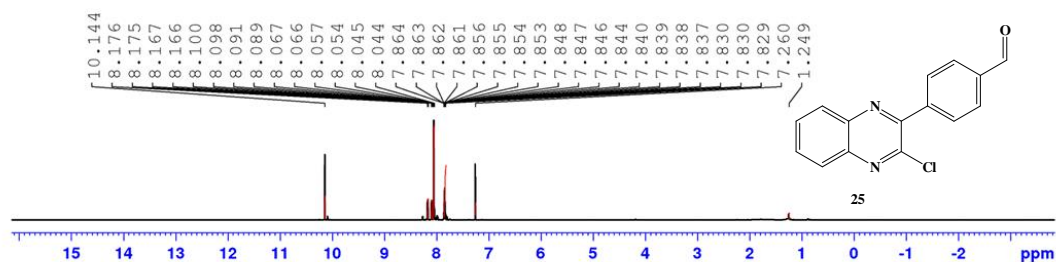


Figure S59. FTIR spectrum of **24**.

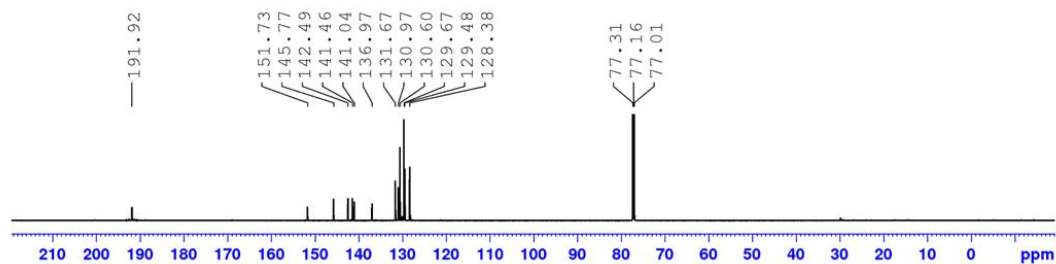
4-(3-Chloroquinoxalin-2-yl)benzaldehyde

CDCl₃

¹H-NMR, 850 MHz



¹³C-NMR, 213 MHz



DEPT-135, 213 MHz

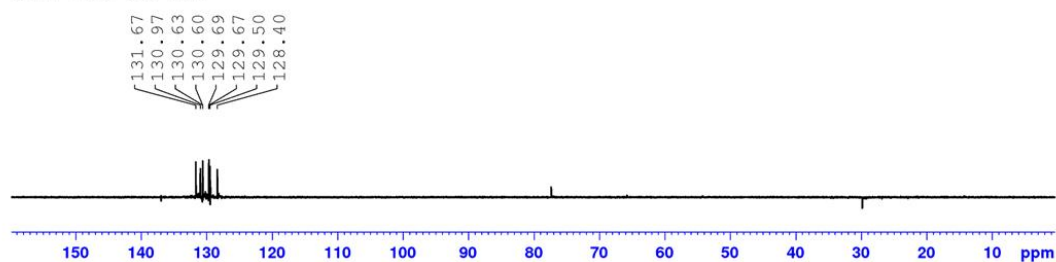


Figure S60. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **25**.

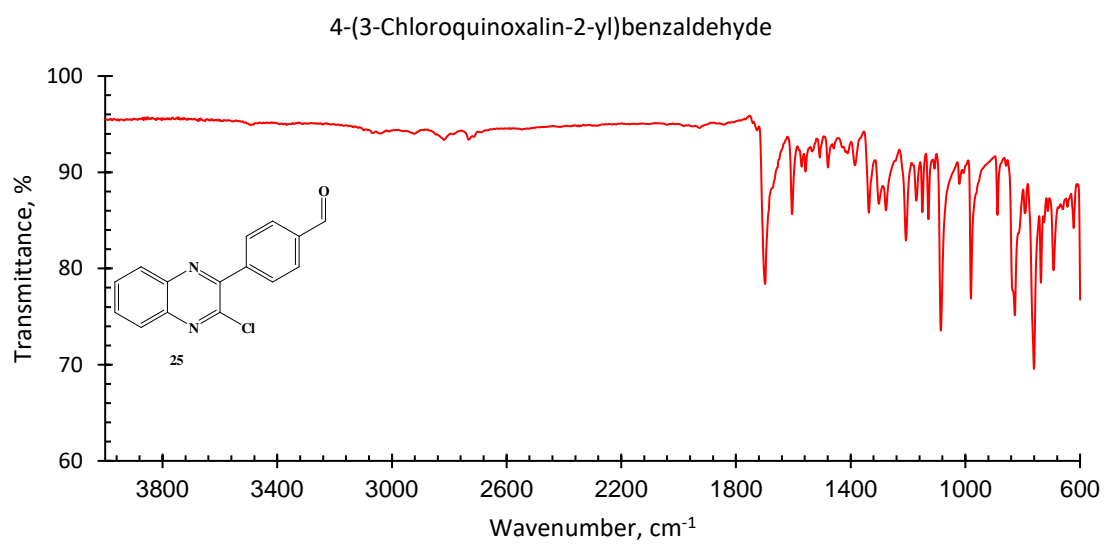


Figure S61. FTIR spectrum of **25**.

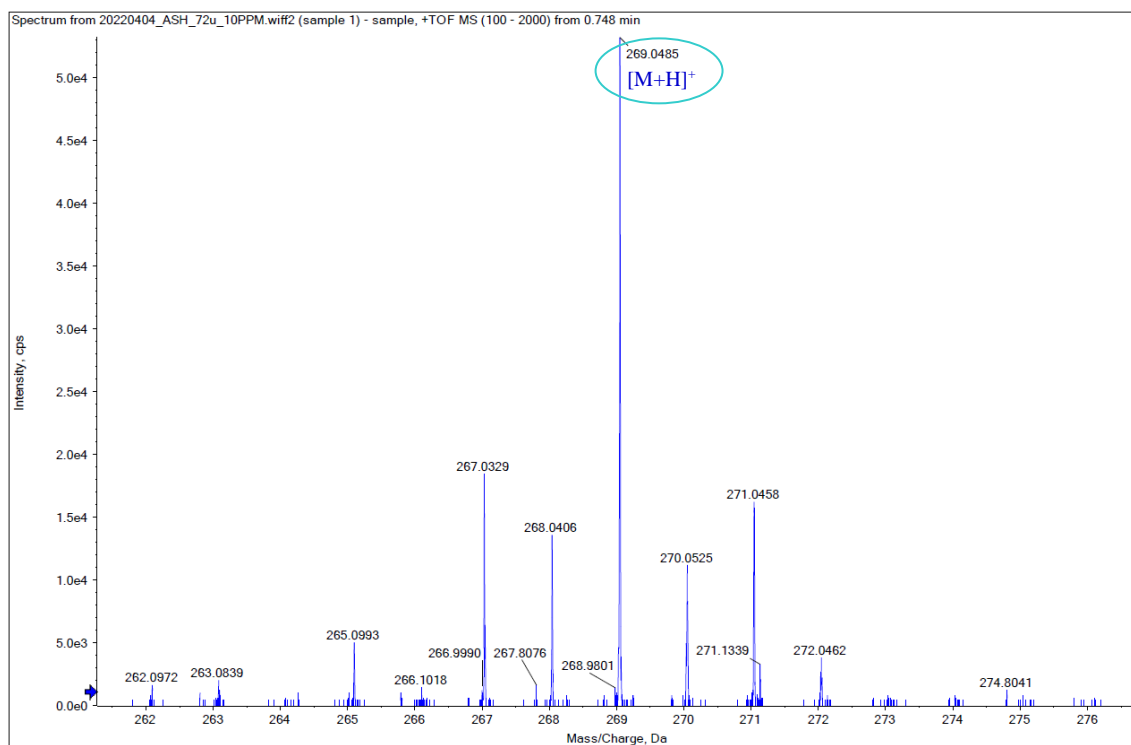
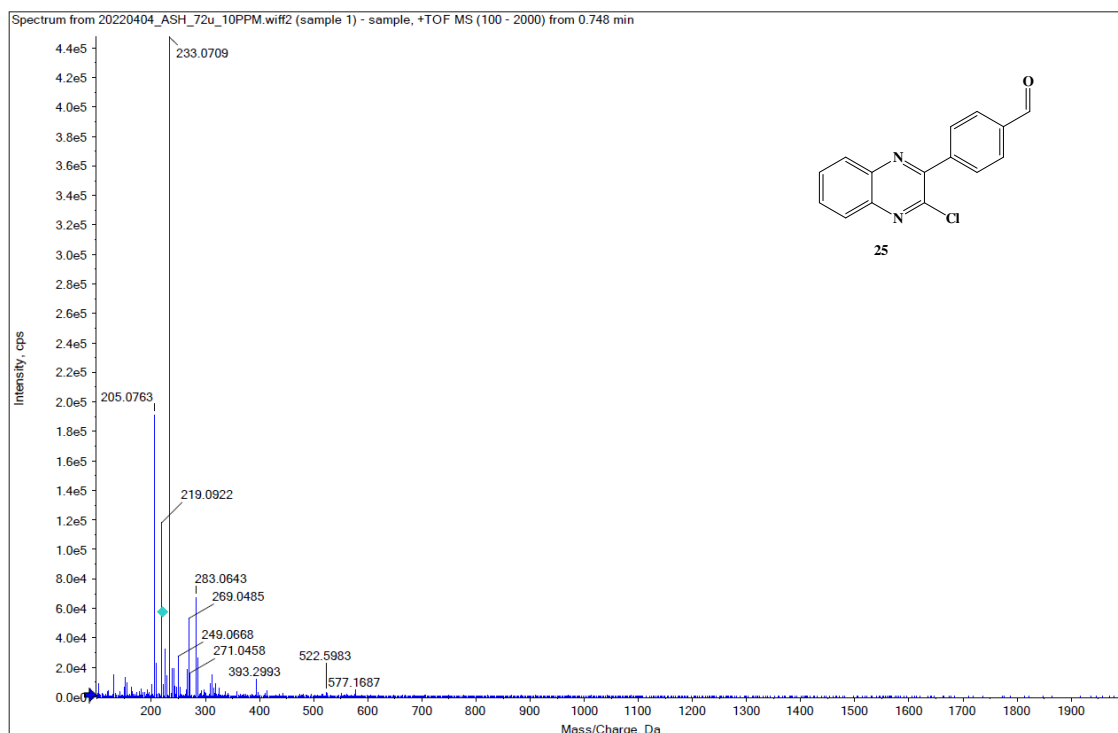


Figure S62. HRMS spectrum of **25**.

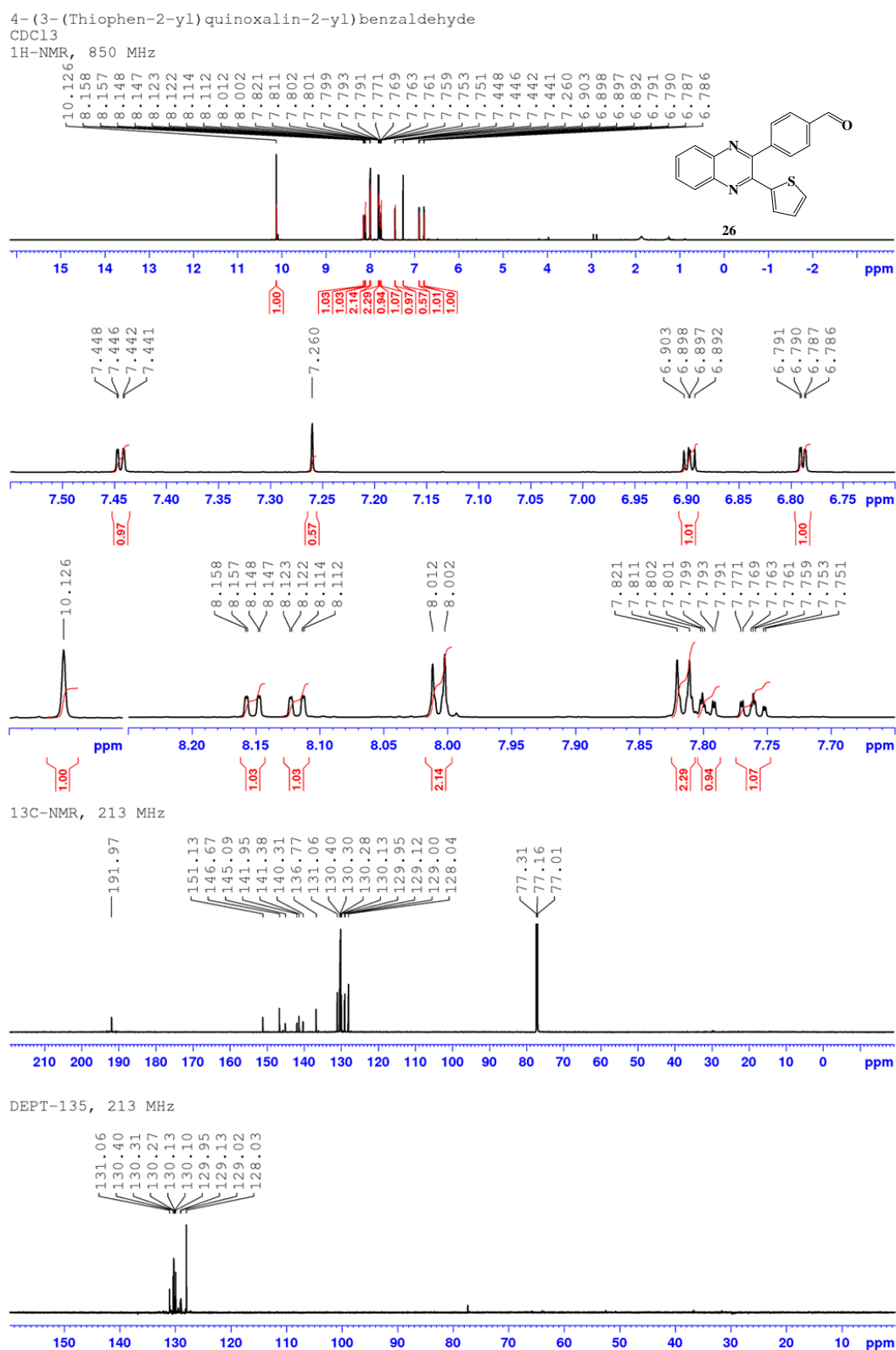


Figure S63. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **26**.

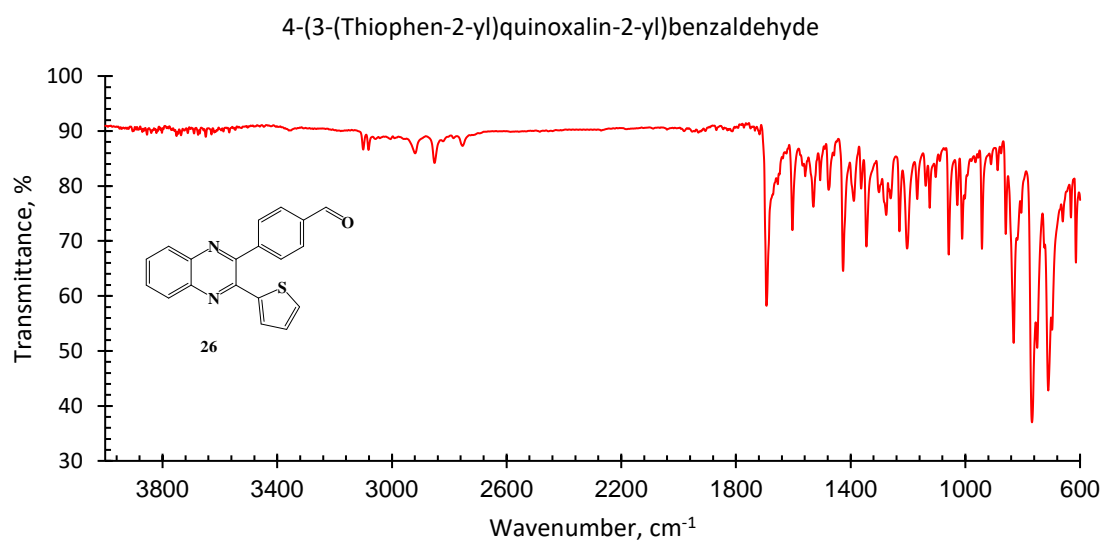


Figure S64. FTIR spectrum of **26**.

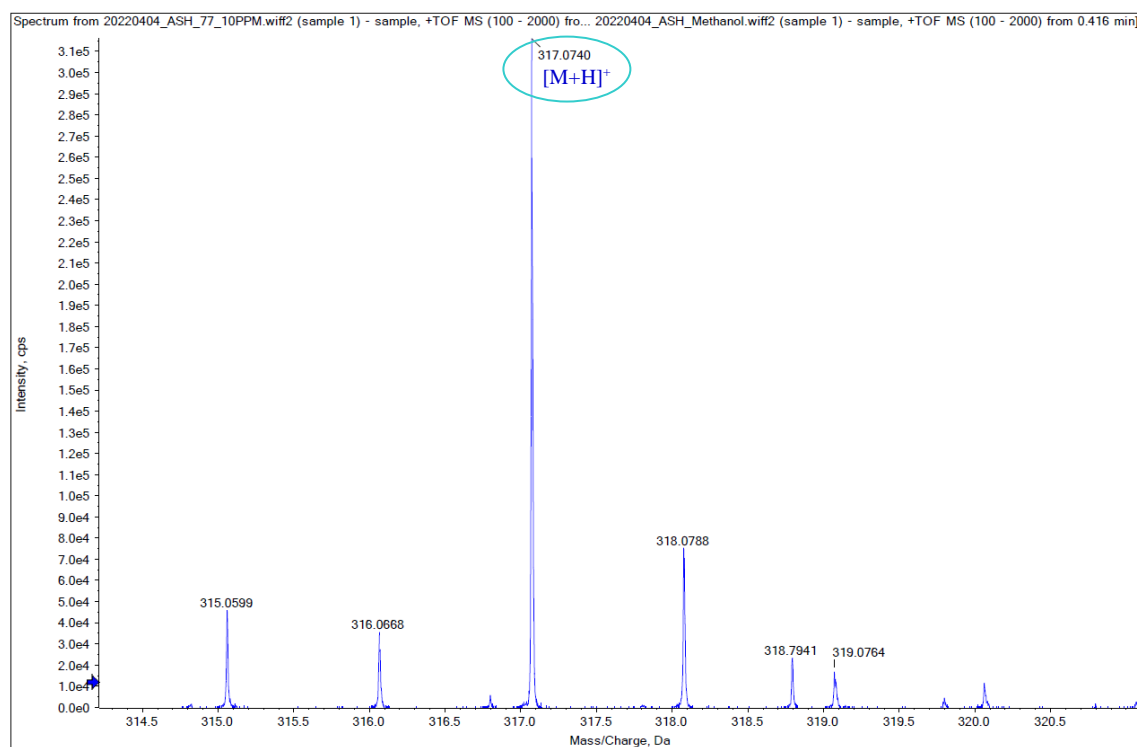
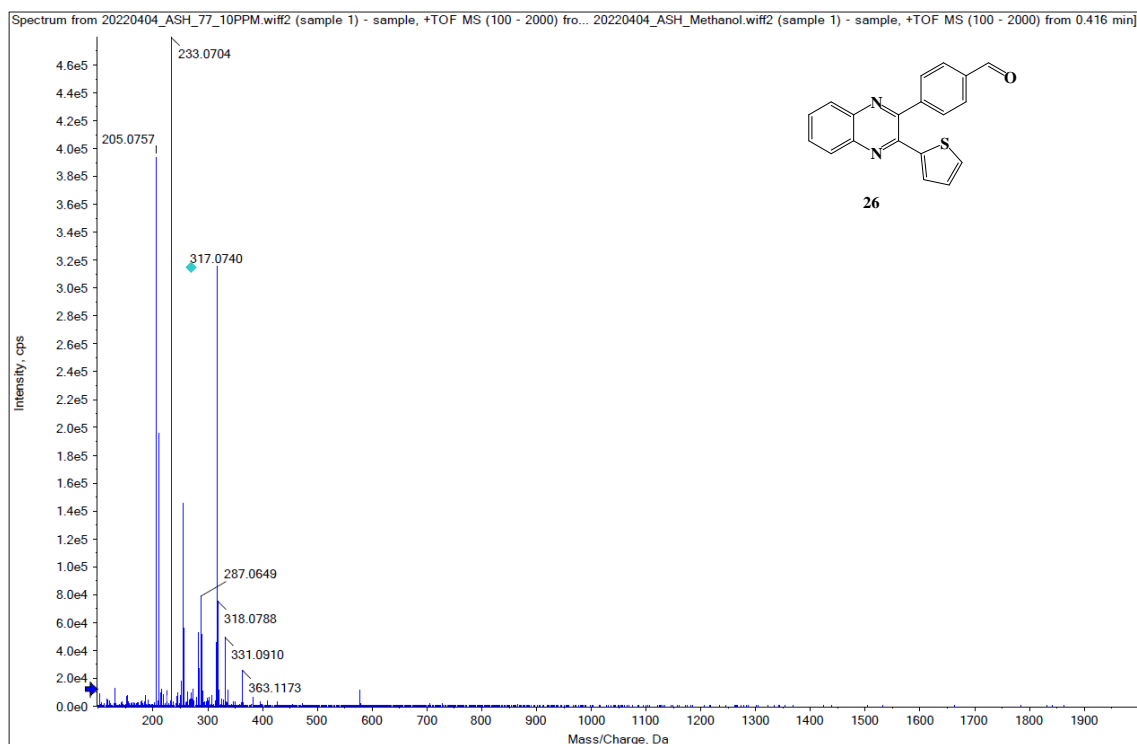
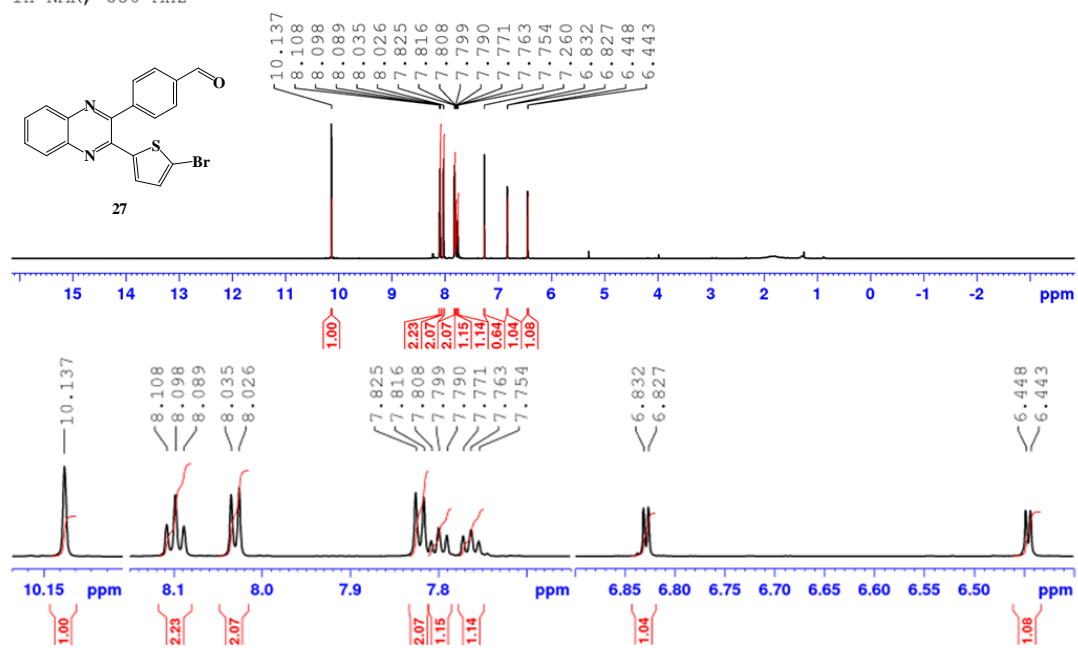
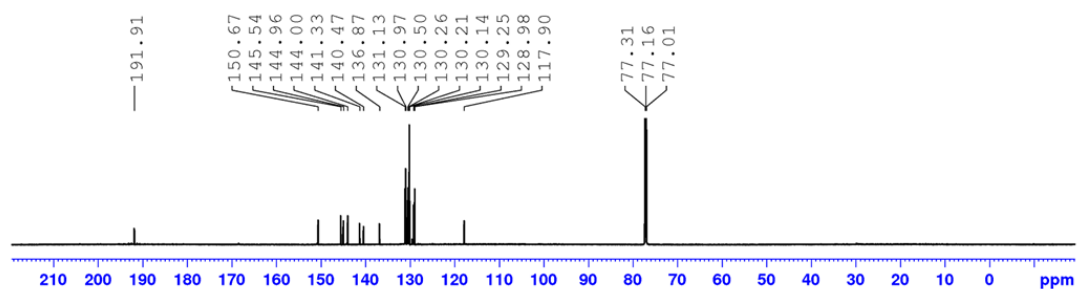


Figure S65. HRMS spectrum of **26**.

4-(3-(5-Bromothiophen-2-yl)quinoxalin-2-yl)benzaldehyde
 CDCl₃
 1H-NMR, 850 MHz



13C-NMR, 213 MHz



DEPT-135, 213 MHz

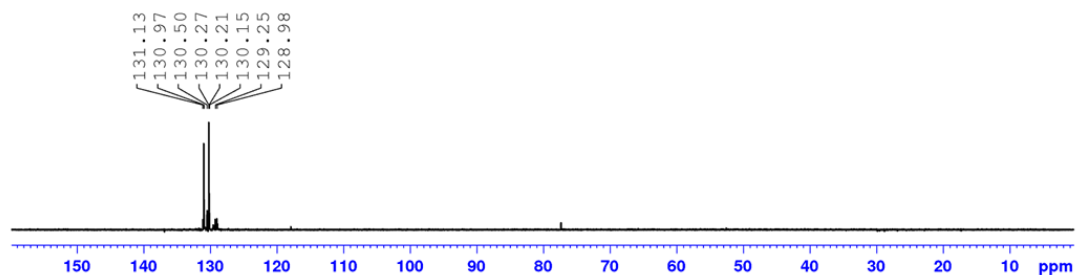


Figure S66. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **27**.

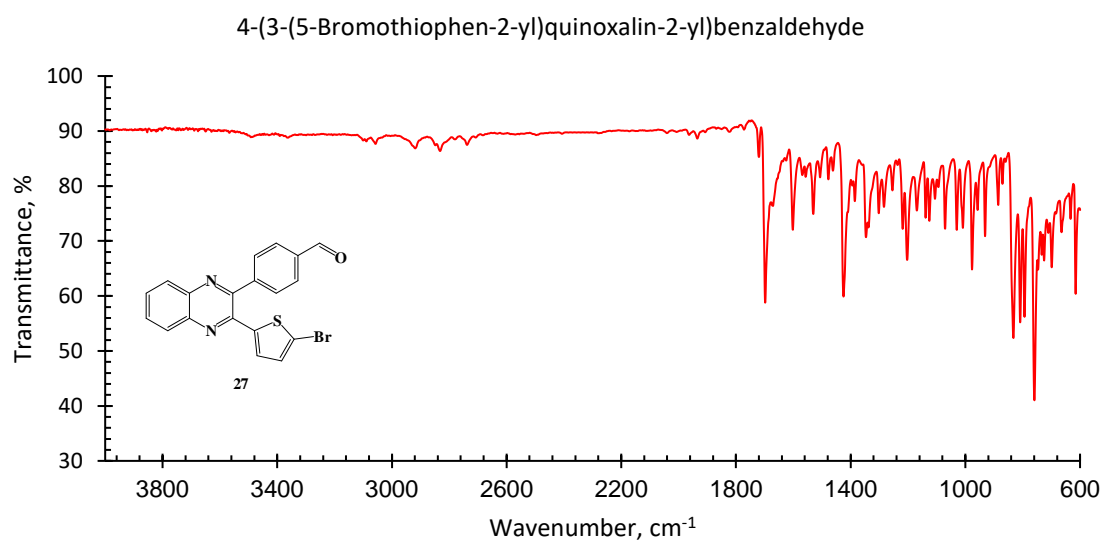


Figure S67. FTIR spectrum of **27**.

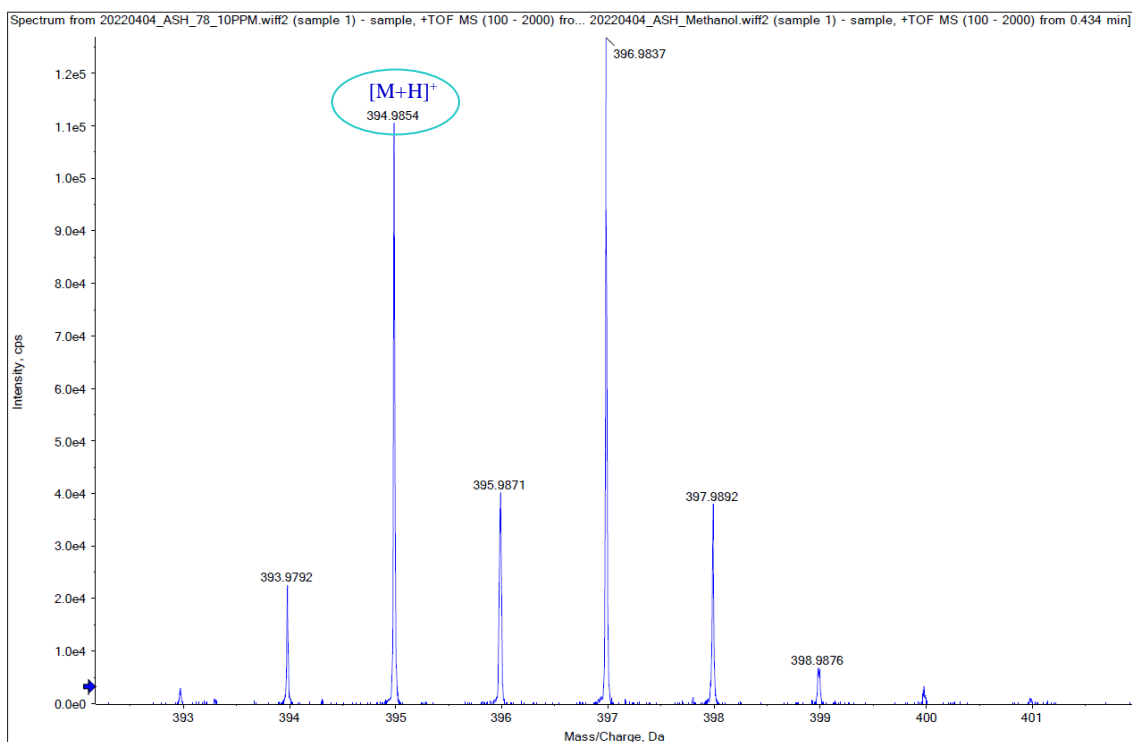
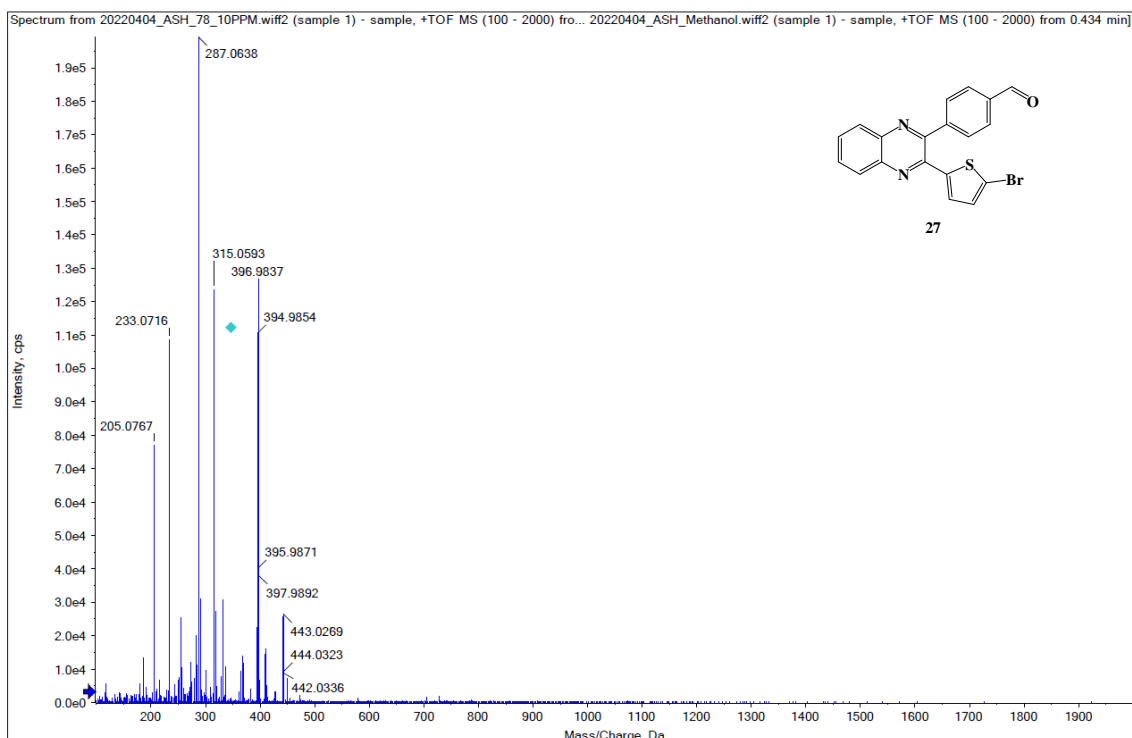


Figure S68. HRMS spectrum of **27**.

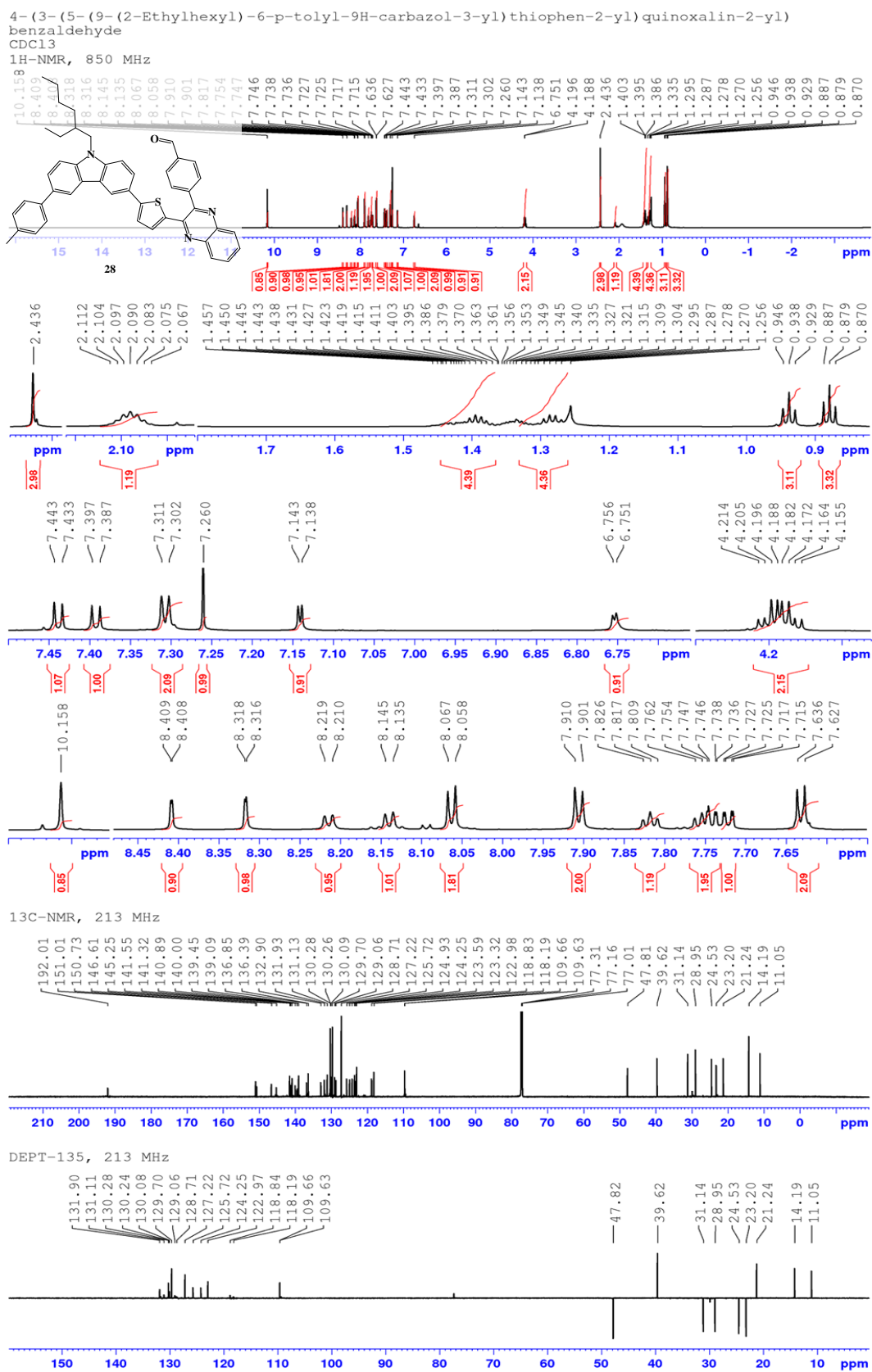


Figure S69. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **28**.

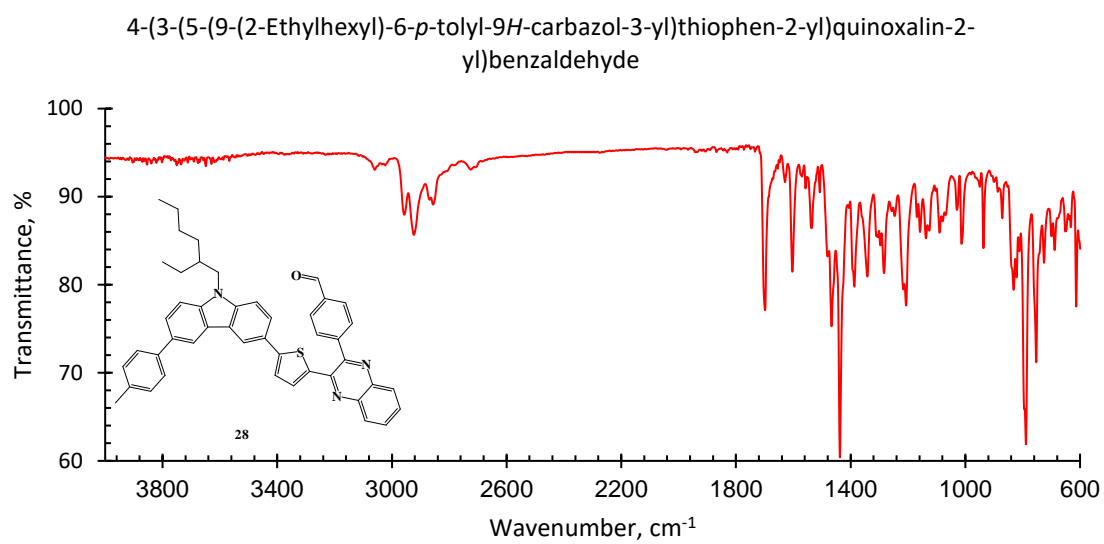
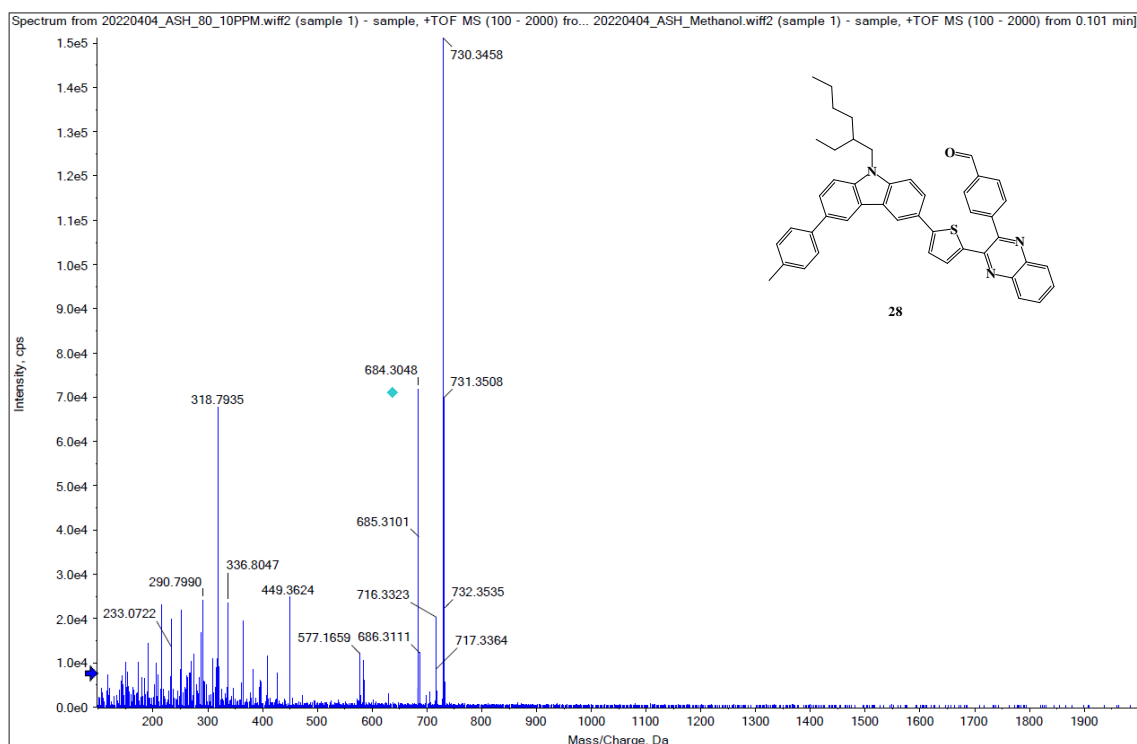
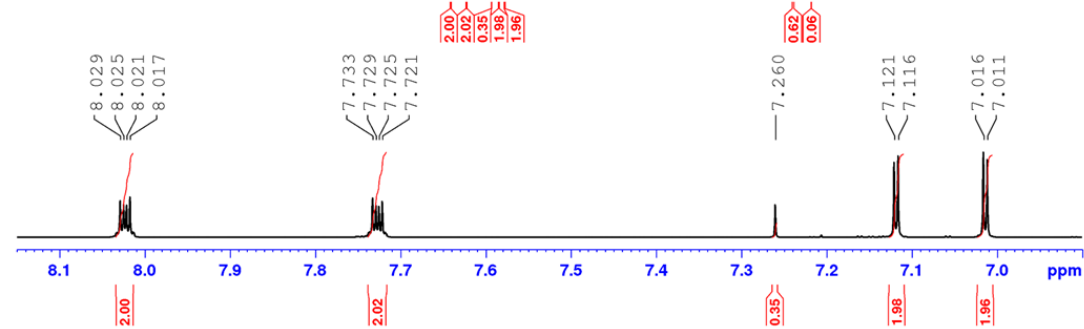
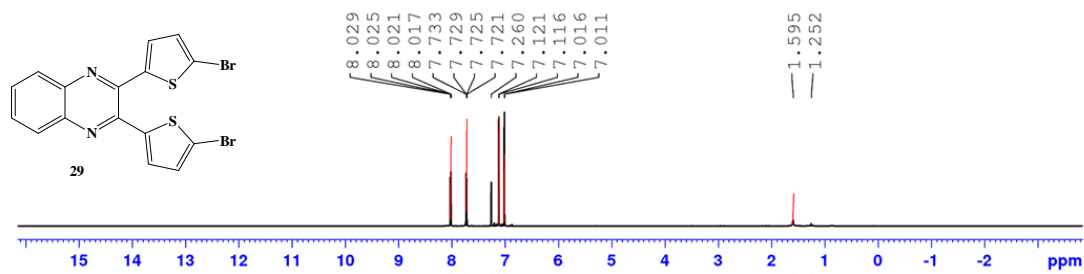


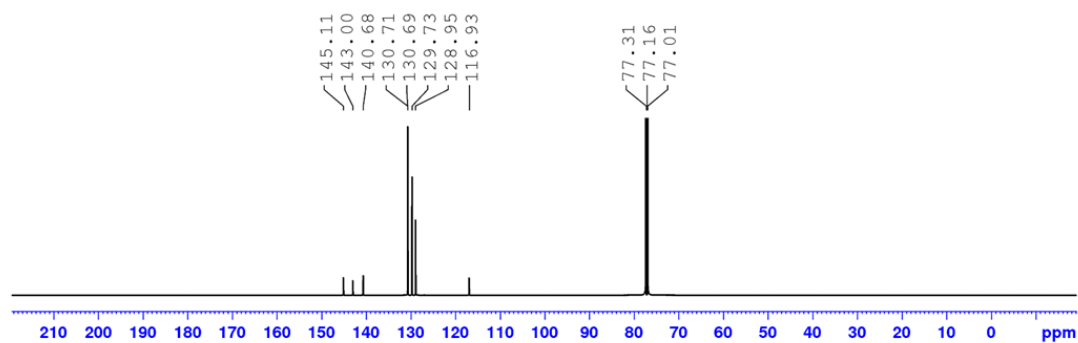
Figure S70. FTIR spectrum of **28**.



2,3-Bis(5-bromothiophen-2-yl)quinoxaline
 CDCl₃
 1H-NMR, 850 MHz



¹³C-NMR, 213 MHz



DEPT-135, 213 MHz

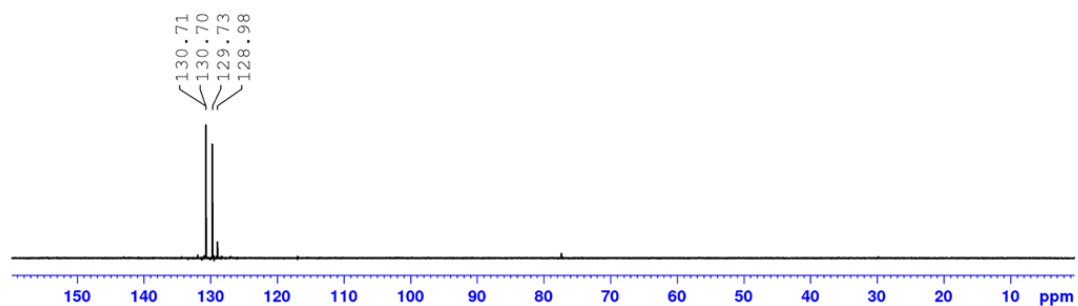


Figure S72. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **29**.

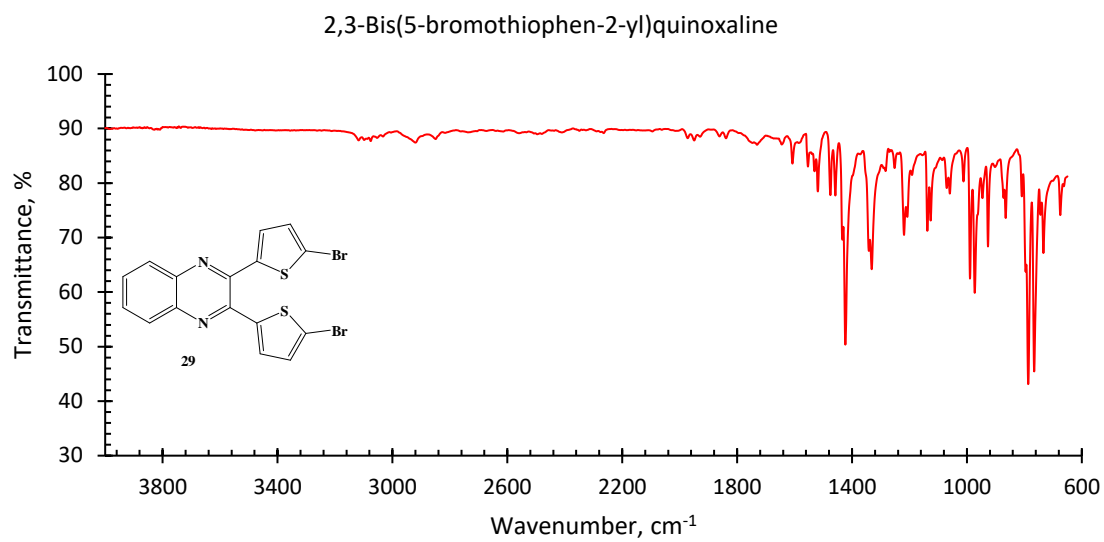


Figure S73. FTIR spectrum of **29**.

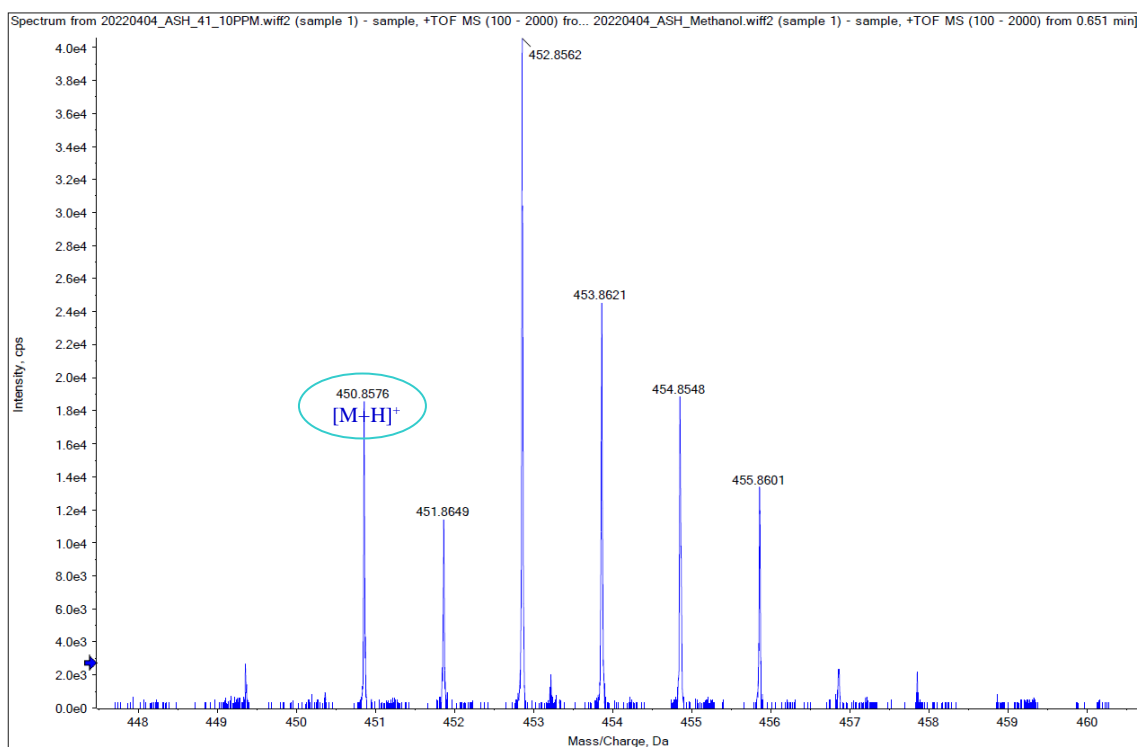
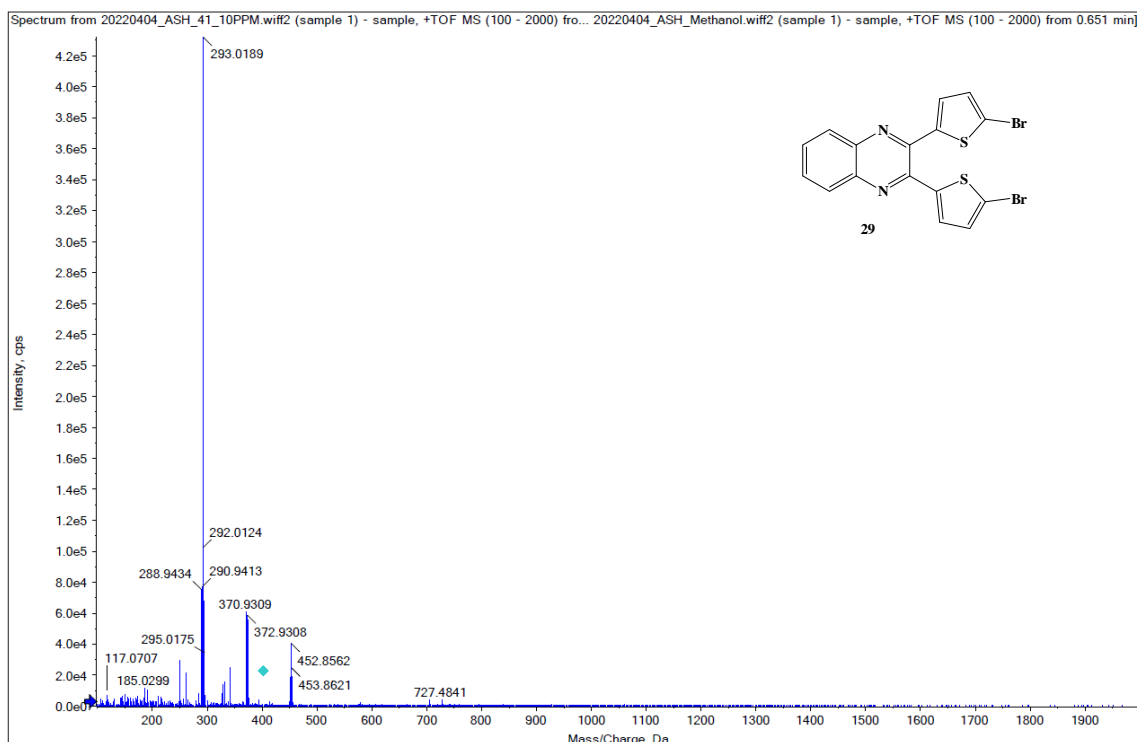


Figure S74. HRMS spectrum of **29**.

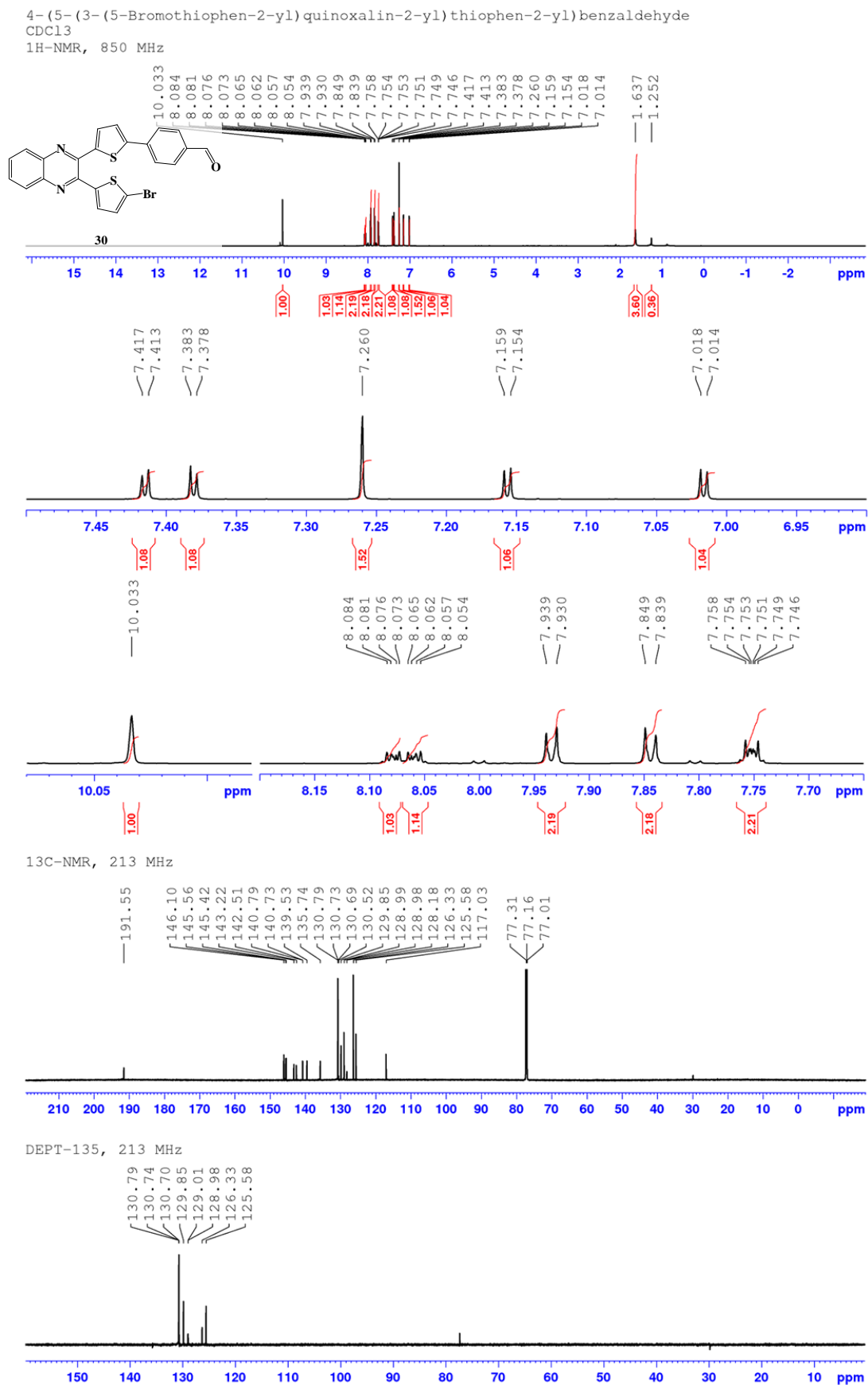


Figure S75. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **30**.

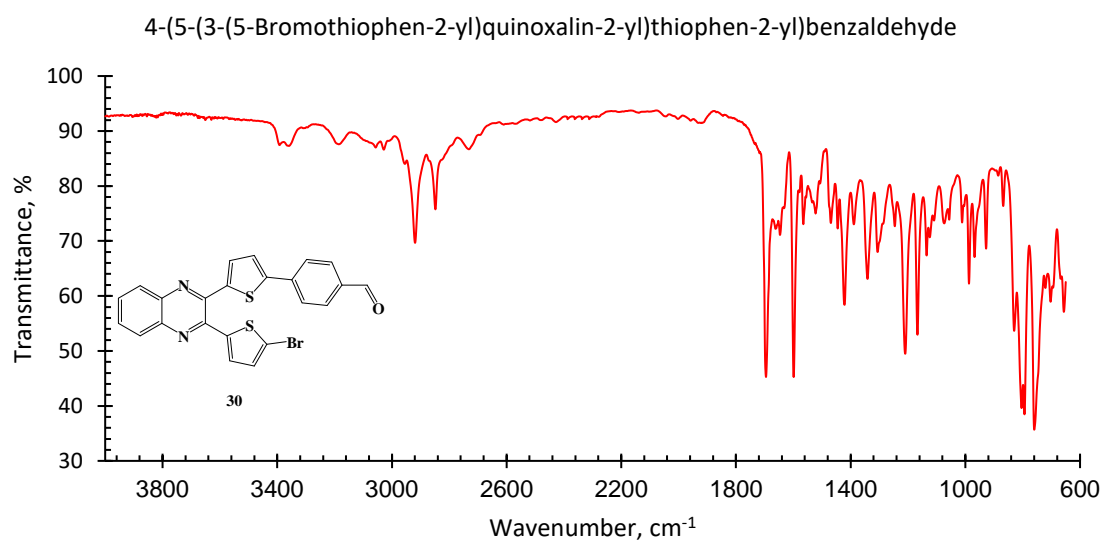


Figure 76. FTIR spectrum of **30**.

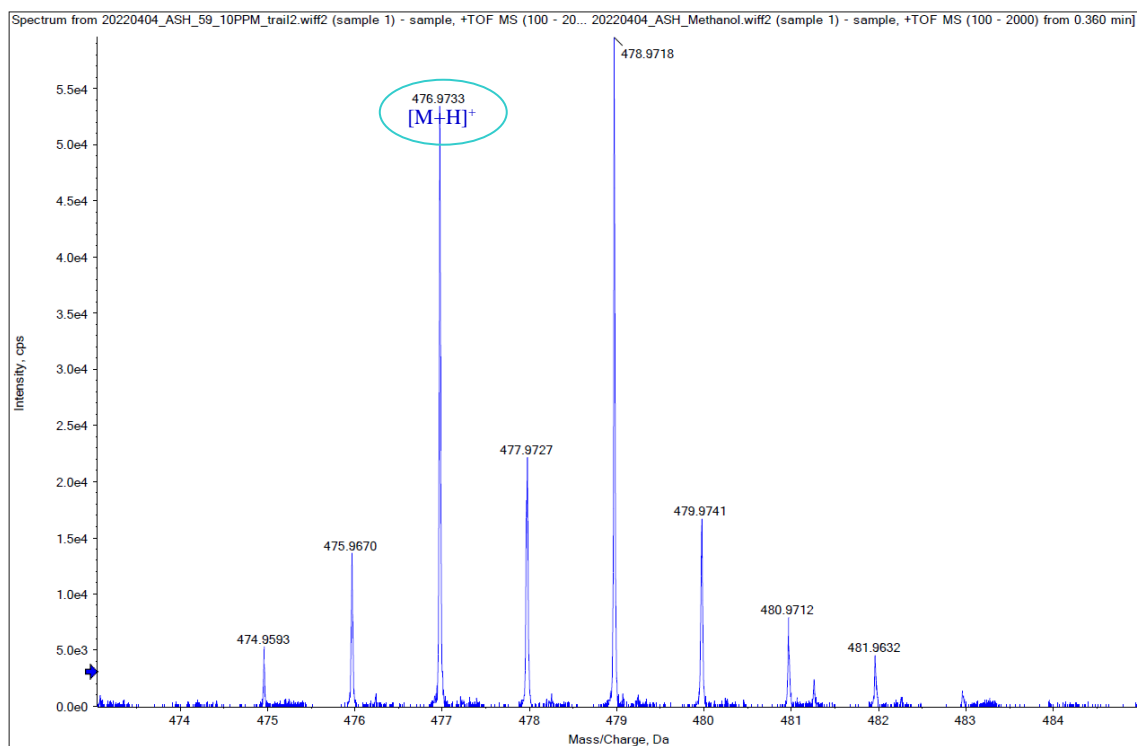
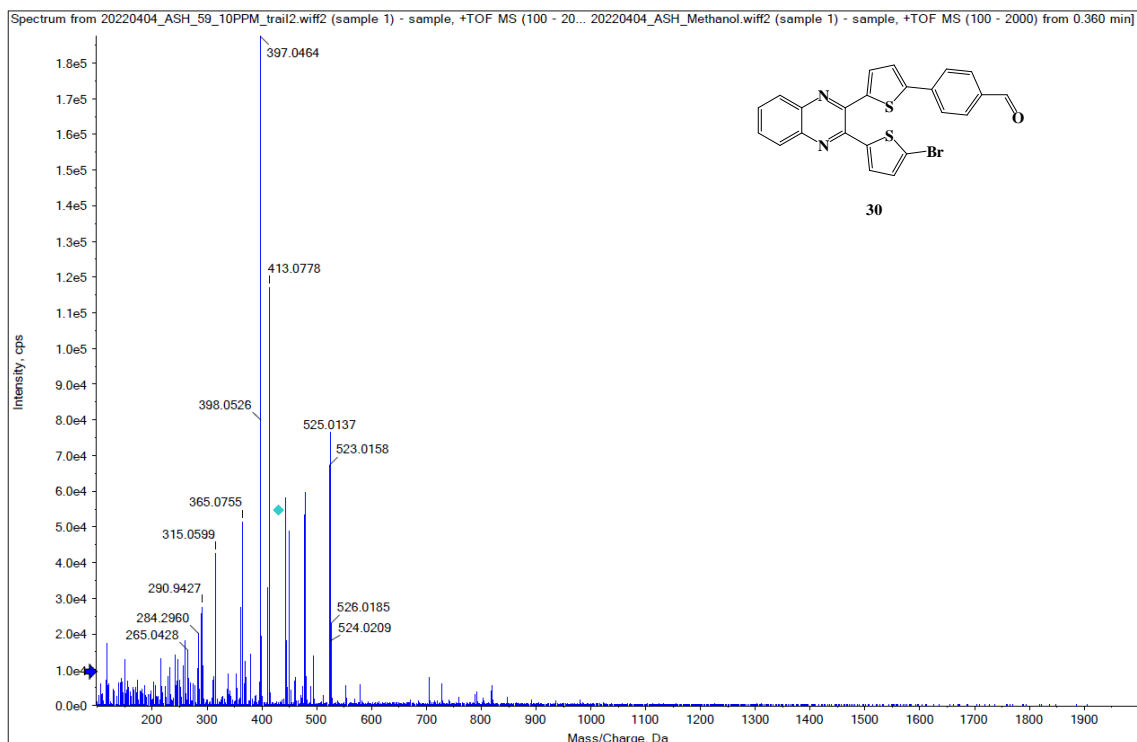


Figure S77. HRMS spectrum of **30**.

Figure S78. ^1H -NMR, ^{13}C -NMR and DEPT-135 spectra in CDCl_3 of **31**.

4-(5-(3-(5-(9-(2-Ethylhexyl)-6-*p*-tolyl-9*H*-carbazol-3-yl)thiophen-2-yl)quinoxalin-2-yl)thiophen-2-yl)benzaldehyde

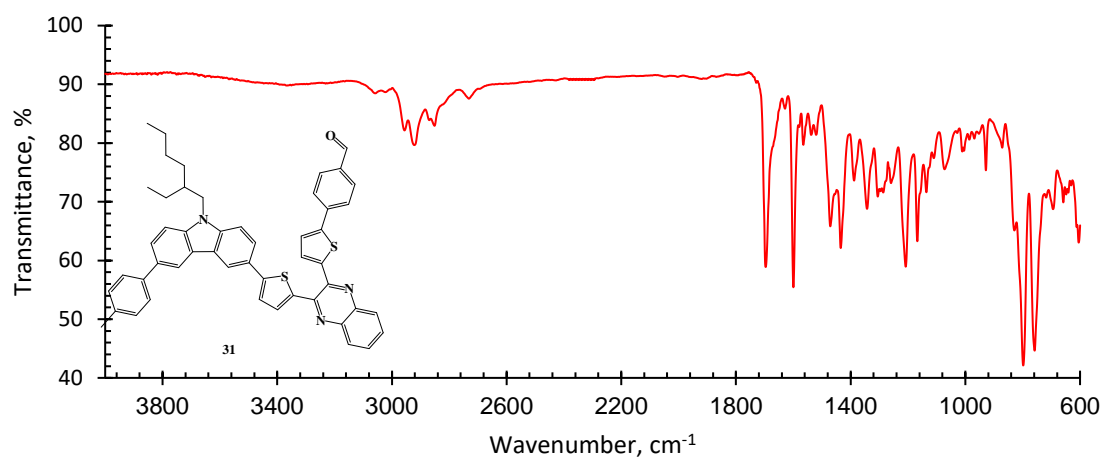


Figure S79. FTIR spectrum of **31**.

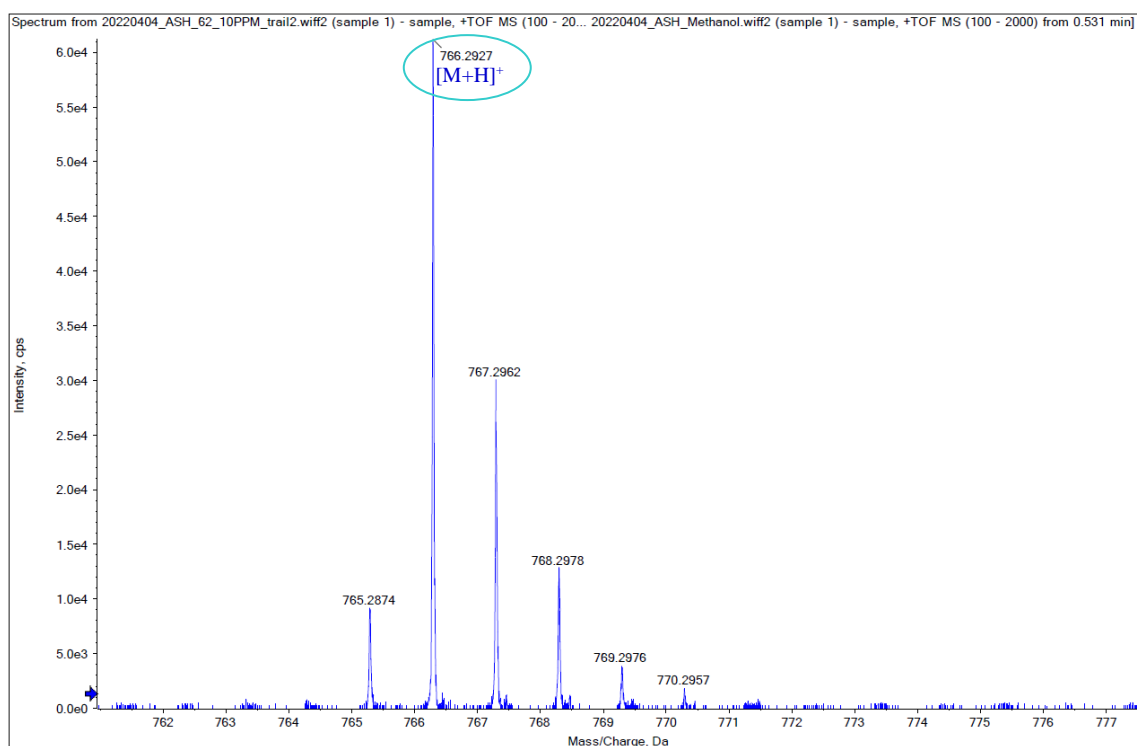
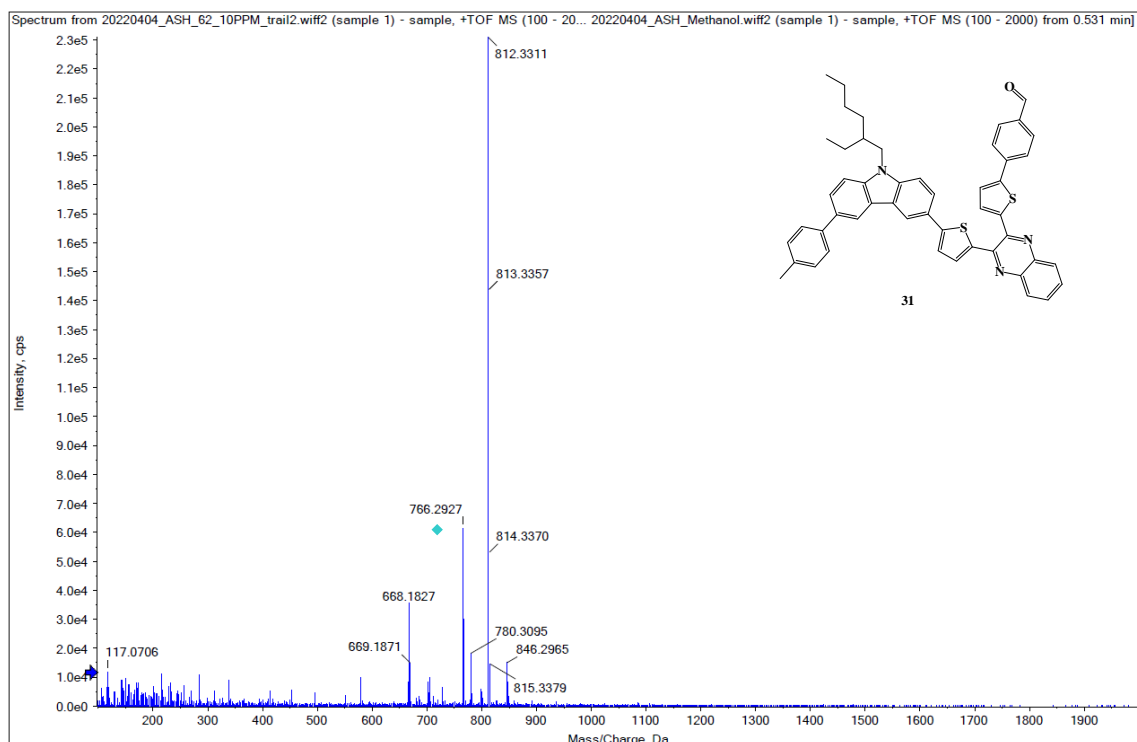


Figure S80. HRMS spectrum of **31**.

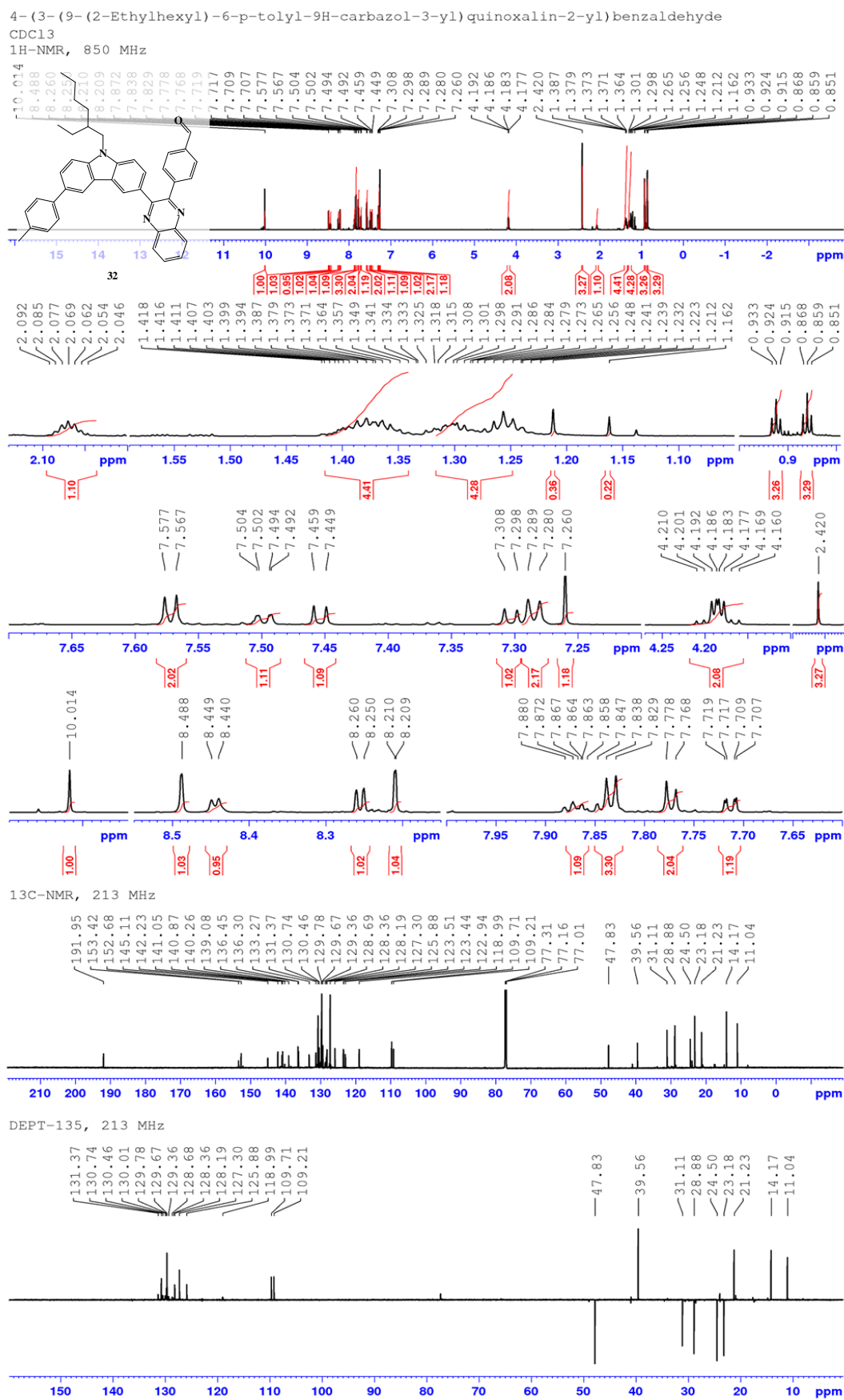


Figure S81. ¹H-NMR, ¹³C-NMR and DEPT-135 spectra in CDCl₃ of **32**.

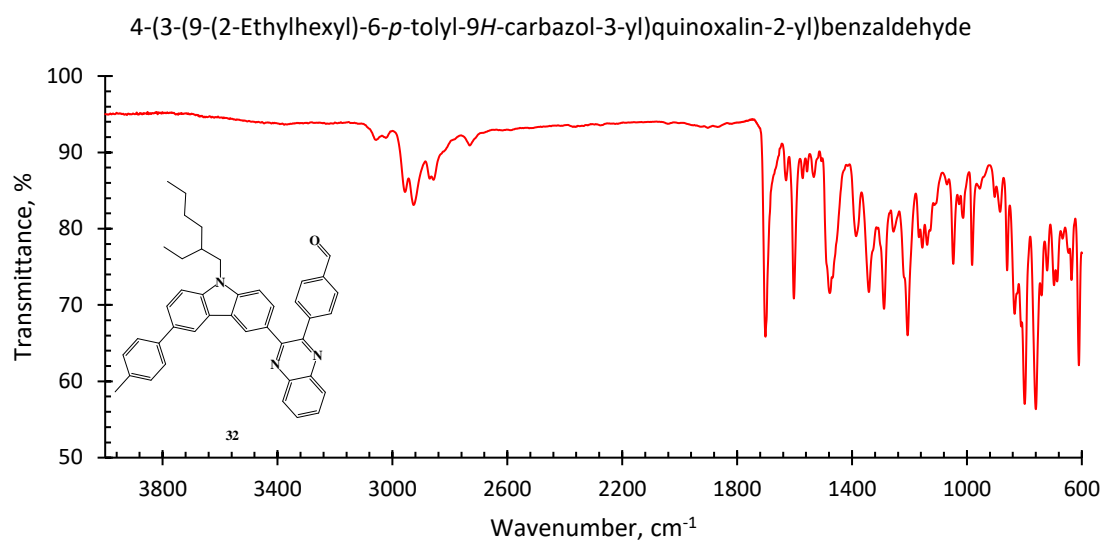


Figure S82. FTIR spectrum of **32**.

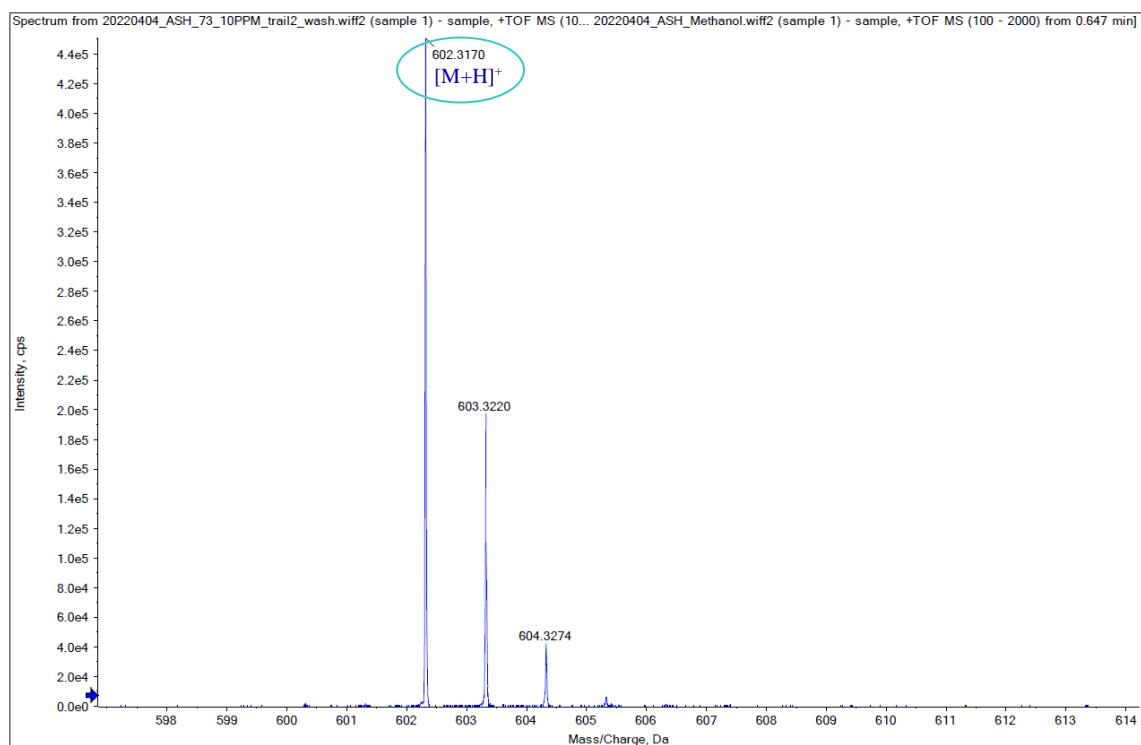
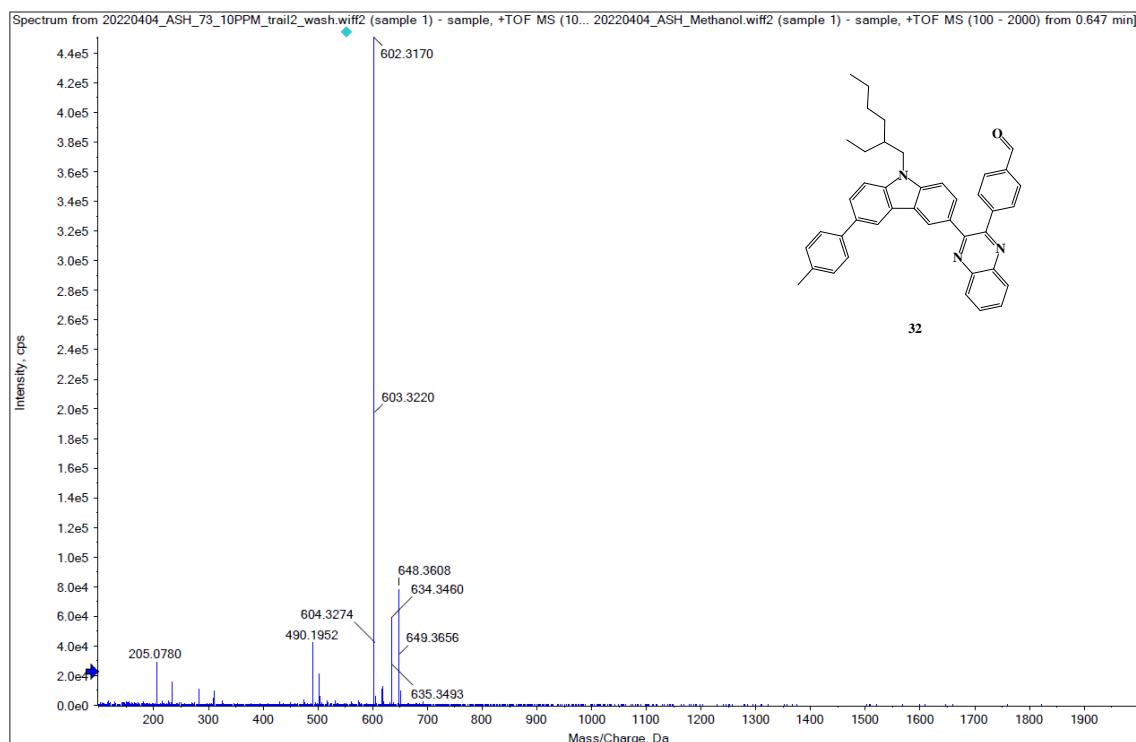


Figure S83. HRMS spectrum of **32**.