

Supporting Information

Discovery of Novel Compounds for Combating Rising Severity of Plant Diseases Caused by Fungi and Viruses

Nianjuan Pan^{1,#}, Hui Wang^{1,#}, Jiansong An¹, Chunyi Liu¹, Haijiang Chen¹, Qiang Fei¹, Pei Li^{2,*}, Wenneng Wu^{1,*}

¹ School of Food Science and Engineering, Guiyang University, Guiyang, China

² Qiandongnan Engineering and Technology Research Center for Comprehensive Utilization of National Medicine, Kaili University, Kaili, China

These authors contributed equally to this work

* Correspondence: pl19890627@126.com (Pei Li), wuwenneng123@126.com (Wenneng Wu)

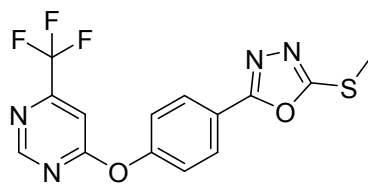


Figure S1. The structure of compound **6a**

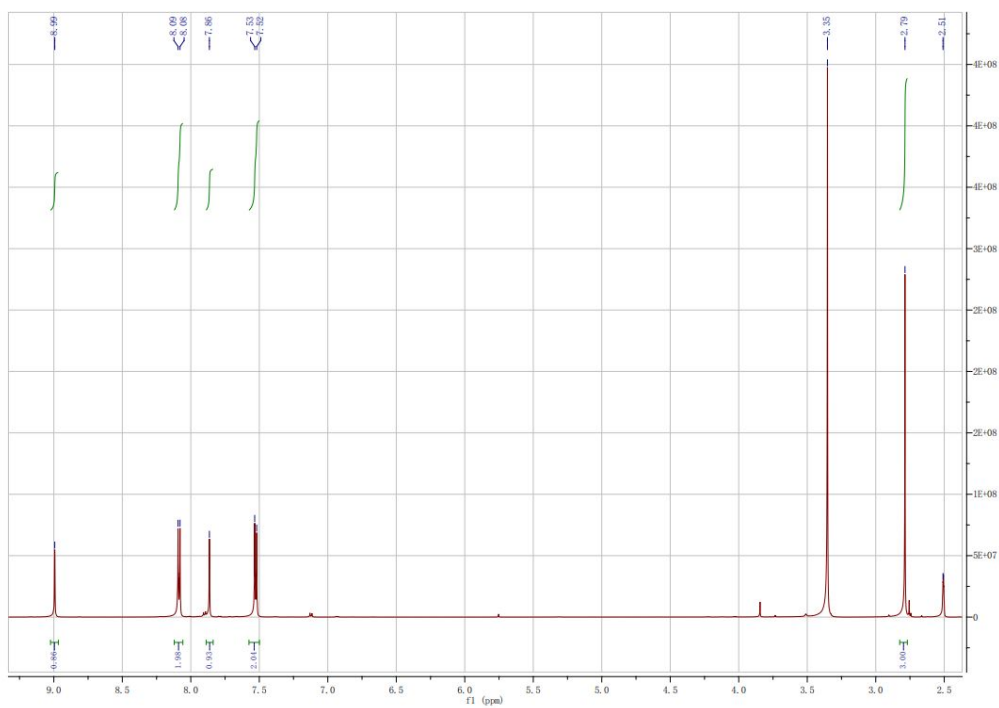


Figure S2. ¹H NMR spectra of compound **6a**

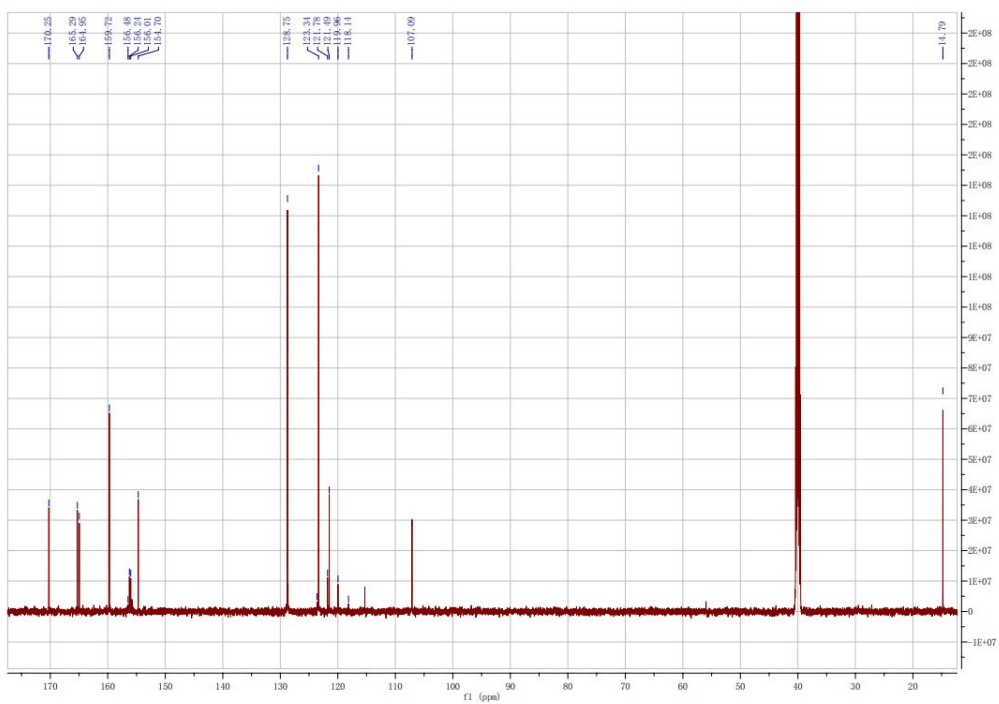


Figure S3. ¹³C NMR spectra of compound **6a**

W08-23-1 #22 RT: 0.10 AV: 1 NL: 1.64E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

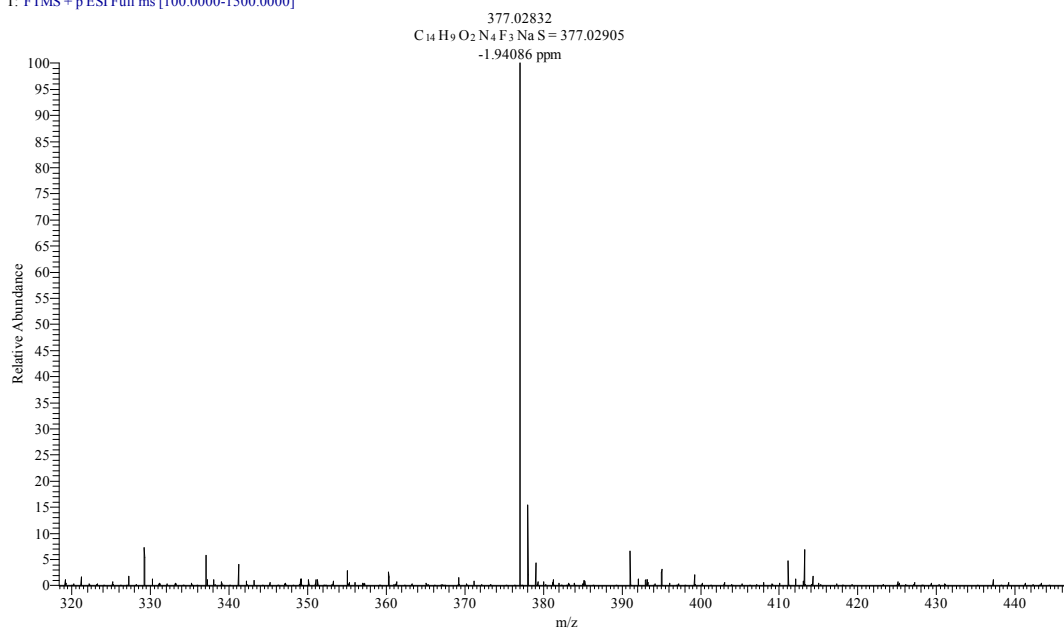


Figure S4. HMRS spectra of compound **6a**

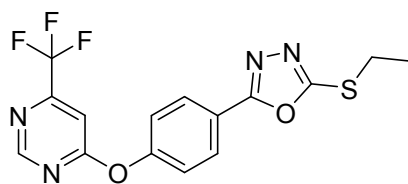


Figure S5. The structure of compound **6b**

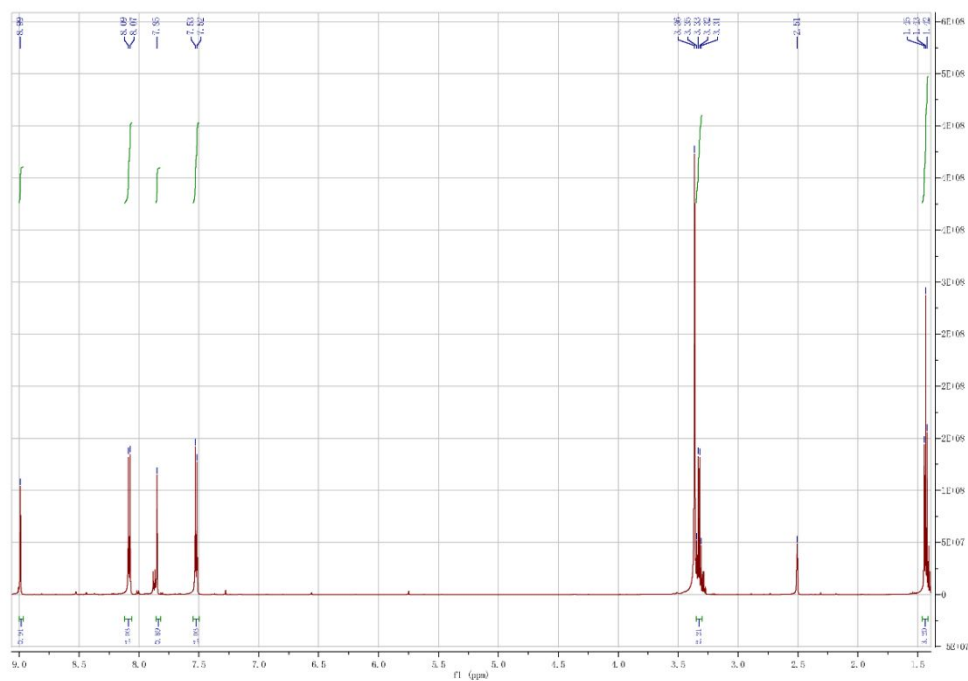


Figure S6. ¹H NMR spectra of compound **6b**

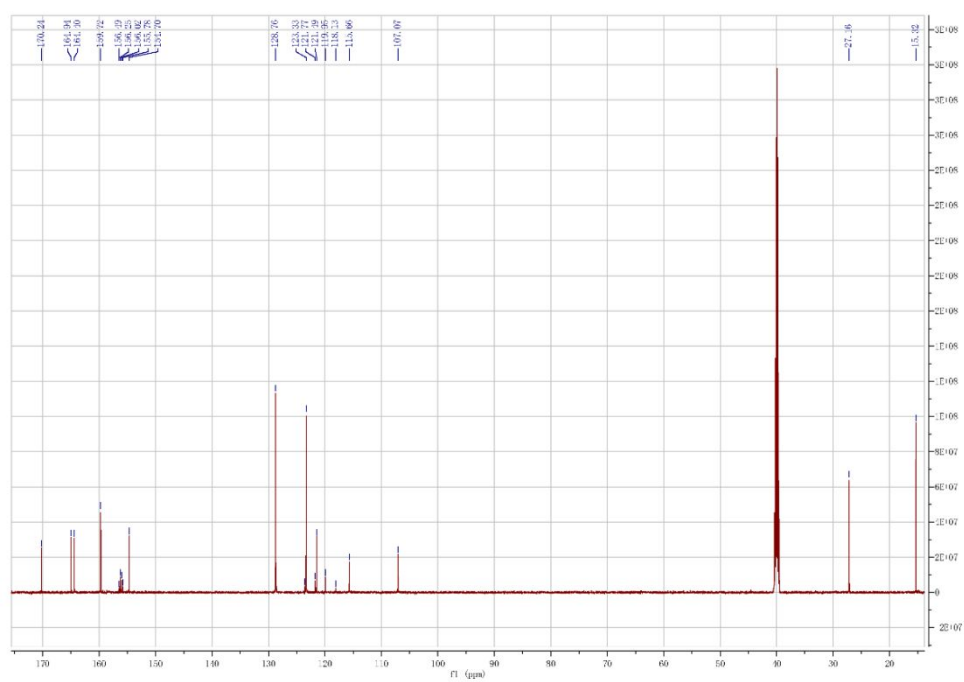


Figure S7. ¹³C NMR spectra of compound **6b**

W08-23-2 #23 RT: 0.10 AV: 1 NL: 2.15E8
T: FIMS + p ESI Full ms [100.0000-1500.0000]

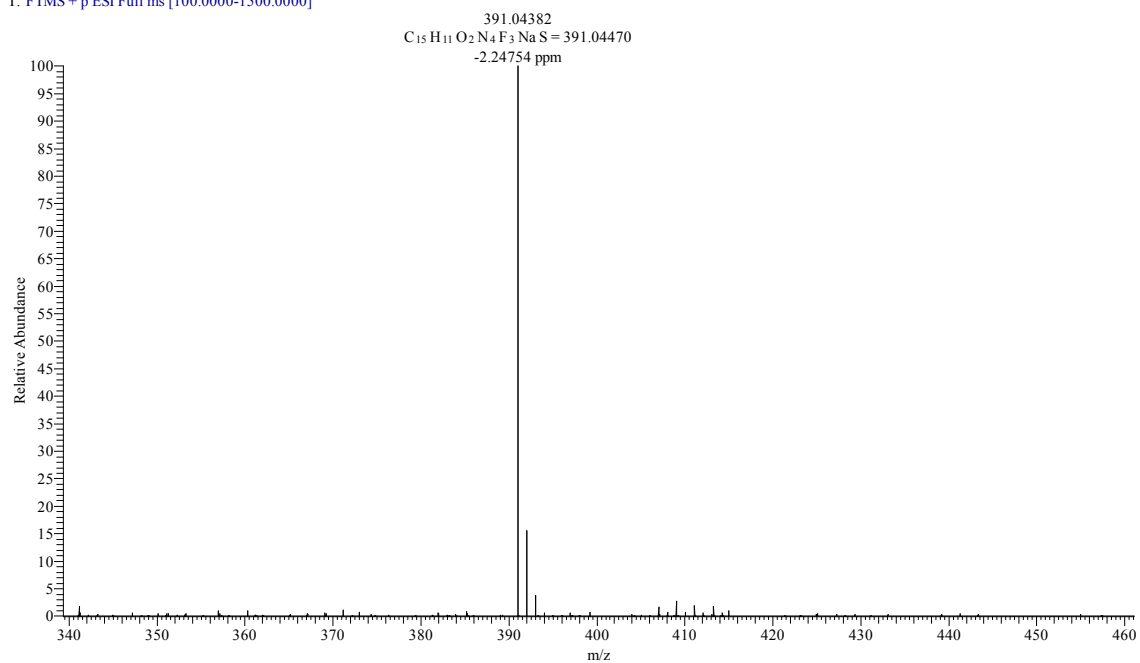


Figure S8. HMRS spectra of compound **6b**

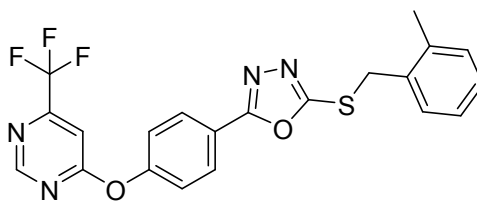


Figure S9. The structure of compound **6c**

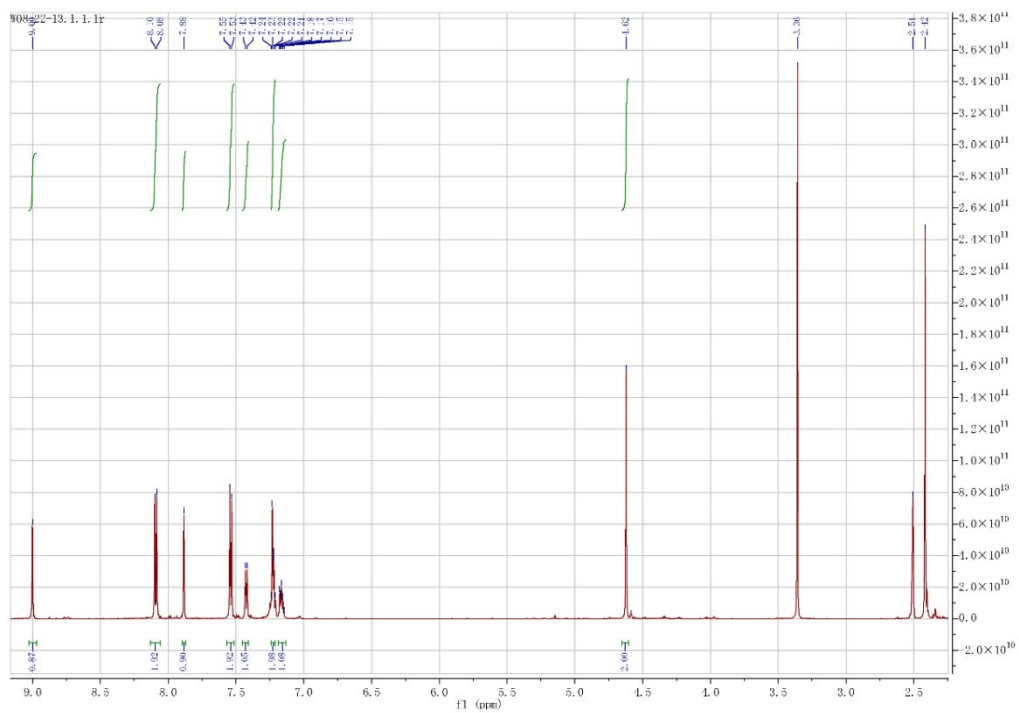


Figure S10. ¹H NMR spectra of compound **6c**

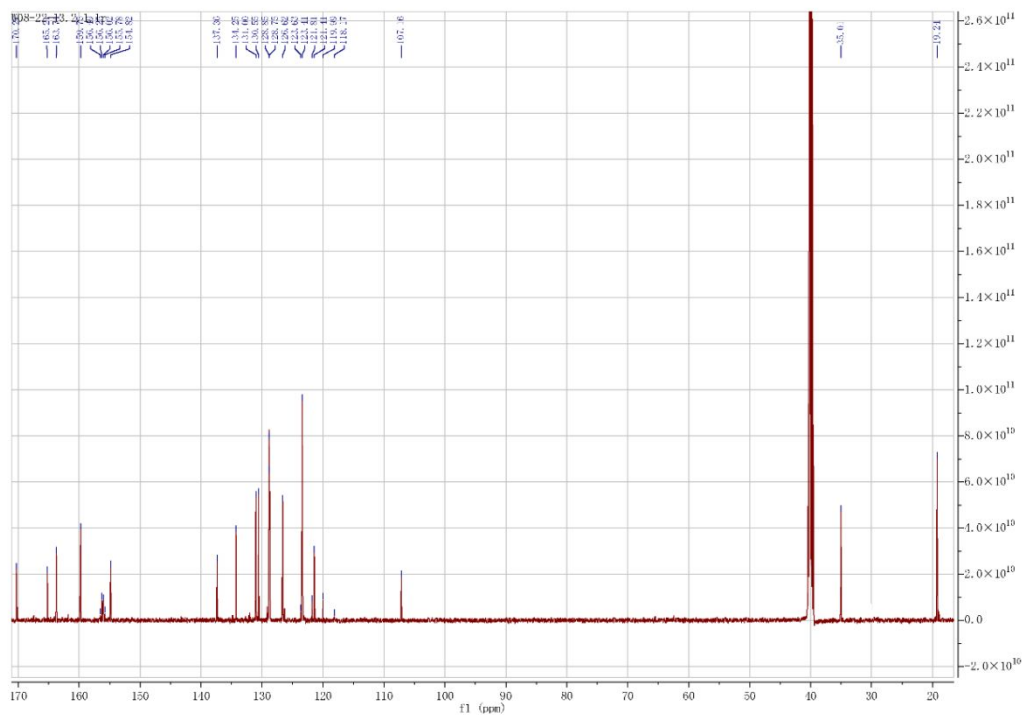


Figure S11. ¹³C NMR spectra of compound **6c**

W08-23-3 #23 RT: 0.10 AV: 1 NL: 8.78E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

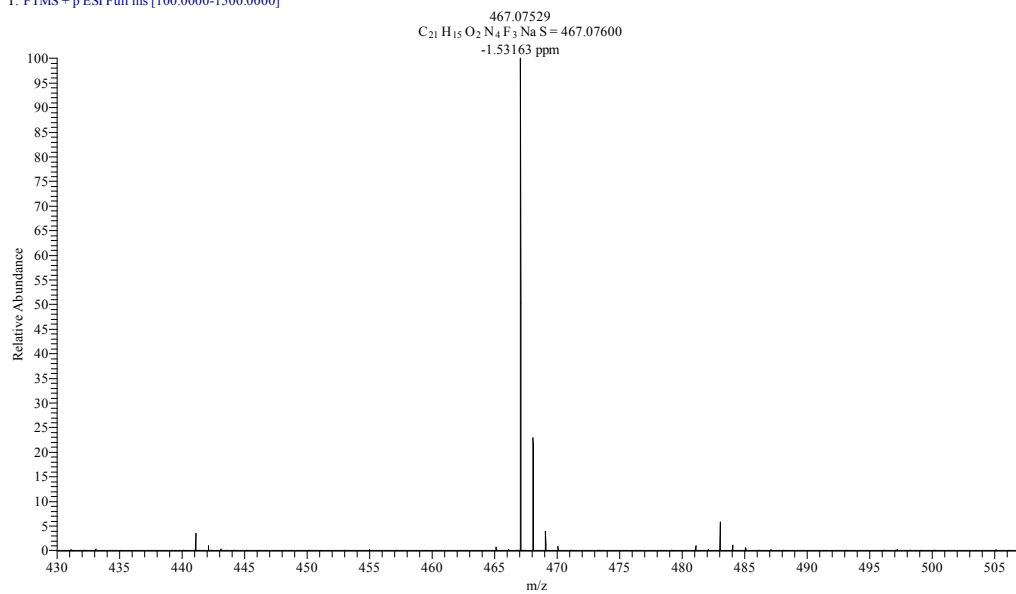


Figure S12. HMRS spectra of compound **6c**

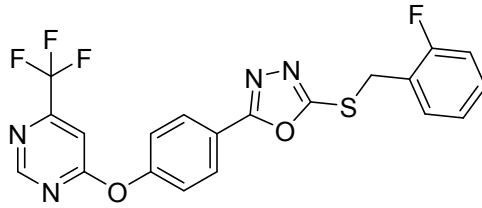


Figure S13. The structure of compound **6d**

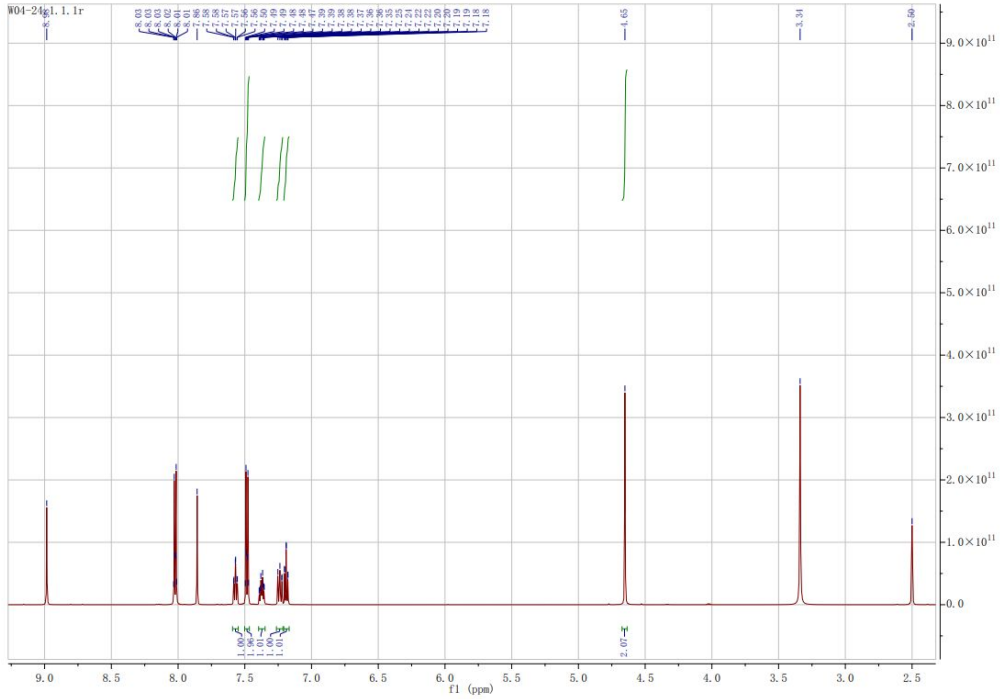


Figure S14. ¹H NMR spectra of compound **6d**

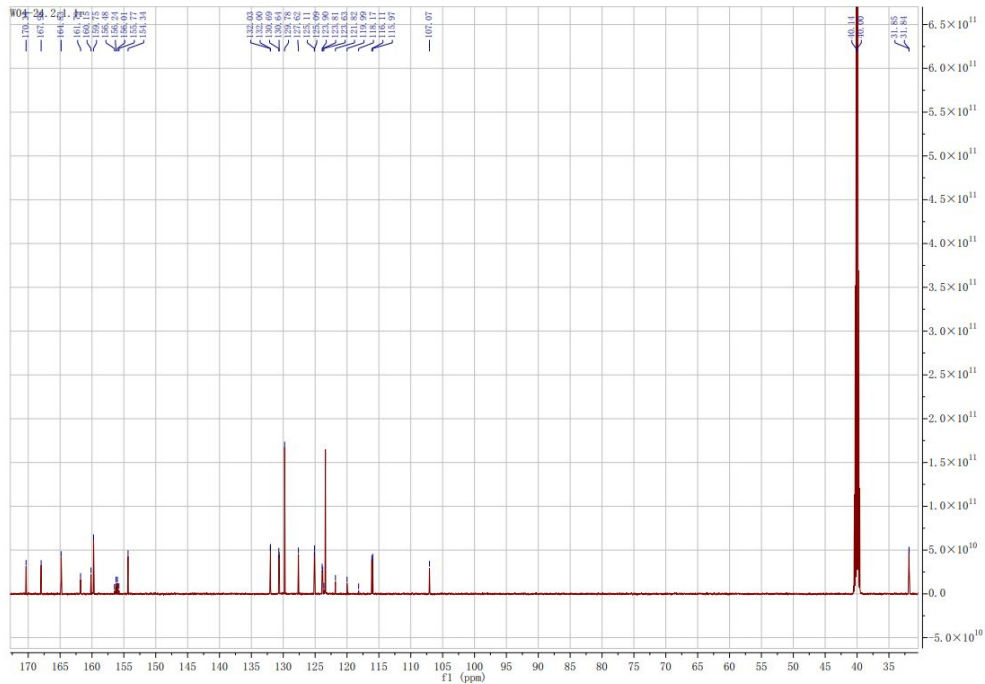


Figure S15. ¹³C NMR spectra of compound **6d**

W08-23-4 #24 RT: 0.11 AV: 1 NL: 5.38E8
T: FIMS + p ESI Full ms [100.0000-1500.0000]

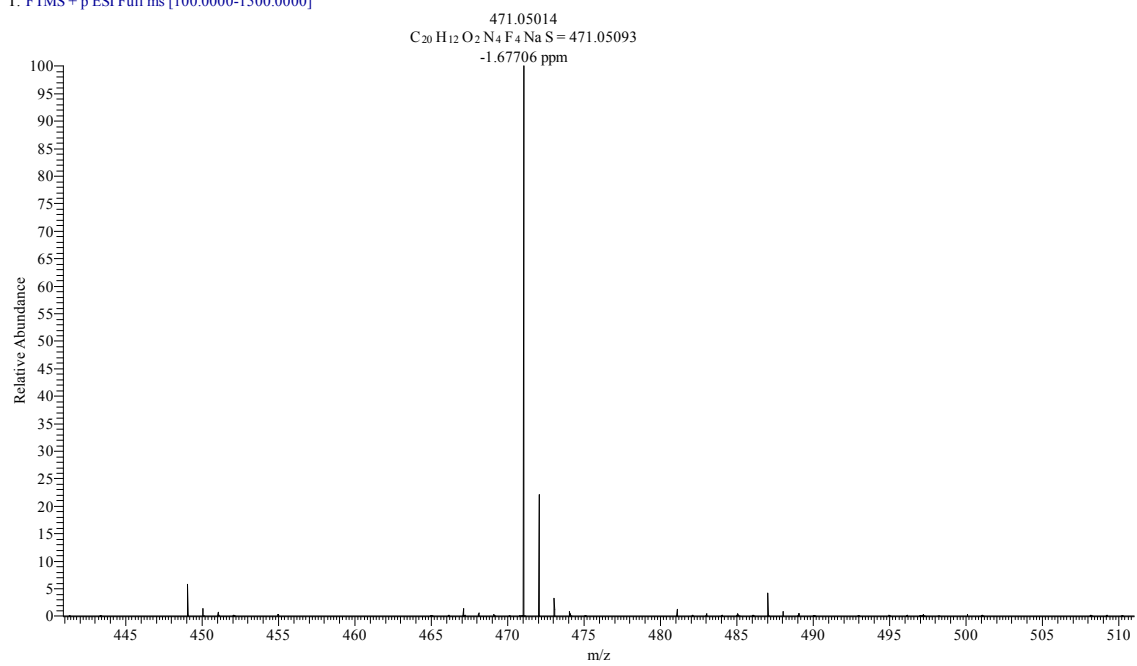


Figure S16. HMRS spectra of compound **6d**

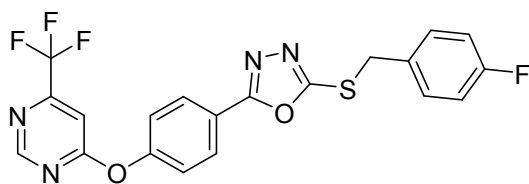


Figure S17. The structure of compound **6e**

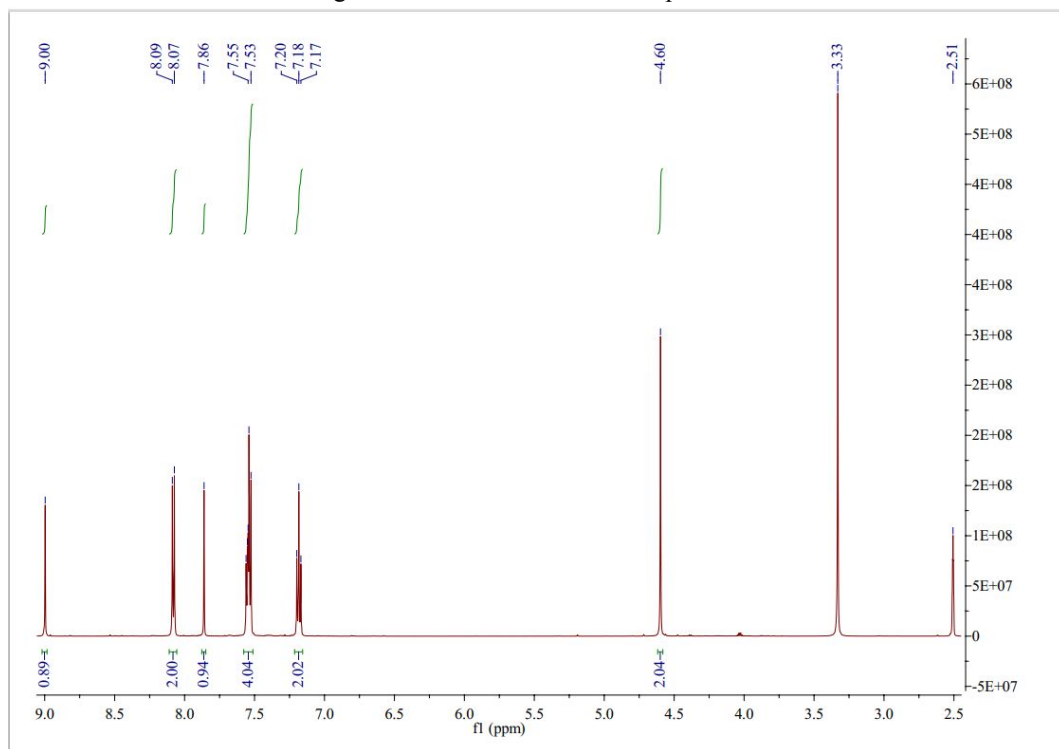


Figure S18. ¹H NMR spectra of compound **6e**

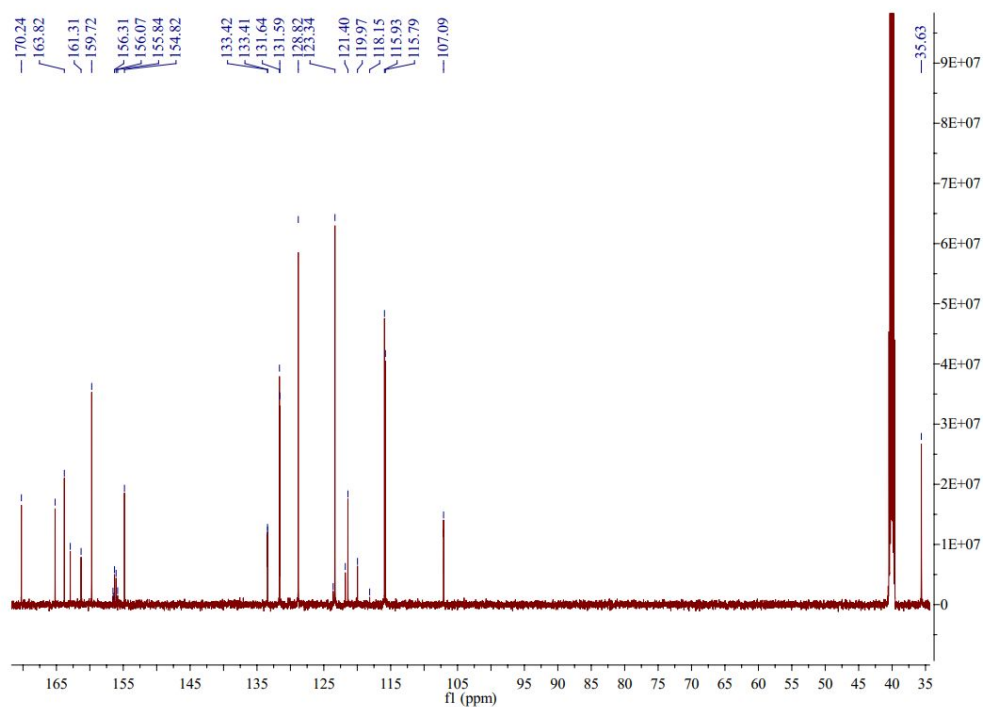


Figure S19. ¹³C NMR spectra of compound **6e**

W08-23-5 #23 RT: 0.10 AV: 1 NL: 3.60E8
T: FIMS + p ESI Full ms [100.0000-1500.0000]

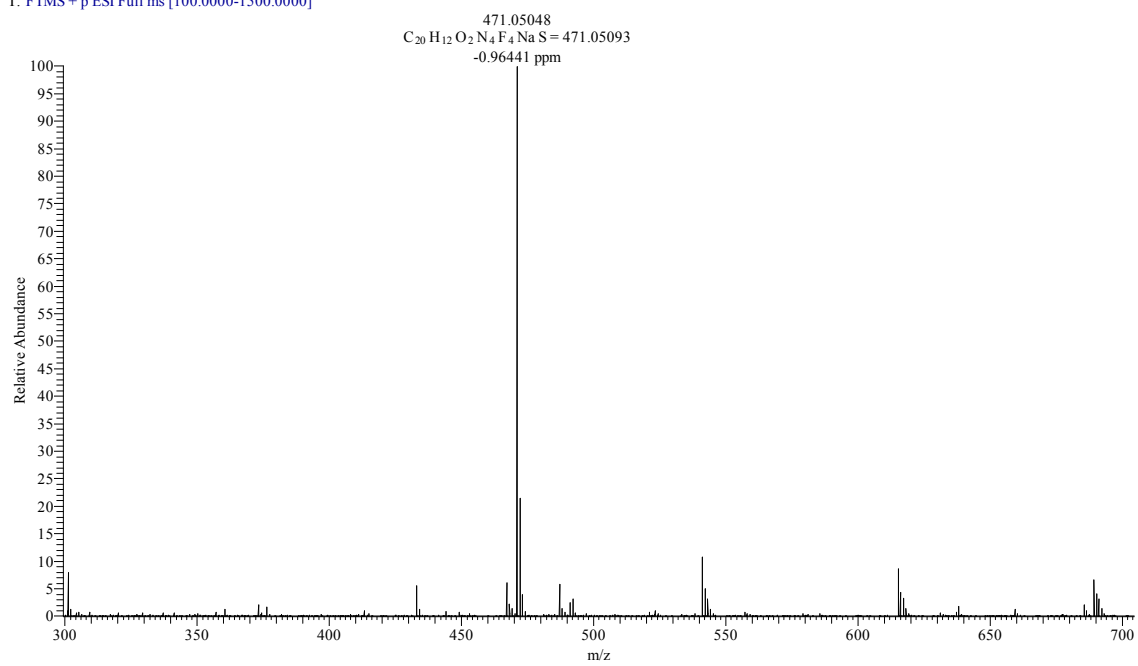


Figure S20. HMRS spectra of compound **6e**

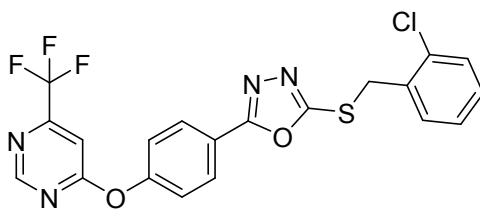


Figure S21. The structure of compound 6f

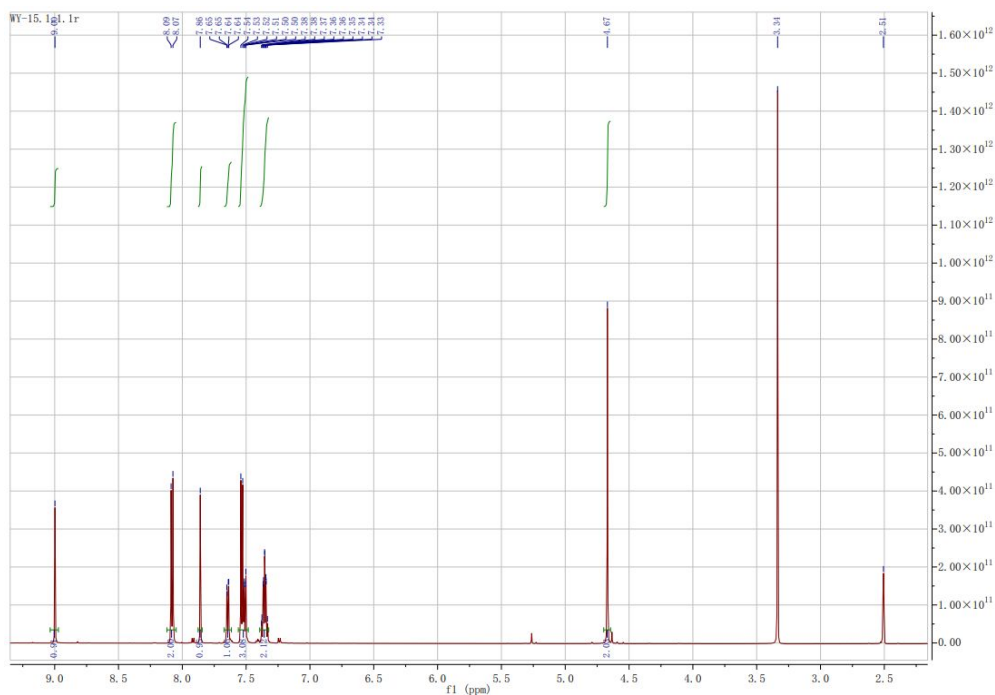


Figure S22. ¹H NMR spectra of compound 6f

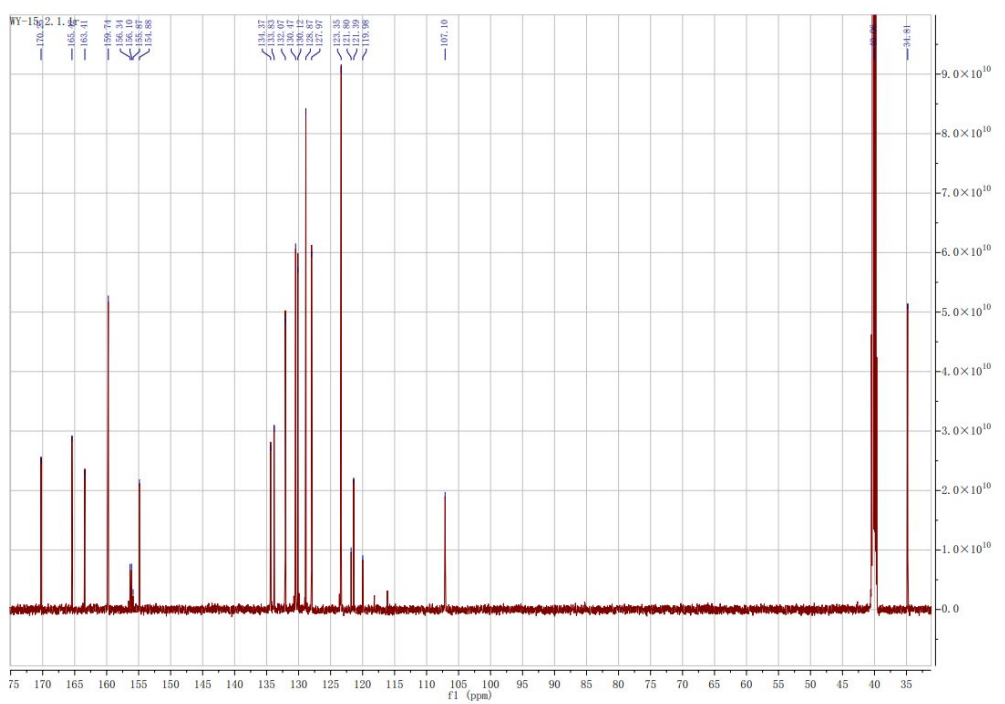


Figure S23. ¹³C NMR spectra of compound 6f

W08-23-6 #24 RT: 0.11 AV: 1 NL: 3.32E8
T: FIMS + p ESI Full ms [100.0000-1500.0000]

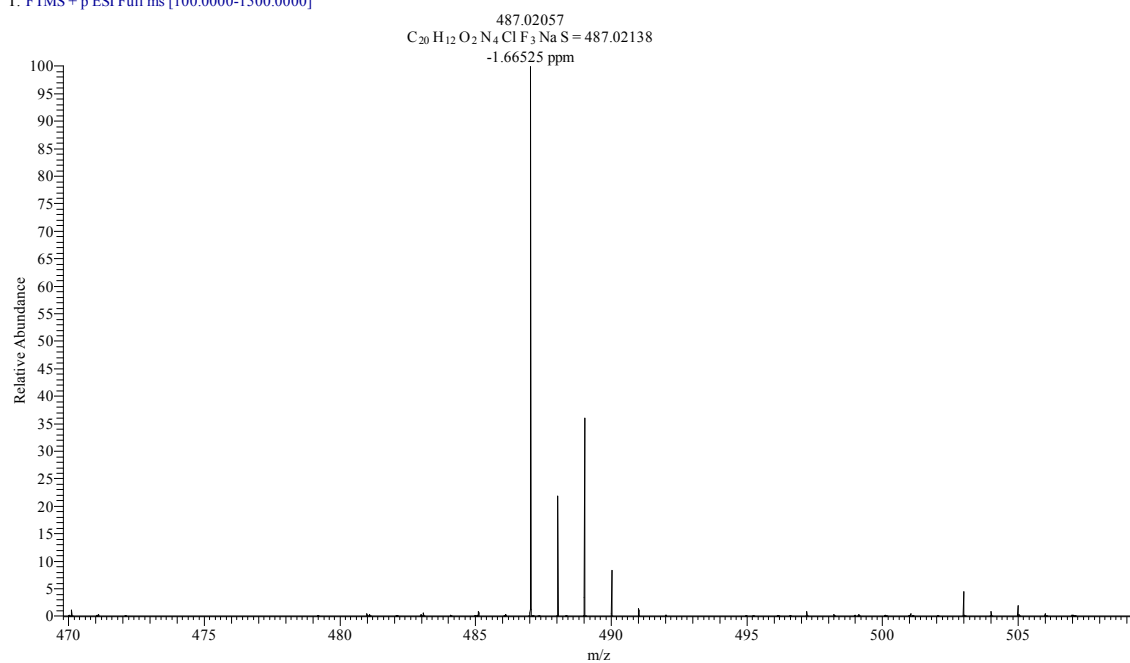


Figure S24. HMRS spectra of compound **6f**

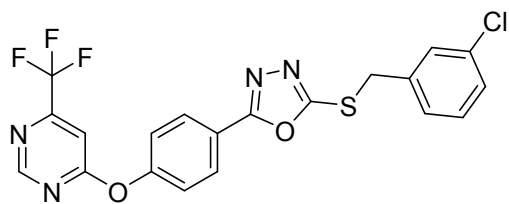


Figure S25. The structure of compound **6g**

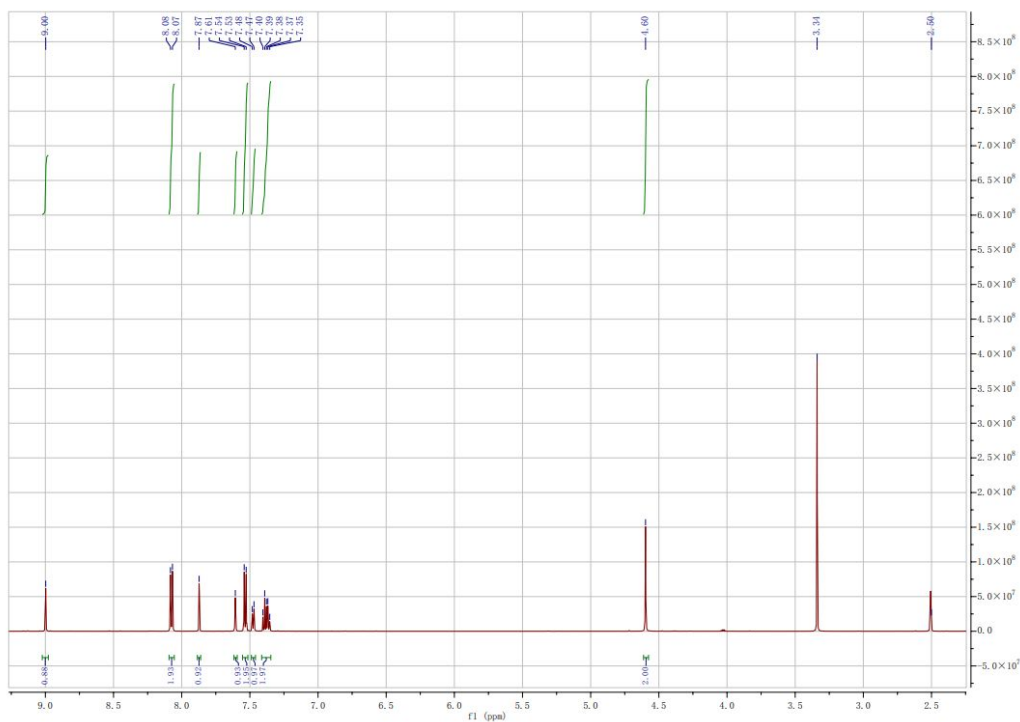


Figure S26. ^1H NMR spectra of compound **6g**

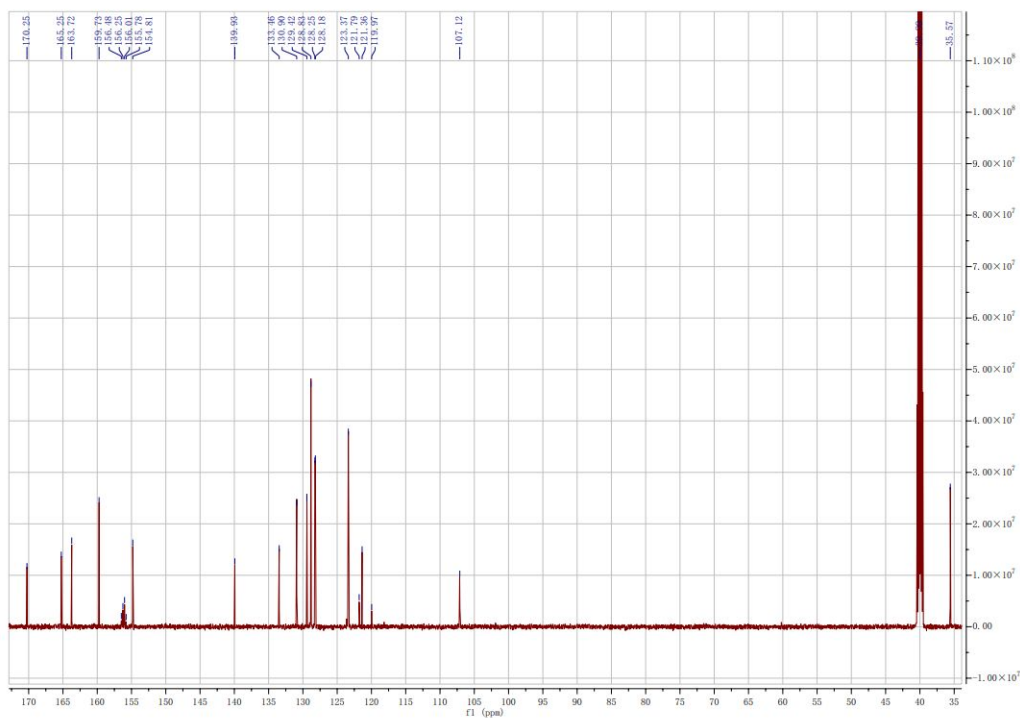


Figure S27. ^{13}C NMR spectra of compound **6g**

W08-23-7 #23 RT: 0.10 AV: 1 NL: 1.83E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

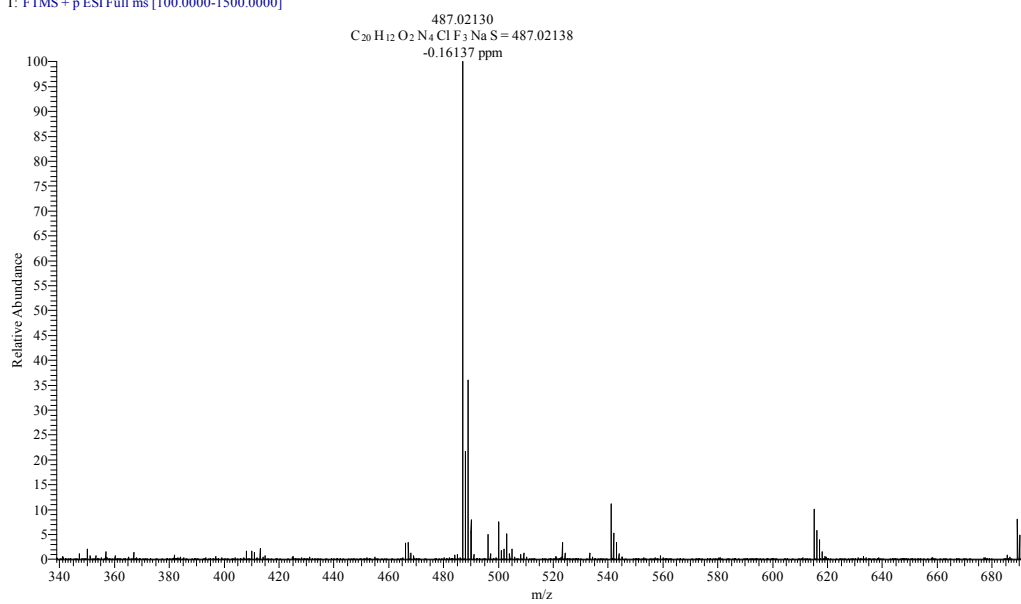


Figure S28. HMRS spectra of compound **6g**

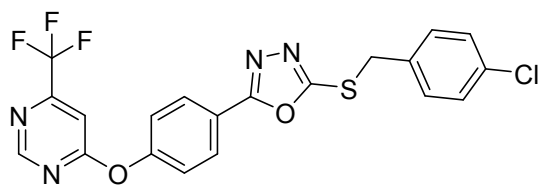


Figure S29. The structure of compound **6h**

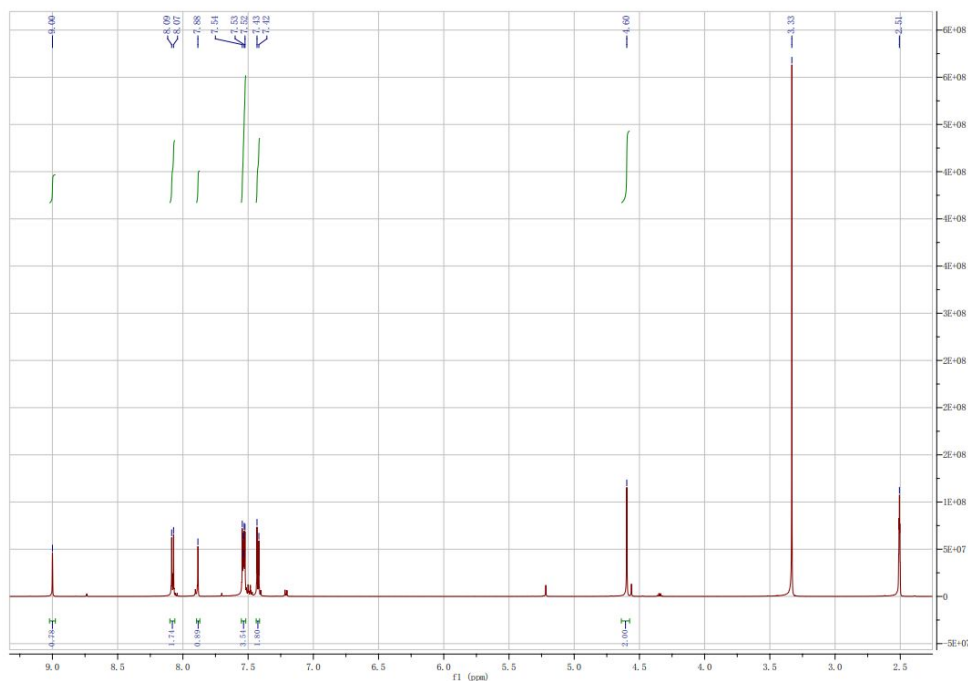


Figure S30. ¹H NMR spectra of compound **6h**

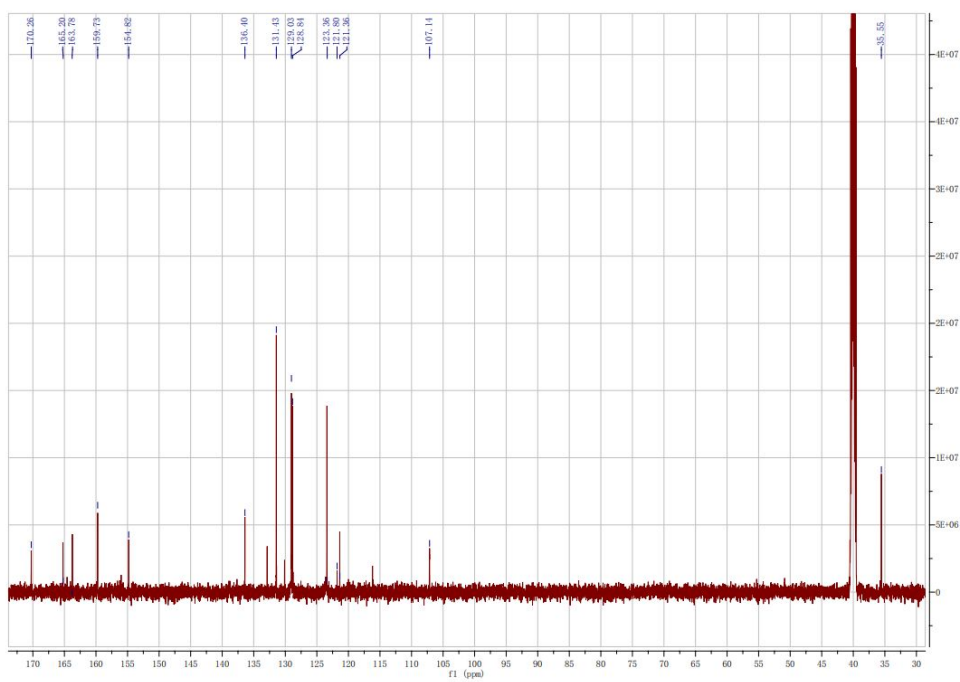


Figure S31. ¹³C NMR spectra of compound **6h**

W08-23-S #24 RT: 0.11 AV: 1 NL: 1.15E8
T: FIMS + p ESI Full ms [100.0000-1500.0000]

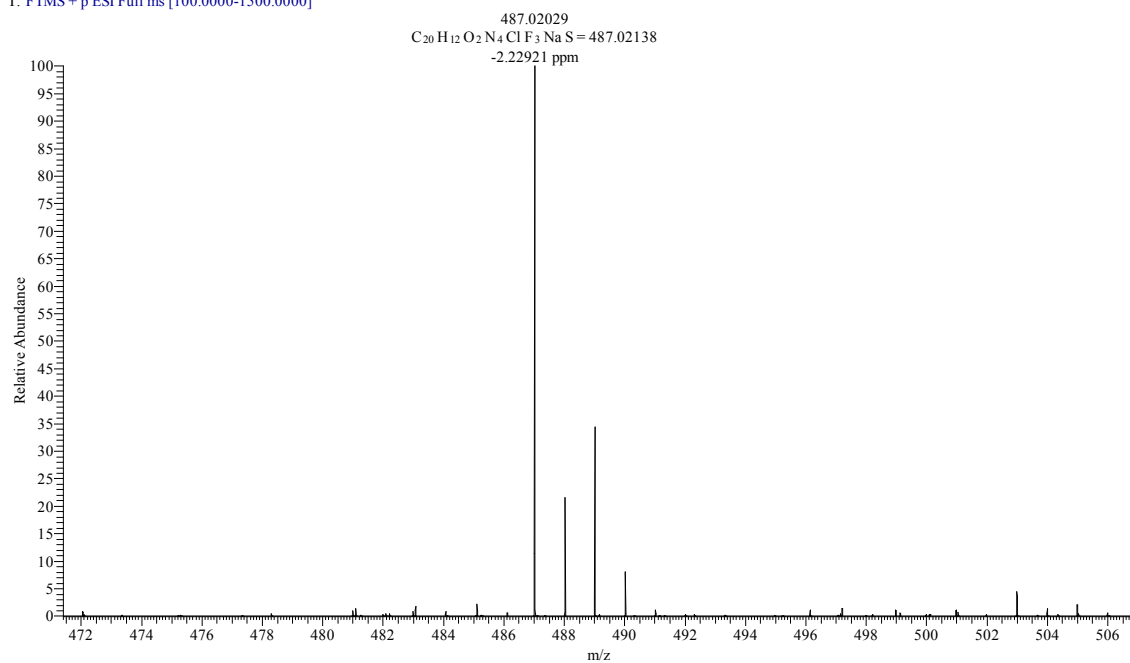


Figure S32. HMRS spectra of compound **6h**

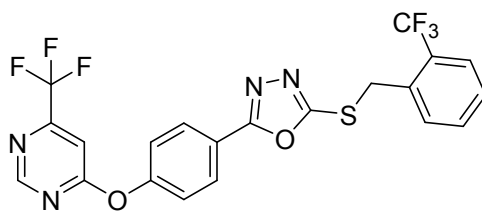


Figure S33. The structure of compound **6i**

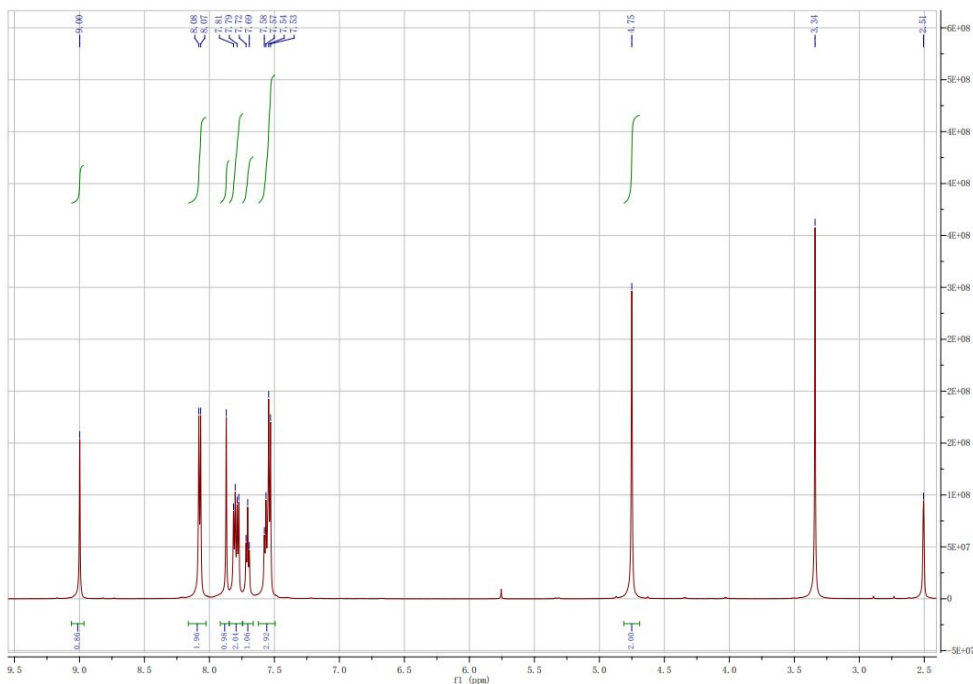


Figure S34. ¹H NMR spectra of compound **6i**

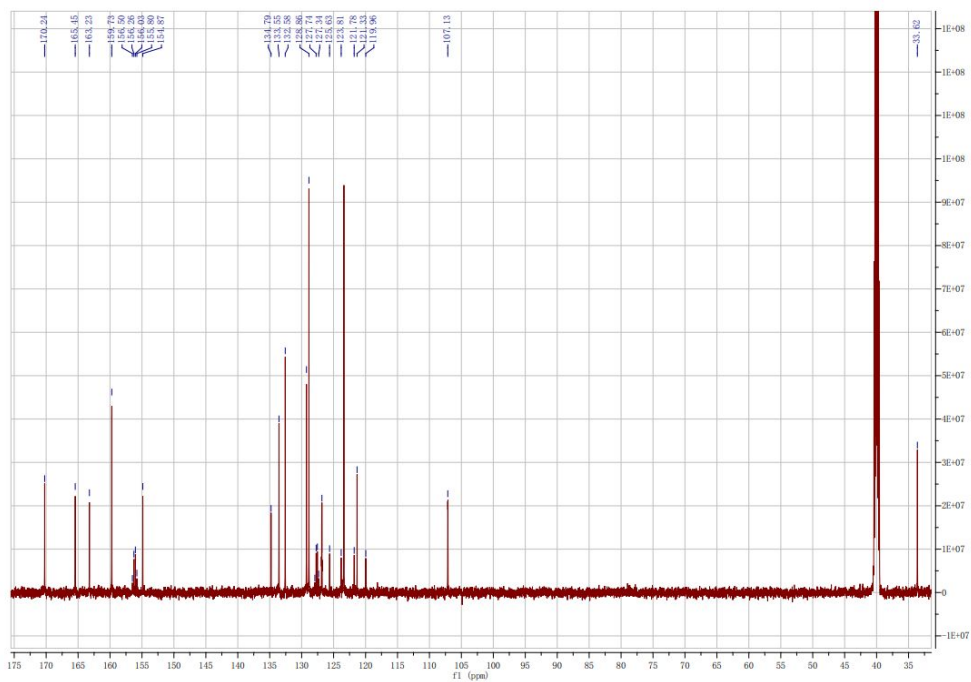


Figure S35. ¹³C NMR spectra of compound **6i**

W08-23-9 #23 RT: 0.10 AV: 1 NL: 1.22E9
T: FIMS + p ESI Full ms [100.0000-1500.0000]

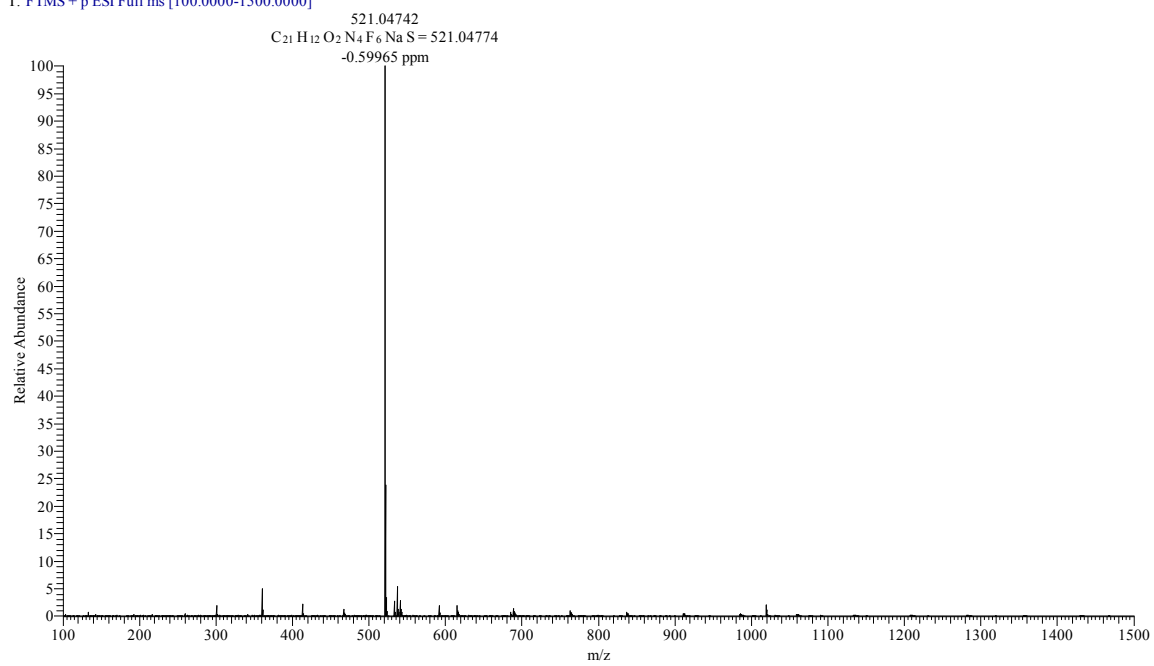


Figure S36. HMRS spectra of compound **6i**

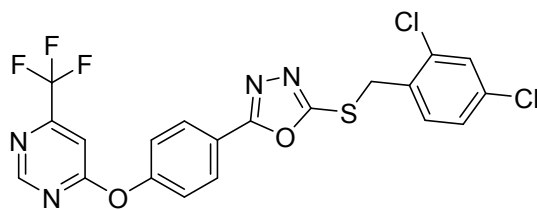


Figure S37. The structure of compound **6j**

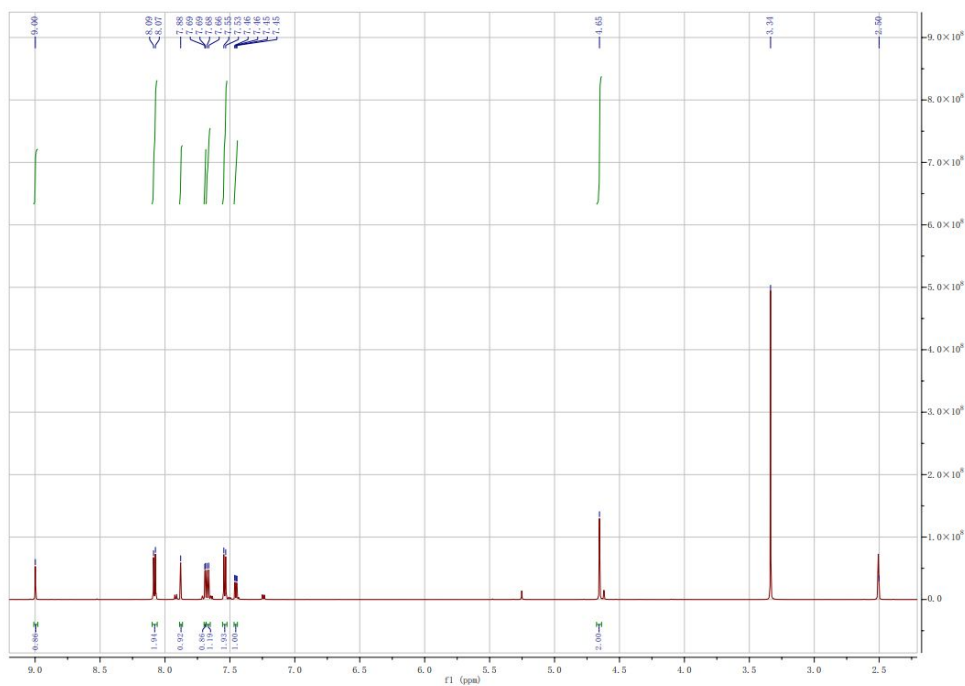


Figure S38. ^1H NMR spectra of compound **6j**

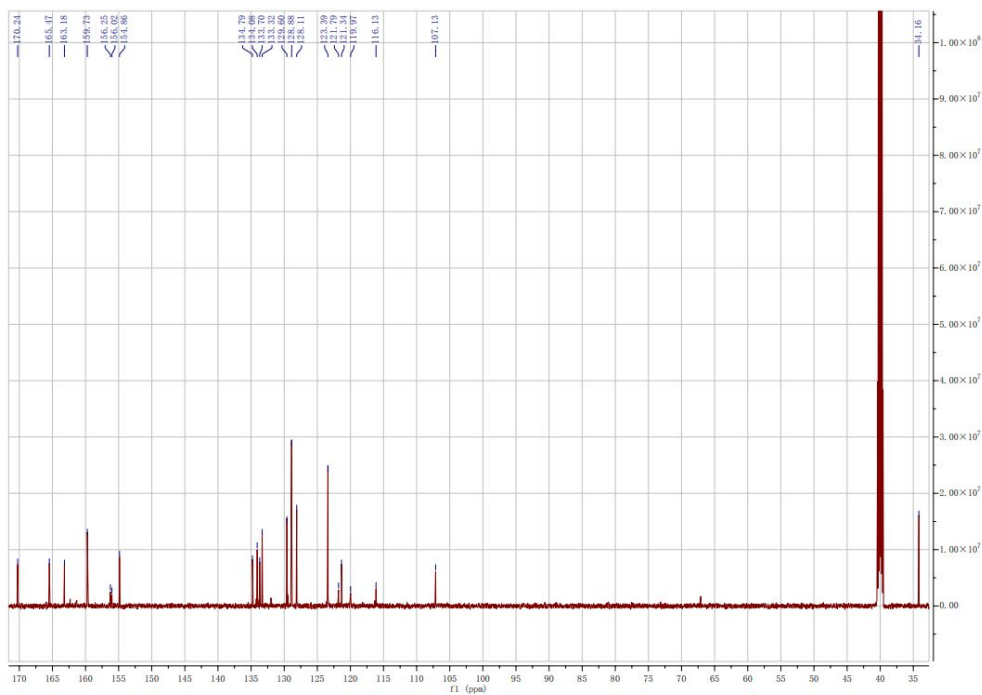


Figure S39. ^{13}C NMR spectra of compound **6j**

W08-23-12 #24 RT: 0.11 AV: 1 NL: 8.28E7
T: FTMS + p ESI Full ms [100.0000-1500.0000]

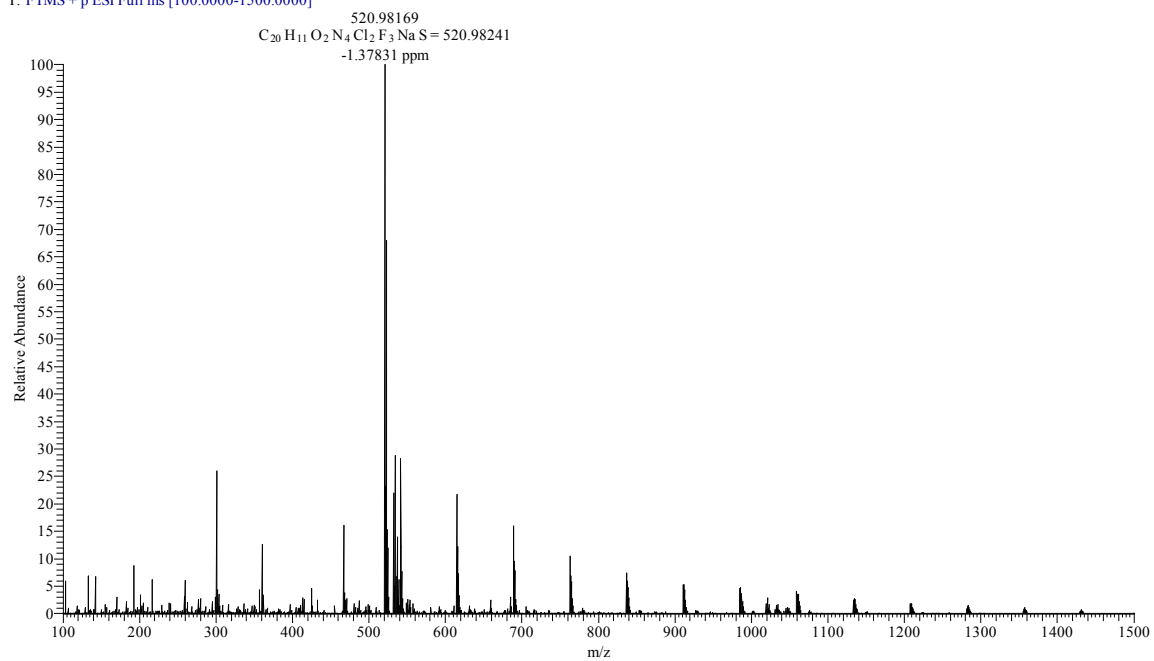


Figure S40. HMRS spectra of compound **6j**

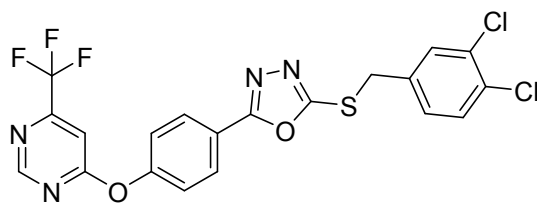


Figure S41. The structure of compound 6k

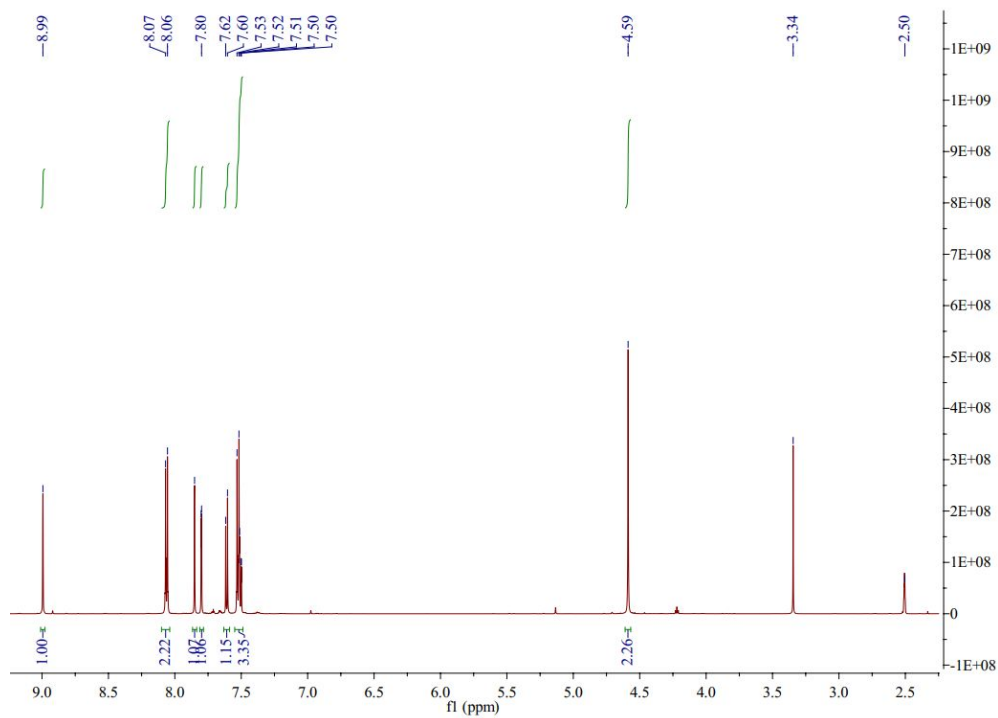


Figure S42. ¹H NMR spectra of compound 6k

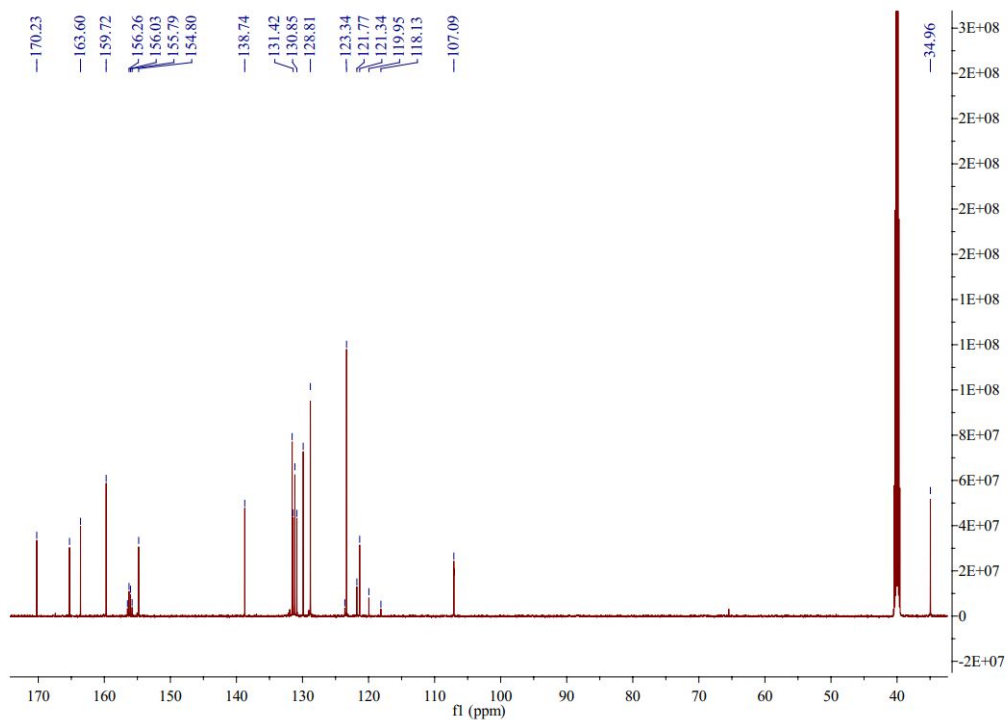


Figure S43. ¹³C NMR spectra of compound 6k

W08-23-11 #25 RT: 0.11 AV: 1 NL: 2.52E7
T: FTMS + p ESI Full ms [100.0000-1500.0000]

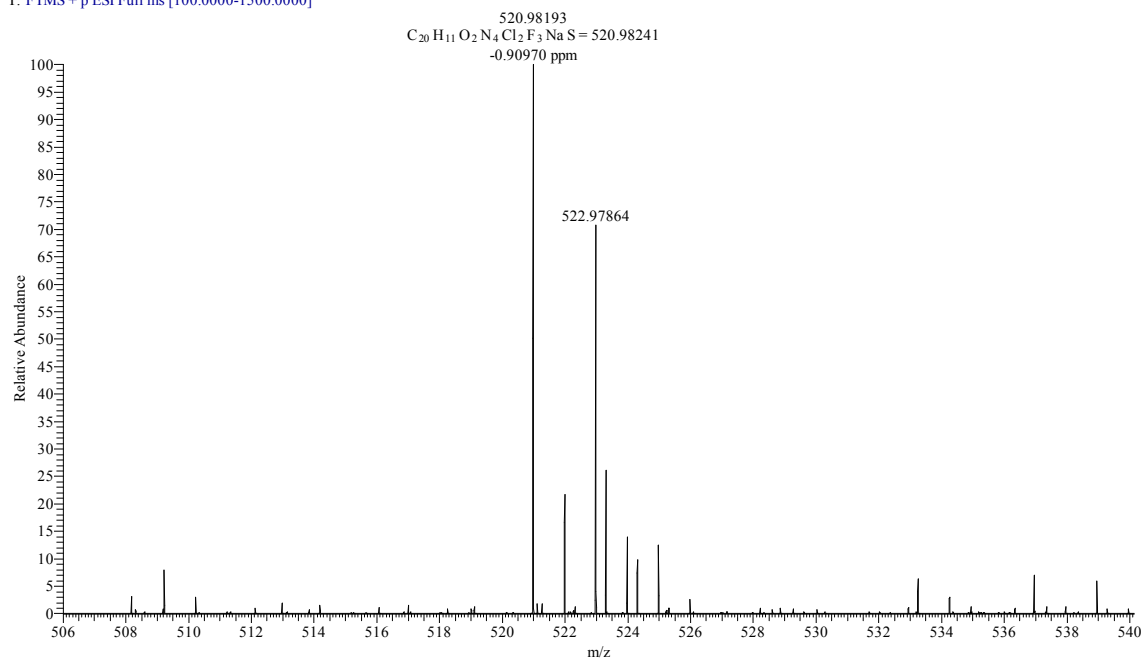


Figure S44.HMRS spectra of compound 6k

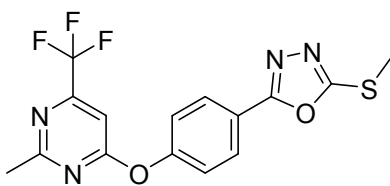


Figure S45. The structure of compound **61**

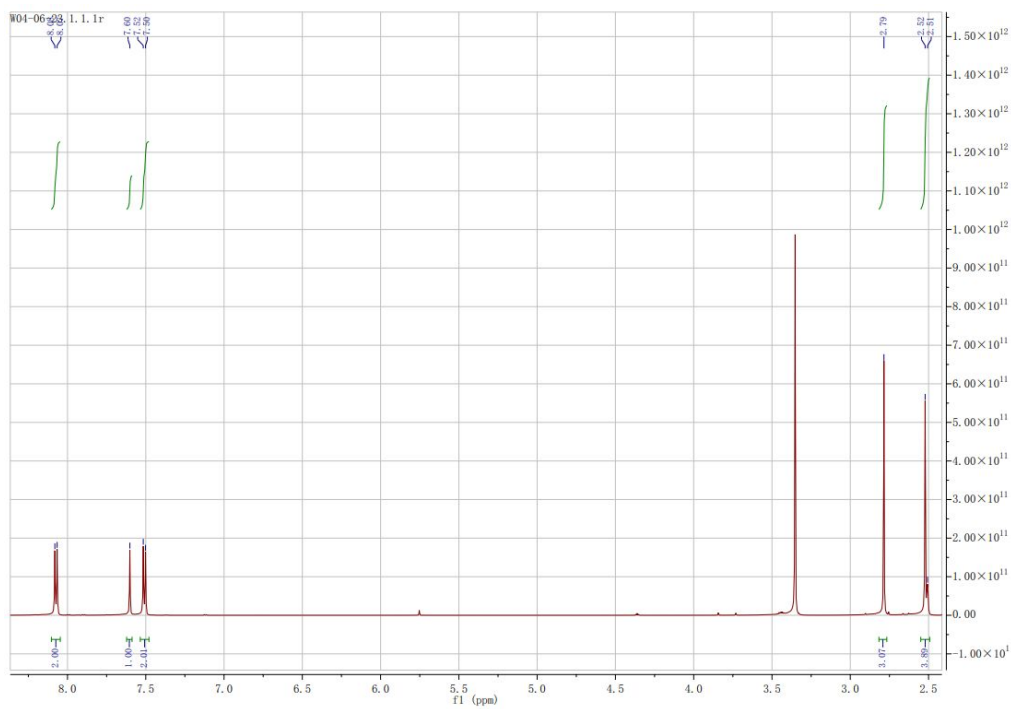


Figure S46. ^1H NMR spectra of compound **61**

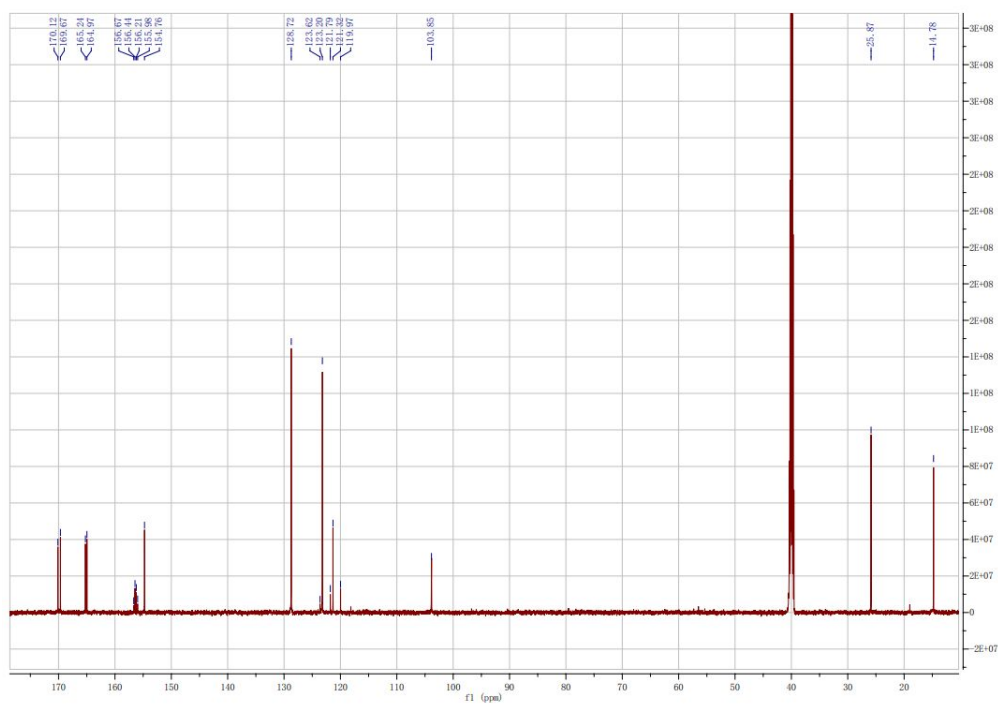


Figure S47. ^{13}C NMR spectra of compound **61**

W08-23-13 #22 RT: 0.10 AV: 1 NL: 2.01E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

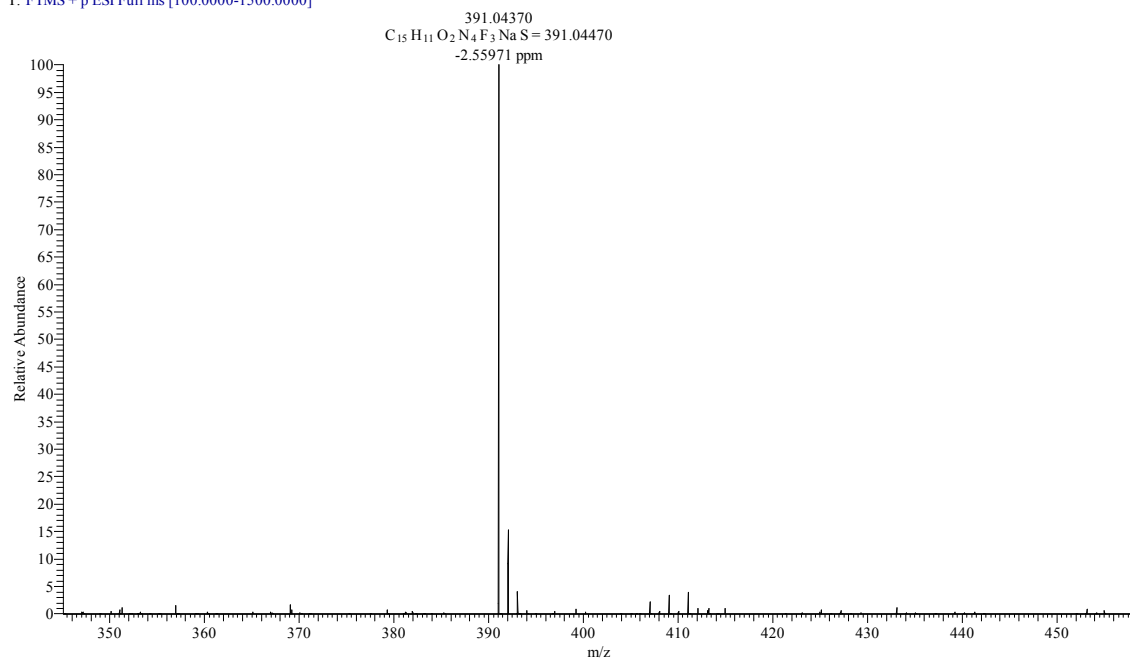


Figure S48. HMRS spectra of compound **61**

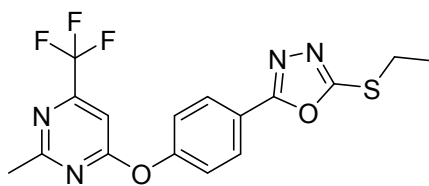


Figure S49. The structure of compound **6m**

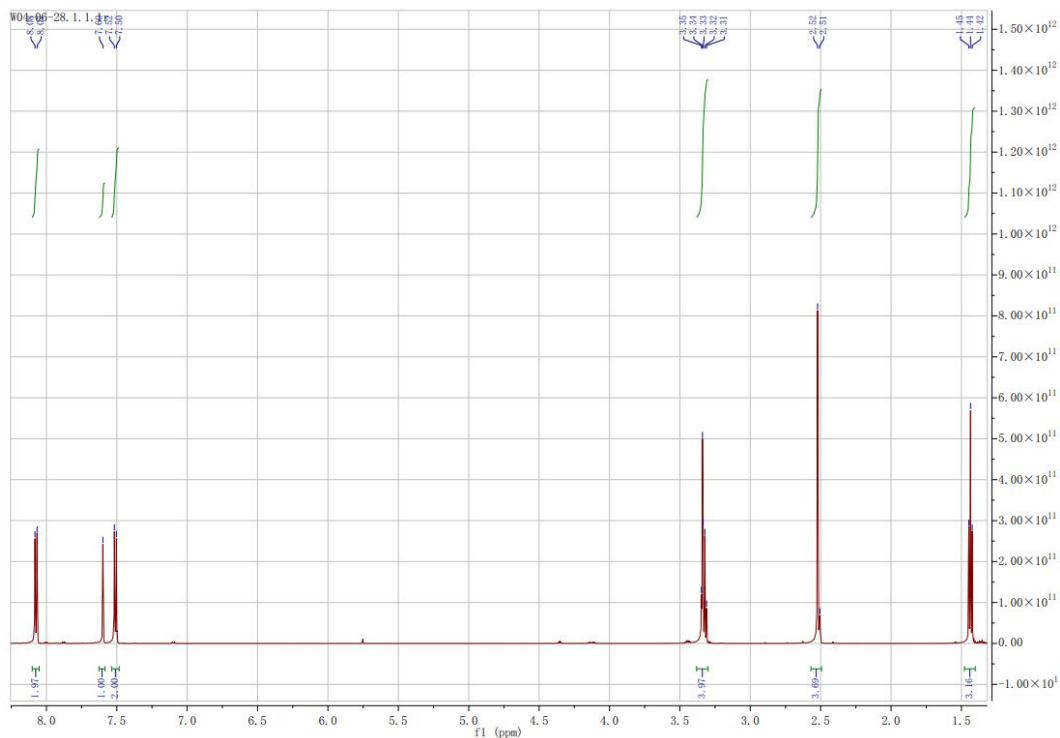


Figure S50. ¹H NMR spectra of compound **6m**

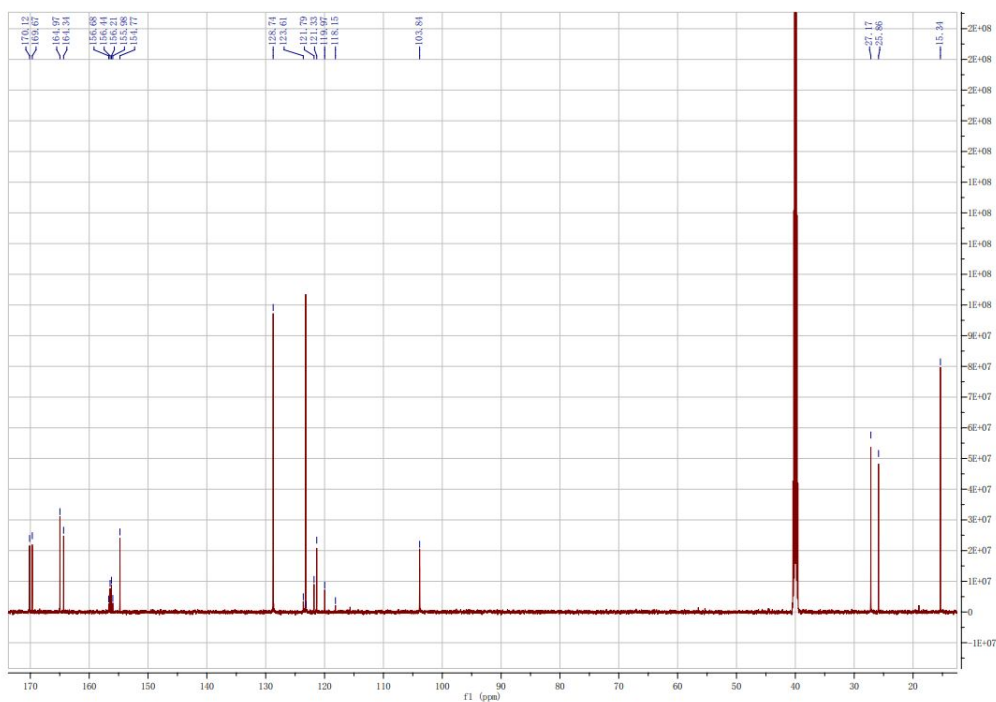


Figure S51. ¹³C NMR spectra of compound **6m**

W08-23-14 #23 RT: 0.10 AV: 1 NL: 1.32E9
T: FTMS + p ESI Full ms [100.0000-1500.0000]

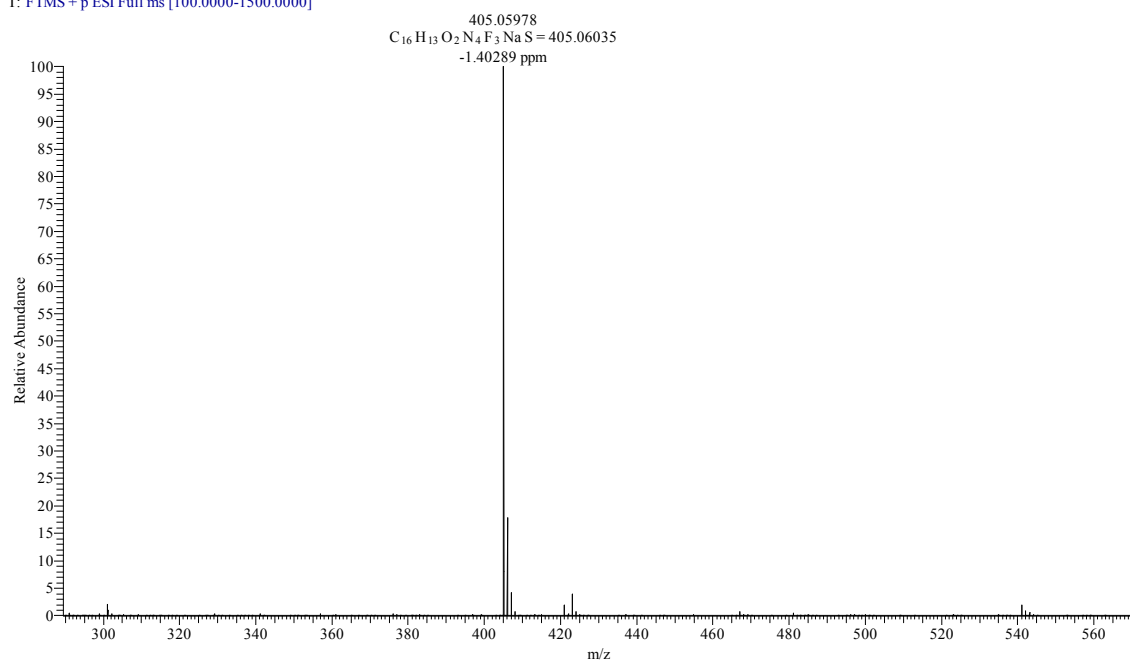


Figure S52. HMRS spectra of compound **6m**

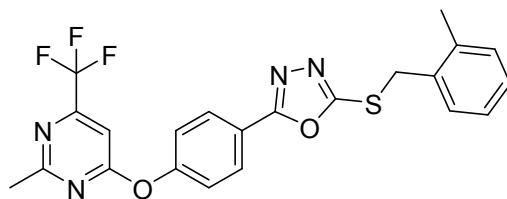


Figure S53. The structure of compound **6n**

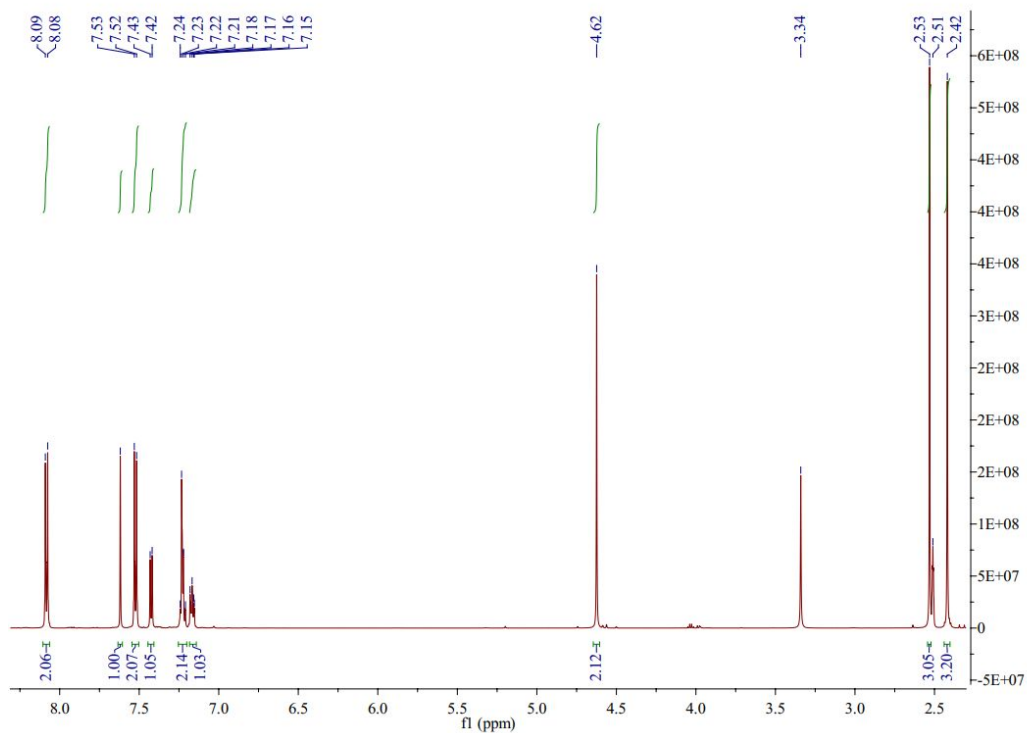


Figure S54. ^1H NMR spectra of compound **6n**

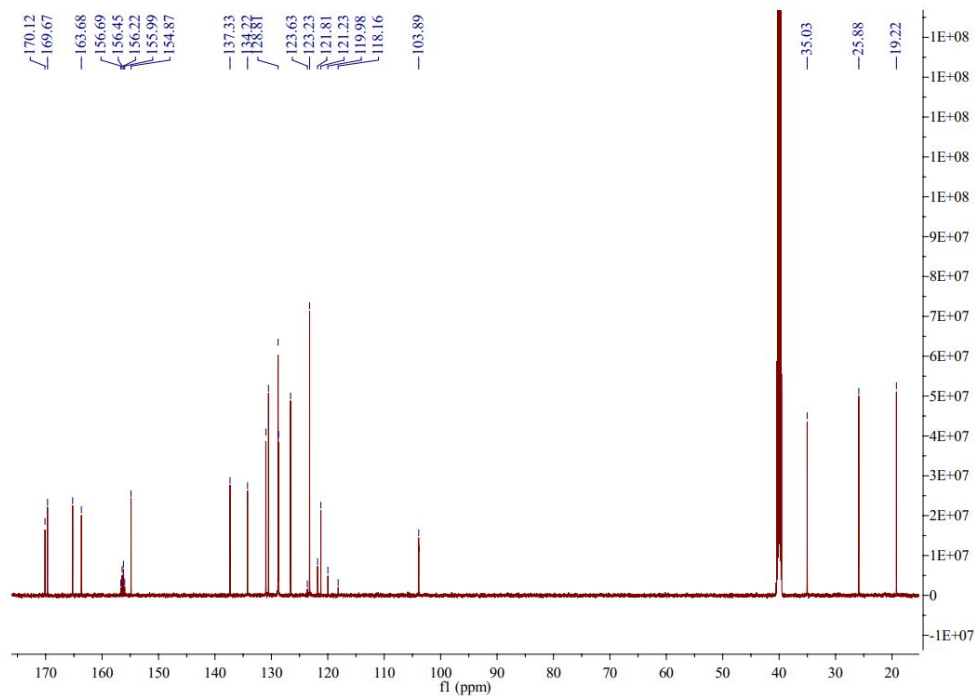


Figure S55. ^{13}C NMR spectra of compound **6n**

W08-23-15 #24 RT: 0.11 AV: 1 NL: 1.40E9
T: FTMS + p ESI Full ms [100.0000-1500.0000]

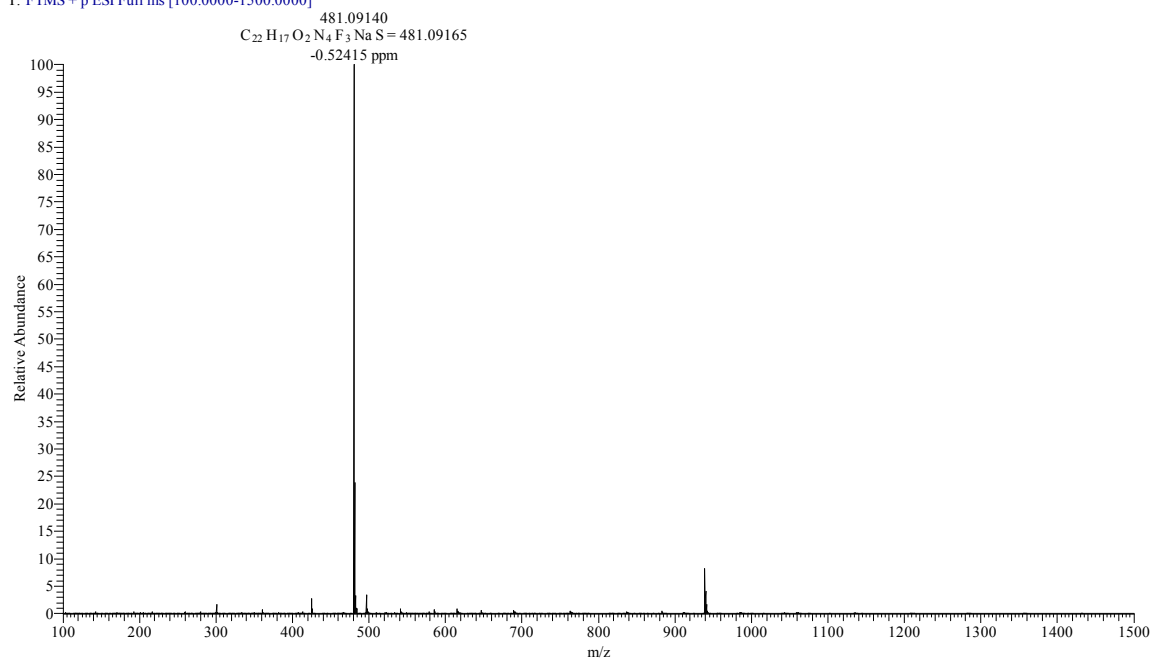


Figure S56. HMRS spectra of compound **6n**

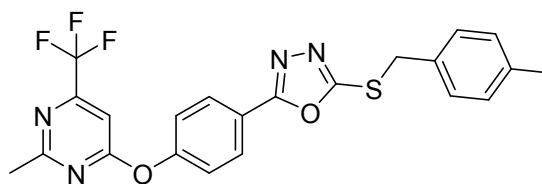


Figure S57. The structure of compound **60**

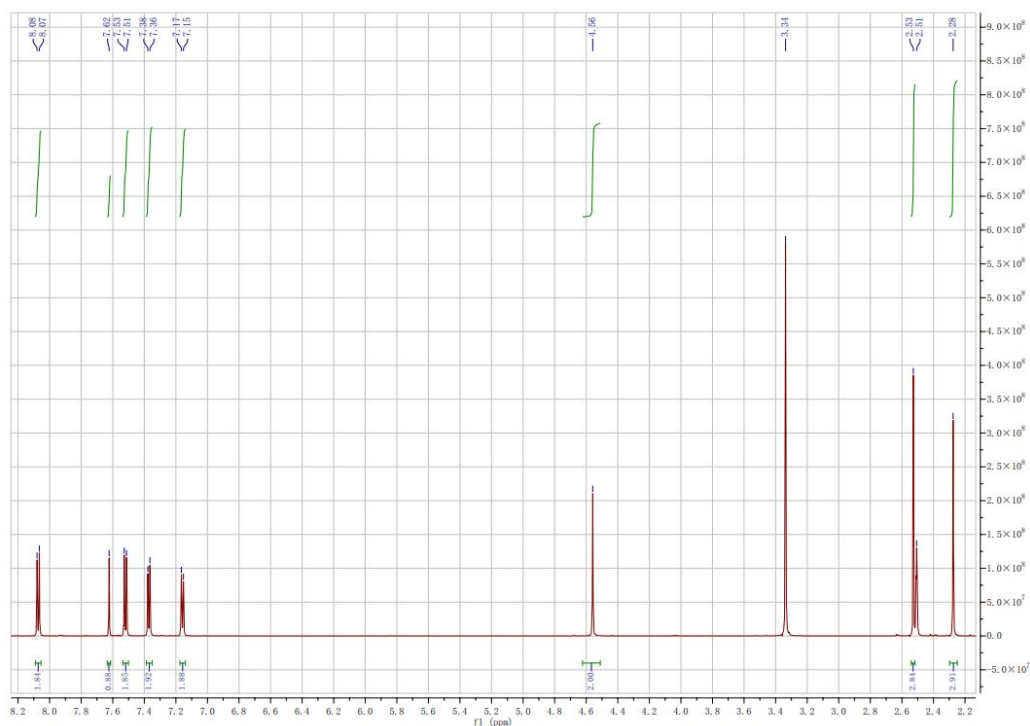


Figure S58. ^1H NMR spectra of compound **60**

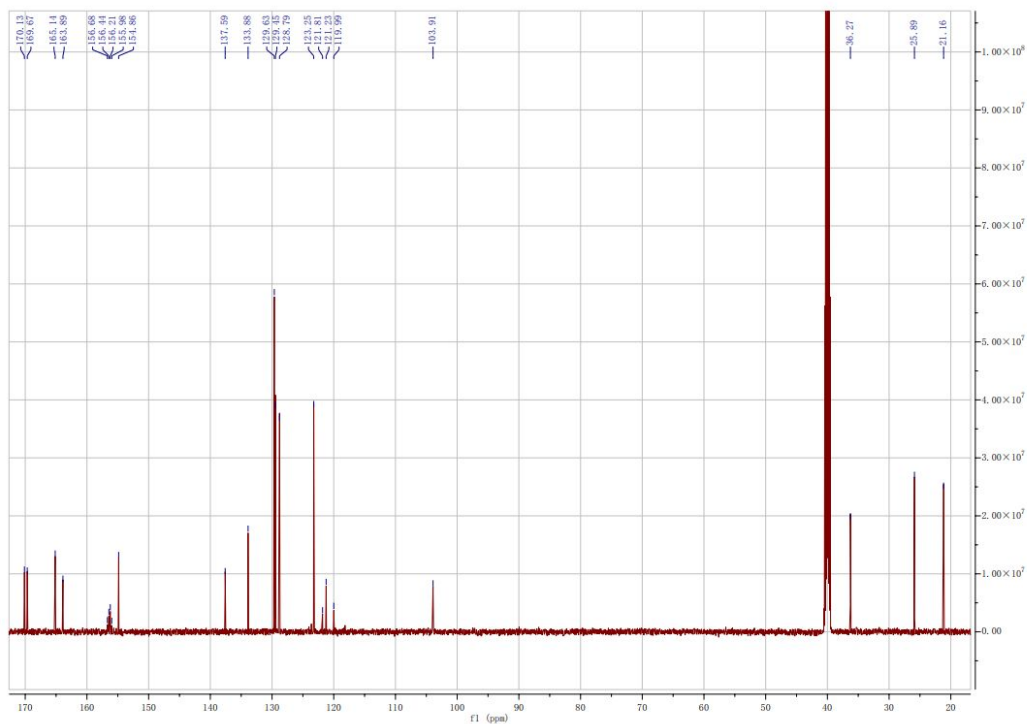


Figure S59. ^{13}C NMR spectra of compound **60**

W08-23-16 #24 RT: 0.11 AV: 1 NL: 1.05E9
T: FTMS + p ESI Full ms [100.0000-1500.0000]

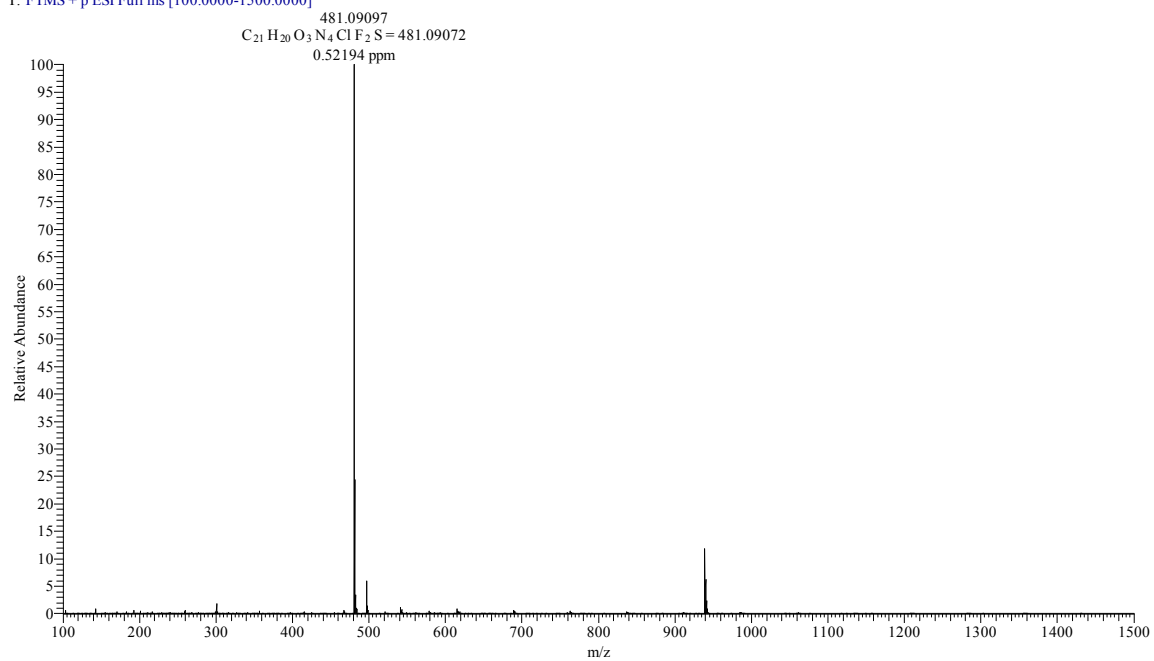


Figure S60. HMRS spectra of compound **60**

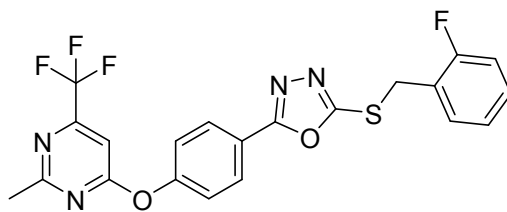


Figure S61. The structure of compound **6p**

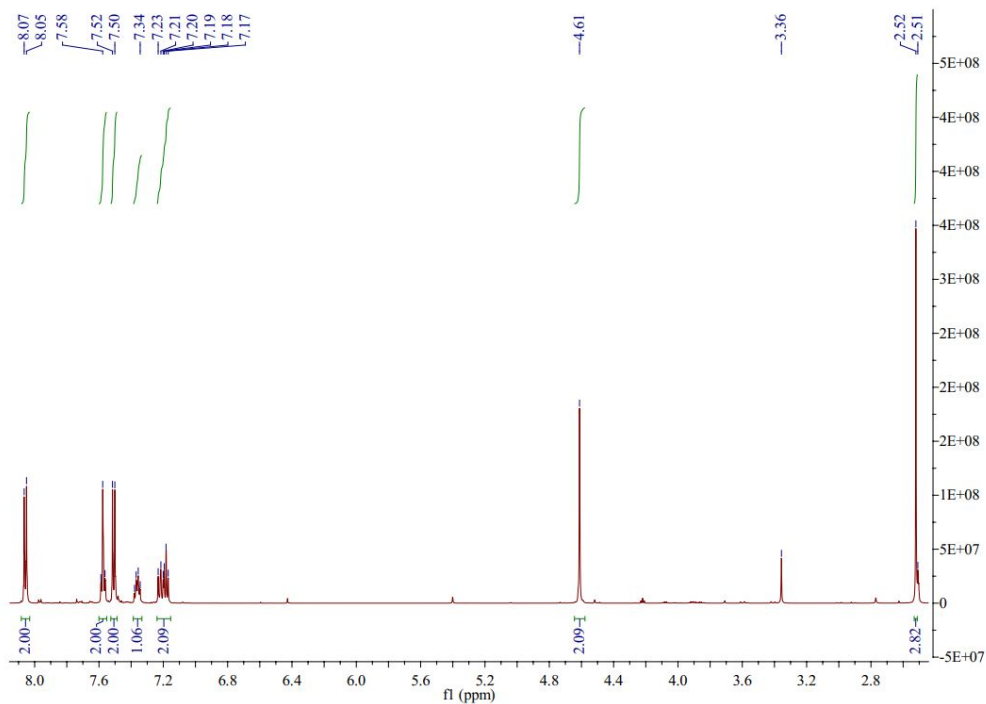


Figure S62. ^1H NMR spectra of compound **6p**

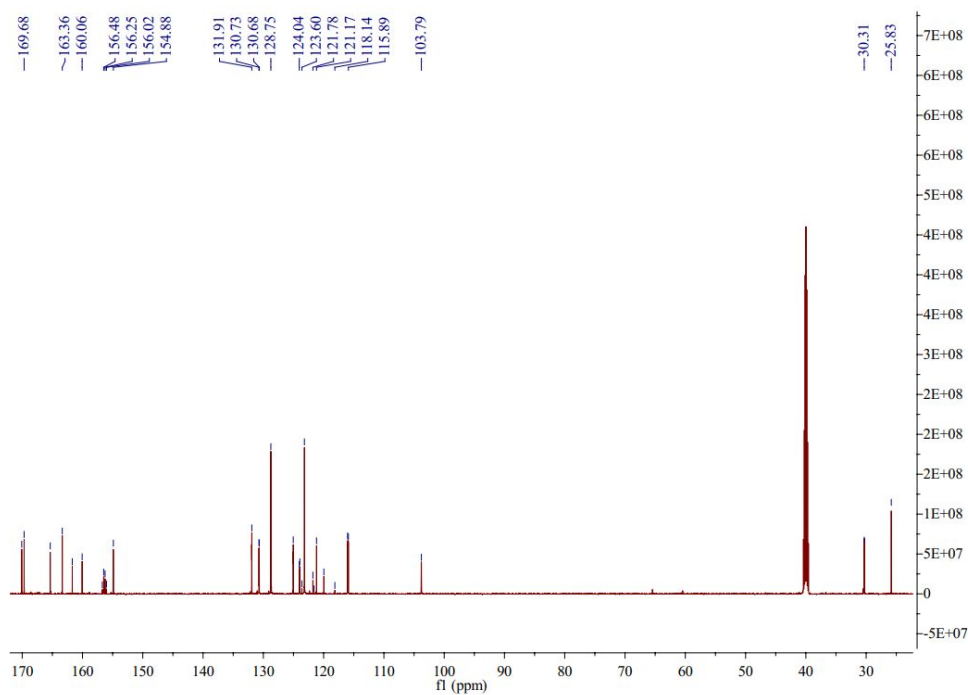


Figure S63. ^{13}C NMR spectra of compound **6p**

W08-23-17 #22 RT: 0.10 AV: 1 NL: 5.05E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

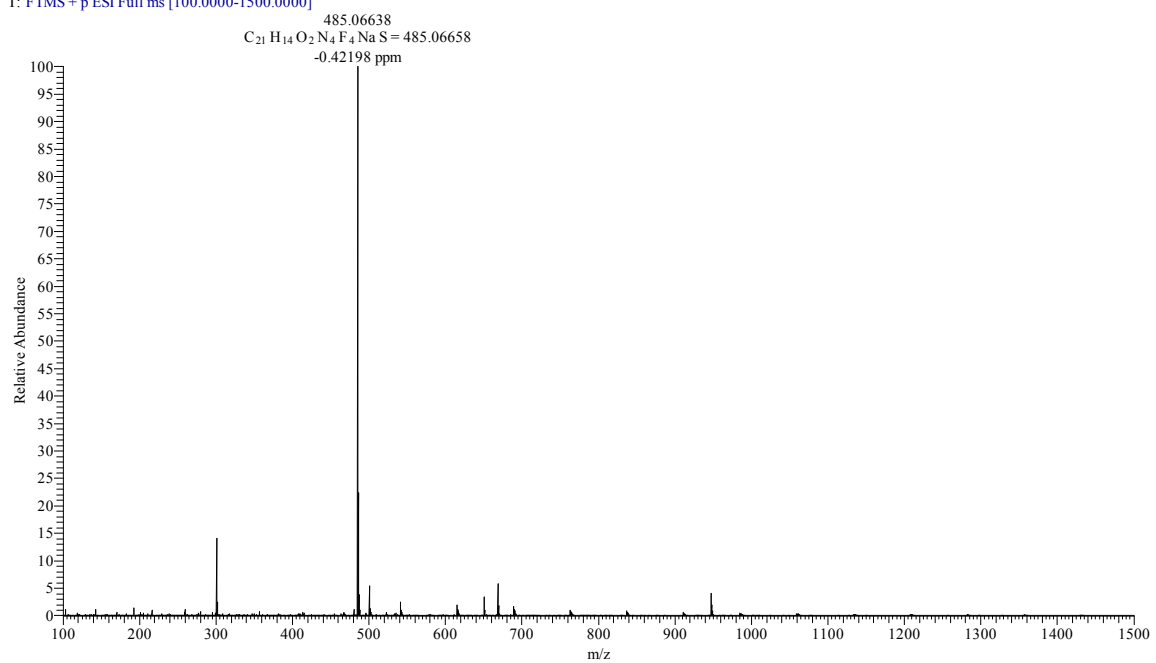


Figure S64. HMRS spectra of compound **6p**

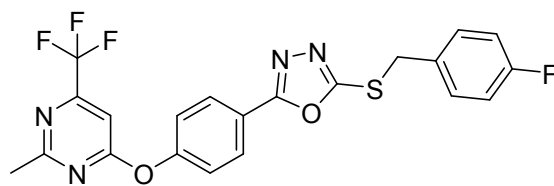


Figure S65. The structure of compound **6q**

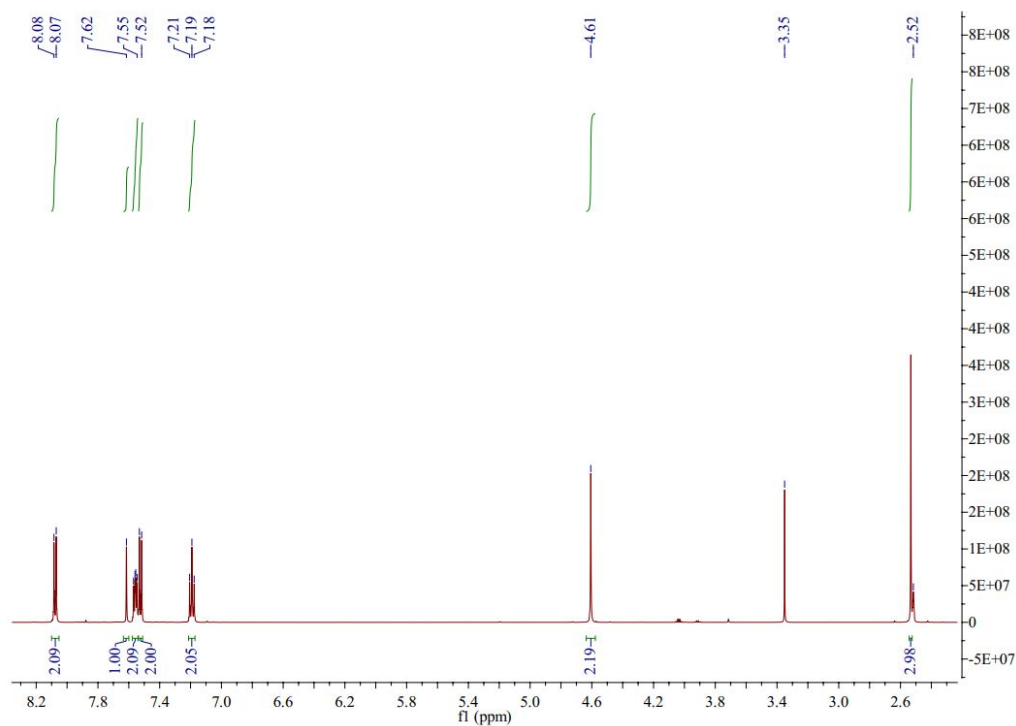


Figure S66. ^1H NMR spectra of compound **6q**

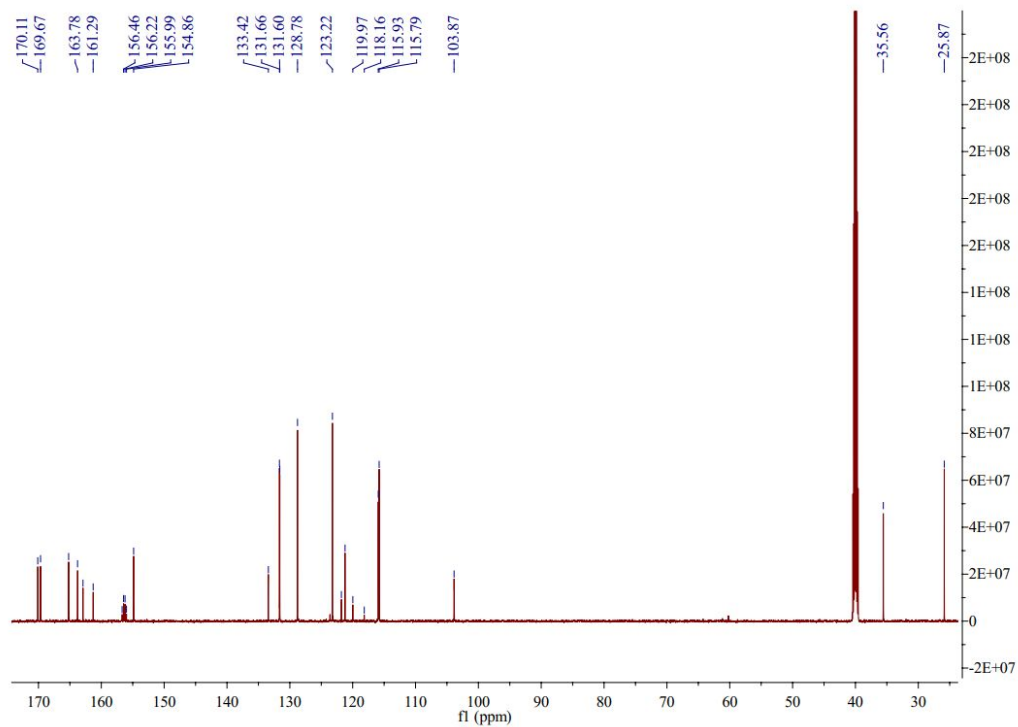


Figure S67. ^{13}C NMR spectra of compound **6q**

W08-23-18 #24 RT: 0.11 AV: 1 NL: 3.25E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

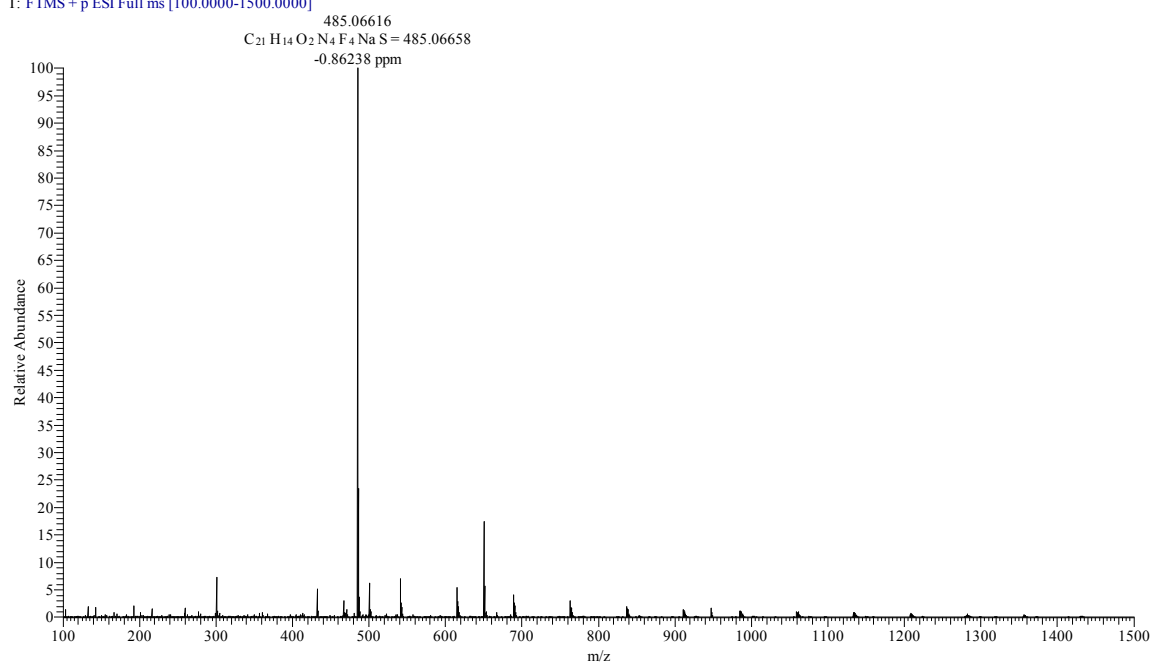


Figure S68. HMRS spectra of compound **6q**

W08-23-19 #24 RT: 0.11 AV: 1 NL: 1.73E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

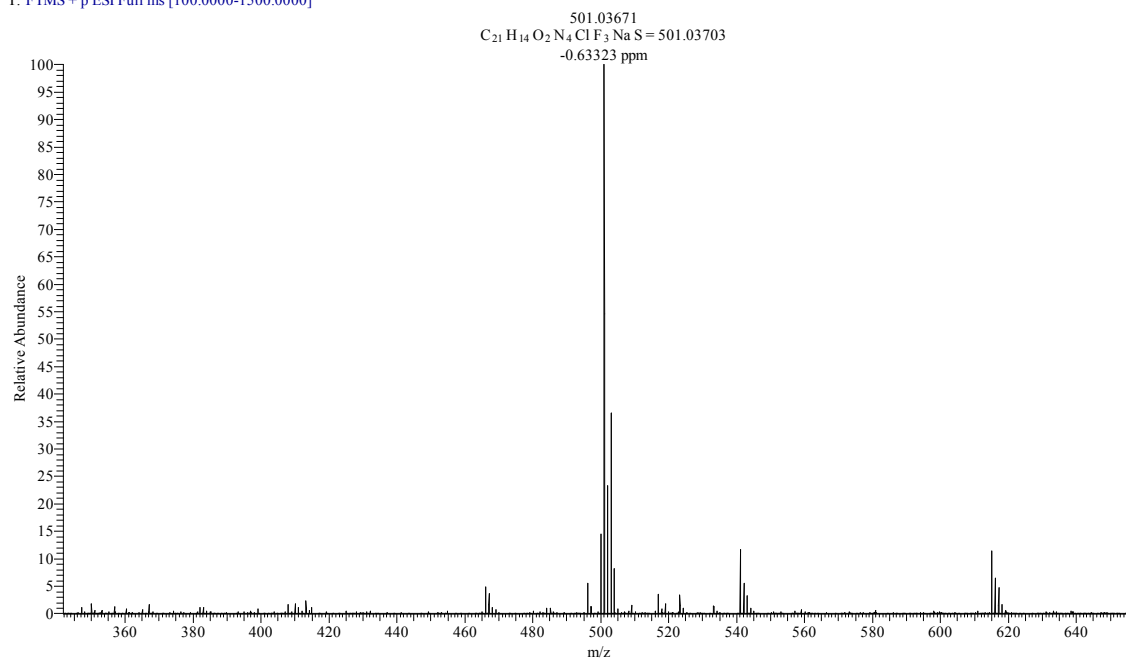


Figure S72. HMRS spectra of compound **6r**

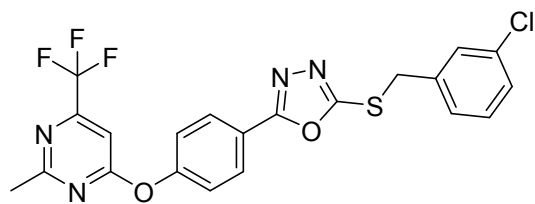


Figure S73. The structure of compound **6s**

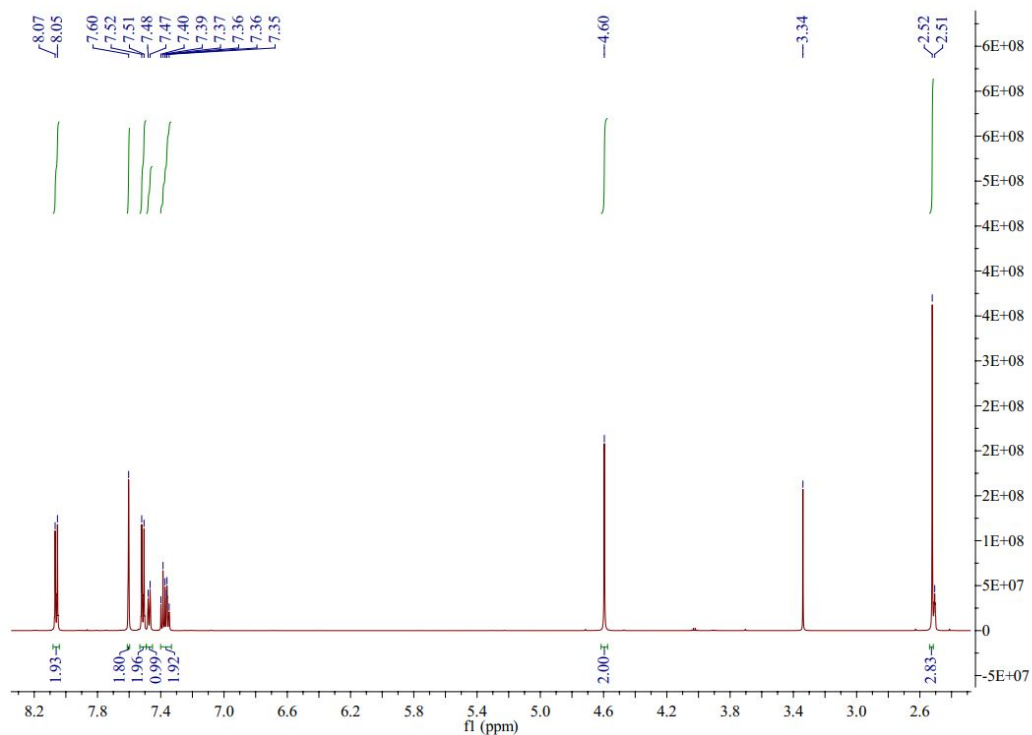


Figure S74. ^1H NMR spectra of compound **6s**

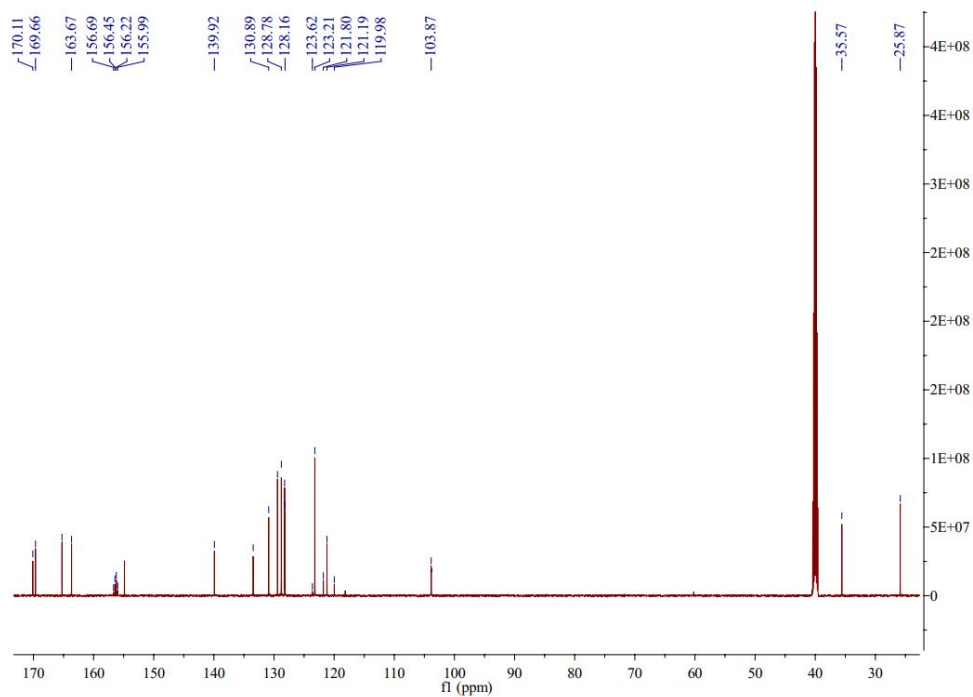


Figure S75. ^{13}C NMR spectra of compound **6s**

W08-23-20 #24 RT: 0.11 AV: 1 NL: 3.23E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

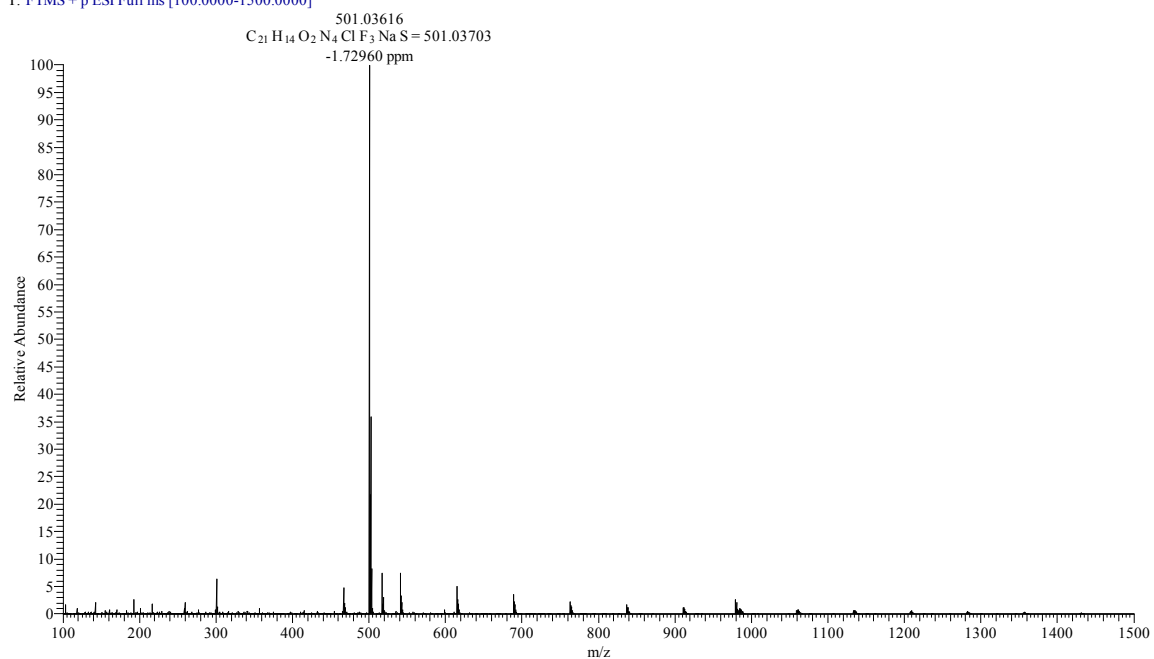


Figure S76. HMRS spectra of compound **6s**

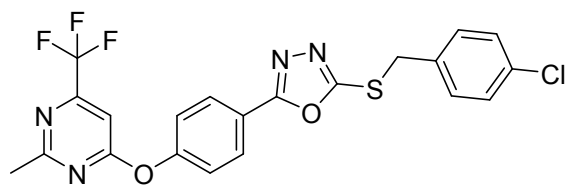


Figure S77. The structure of compound **6t**

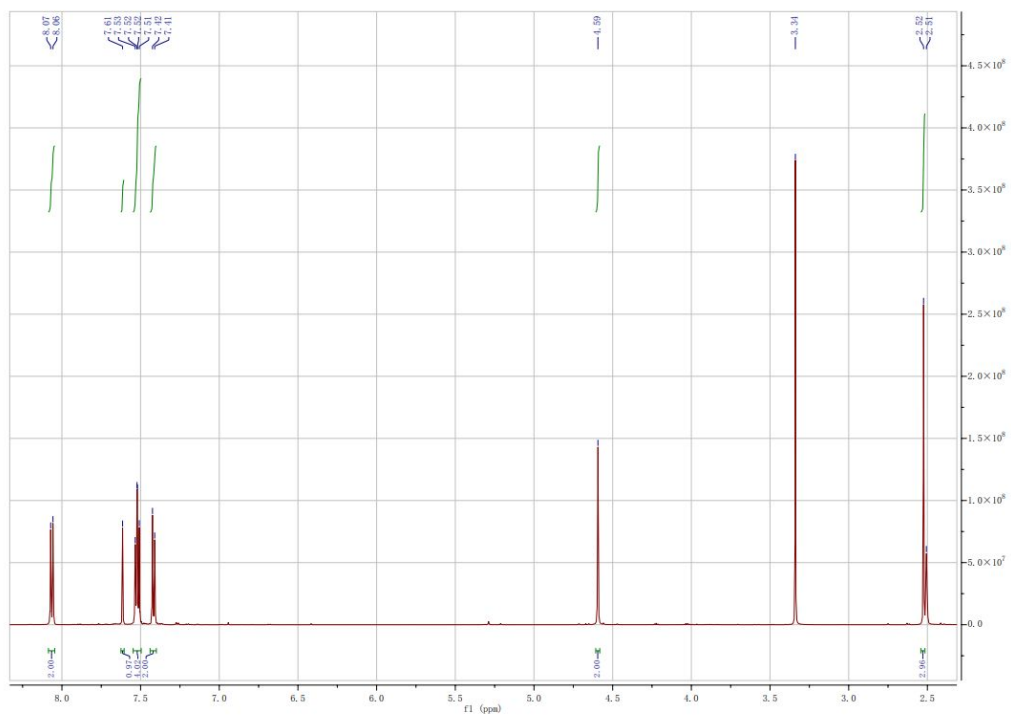


Figure S78. ^1H NMR spectra of compound **6t**

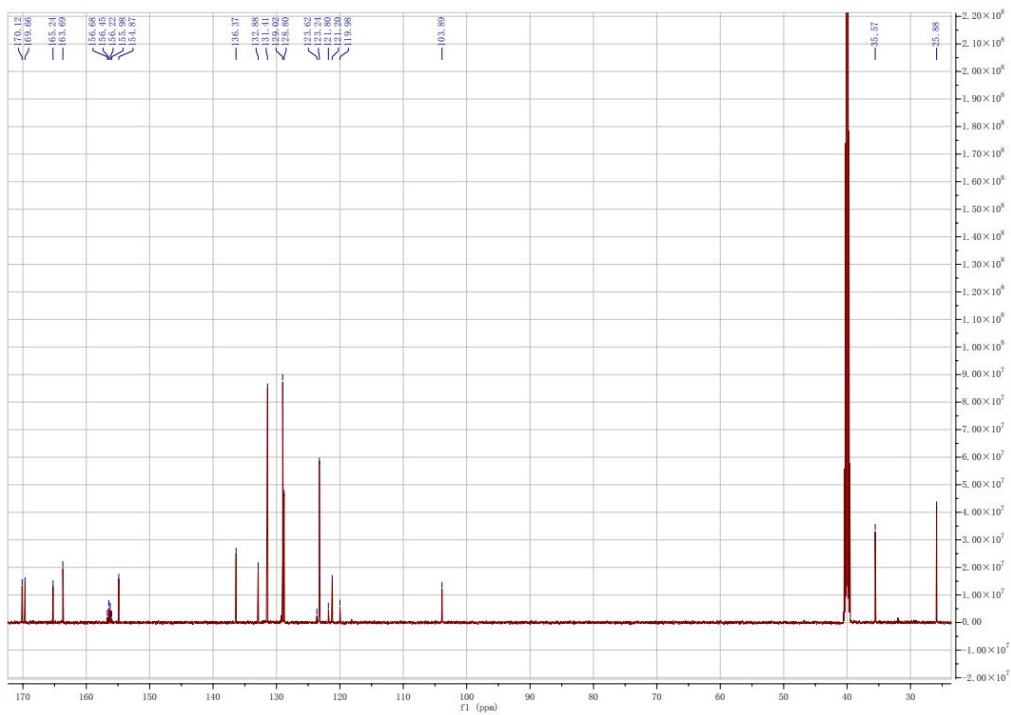


Figure S79. ^{13}C NMR spectra of compound **6t**

W08-23-21 #23 RT: 0.10 AV: 1 NL: 1.64E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

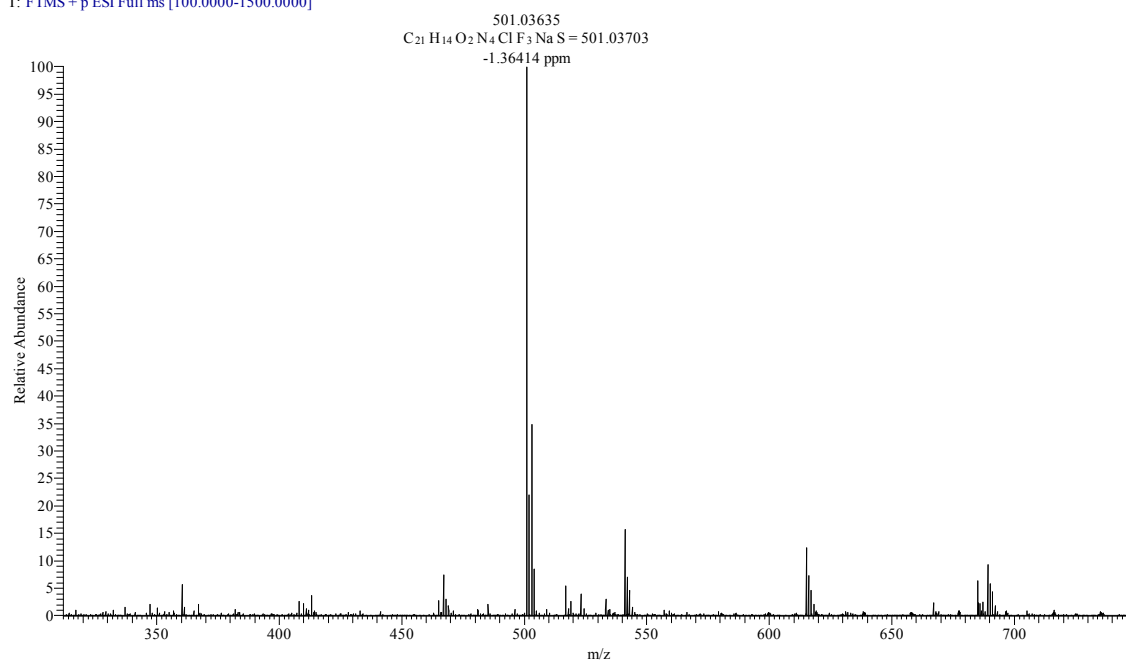


Figure S80. HMRS spectra of compound **6t**

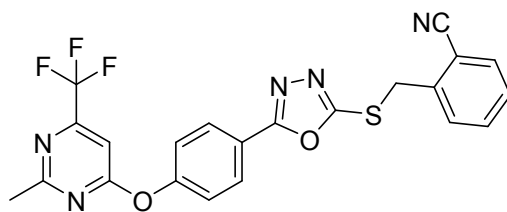


Figure S81. The structure of compound **6u**

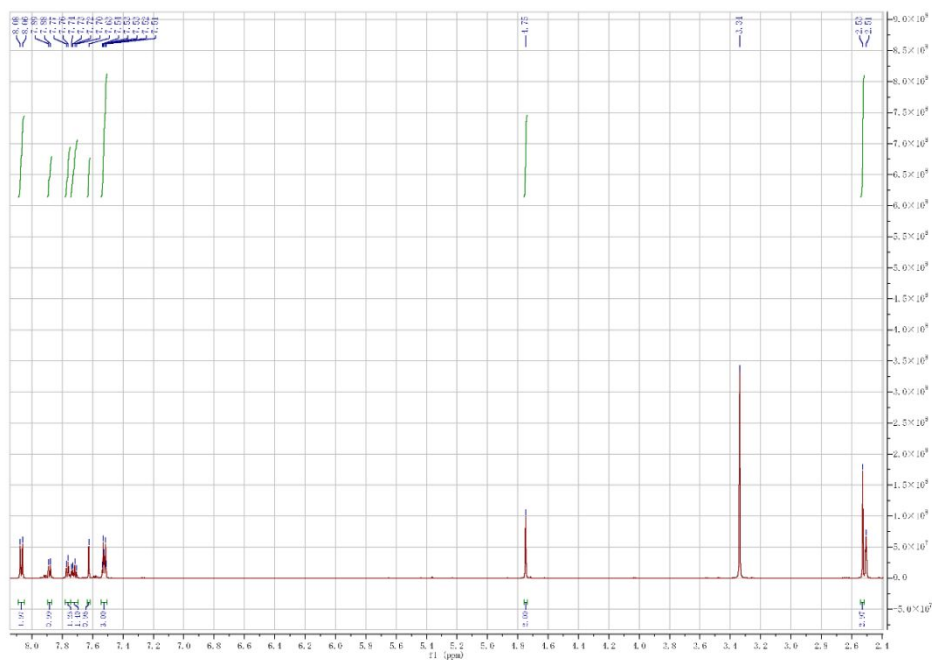


Figure S82. ^1H NMR spectra of compound **6u**

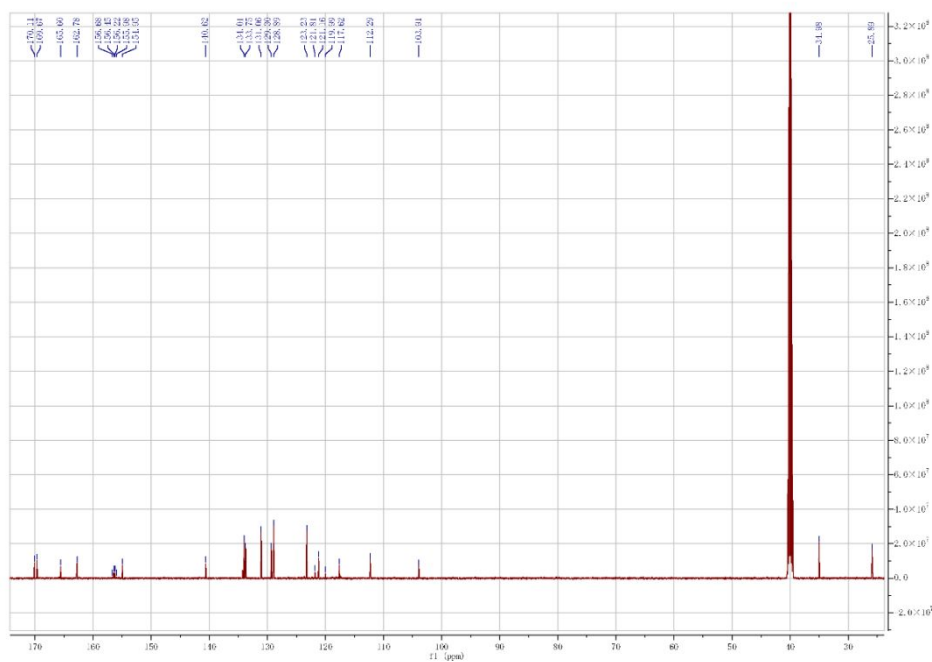


Figure S83. ^{13}C NMR spectra of compound **6u**

W08-23-22 #23 RT: 0.10 AV: 1 NL: 1.27E9
T: FTMS + p ESI Full ms [100.0000-1500.0000]

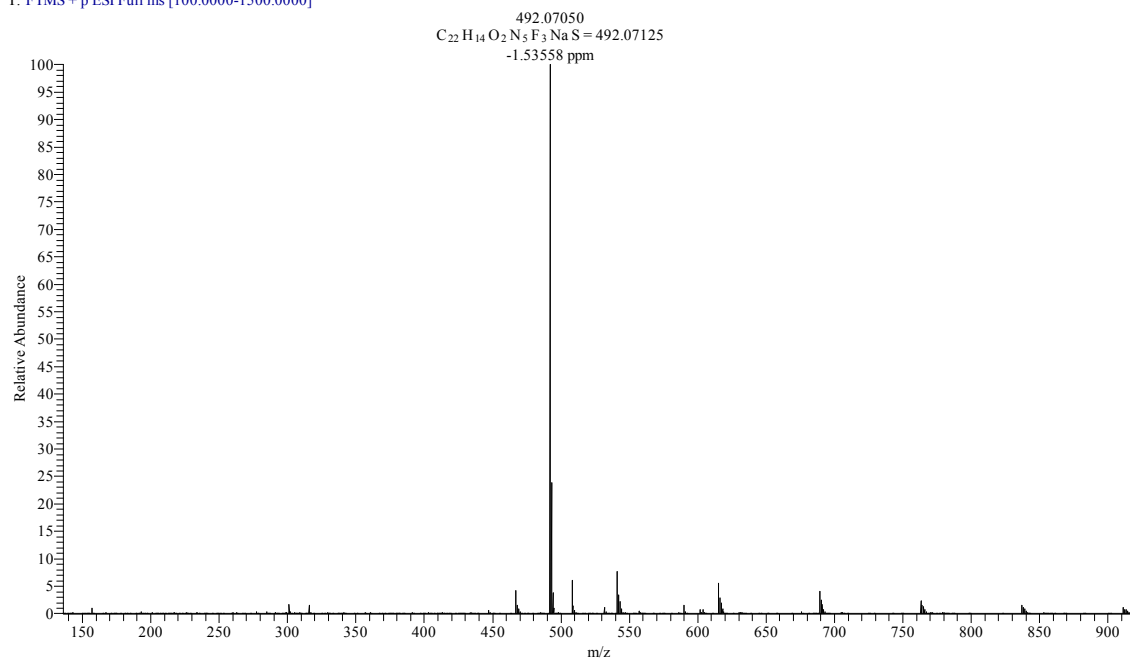


Figure S84. HMRS spectra of compound **6u**

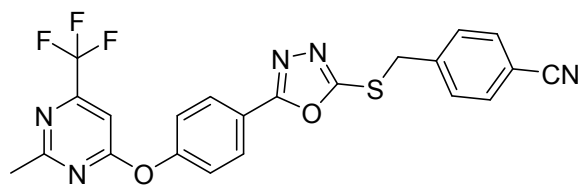


Figure S85. The structure of compound **6v**

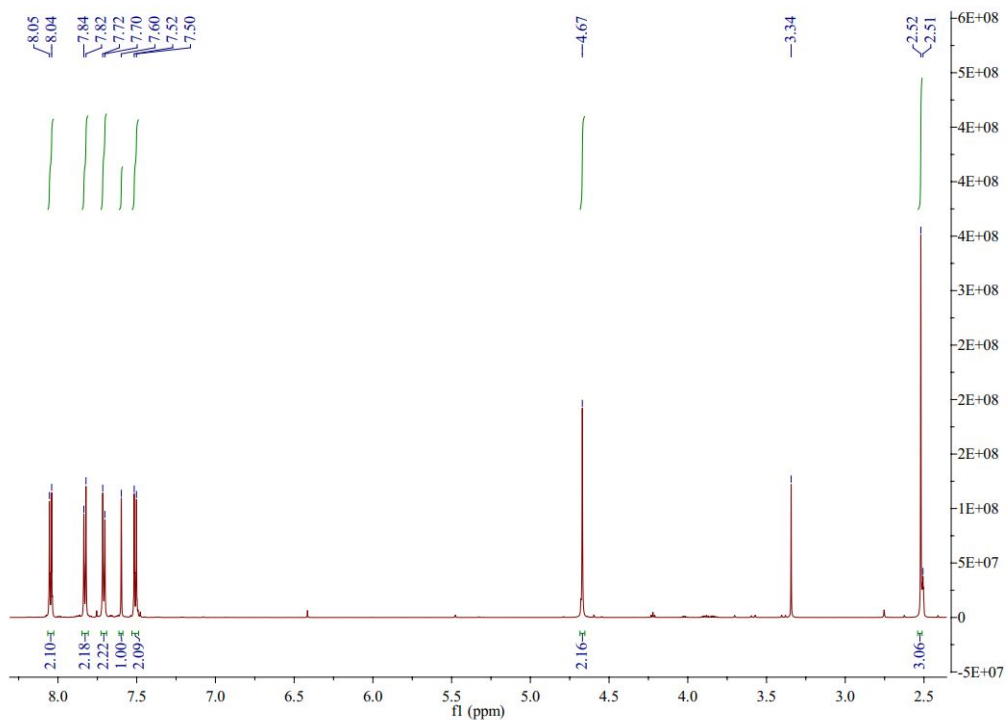


Figure S86. ^1H NMR spectra of compound **6v**

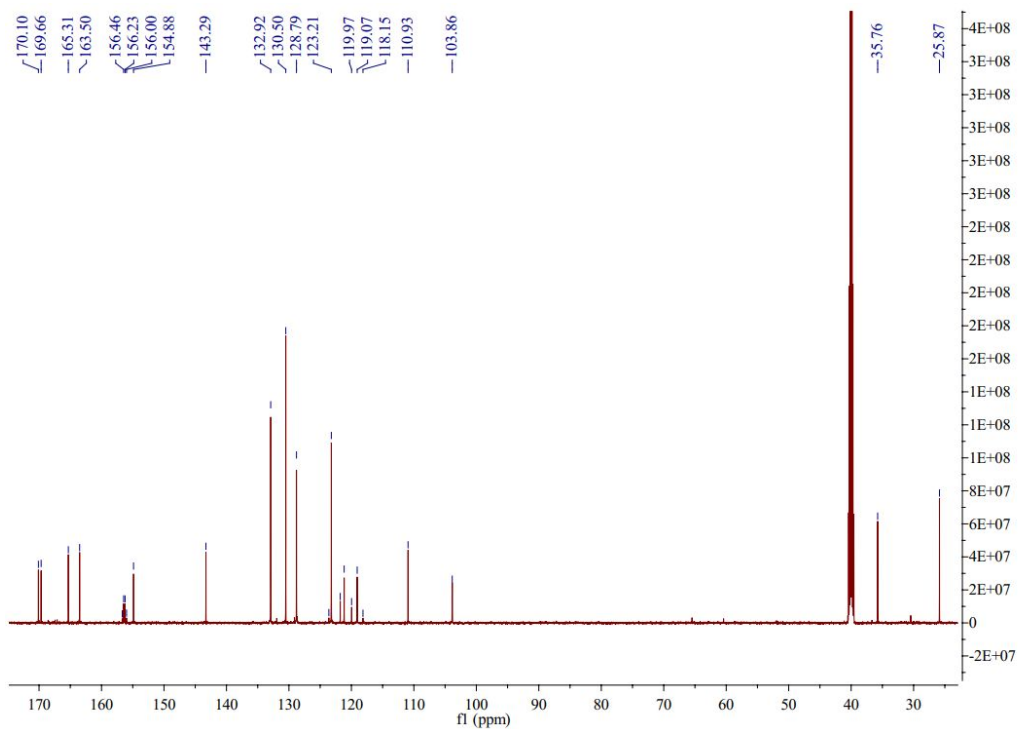


Figure S87. ^{13}C NMR spectra of compound **6v**

W08-23-23 #24 RT: 0.11 AV: 1 NL: 2.31E7
T: FTMS + p ESI Full ms [100.0000-1500.0000]

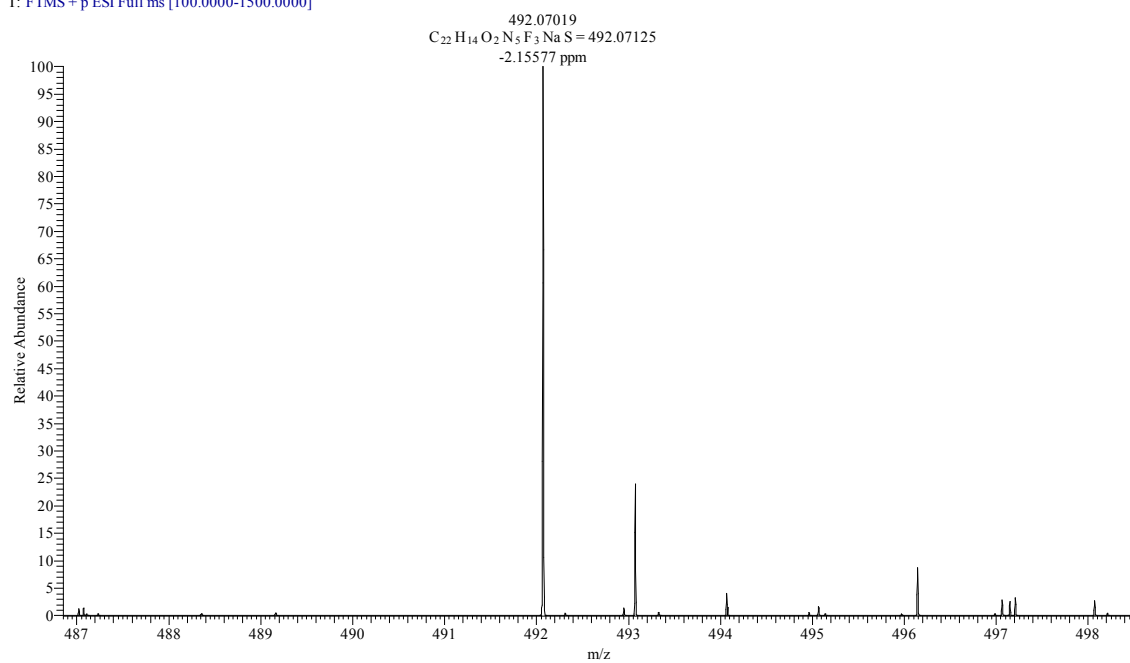


Figure S88. HMRS spectra of compound **6v**

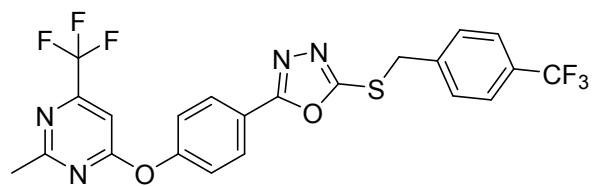


Figure S89. The structure of compound **6w**

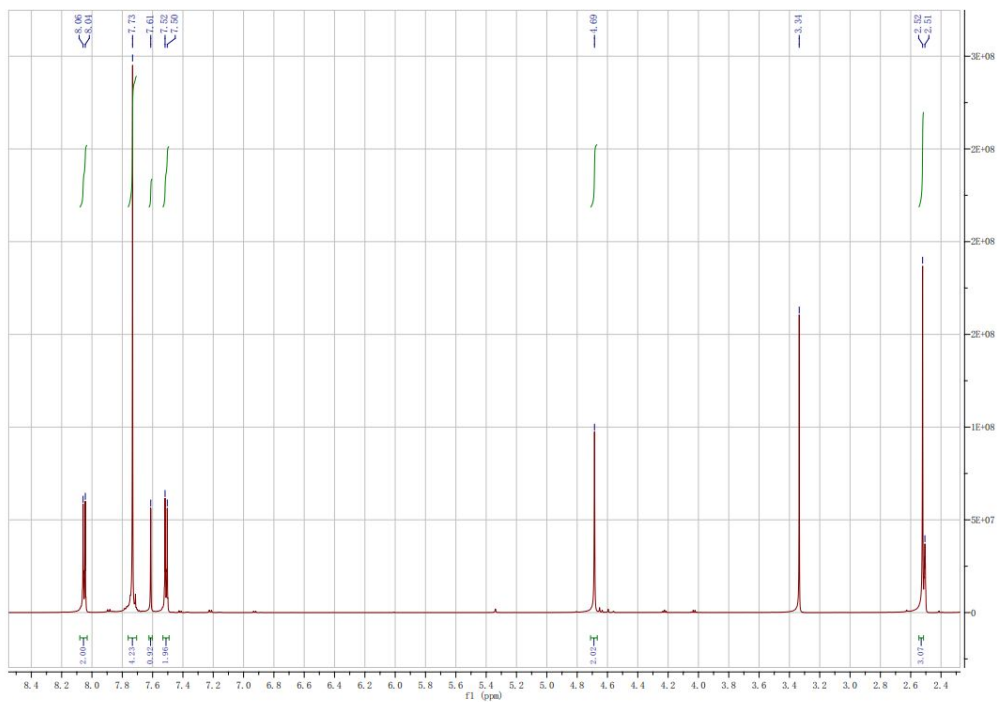


Figure S90. ^1H NMR spectra of compound **6w**

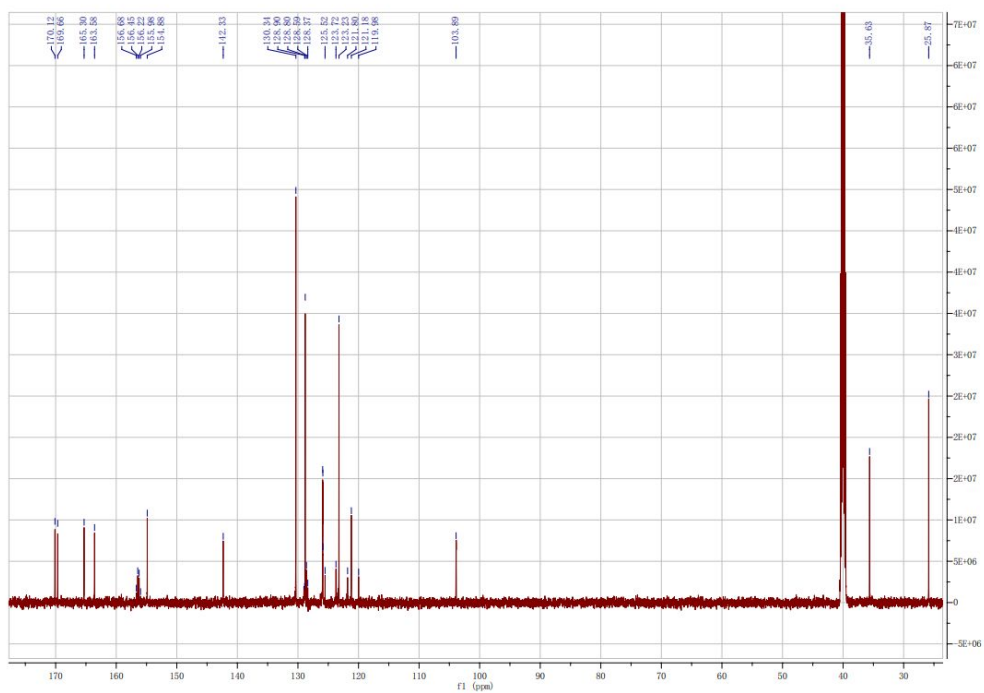


Figure S91. ^{13}C NMR spectra of compound **6w**

W08-23-24 #22 RT: 0.10 AV: 1 NL: 1.40E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

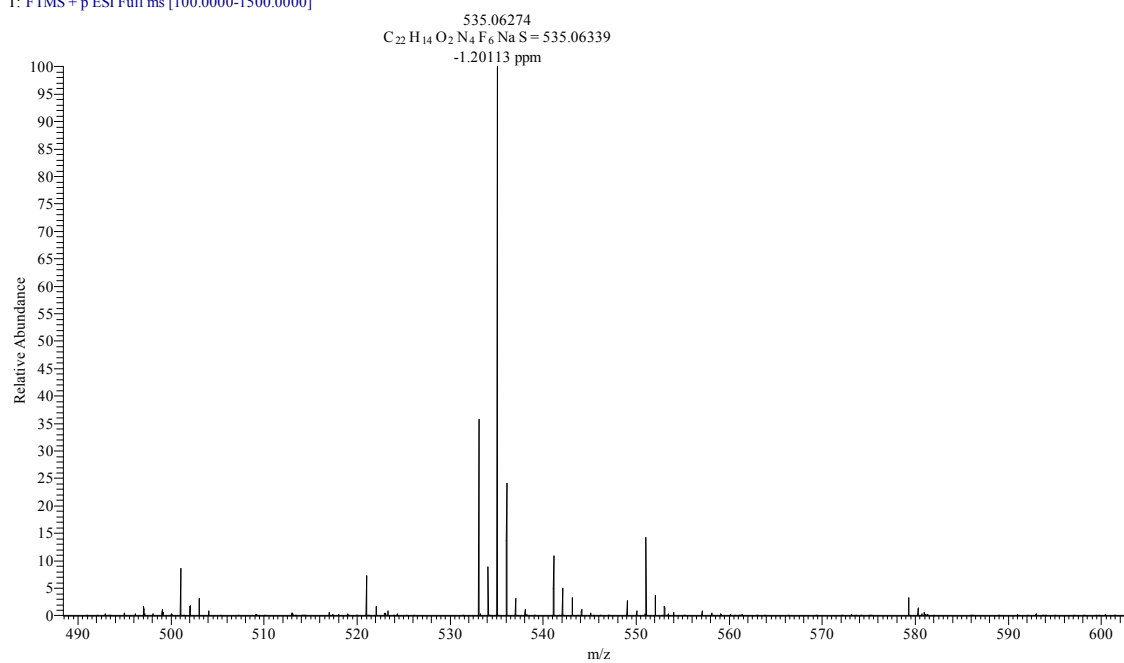


Figure S92. HMRMS spectra of compound **6w**

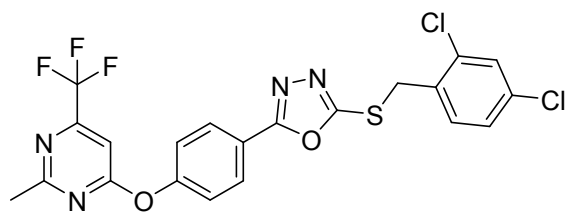


Figure S93. The structure of compound **6x**

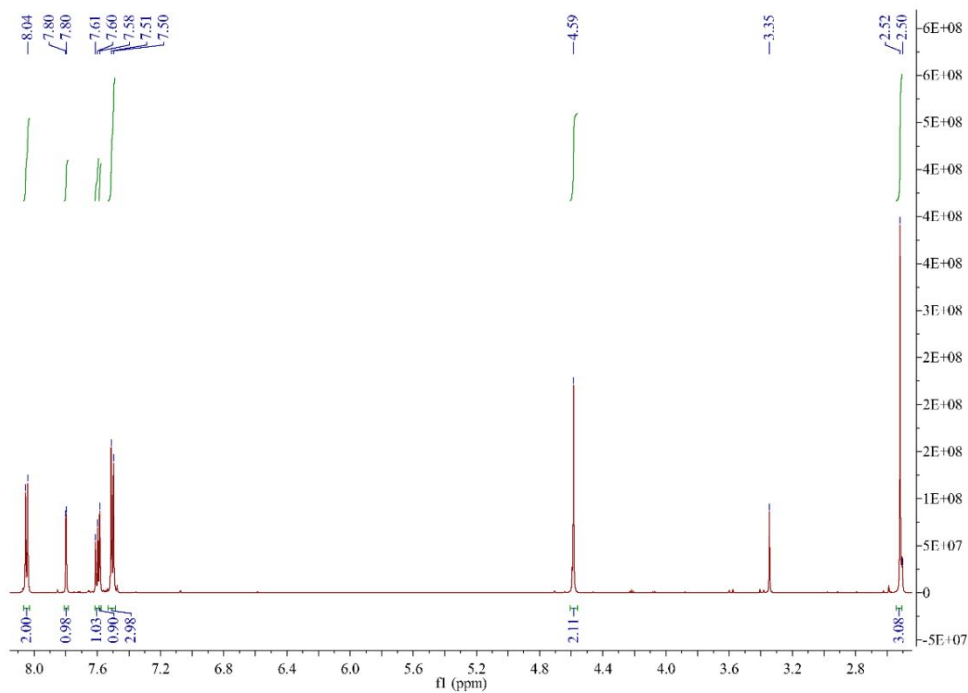


Figure S94. ^1H NMR spectra of compound **6x**

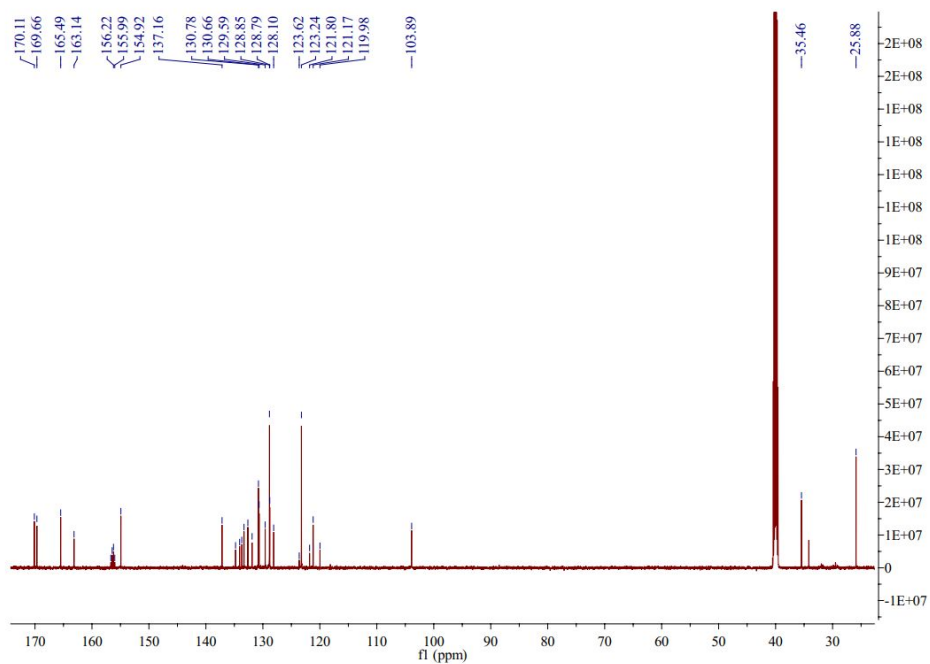


Figure S95. ^{13}C NMR spectra of compound **6x**

W08-23-25 #23 RT: 0.10 AV: 1 NL: 4.38E8
T: FTMS + p ESI Full ms [100.0000-1500.0000]

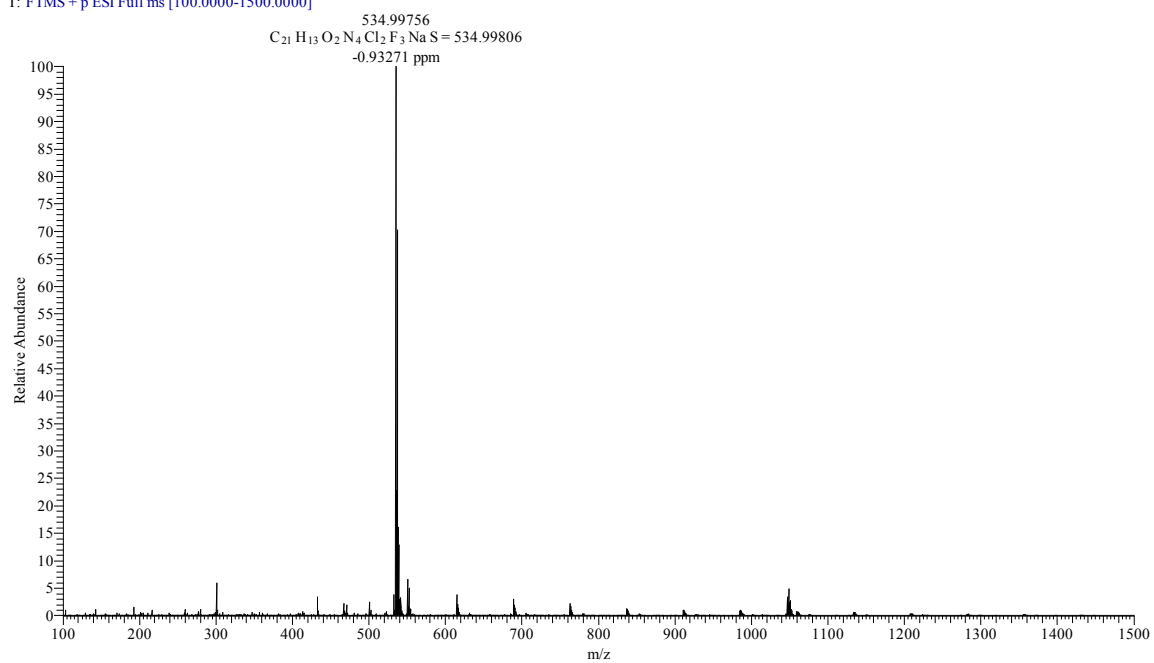


Figure S96. HMRS spectra of compound **6x**

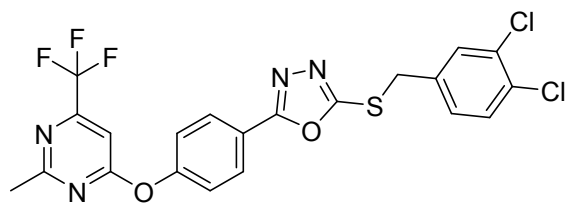


Figure S97. The structure of compound **6y**

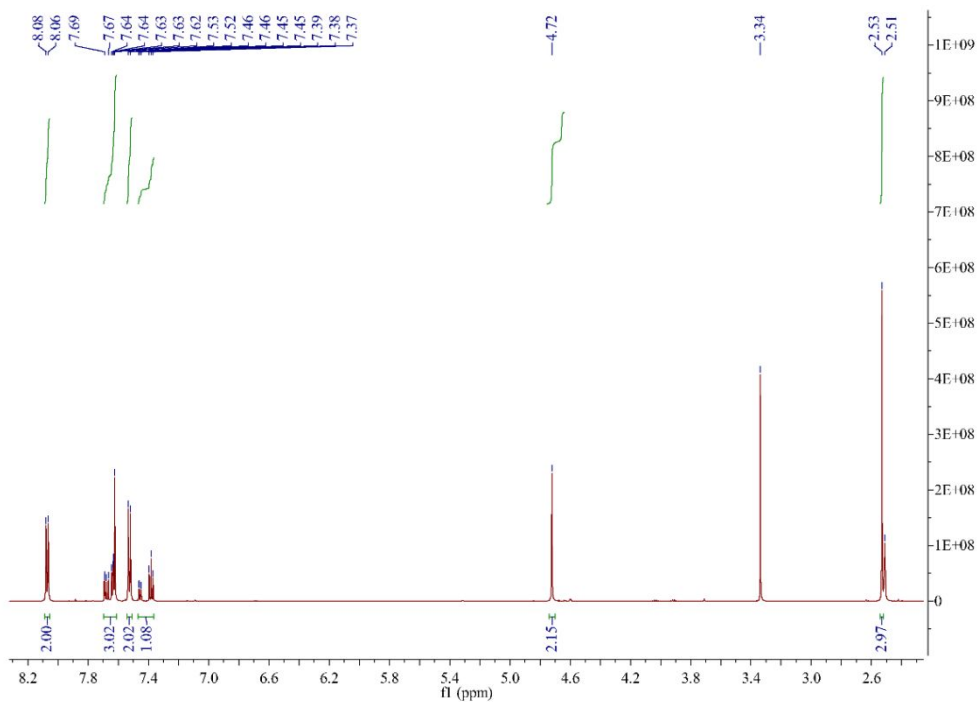


Figure S98. ^1H NMR spectra of compound **6y**

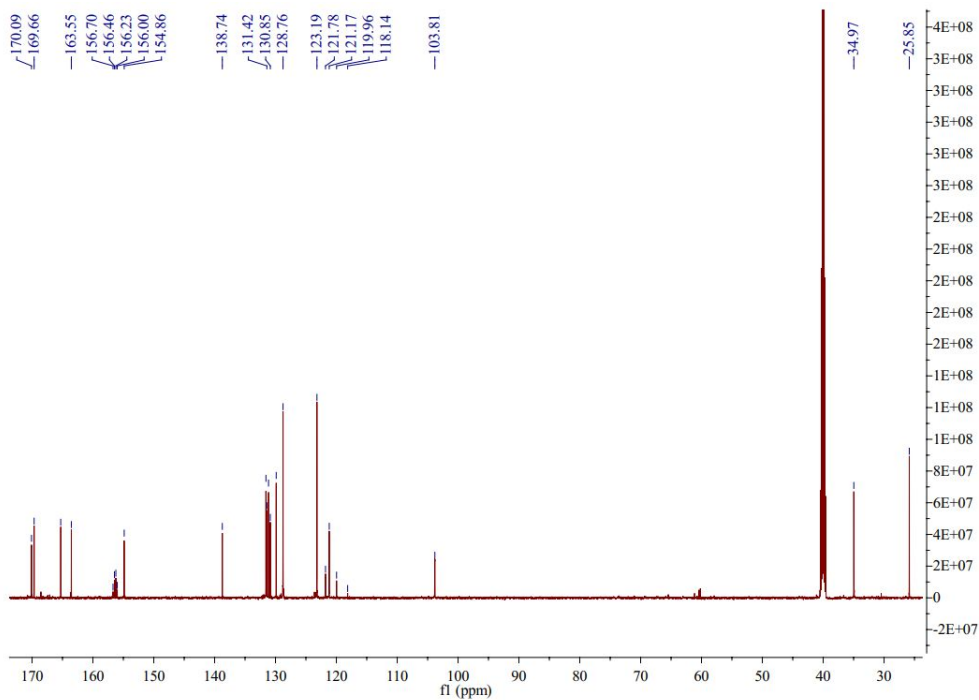


Figure S99. ^{13}C NMR spectra of compound **6y**

W08-23-26 #29 RT: 0.13 AV: 1 NL: 5.10E7
T: FTMS + p ESI Full ms [100.0000-1500.0000]

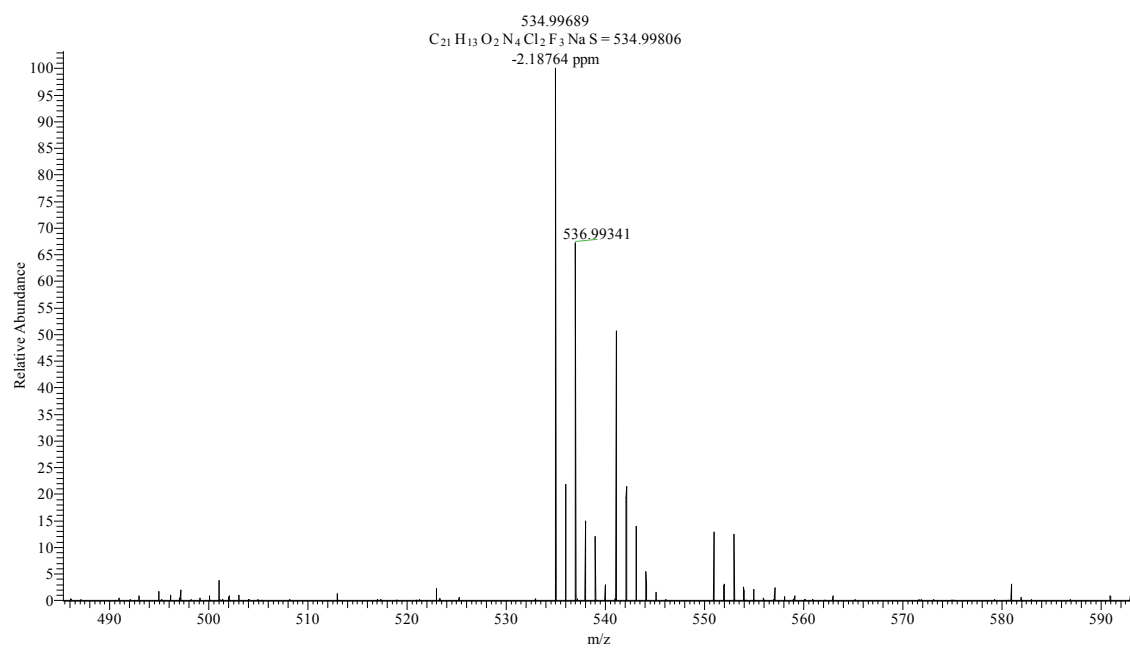


Figure S100. HMRS spectra of compound **6y**