SUPPORTING INFORMATION

Spiroindolone Analogues as Potential Hypoglycemic with Dual Inhibitory Activity on α-Amylase and α-Glucosidase

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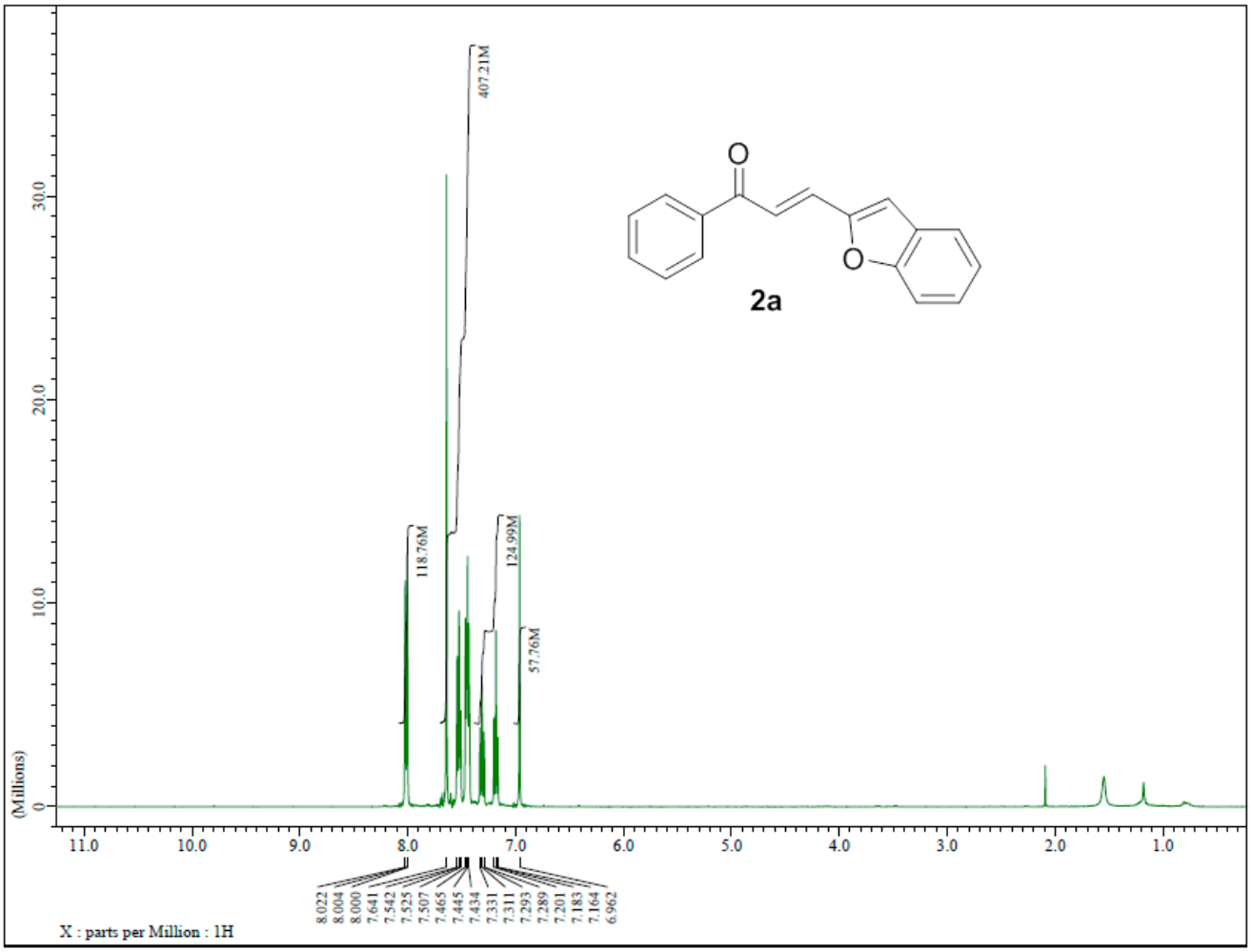


Figure S1. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **2a**

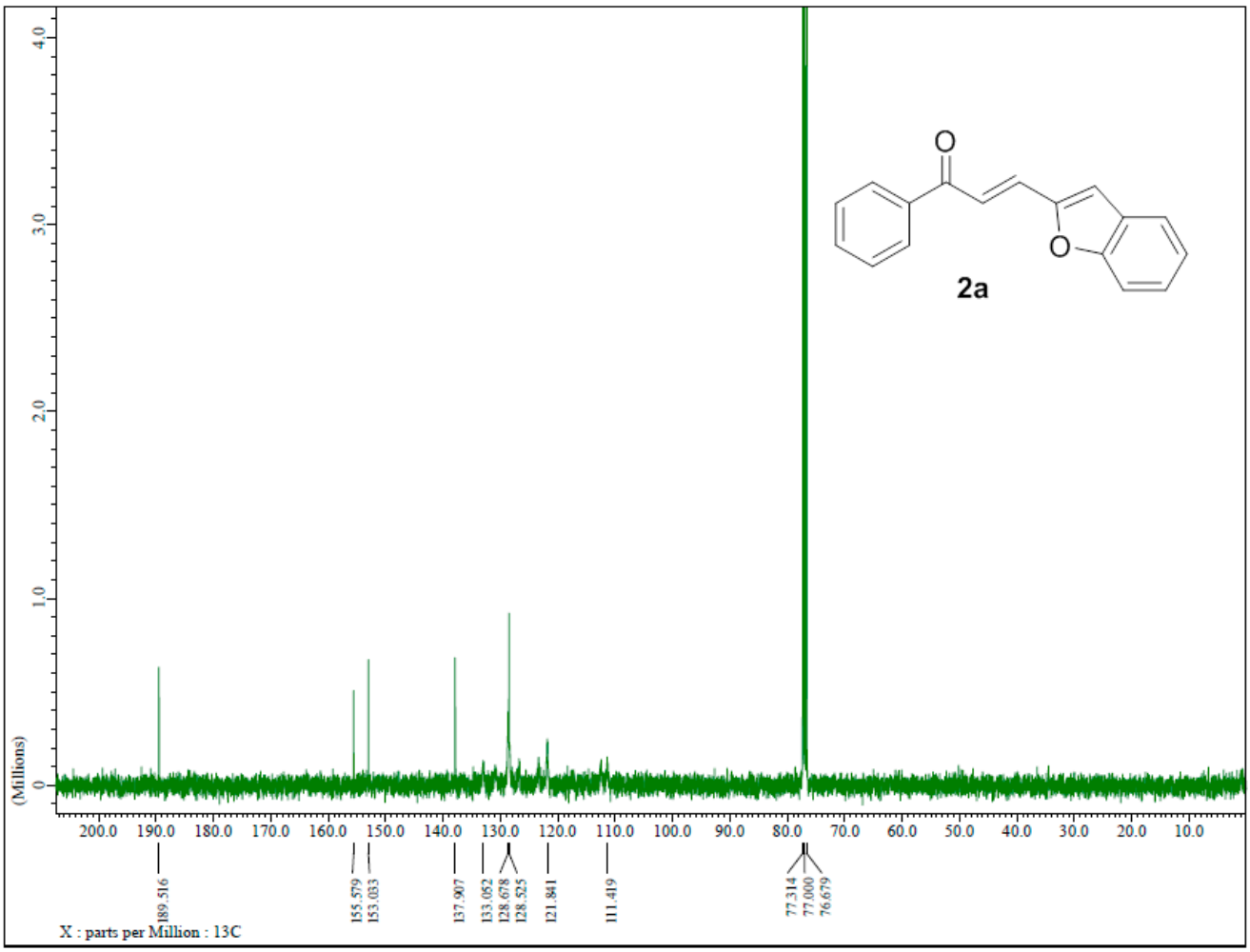


Figure S2. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **2a**

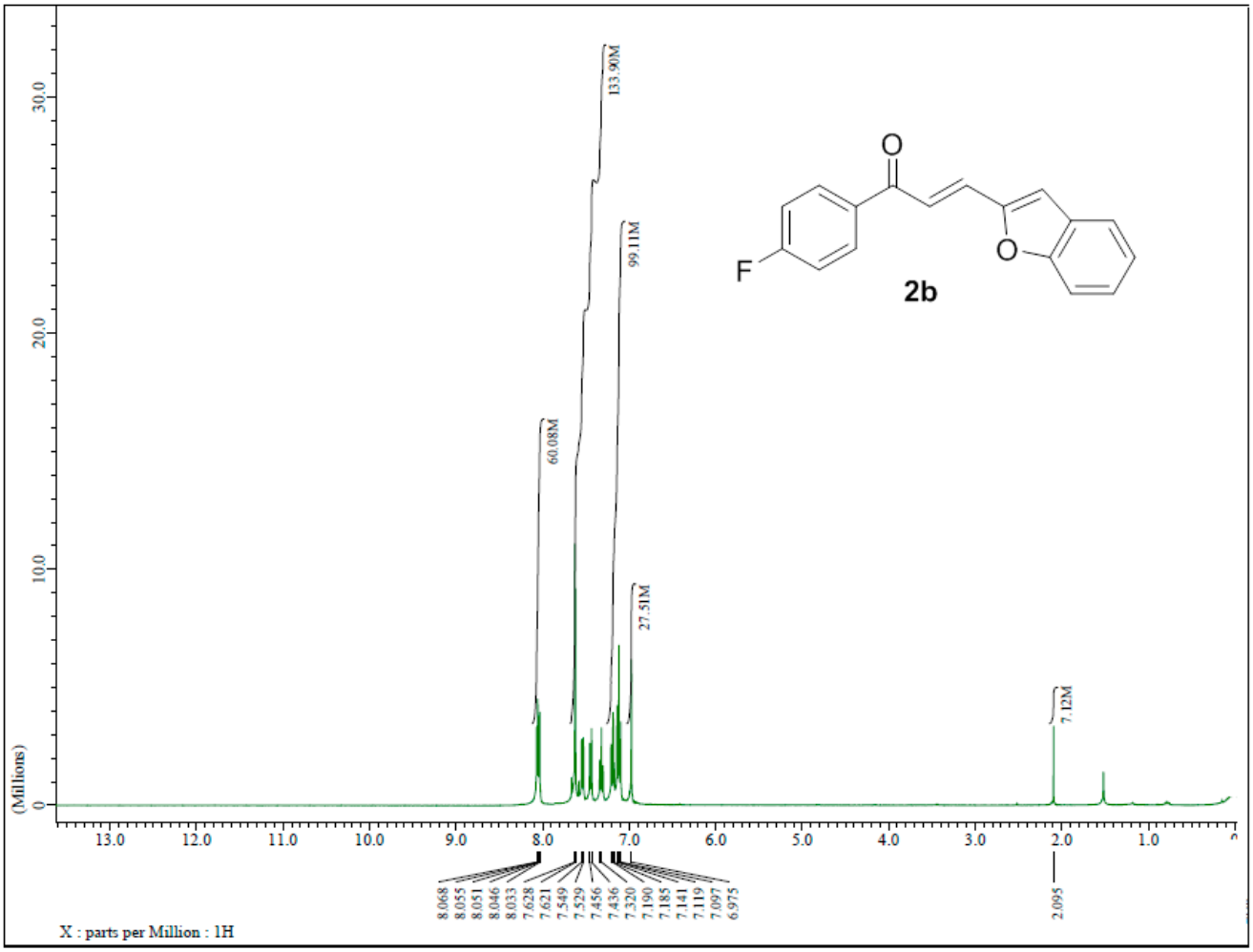


Figure S3. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **2b**

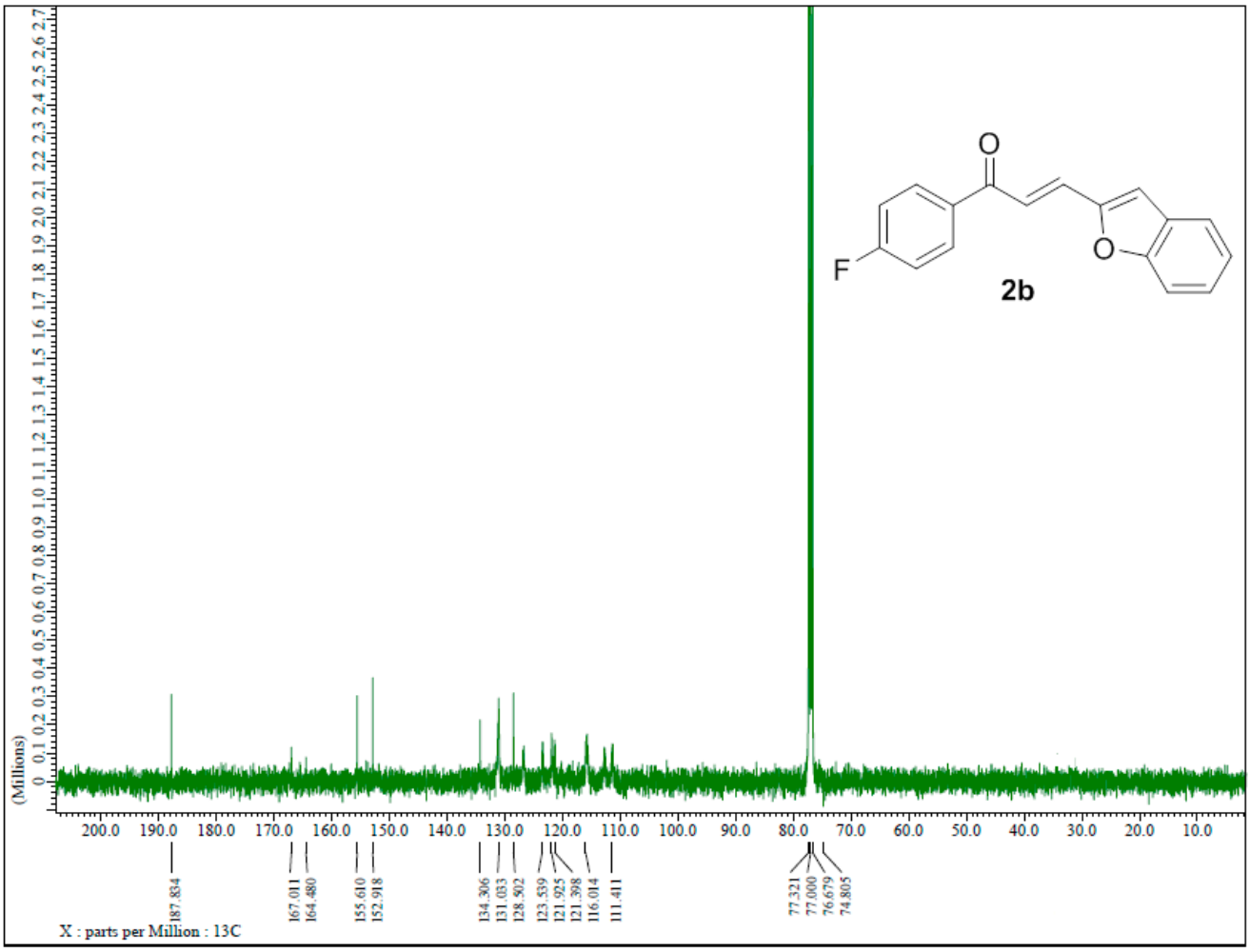


Figure S4. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **2b**

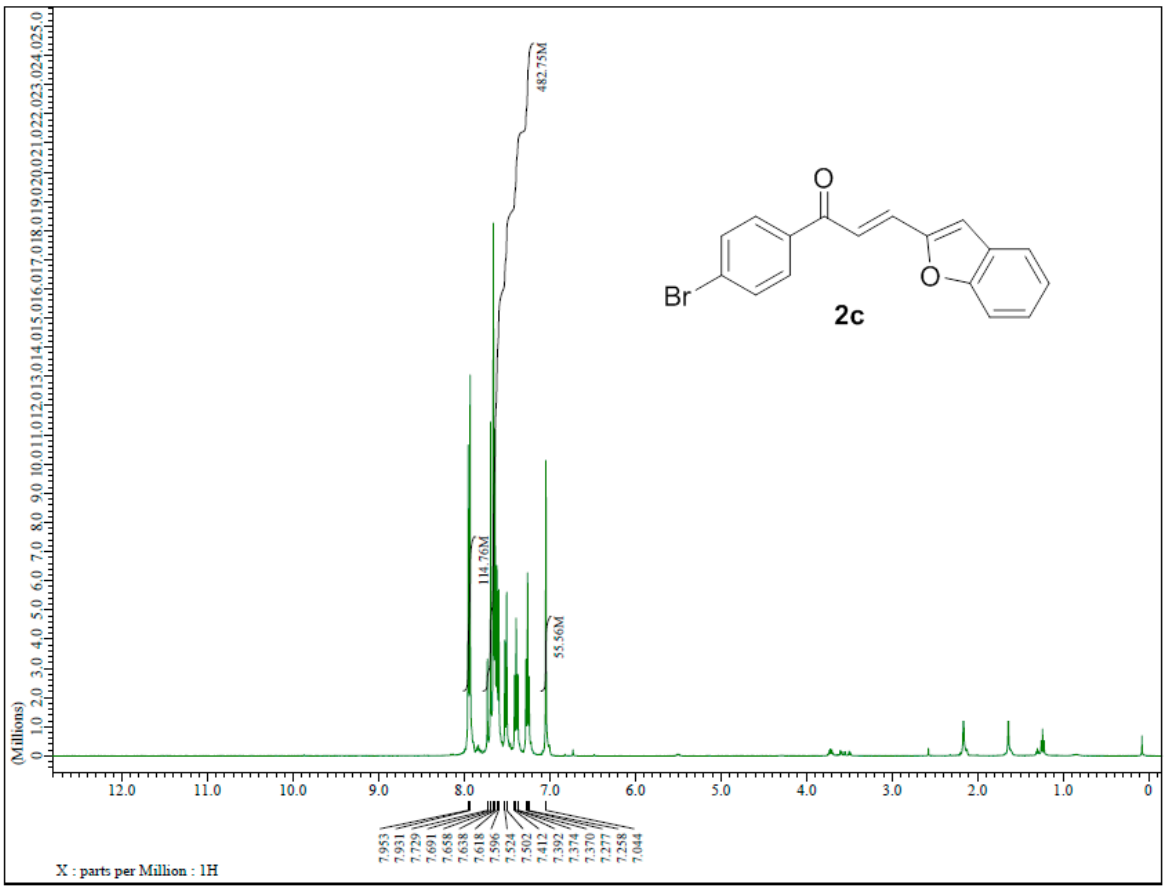


Figure S5. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **2c**

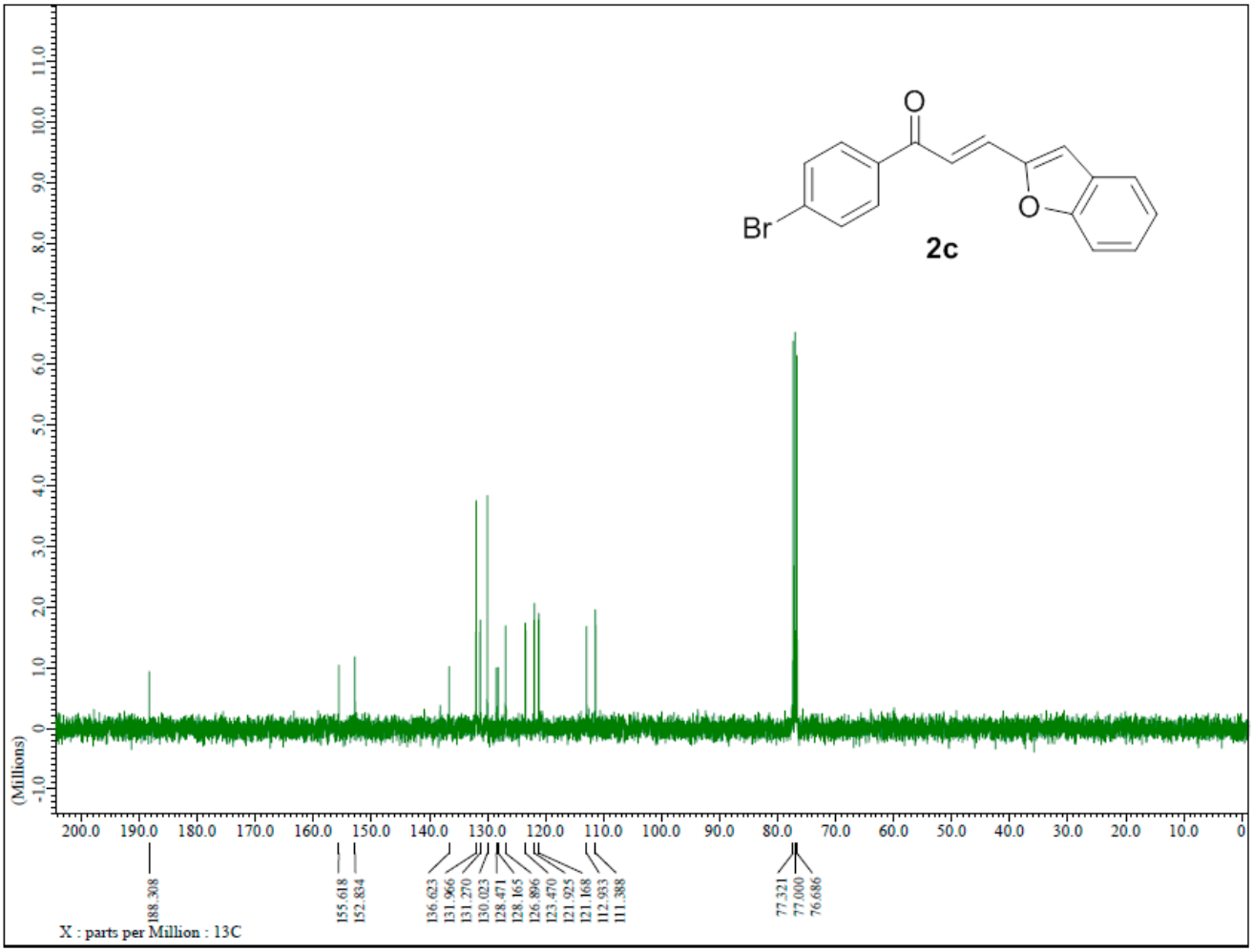


Figure S6. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **2c**

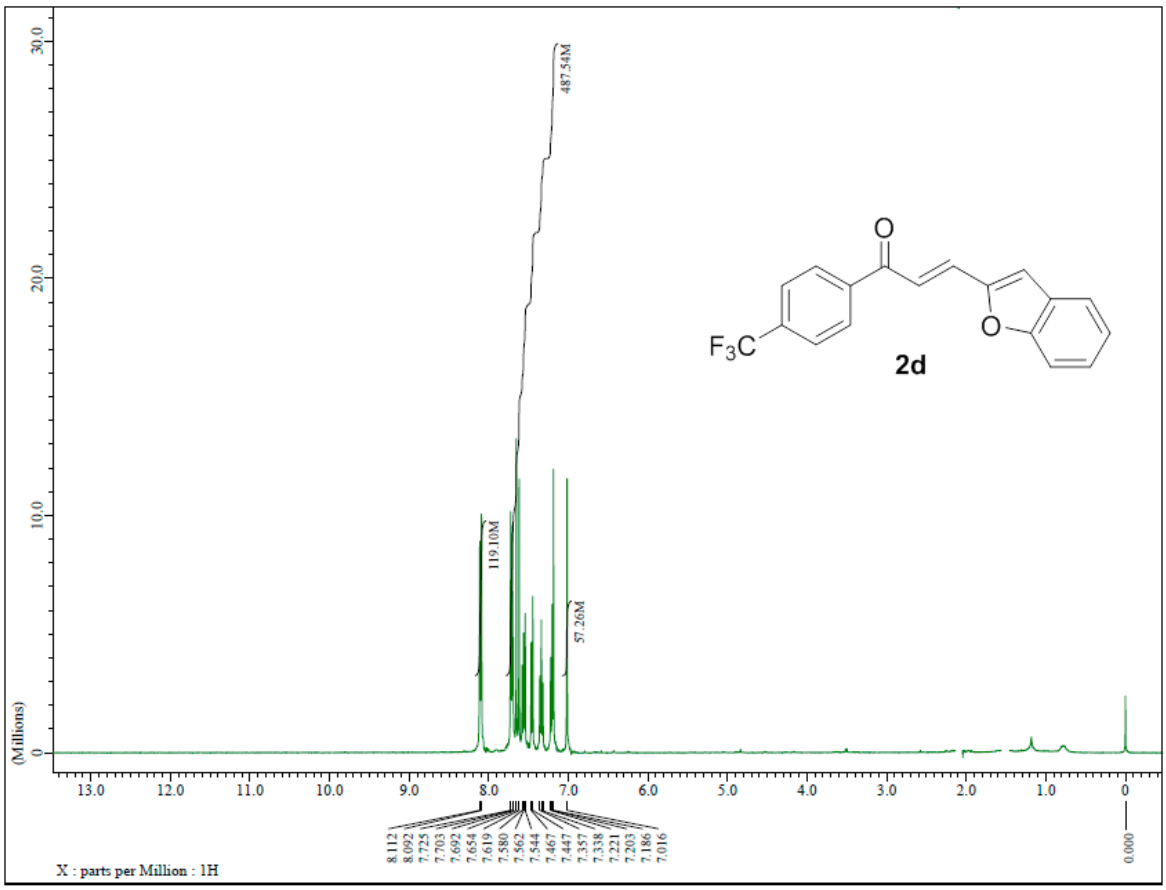
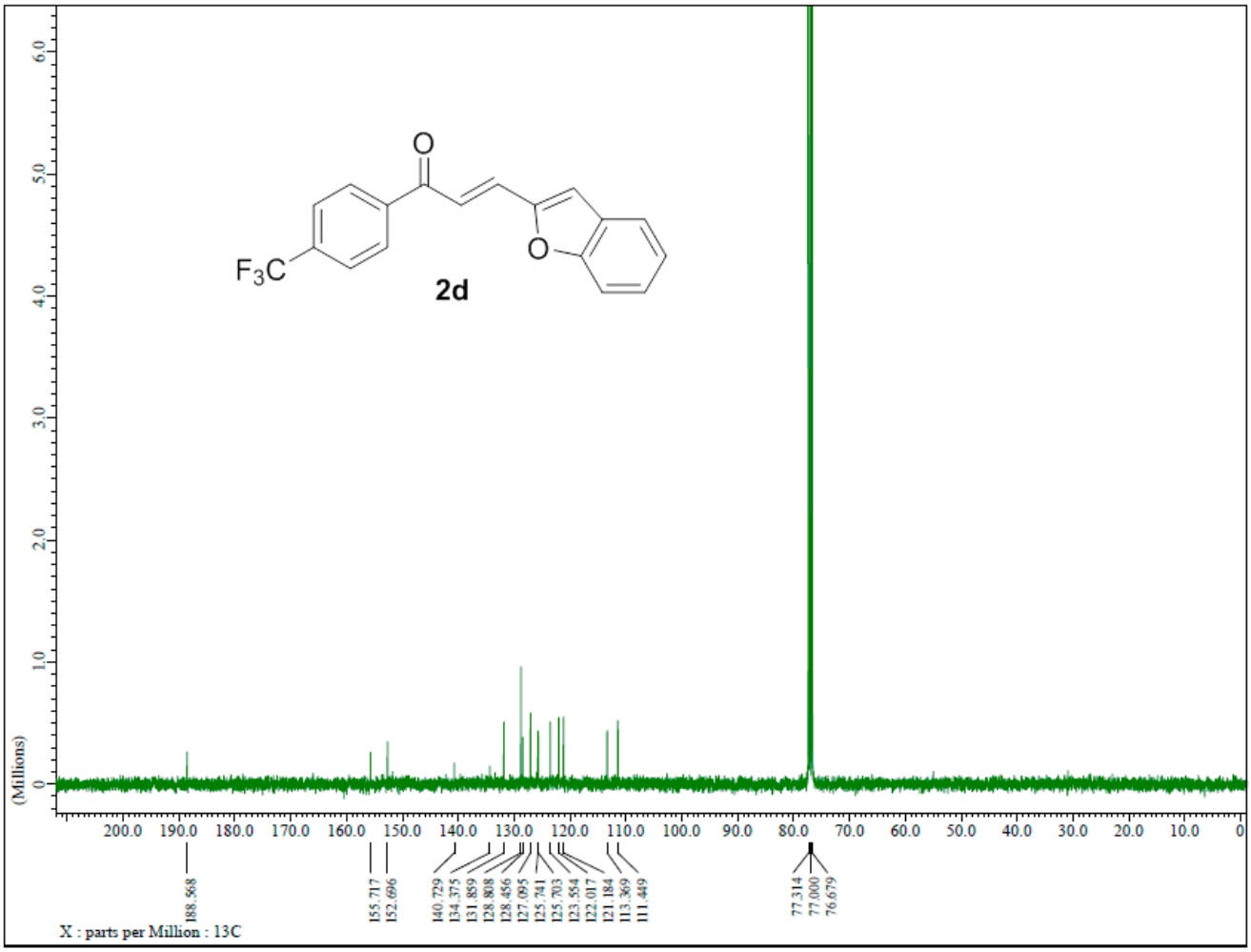


Figure S7. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **2d**



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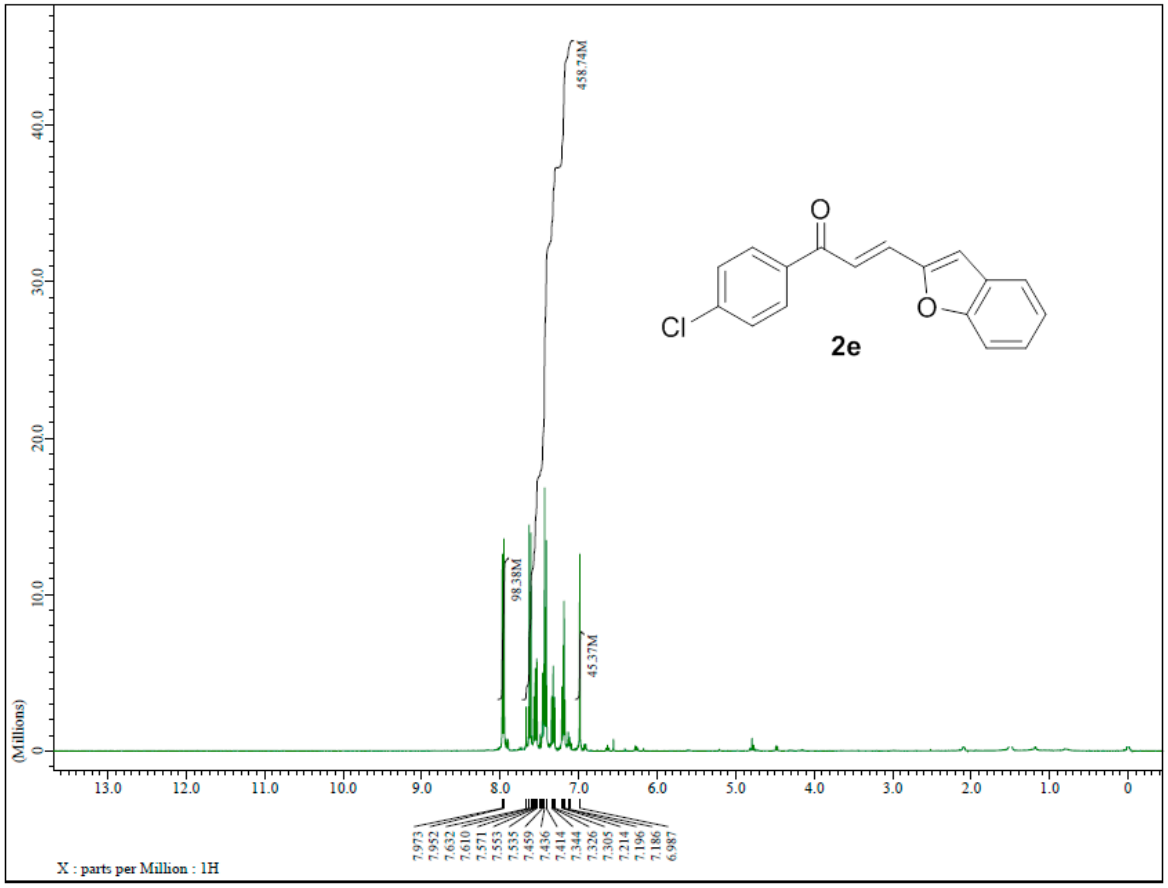

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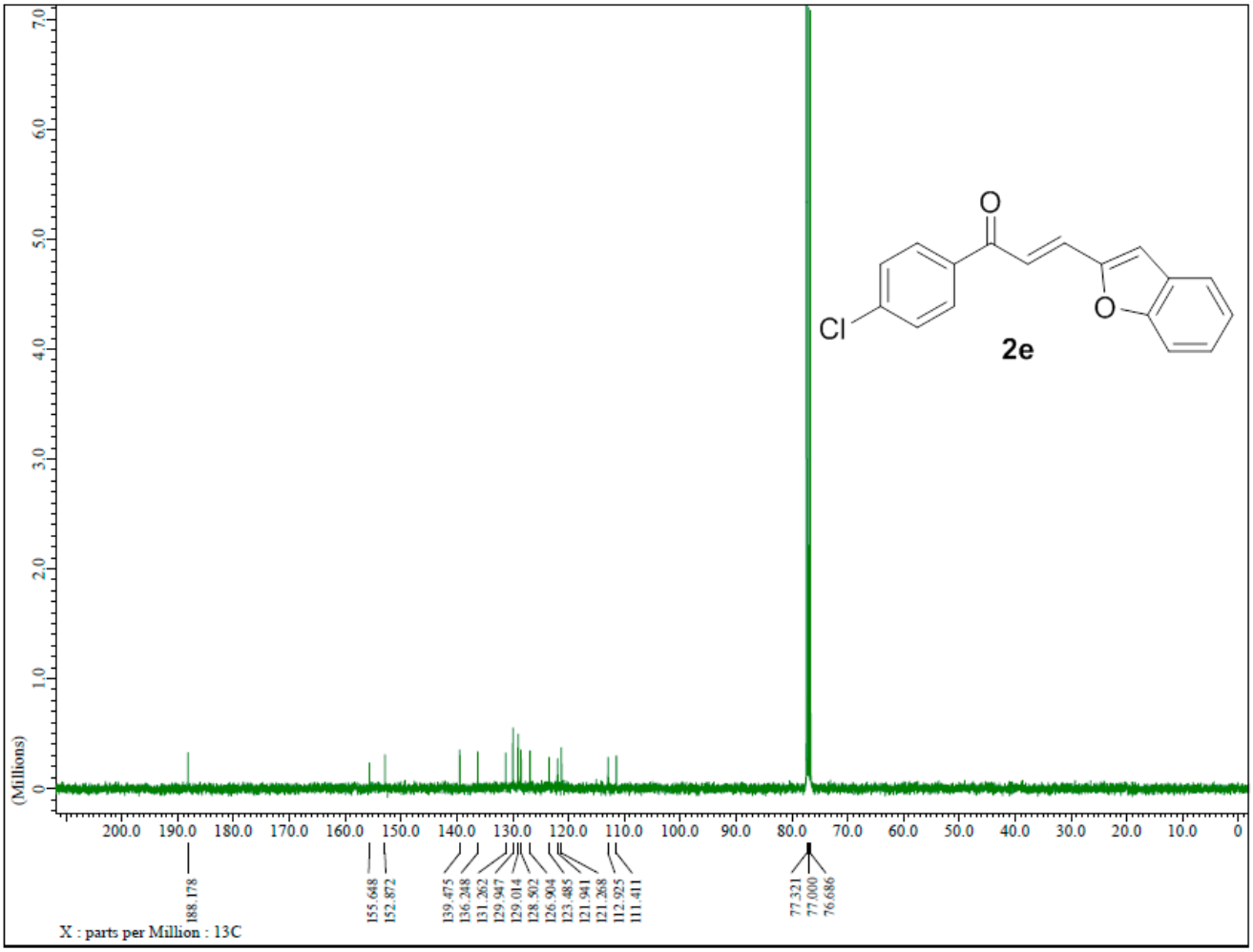

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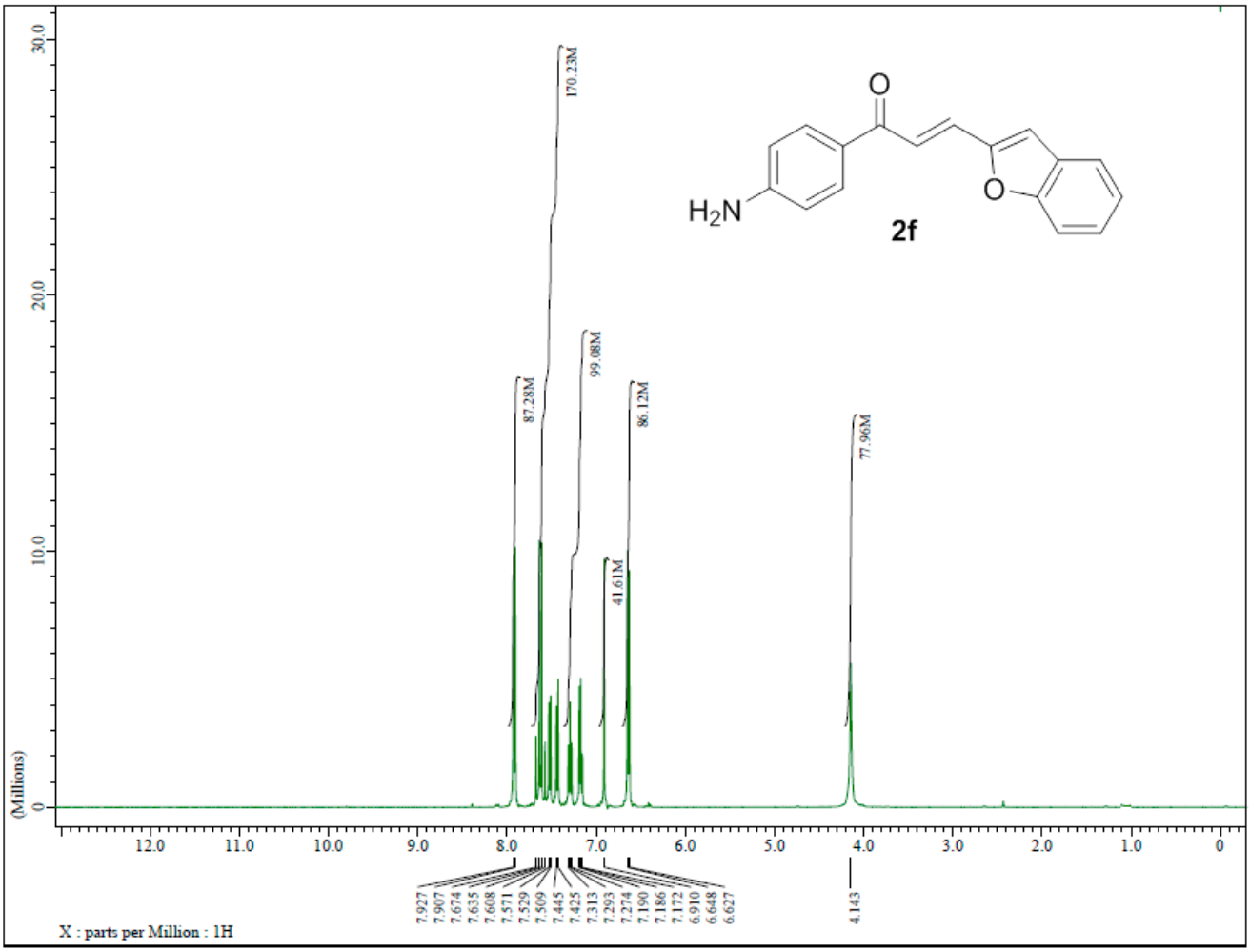

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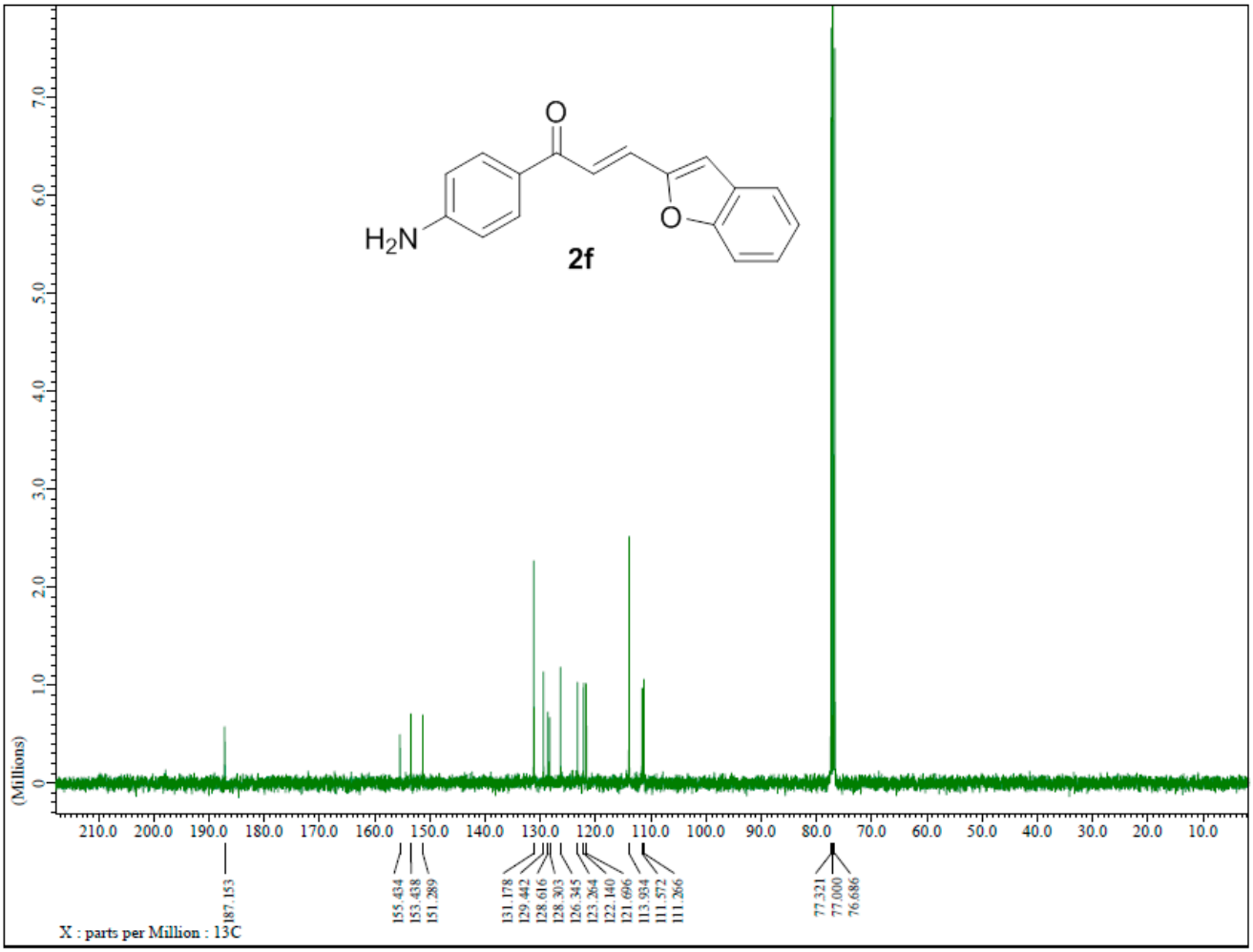

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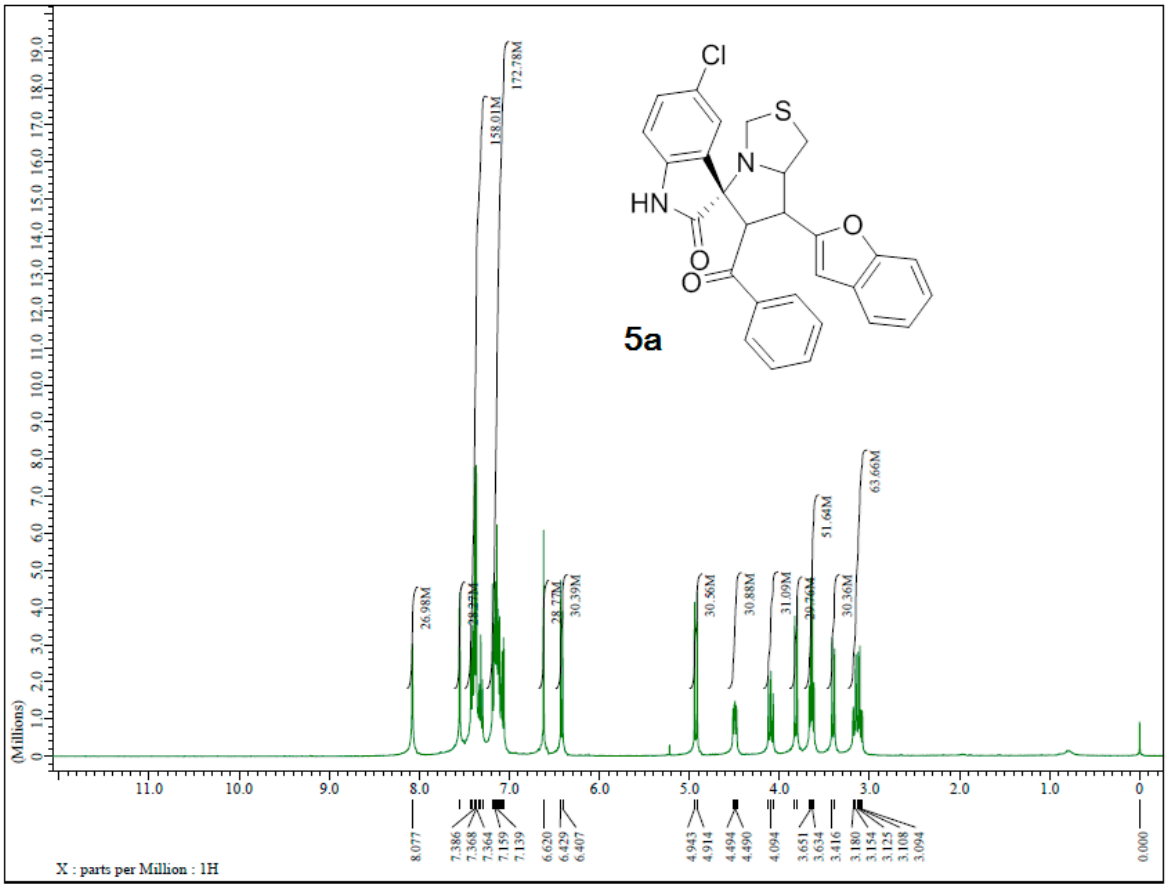

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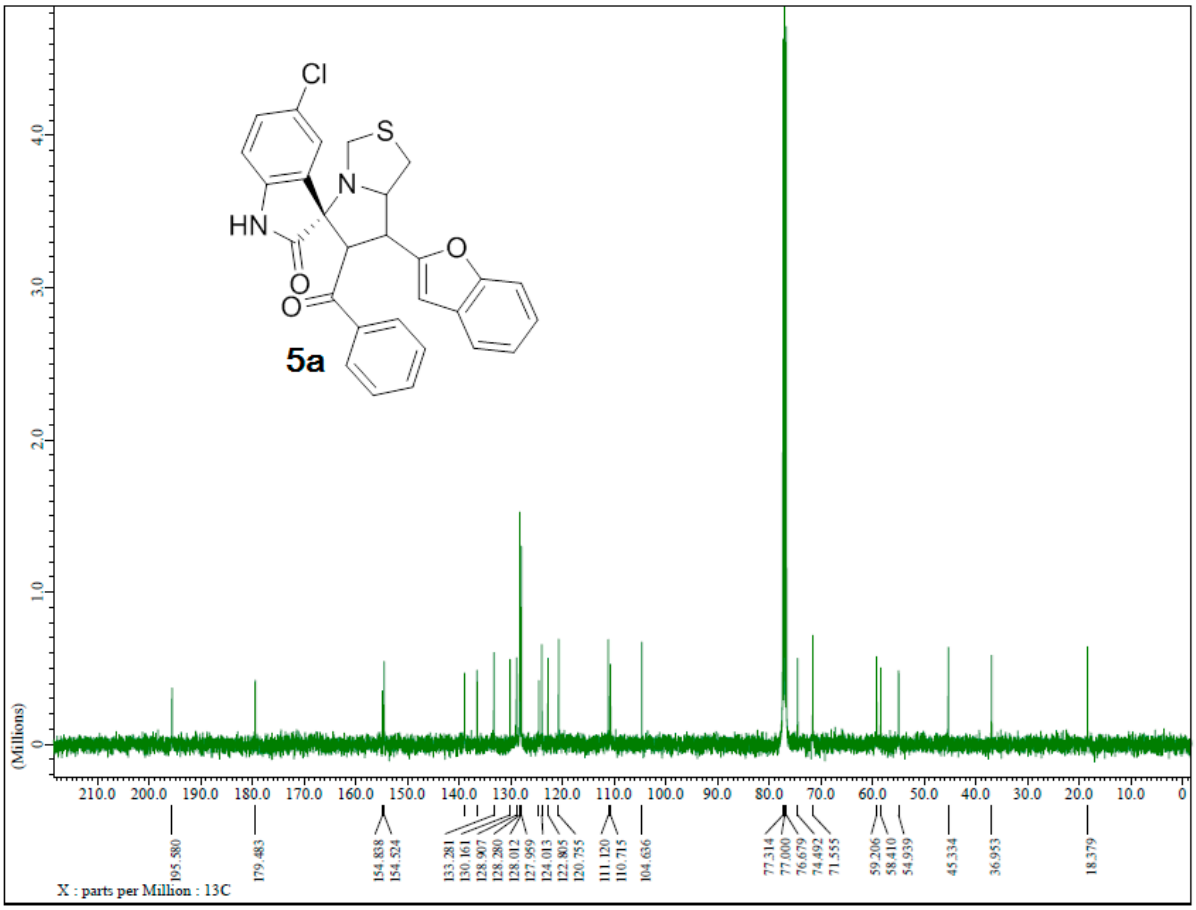

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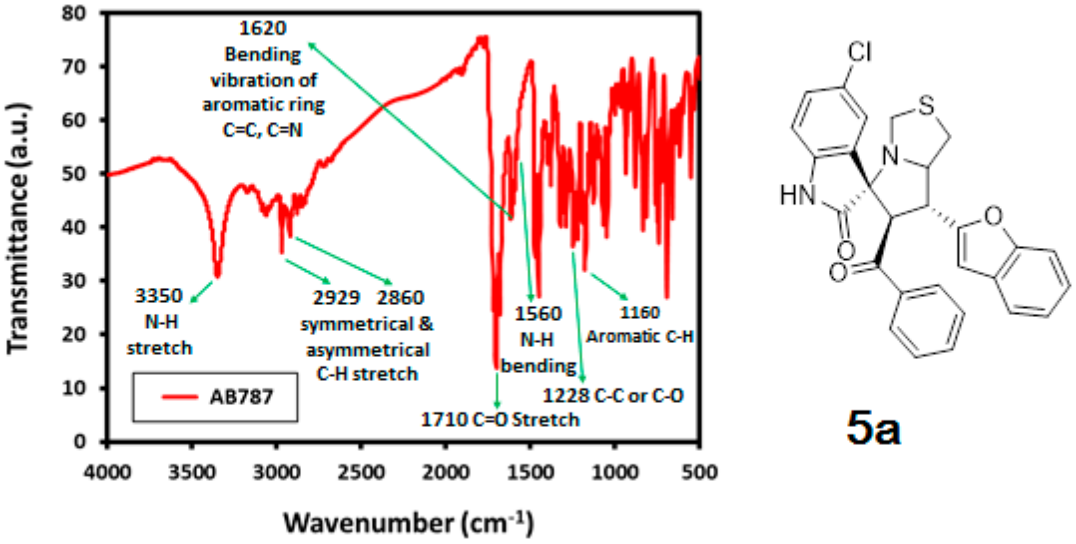

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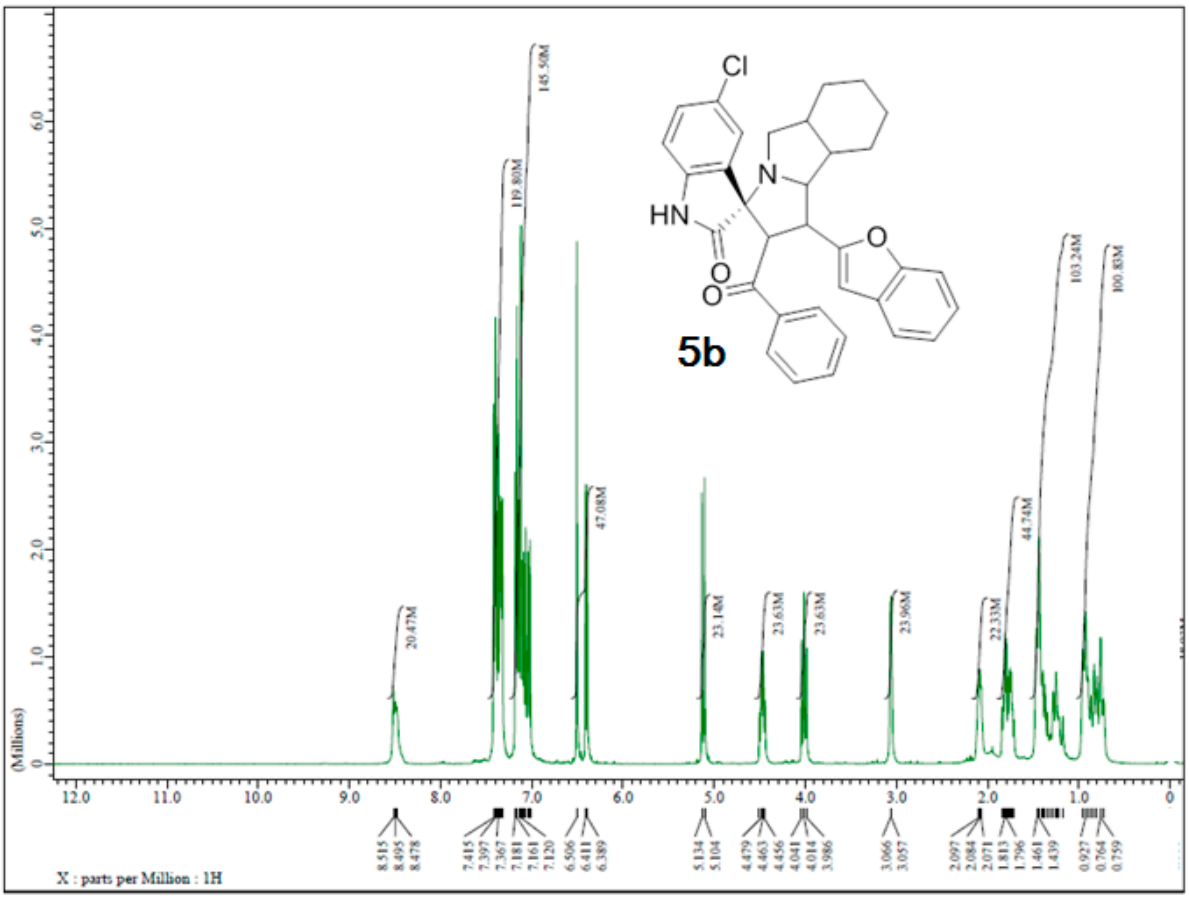

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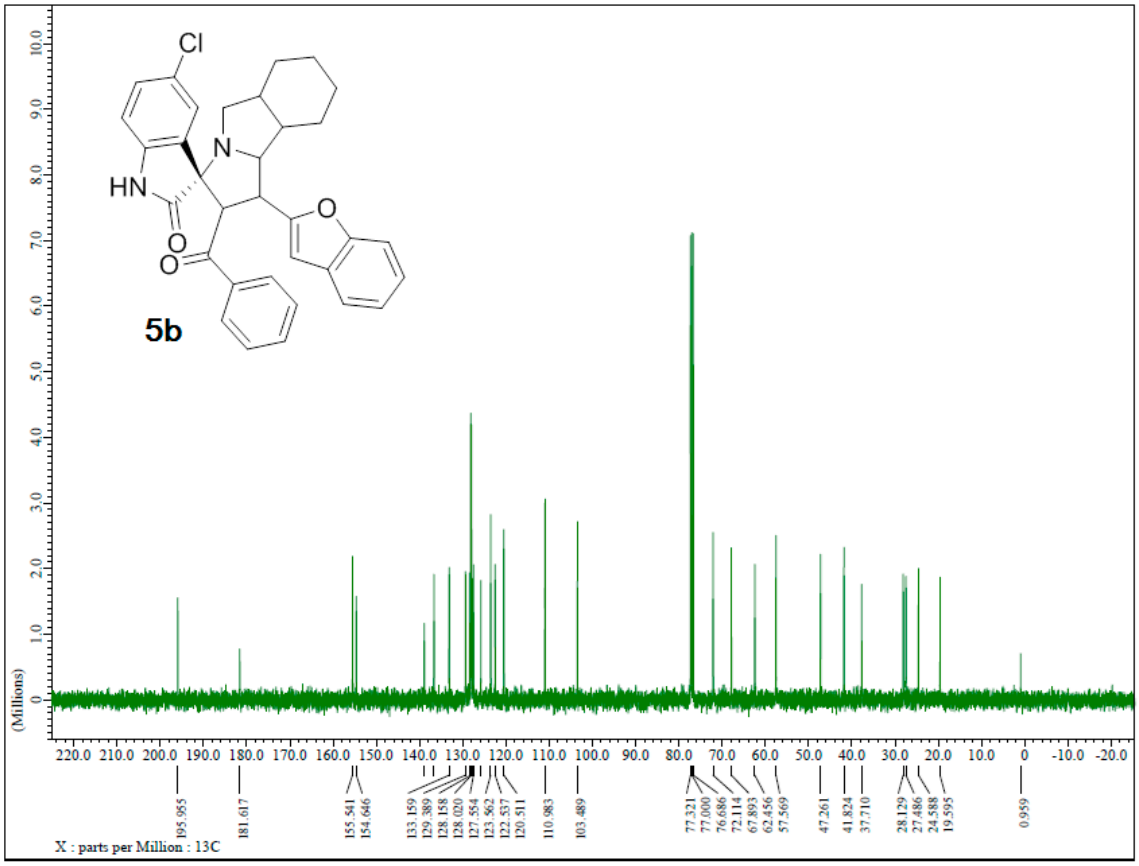

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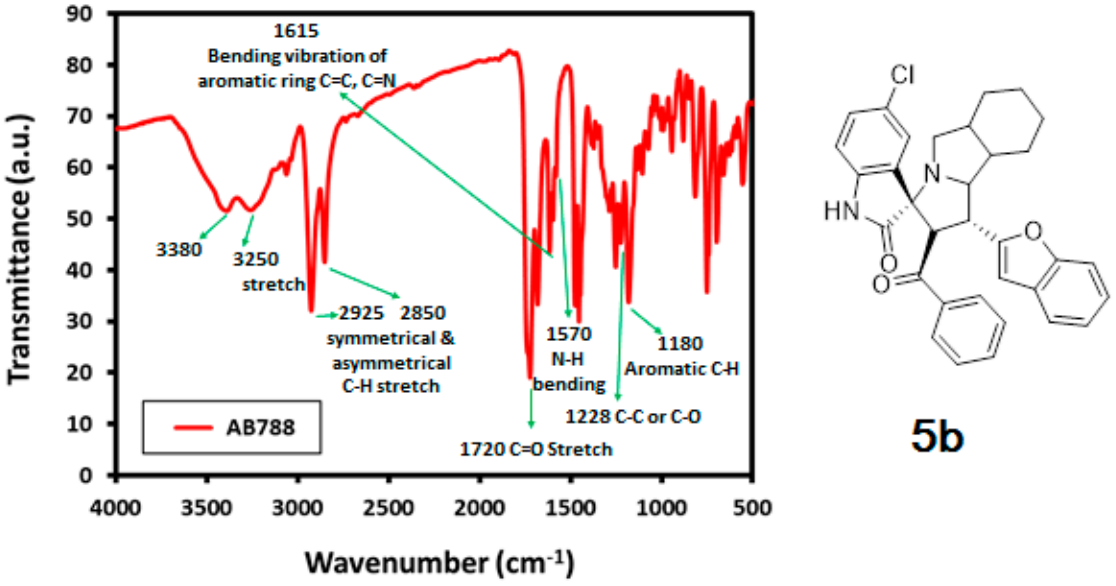

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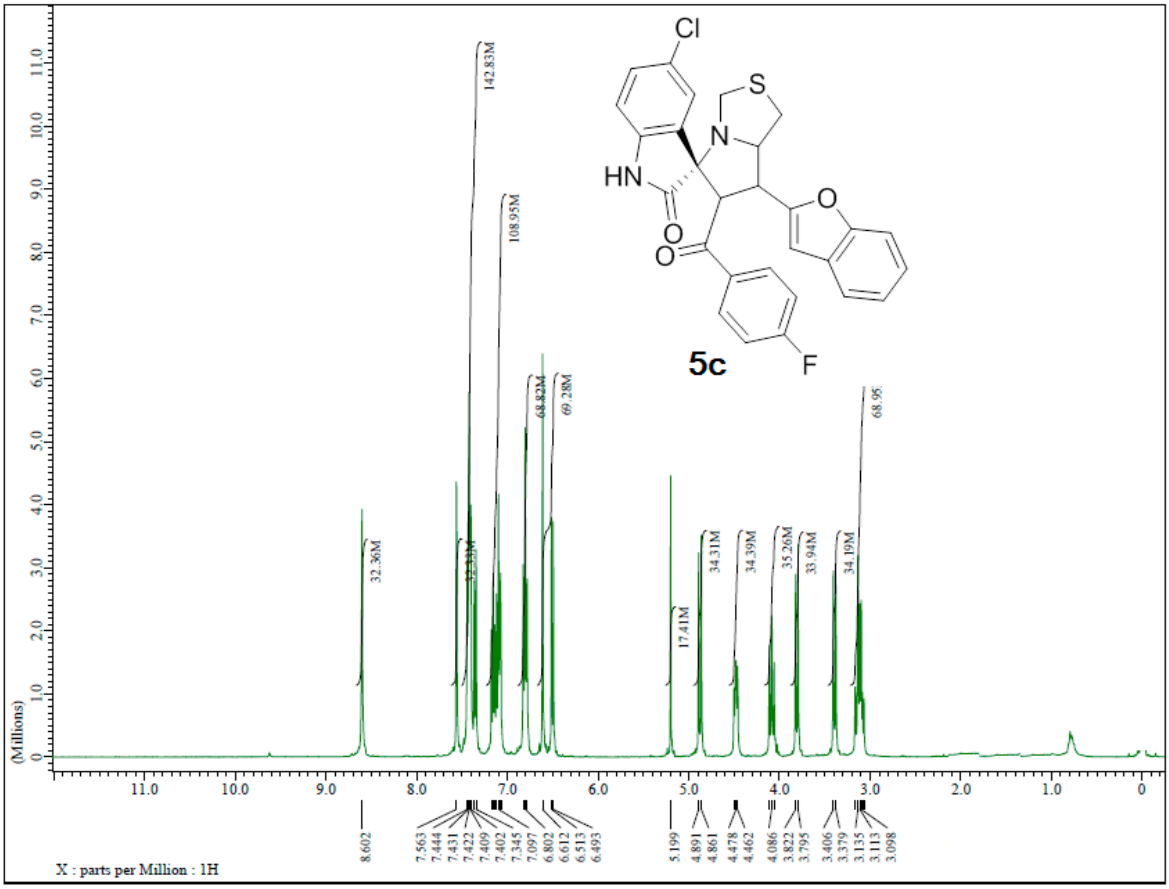

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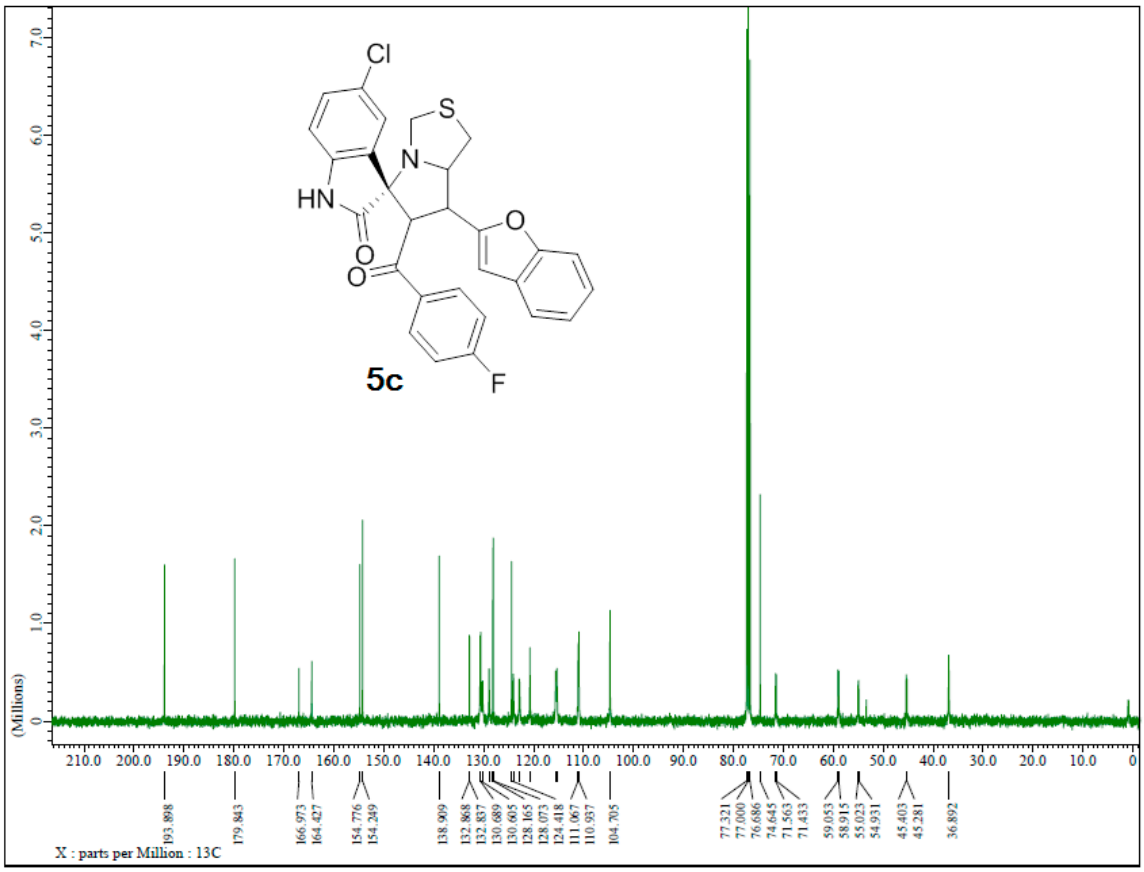


Figure S20. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5c**

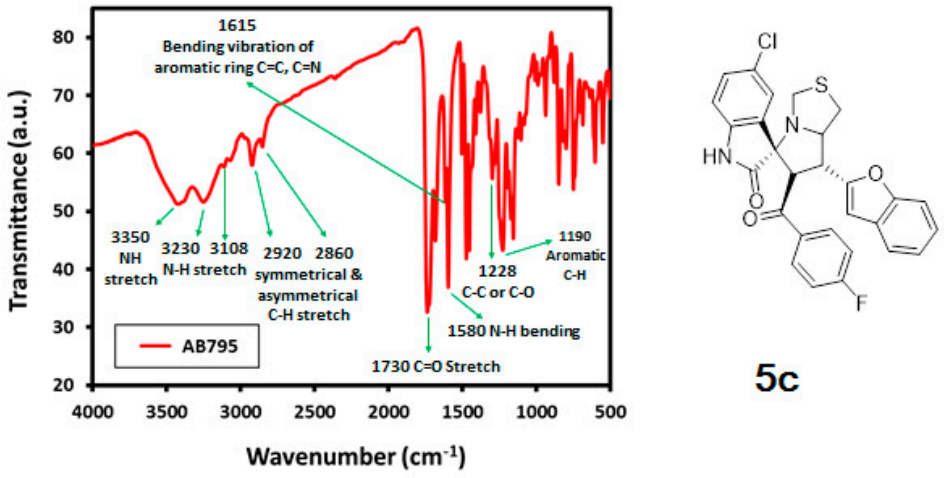


Figure S21. IR (KBr, cm^{-1}) of compound **5c**

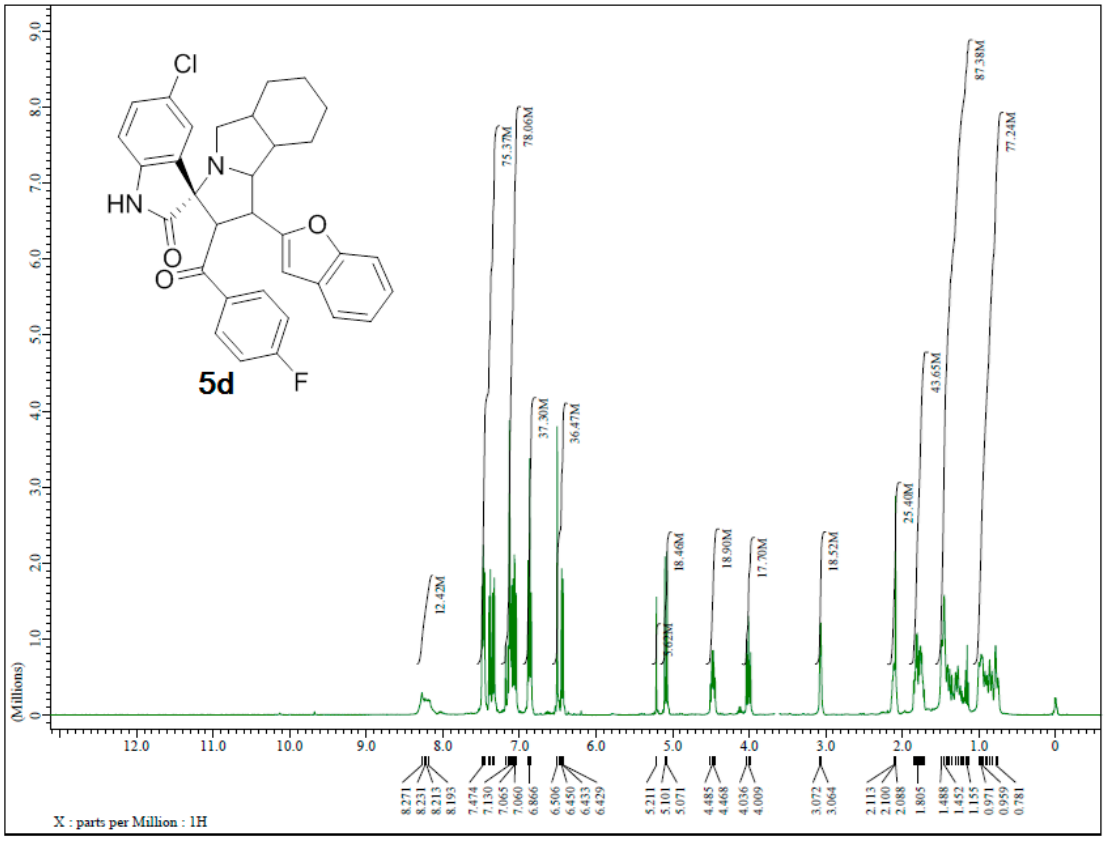


Figure S22. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5d**

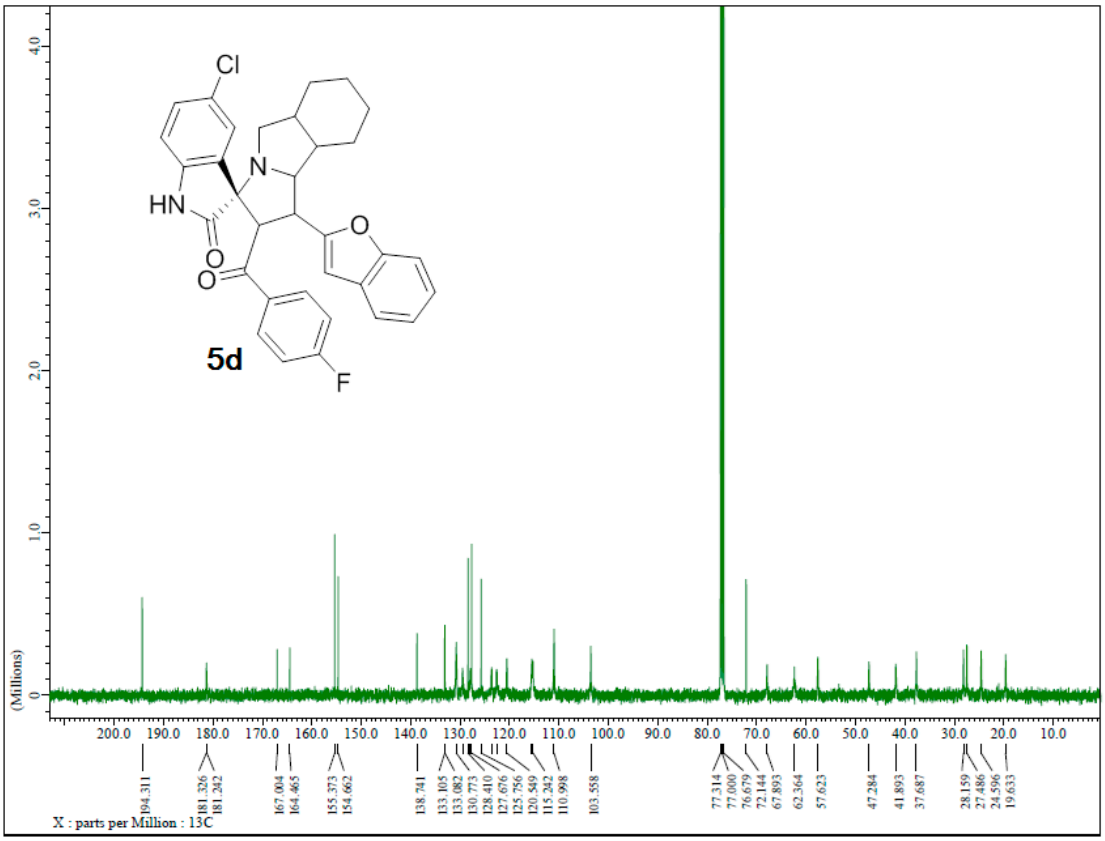


Figure S23. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5d**

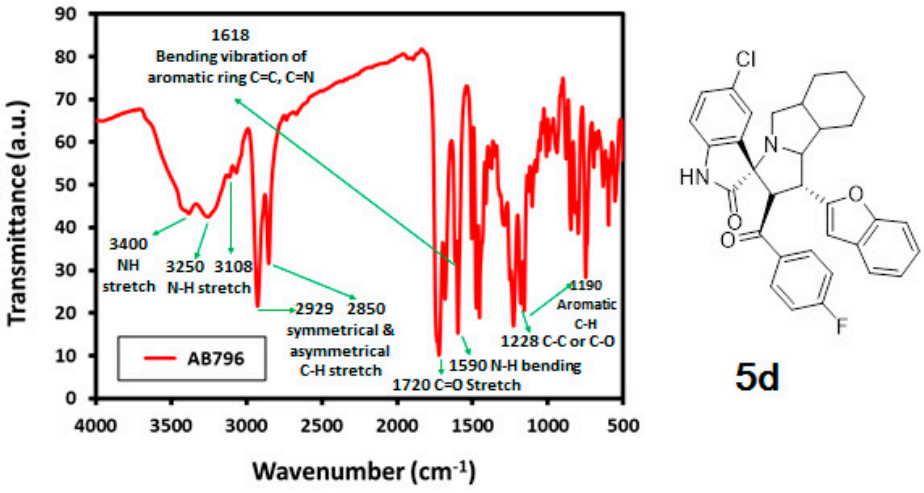


Figure S24. IR (KBr, cm^{-1}) of compound **5d**

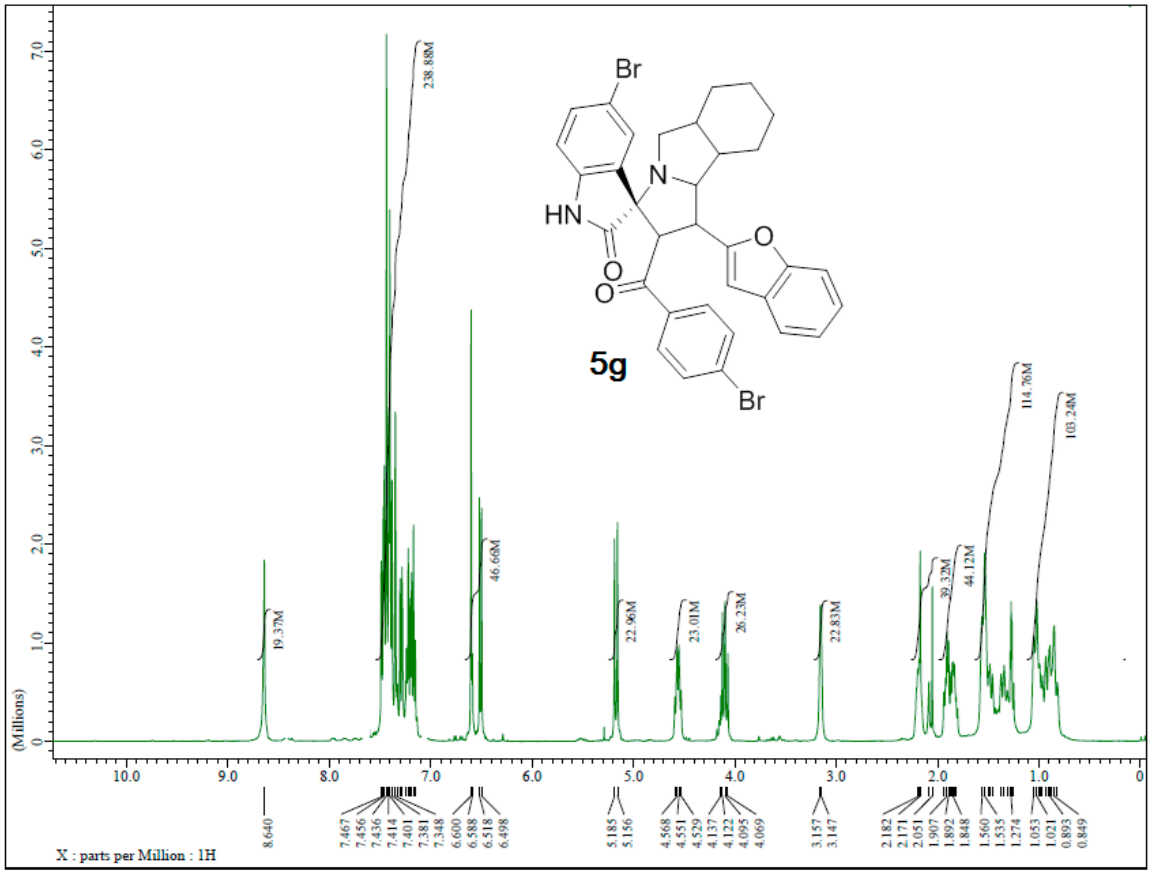


Figure S25. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5g**

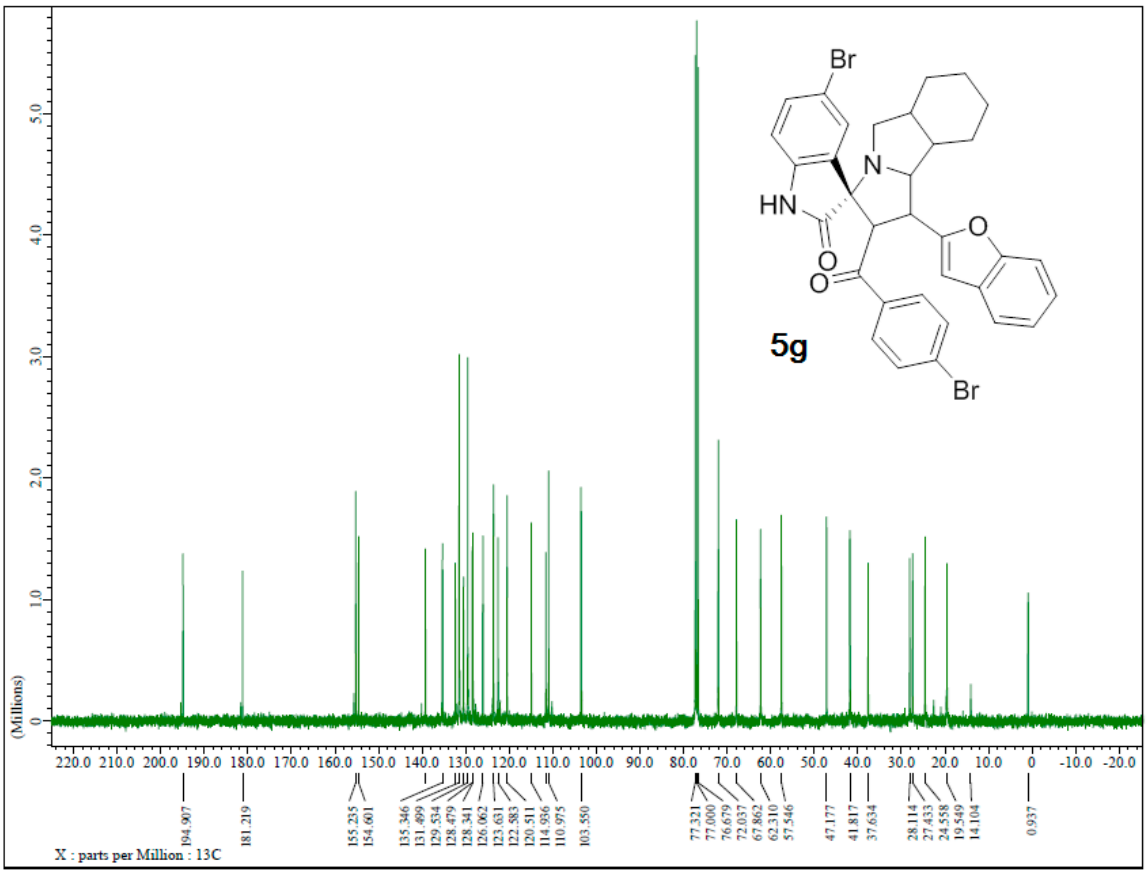


Figure S26. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5g**

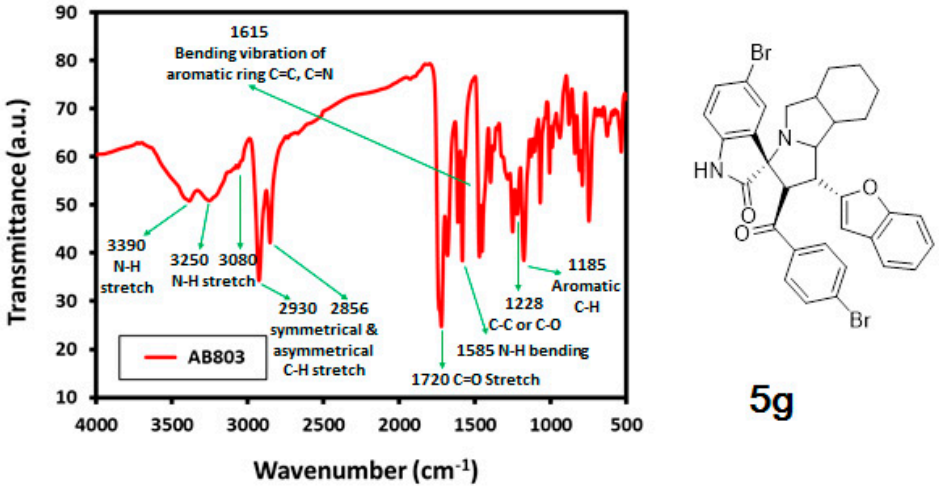


Figure S27. IR (KBr, cm^{-1}) of compound **5g**

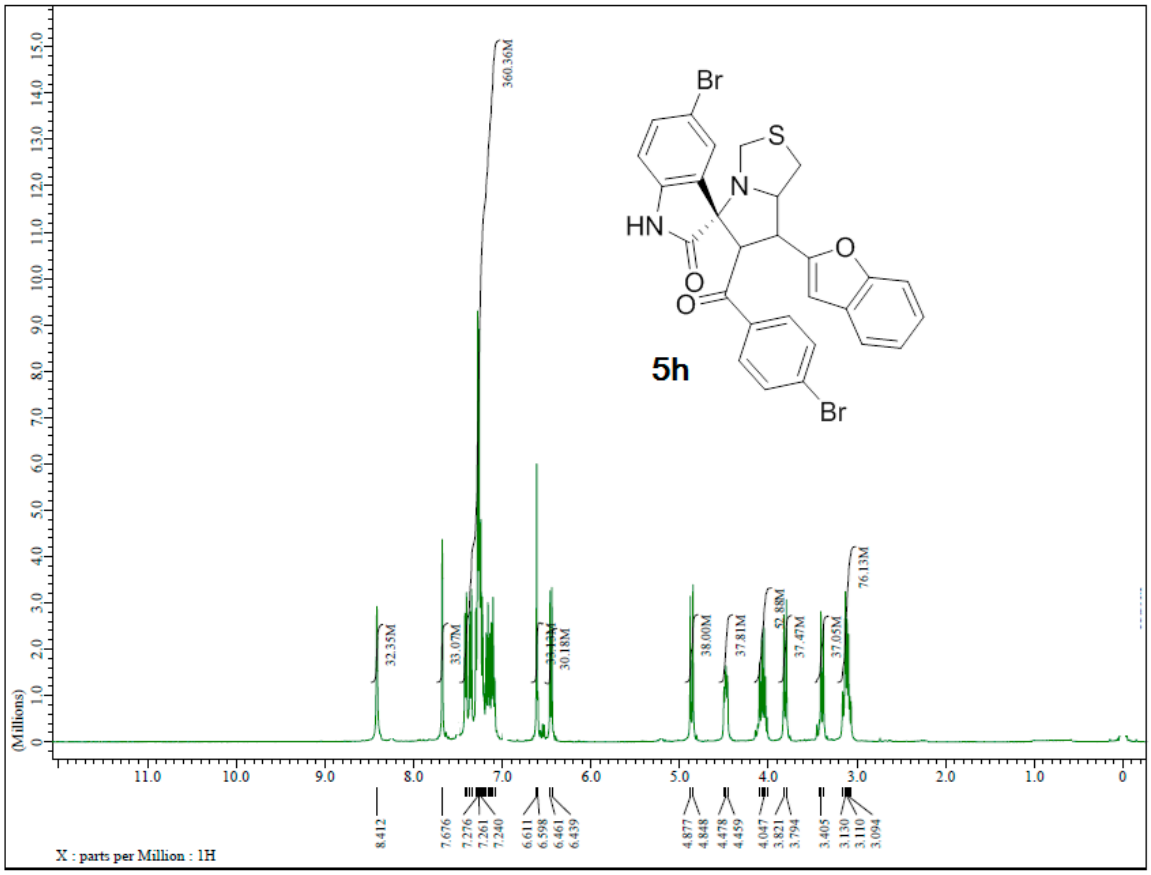


Figure S28. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5h**

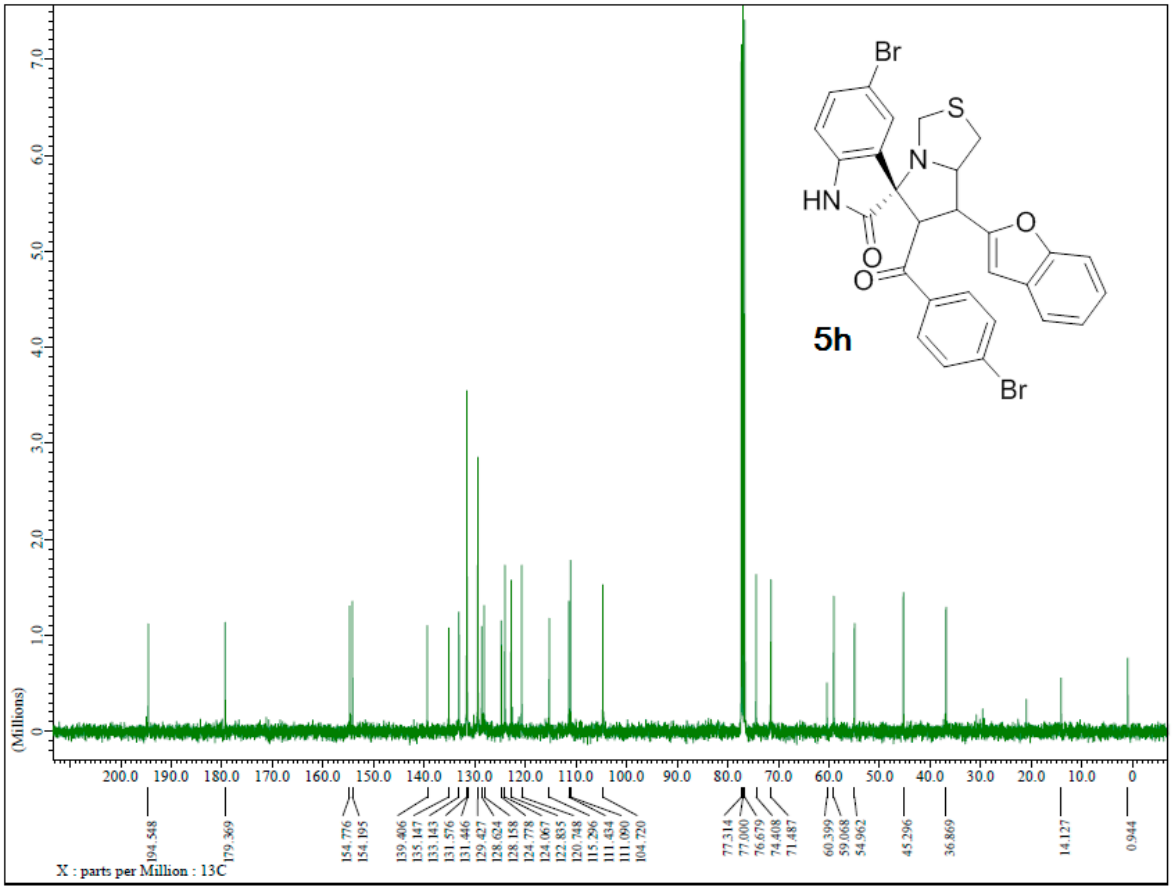


Figure S29. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5h**

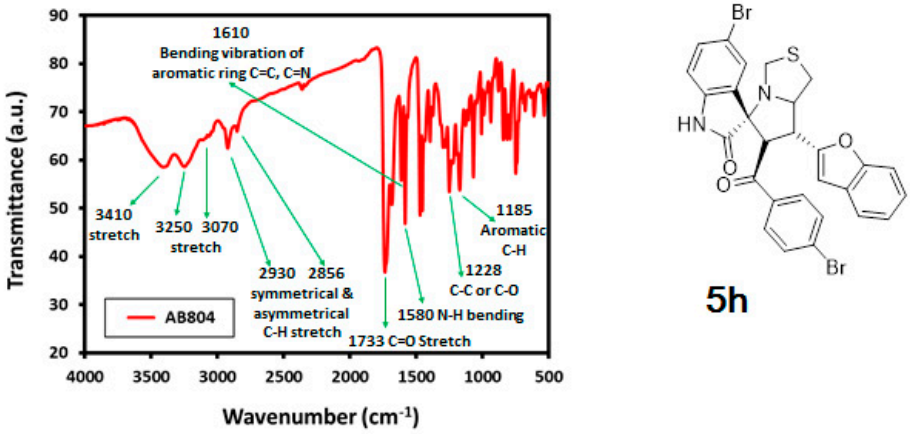


Figure S30. IR (KBr, cm^{-1}) of compound **5h**

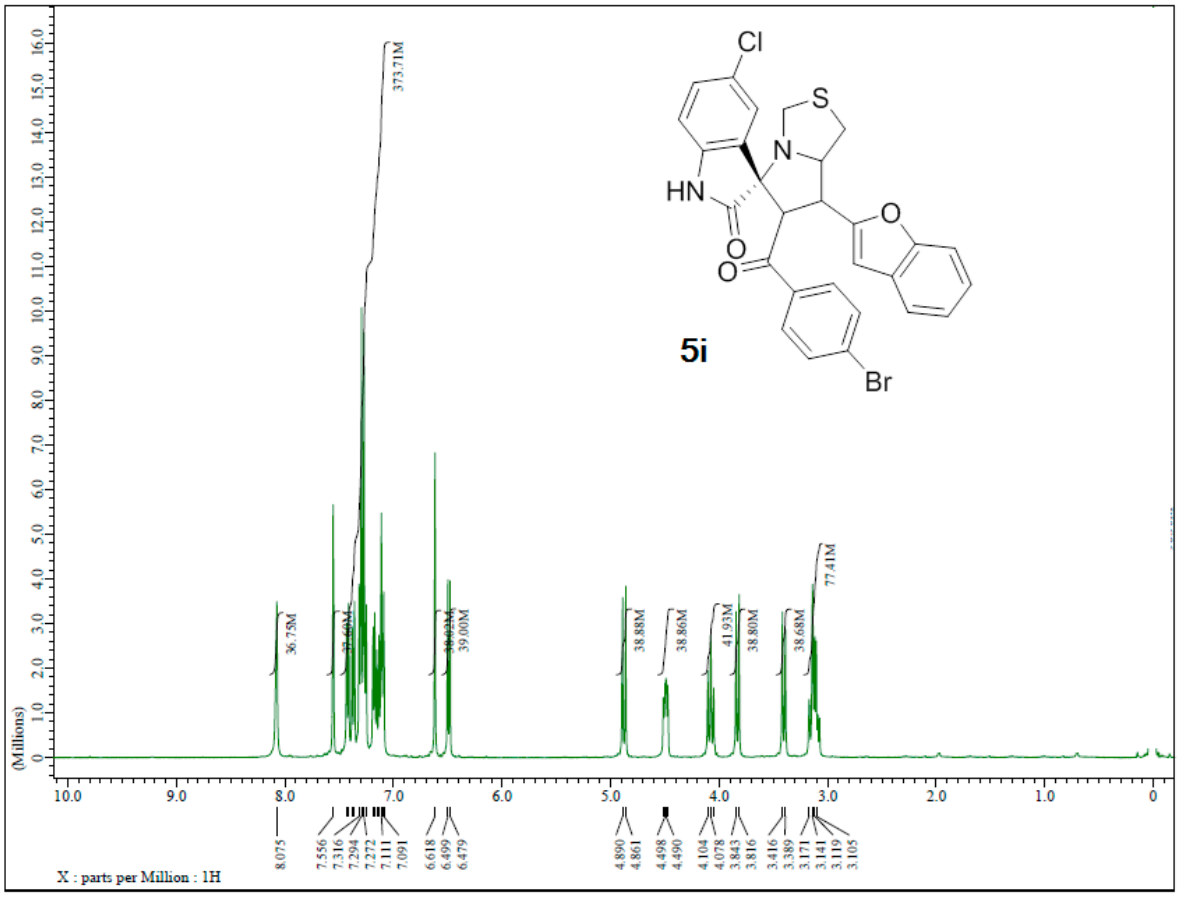


Figure S31. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5i**

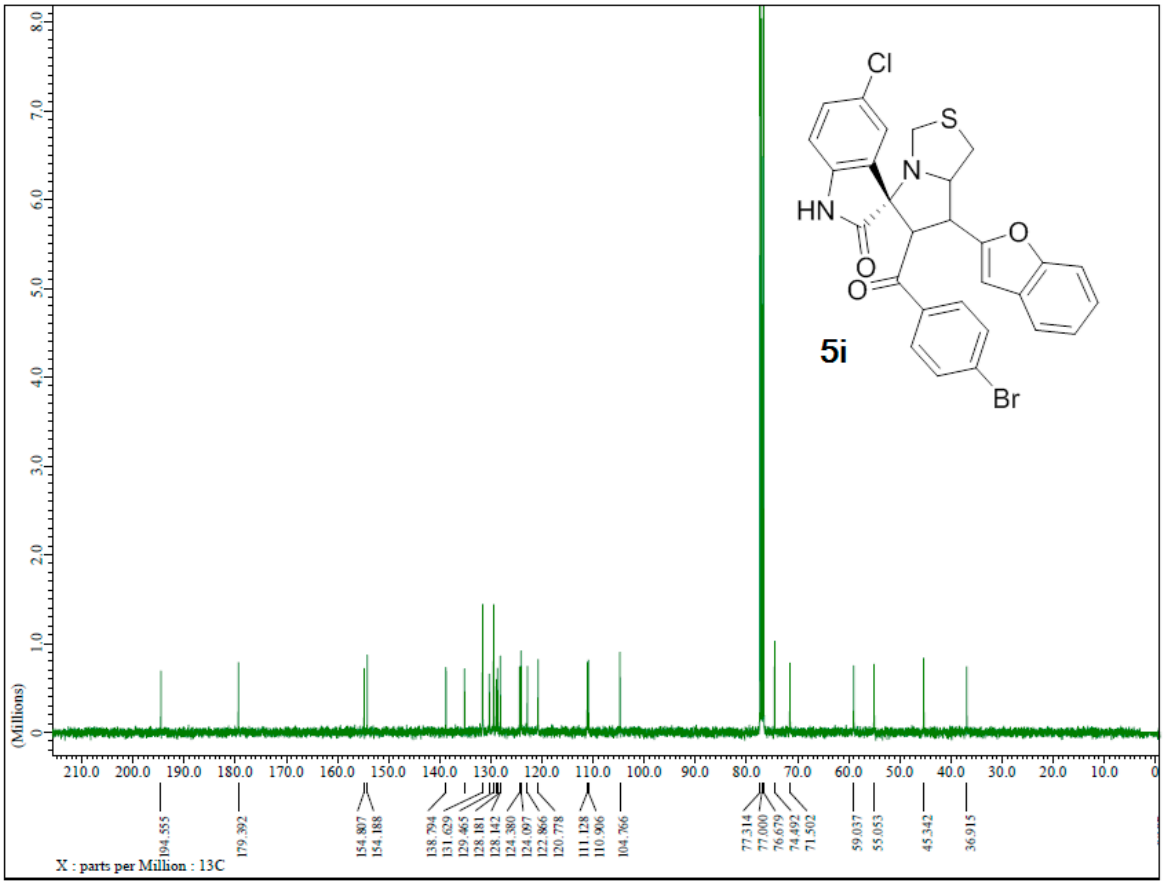


Figure S32. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5i**

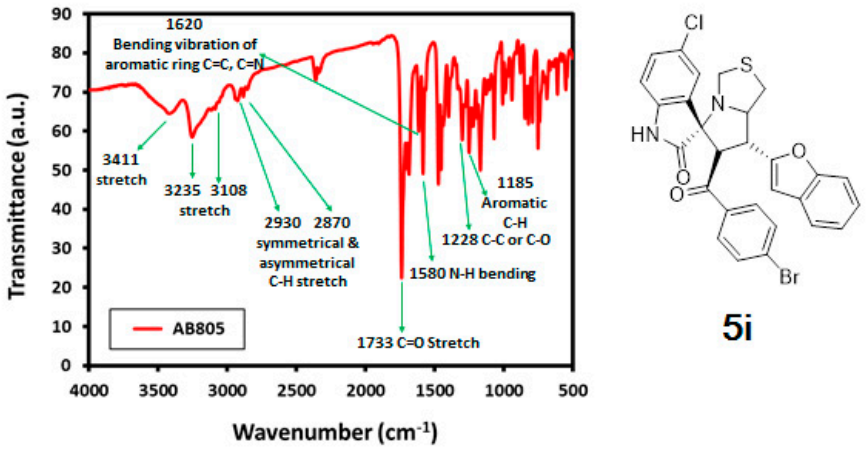


Figure S33. IR (KBr, cm^{-1}) of compound **5i**

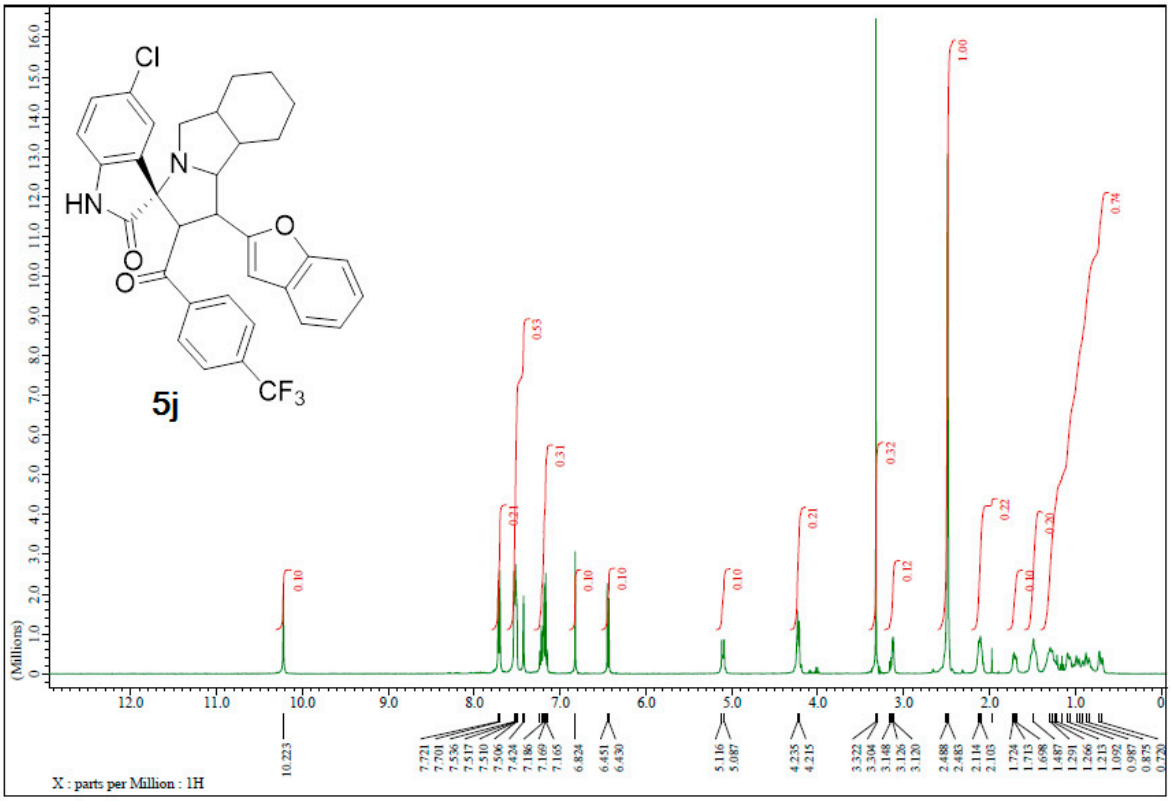


Figure S34. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5j**

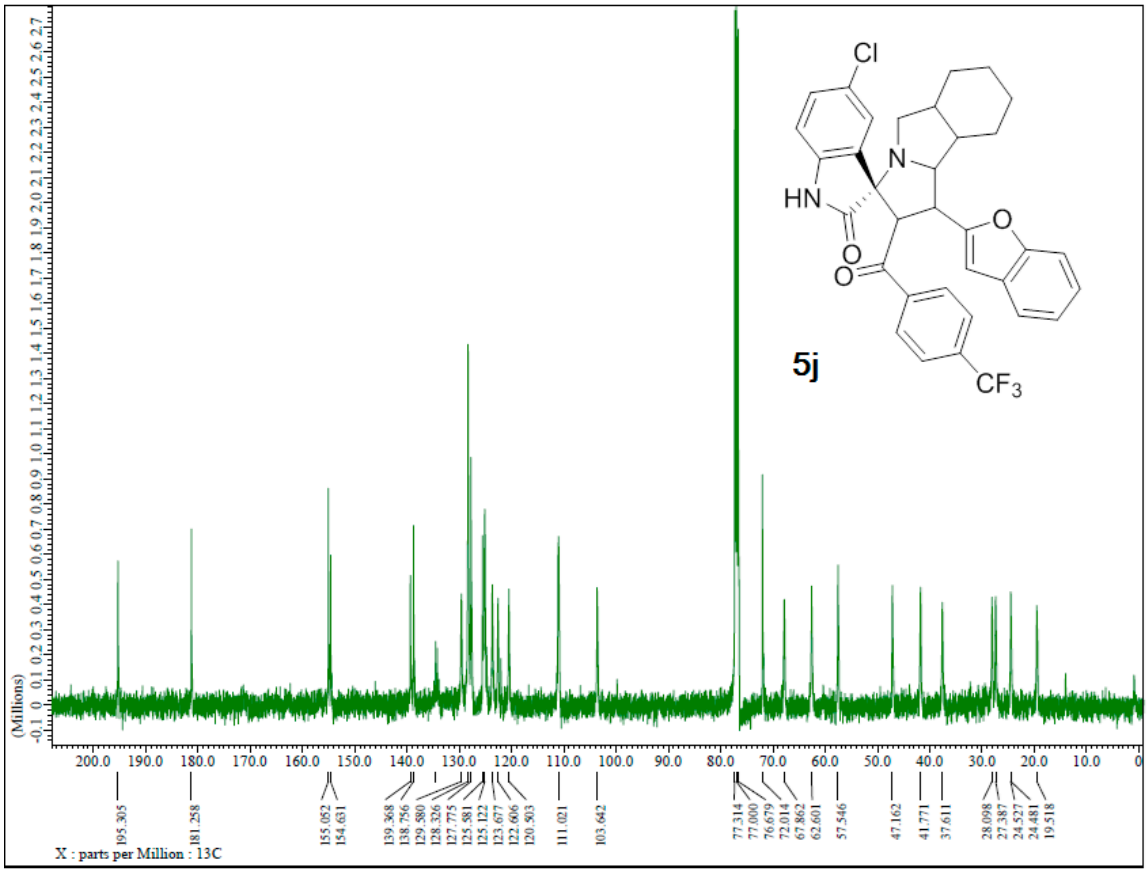


Figure S35. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5j**

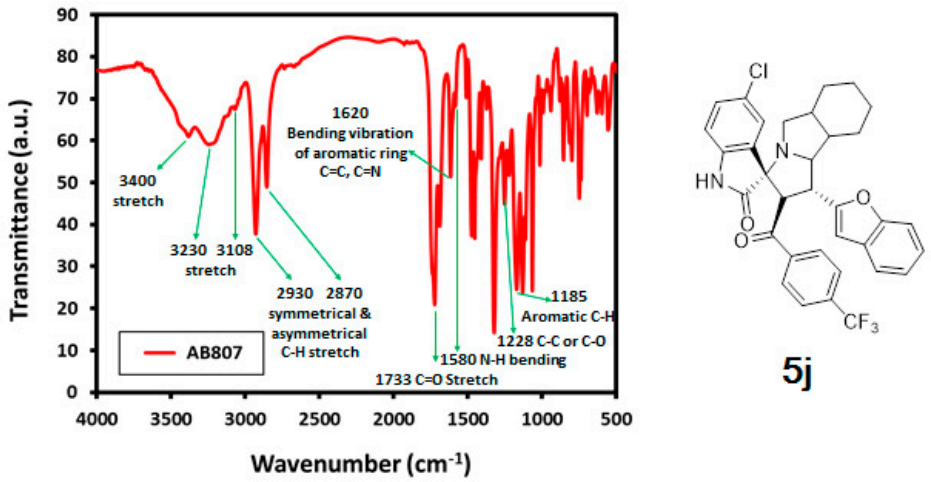


Figure S36. IR (KBr, cm^{-1}) of compound **5j**

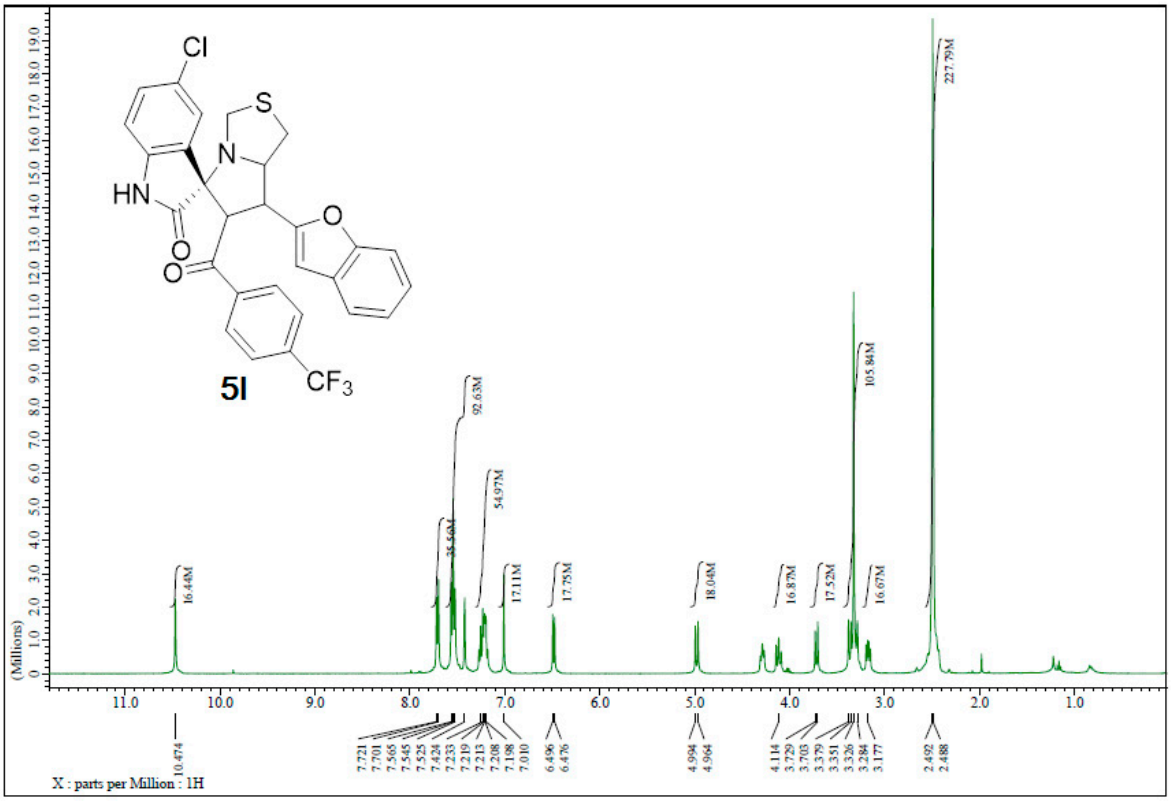


Figure S37. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5l**

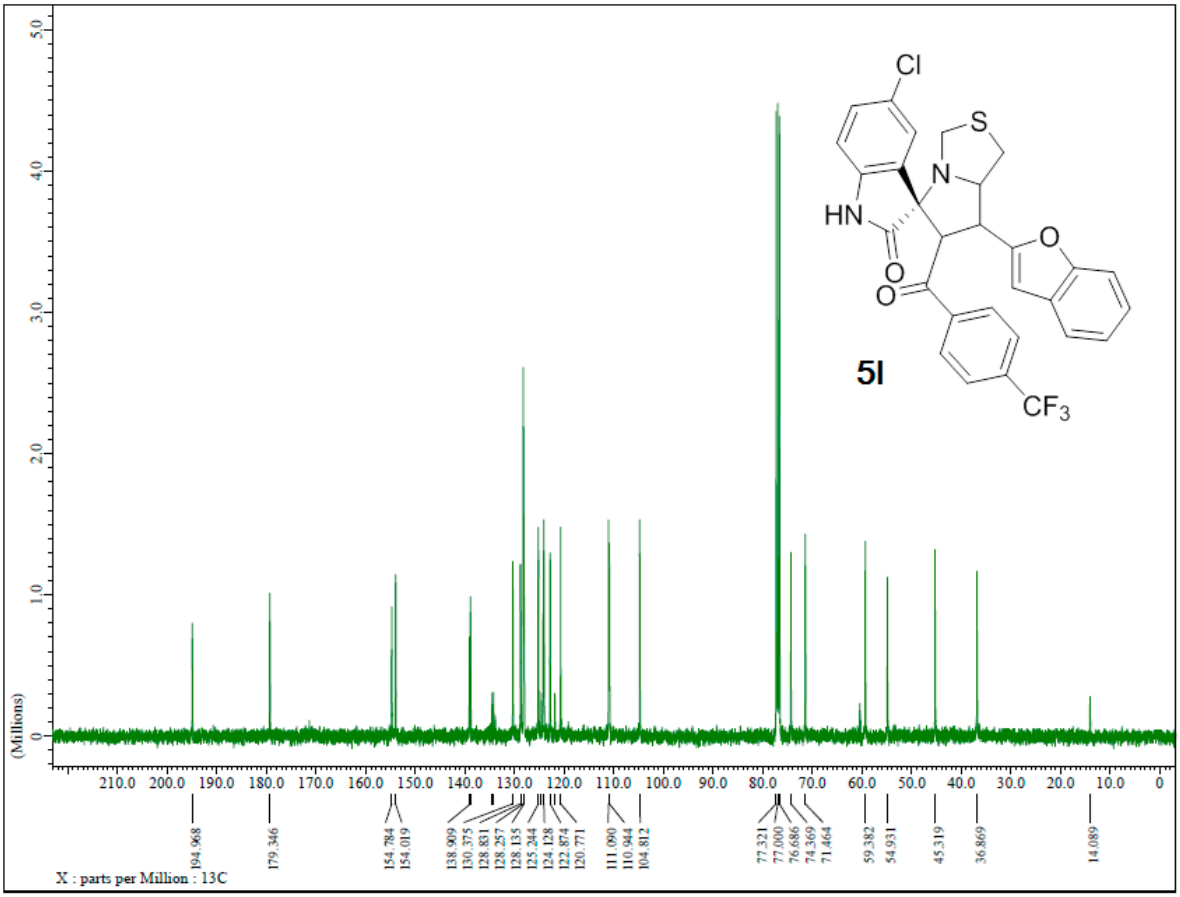


Figure S38. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5l**

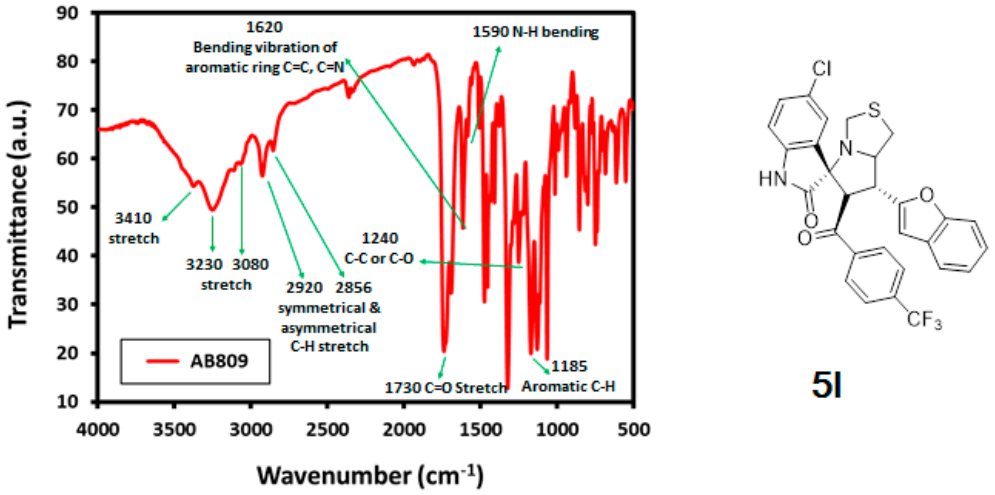


Figure S39. IR (KBr, cm^{-1}) of compound **5l**

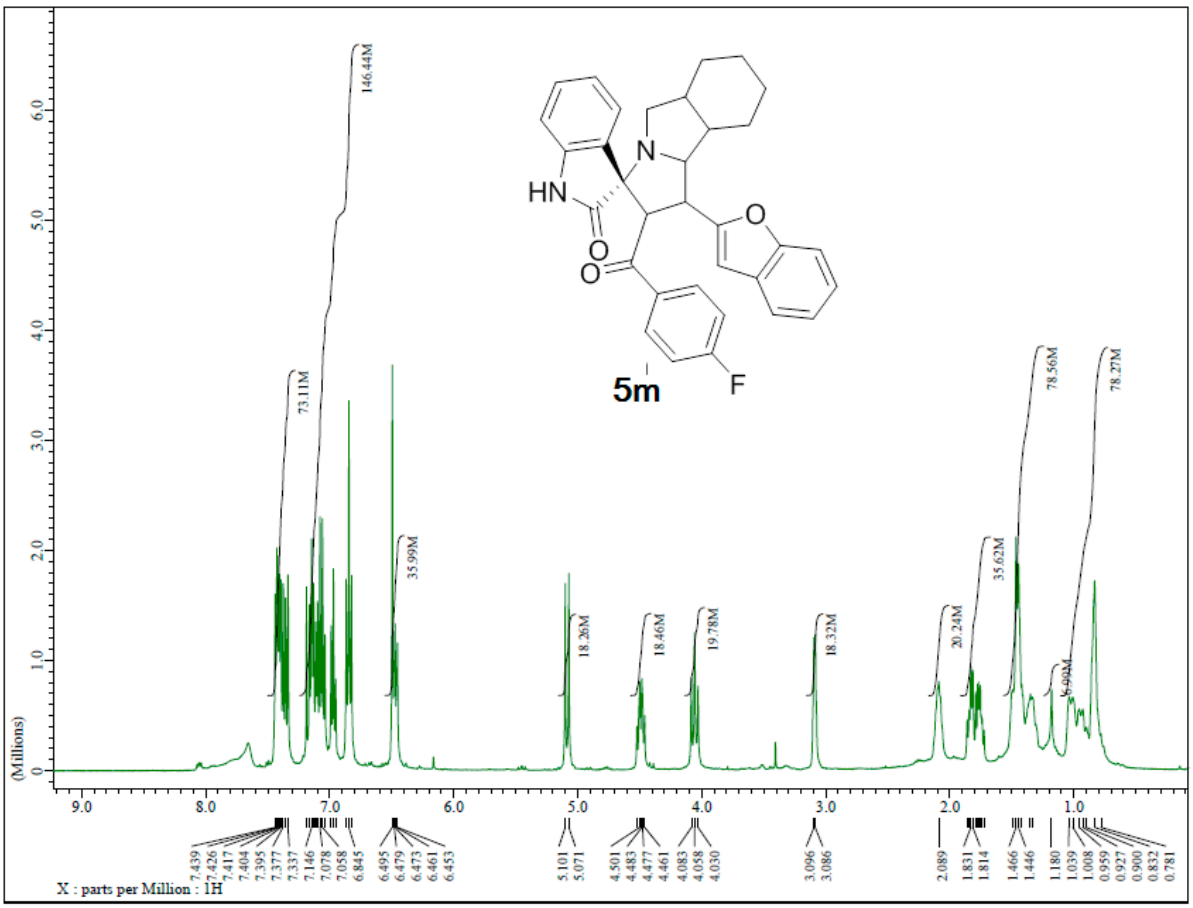


Figure S40. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5m**

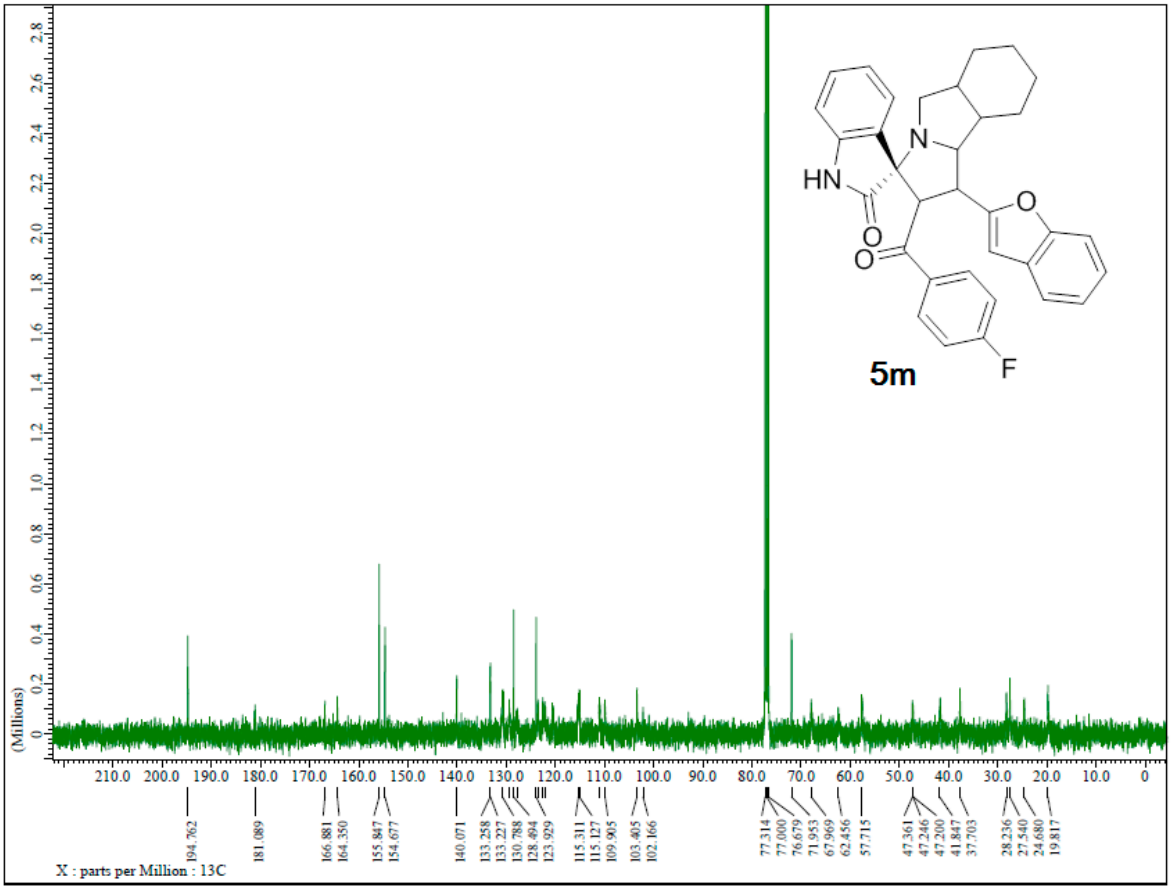


Figure S41. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5m**

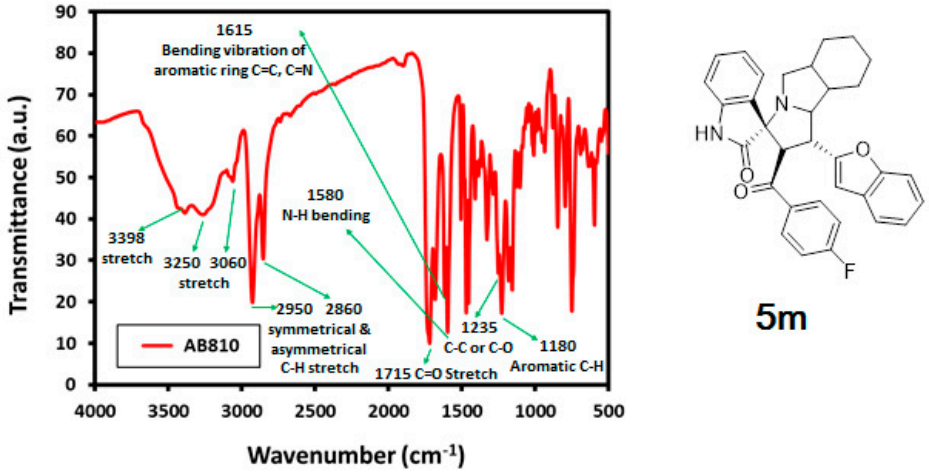


Figure S42. IR (KBr, cm^{-1}) of compound **5m**

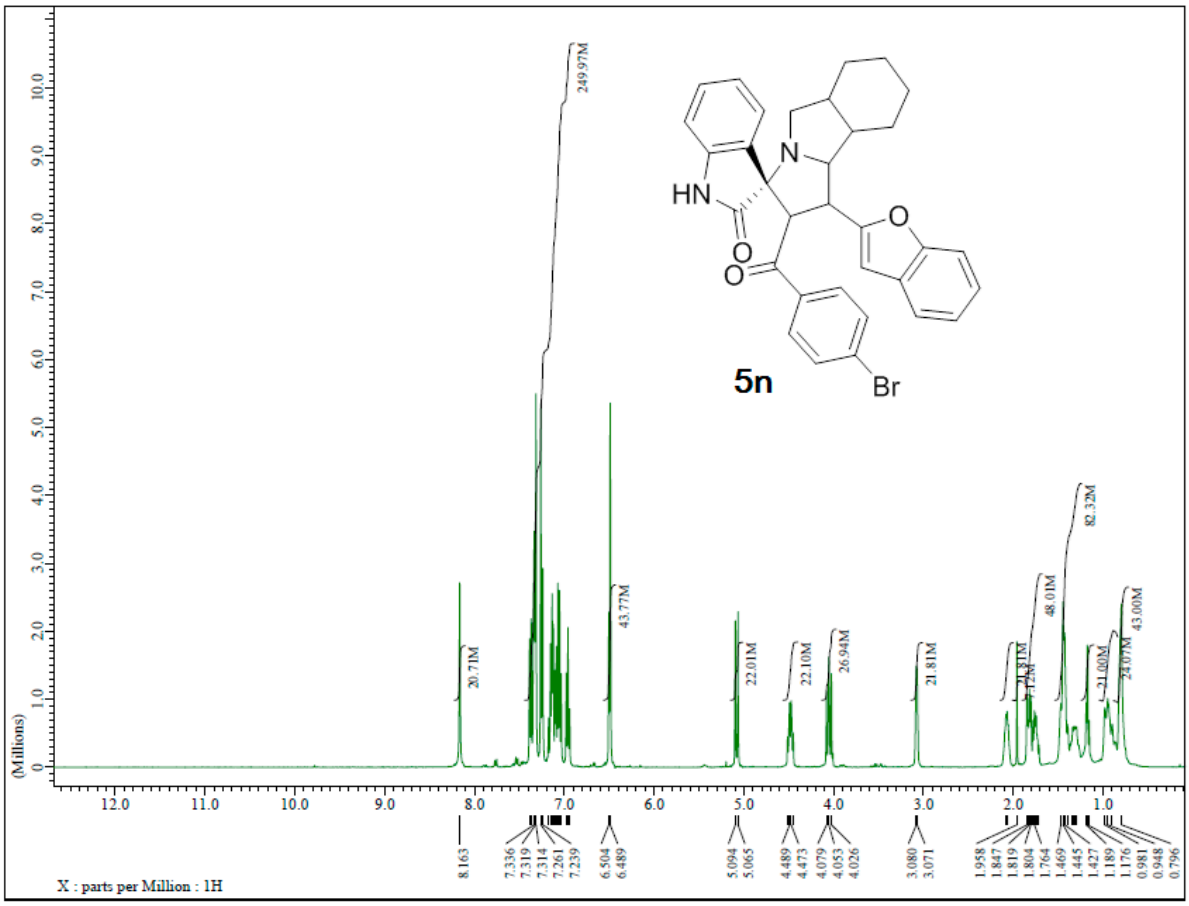


Figure S43. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5n**

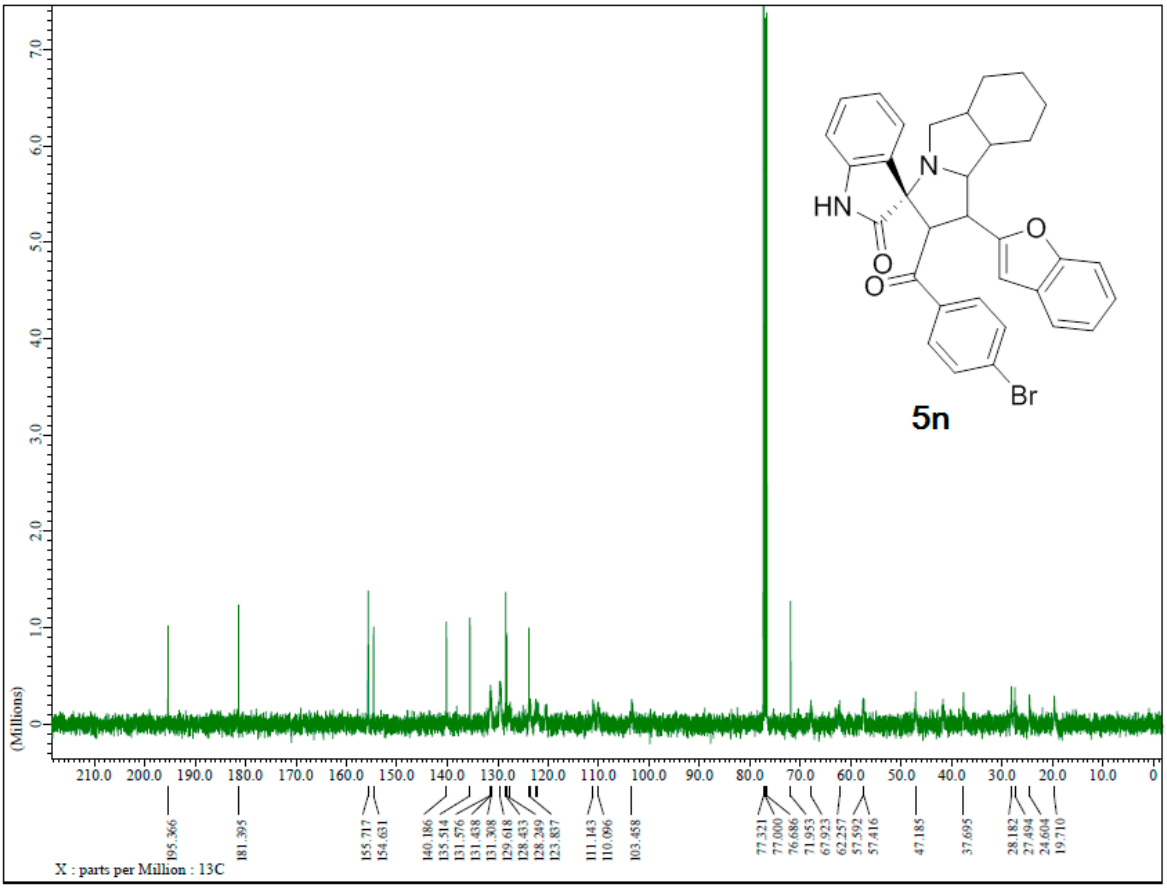


Figure S44. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5n**

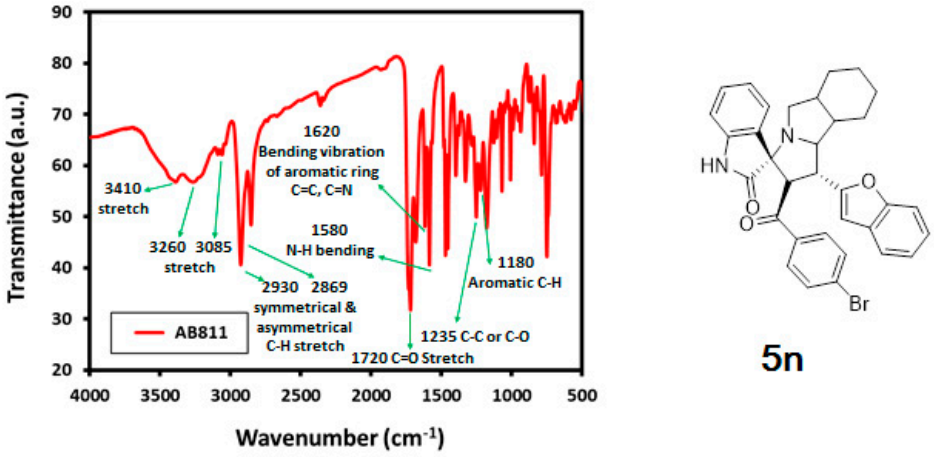


Figure S45. IR (KBr, cm^{-1}) of compound **5n**

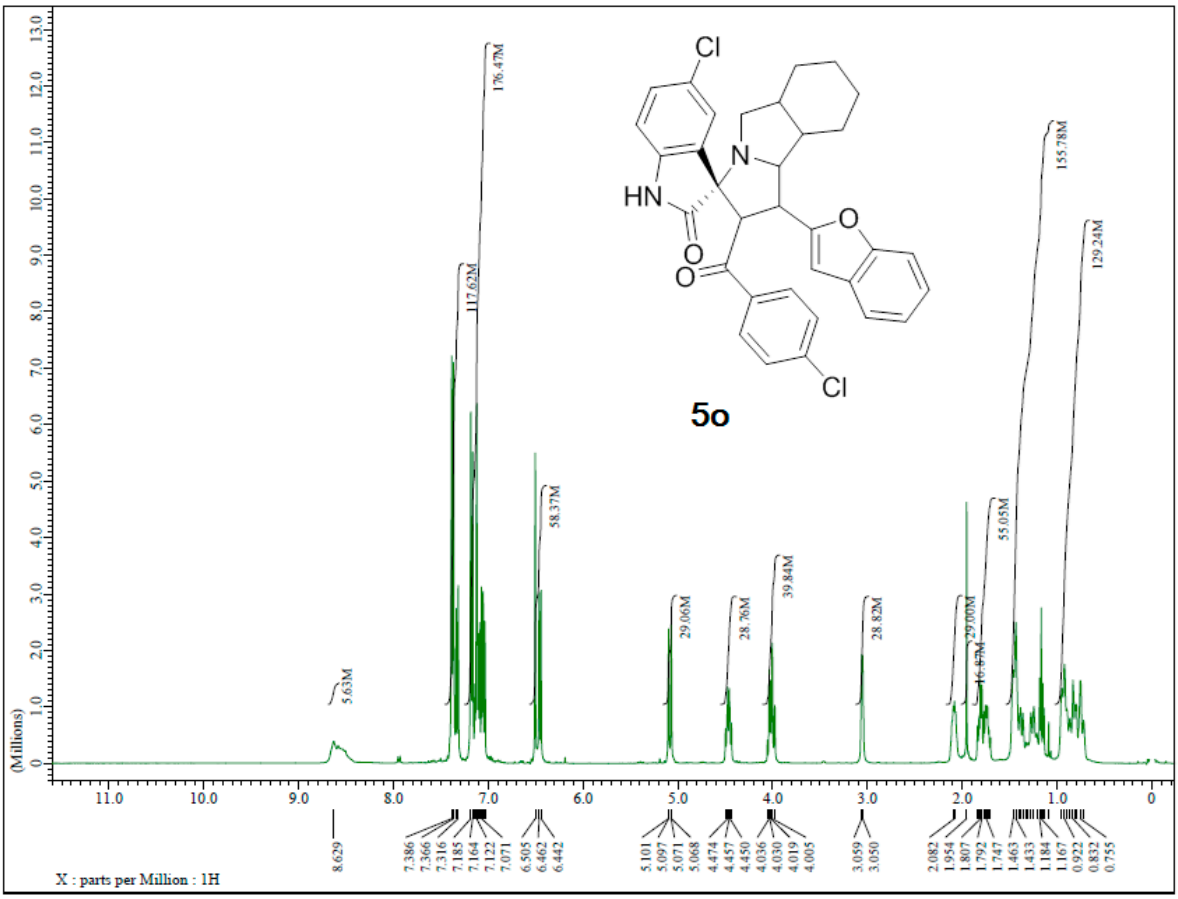


Figure S46. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5o**

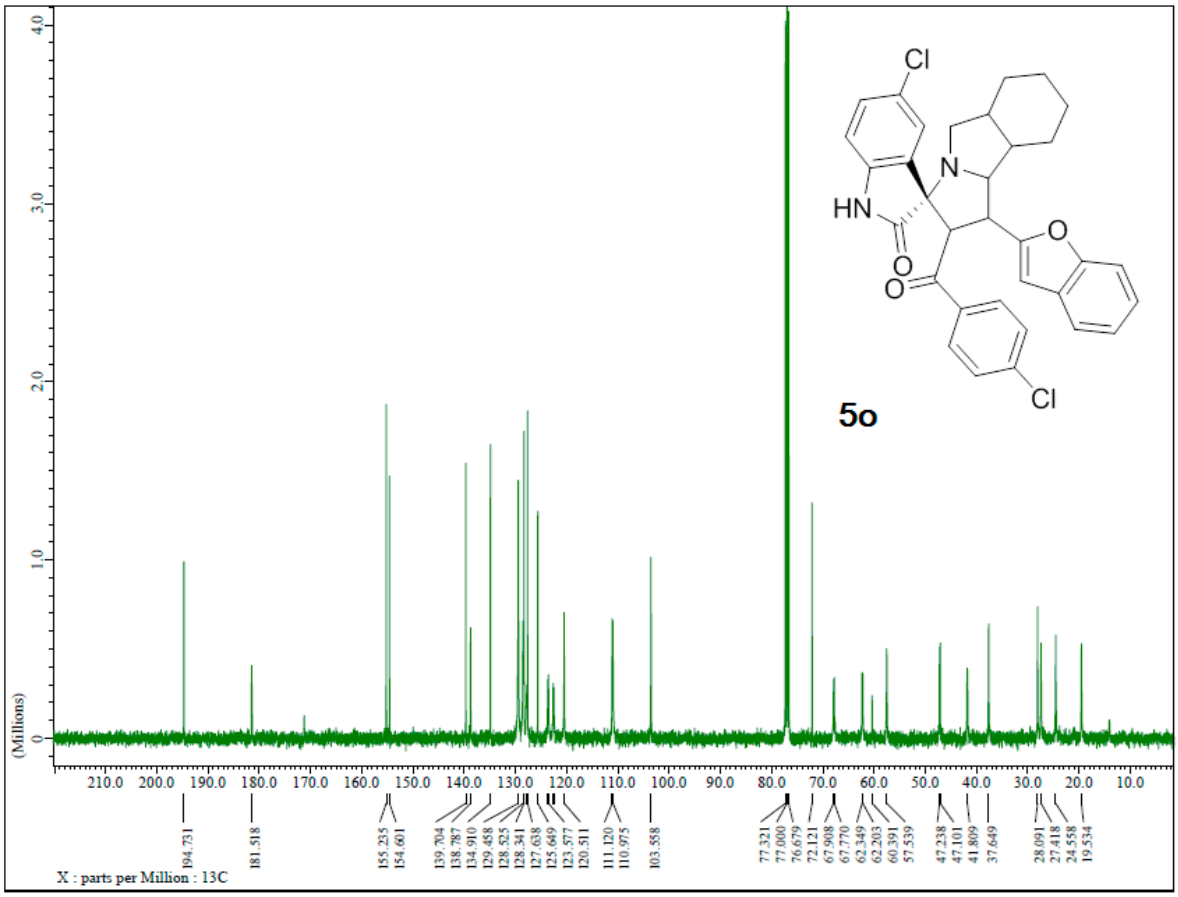
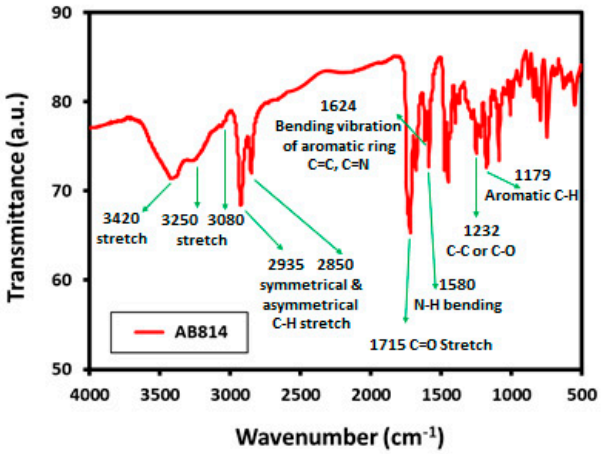


Figure S47. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5o**



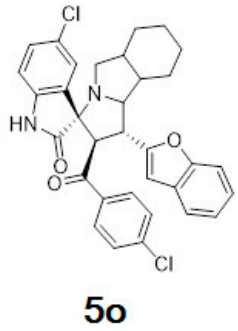


Figure S48. IR (KBr, cm^{-1}) of compound **5o**

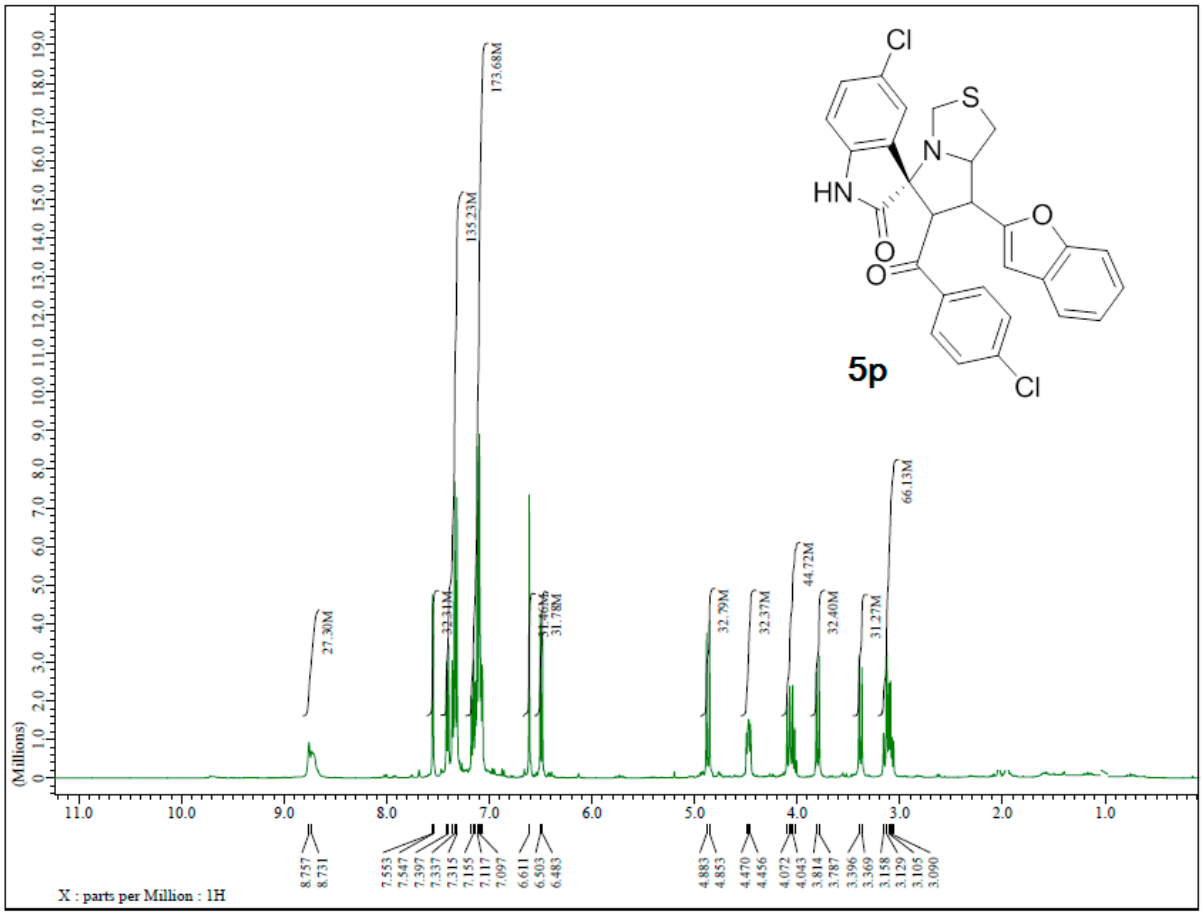


Figure S49. ^{1}H-NMR (400 MHz, $CDCl_3$) of compound **5p**

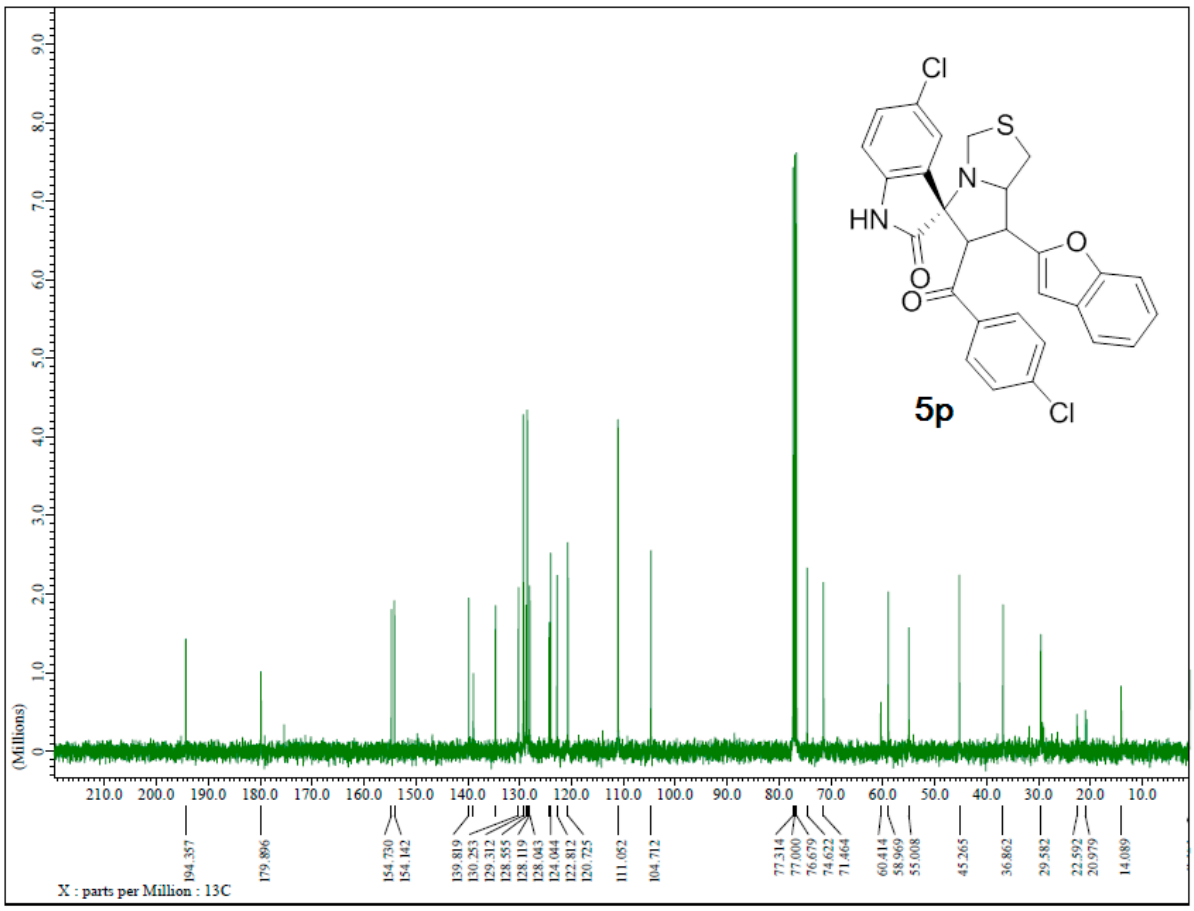


Figure S50. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5p**

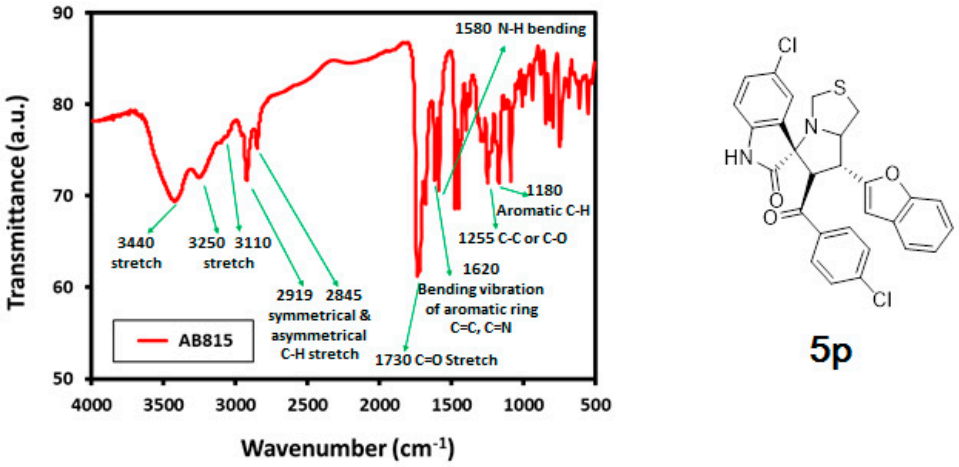


Figure S51. IR (KBr, cm^{-1}) of compound **5p**

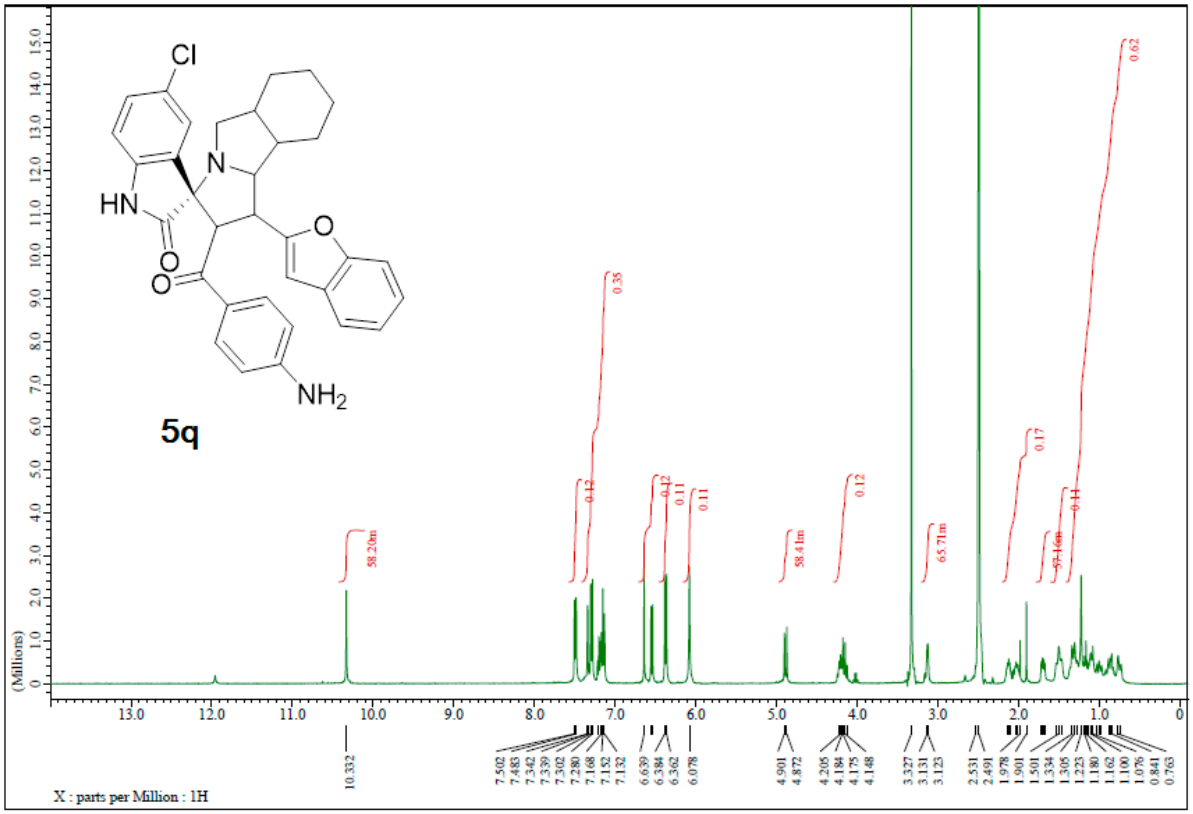


Figure S52. ^{1}H-NMR (400 MHz, DMSO-d_6) of compound **5q**

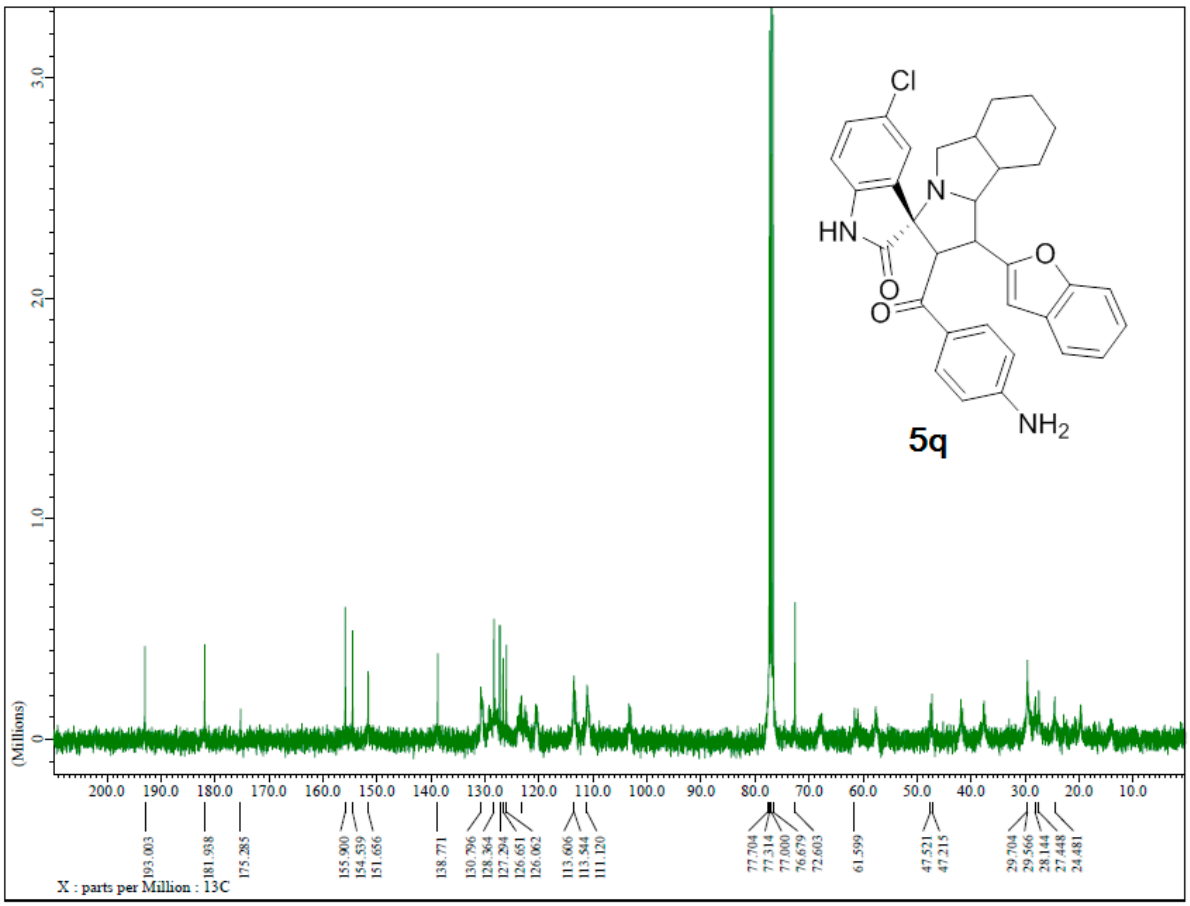
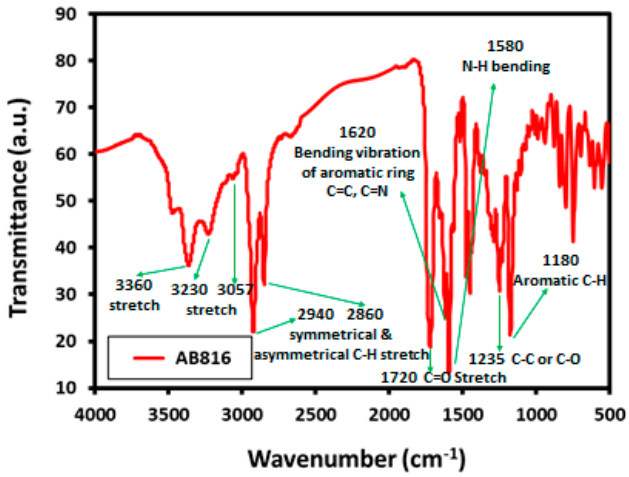
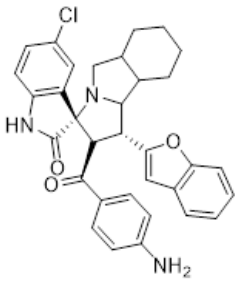


Figure S53. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5q**





5q

Figure S54. IR (KBr, cm^{-1}) of compound **5q**

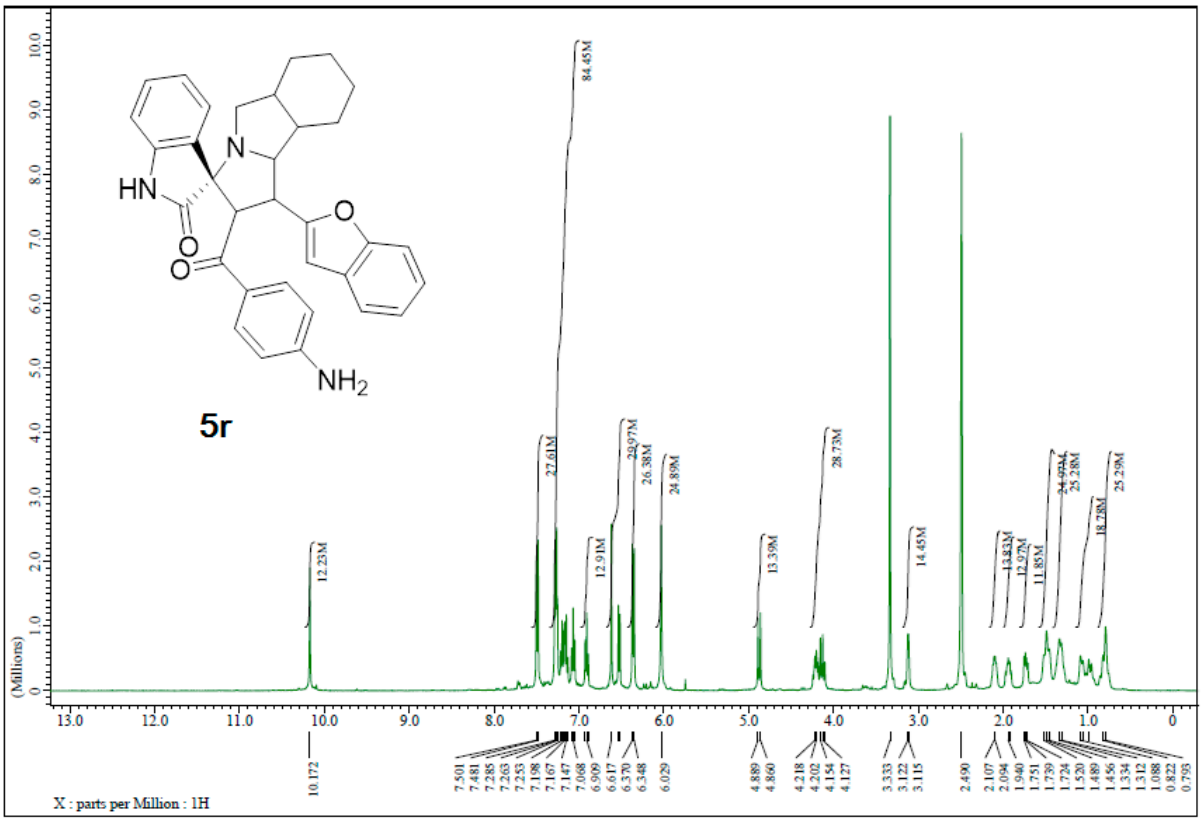


Figure S55. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5r**

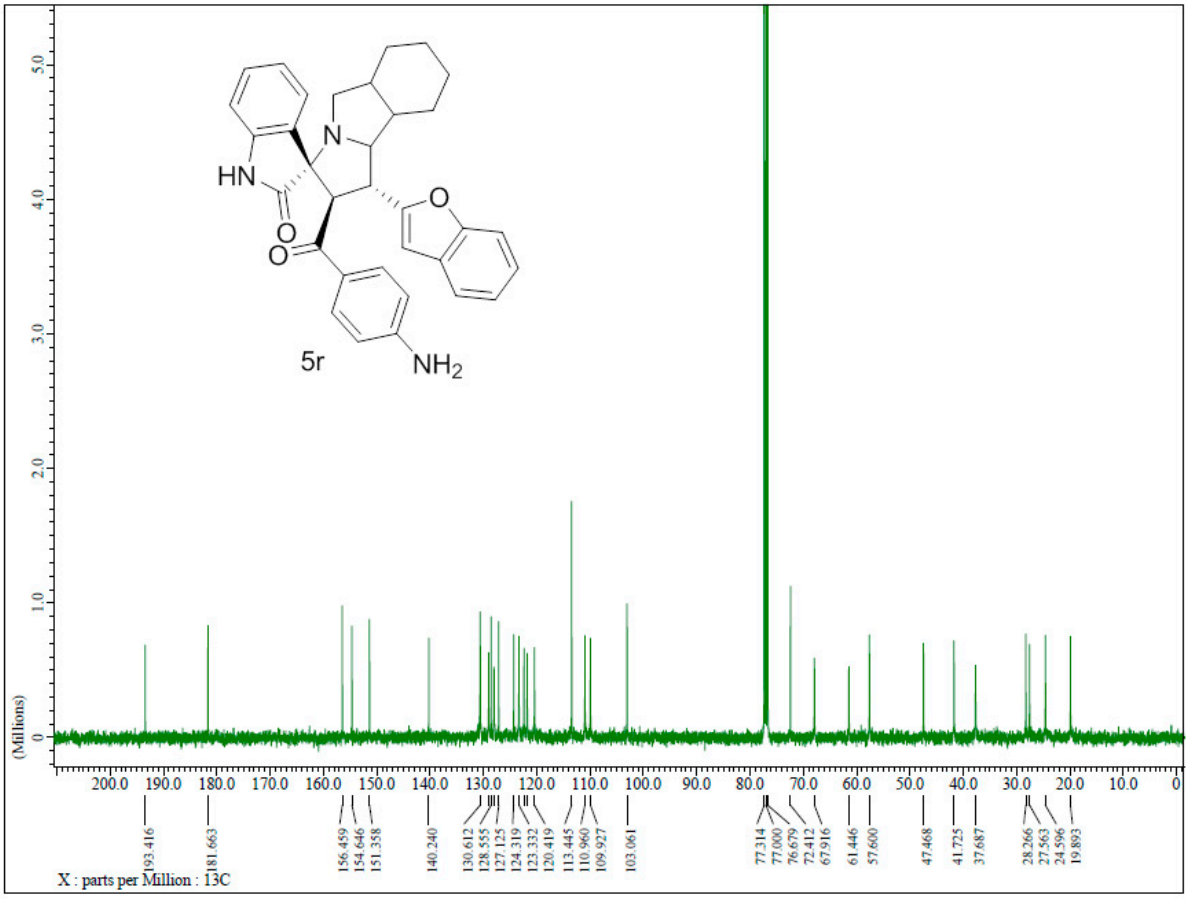


Figure S56. ^{13}C-NMR (100 MHz, $CDCl_3$) of compound **5r**

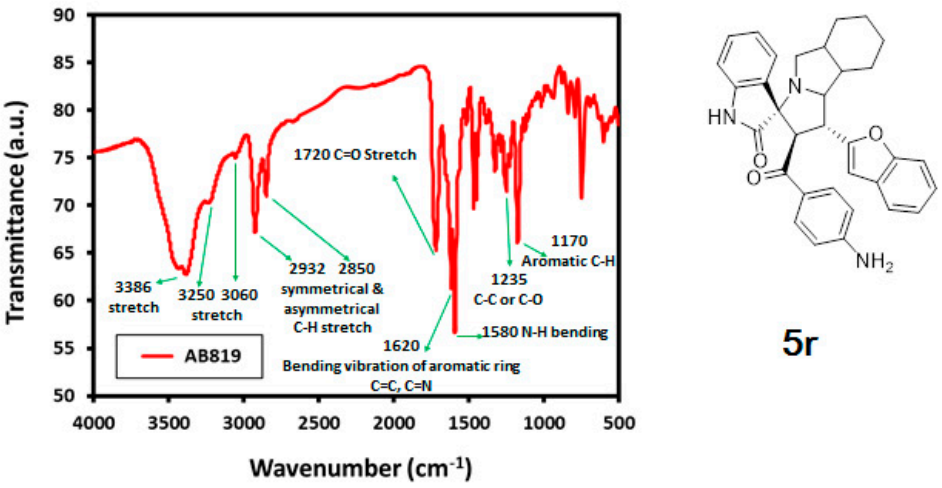


Figure S57. IR (KBr, cm^{-1}) of compound **5r**

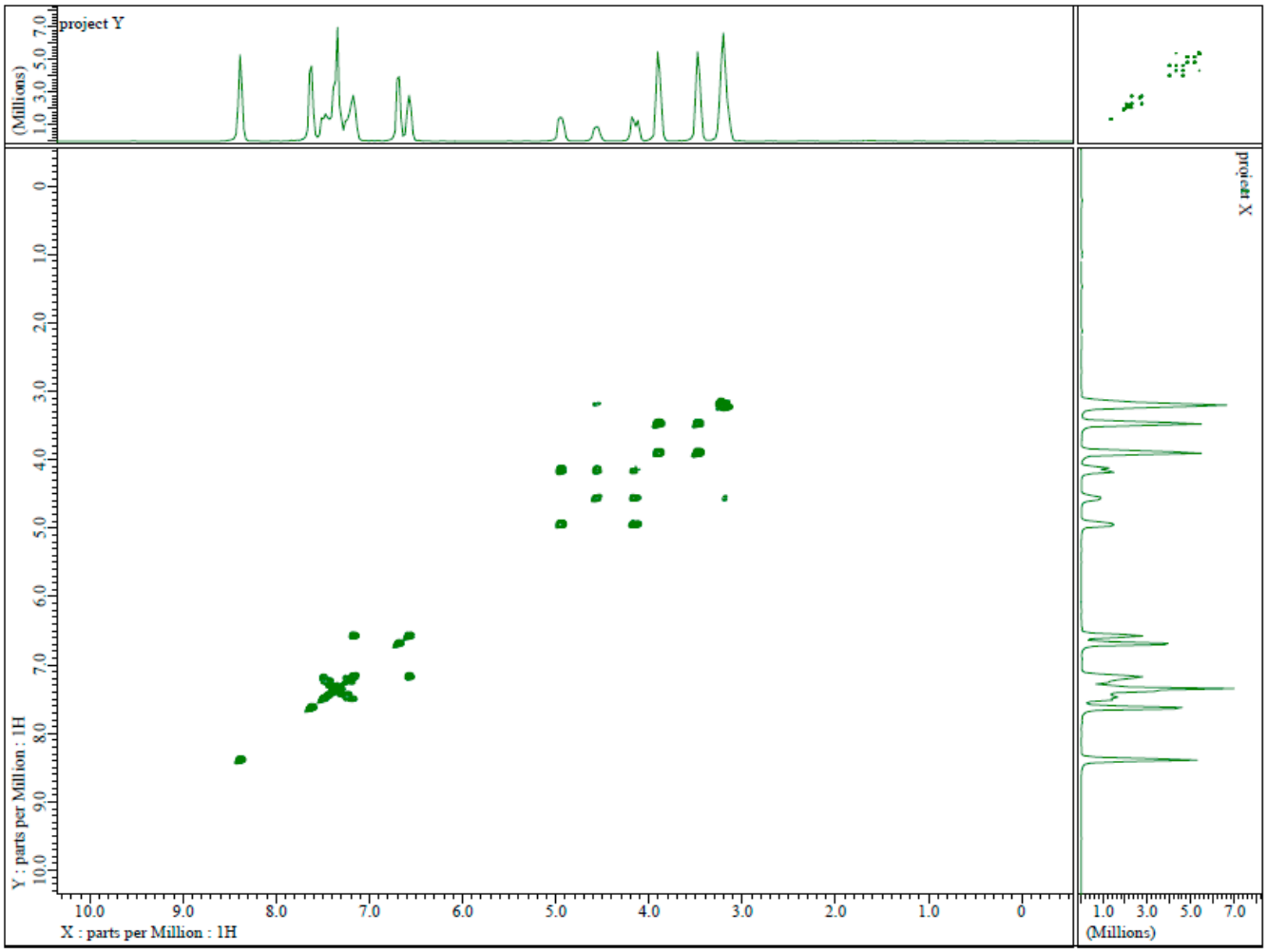


Figure S58. COSY (100 MHz, $CDCl_3$) of compound **5i**