

## Supplementary Materials

The  $^1\text{H}$ -NMR Spectra of Compounds **4aa-4bq**.

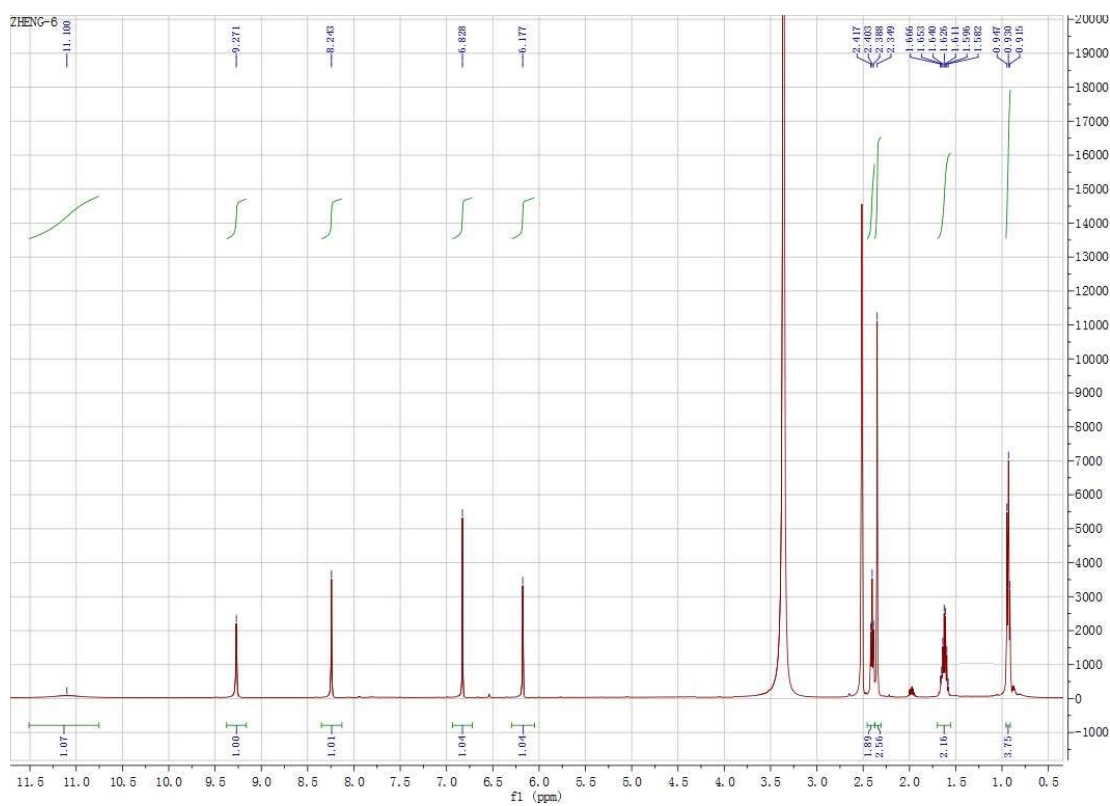


Figure S1.  $^1\text{H}$  NMR of **4aa**

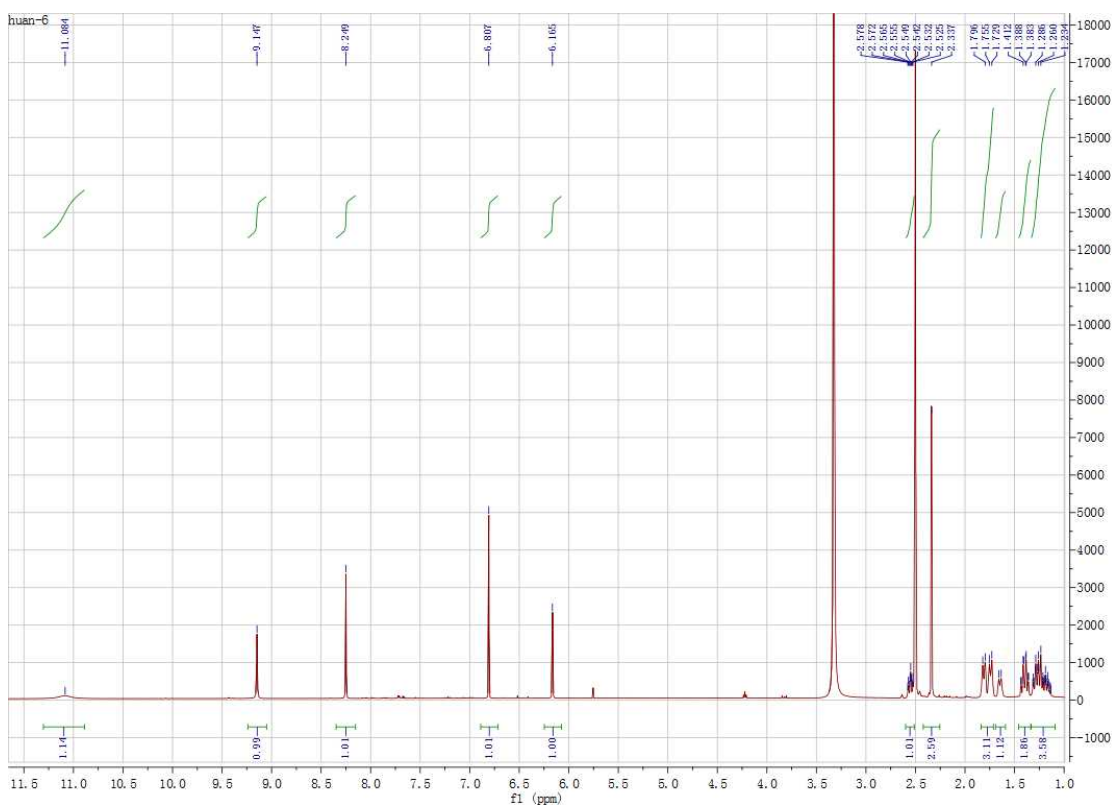


Figure S2.  $^1\text{H}$  NMR of **4ab**

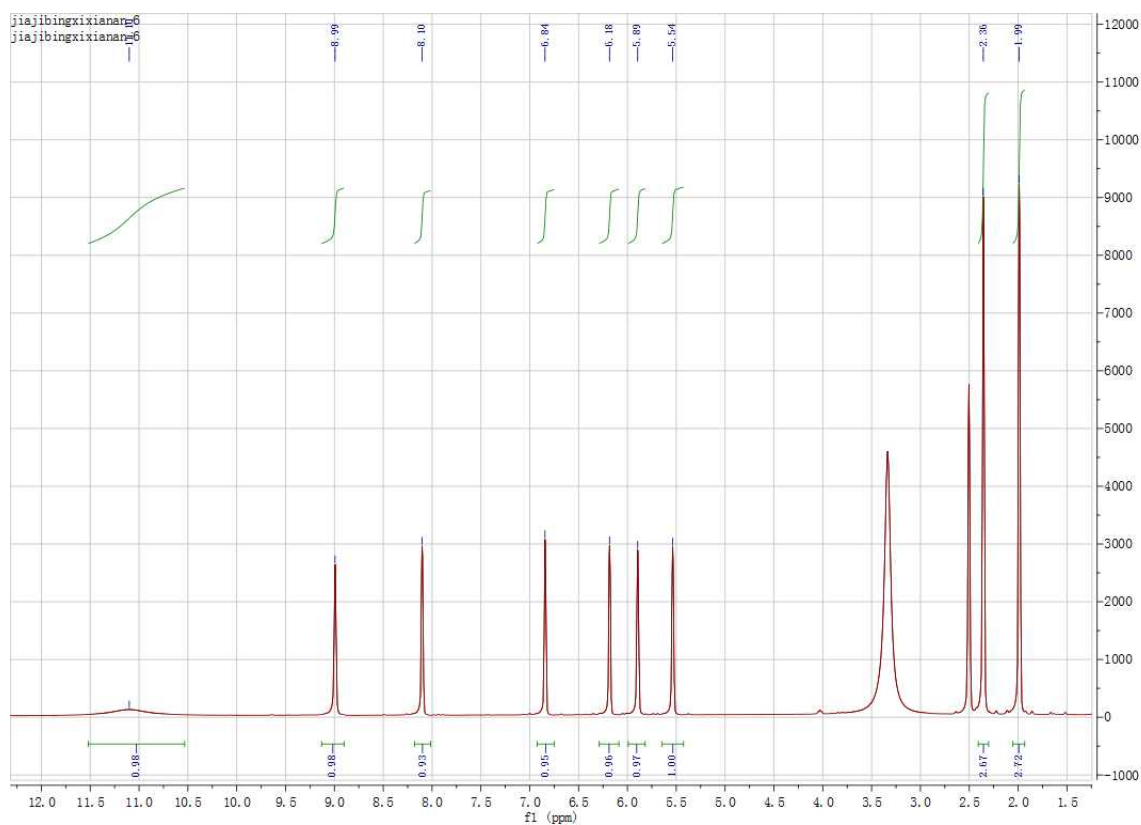


Figure S3.  $^1\text{H}$  NMR of 4ac

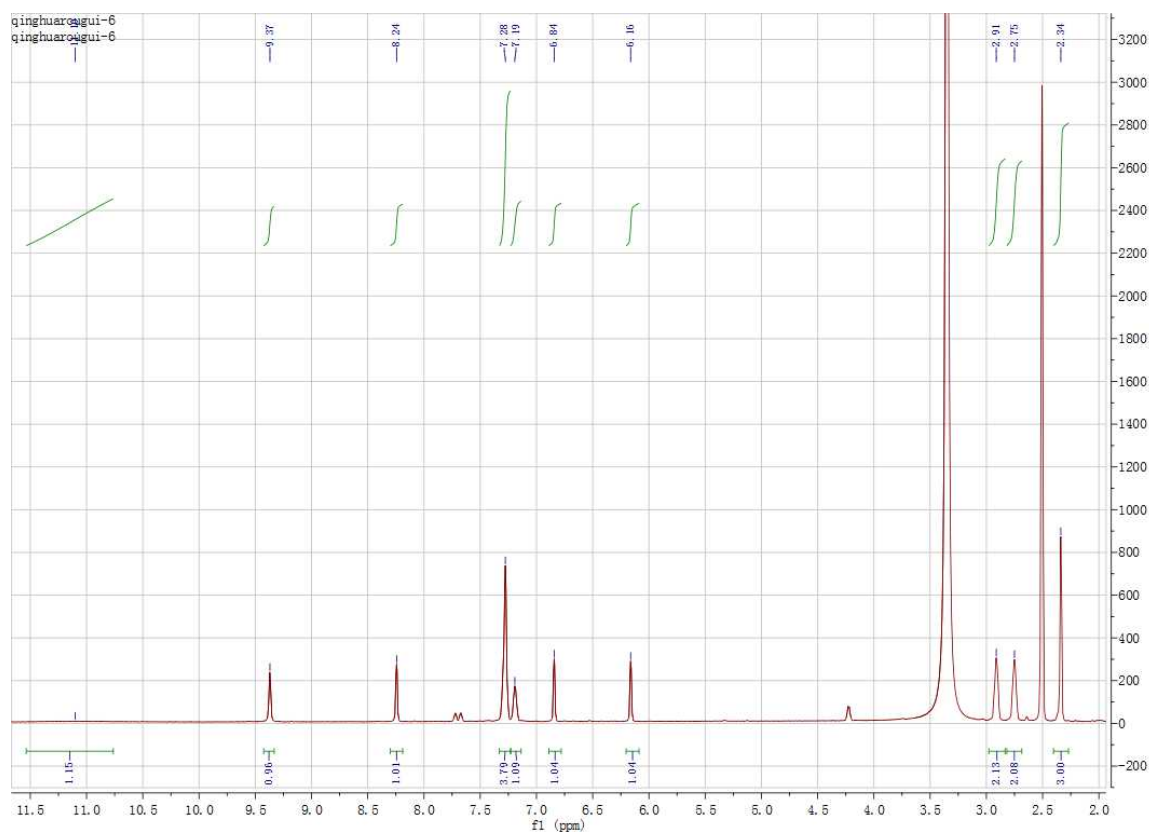


Figure S4.  $^1\text{H}$  NMR of 4ad

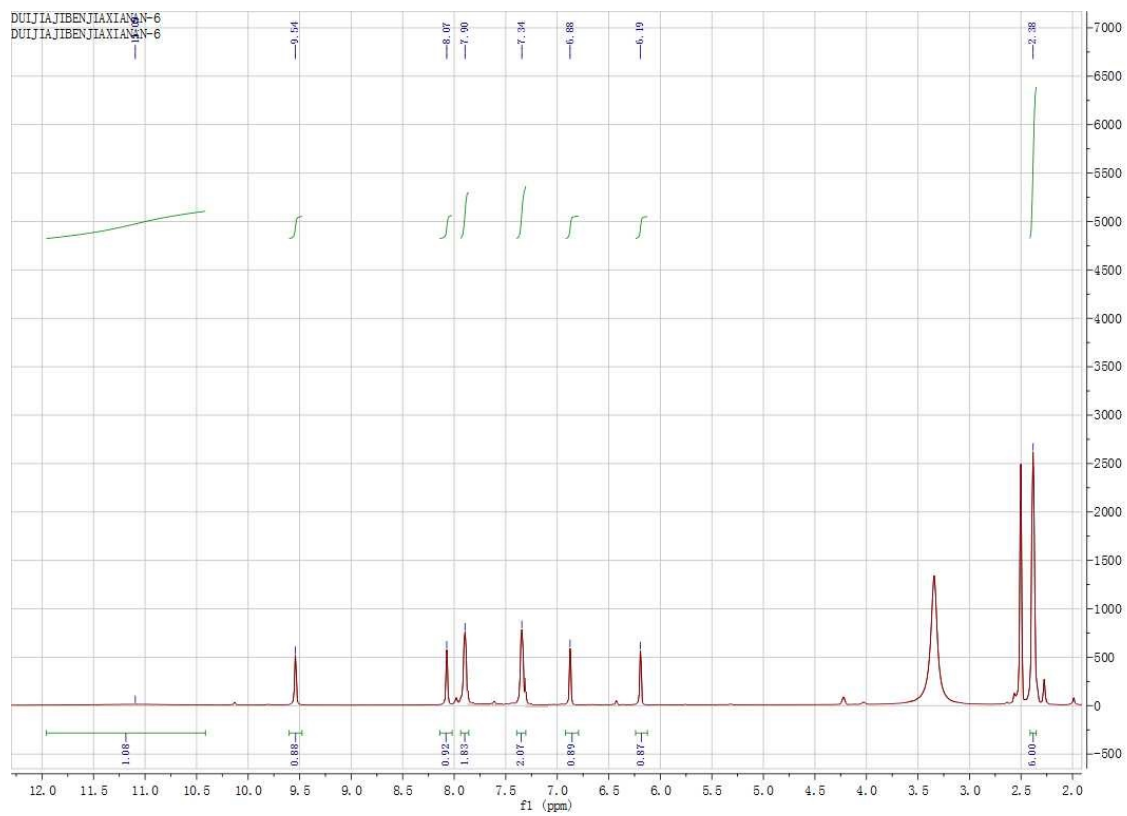


Figure S5. <sup>1</sup>H NMR of 4ae

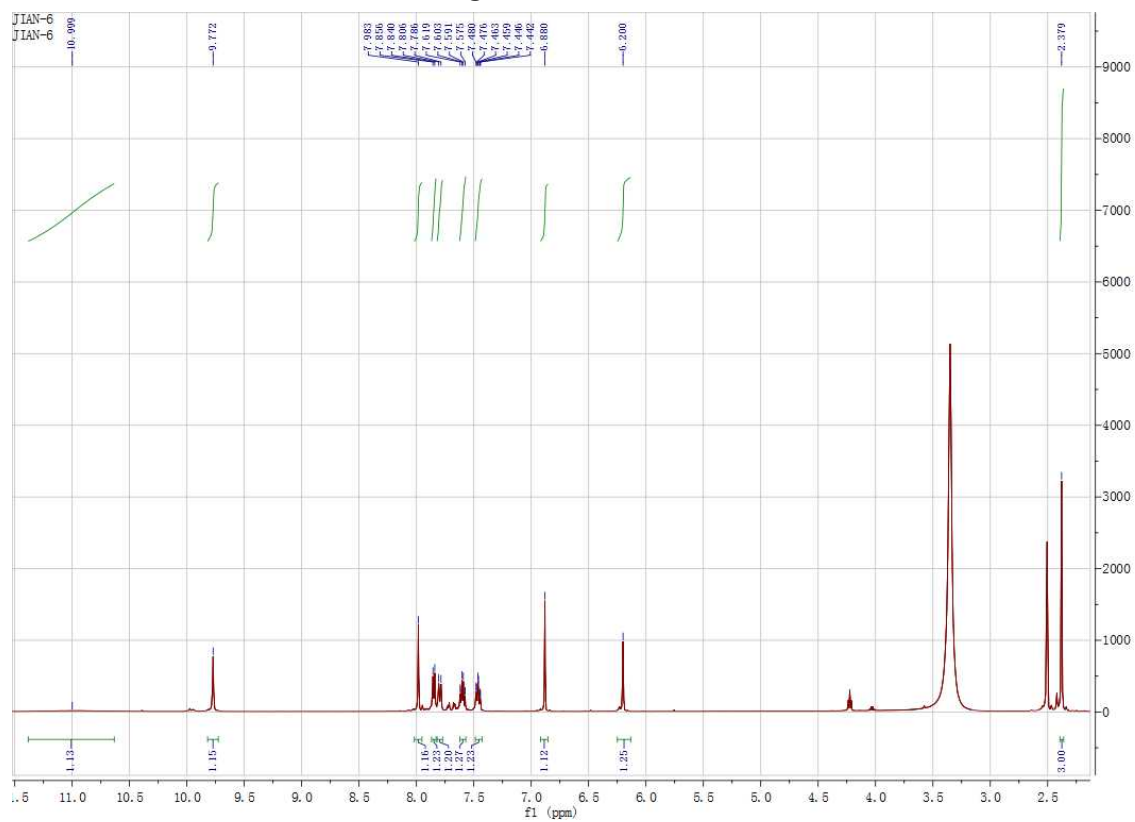
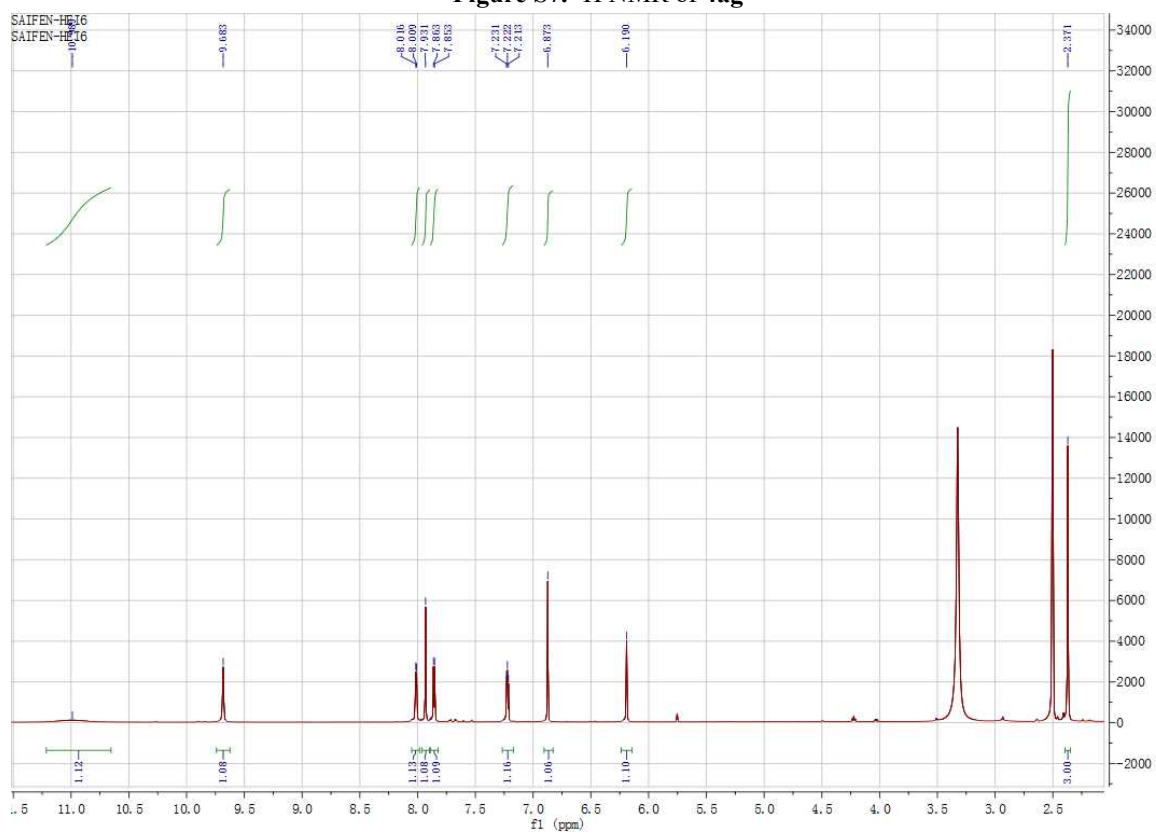
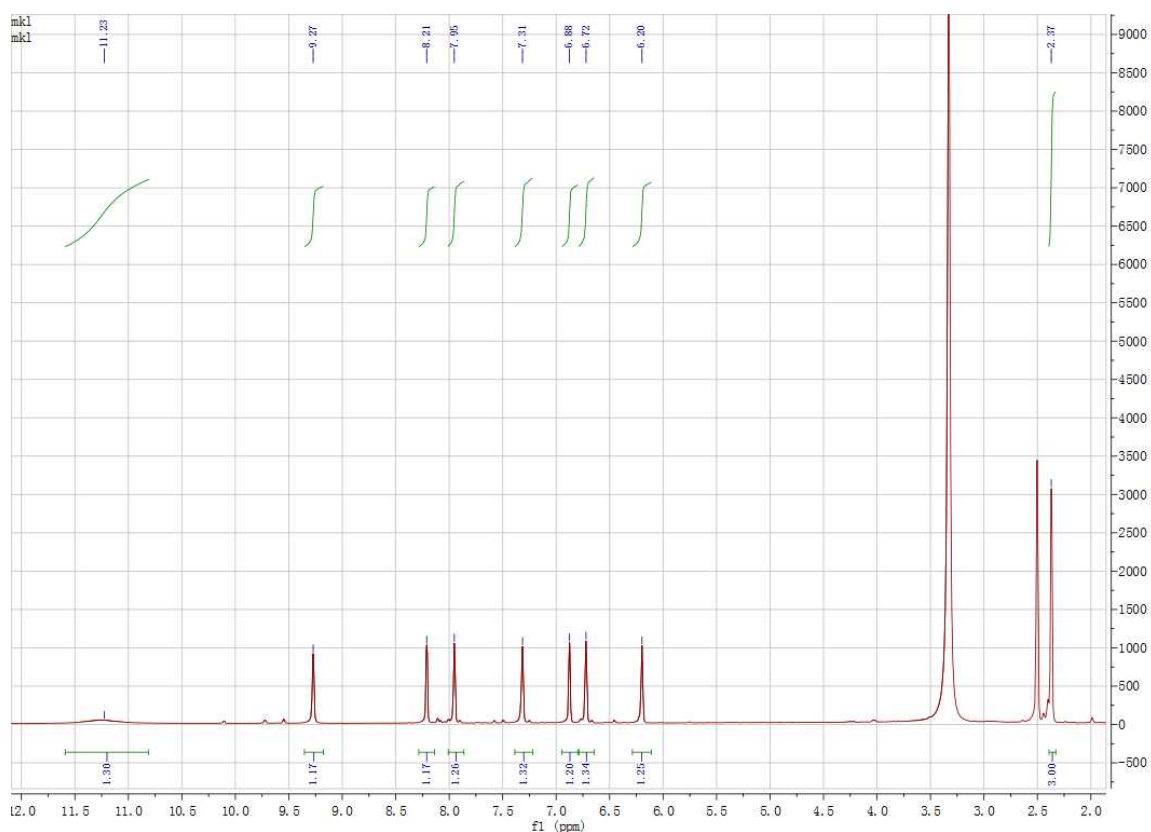


Figure S6. <sup>1</sup>H NMR of 4af



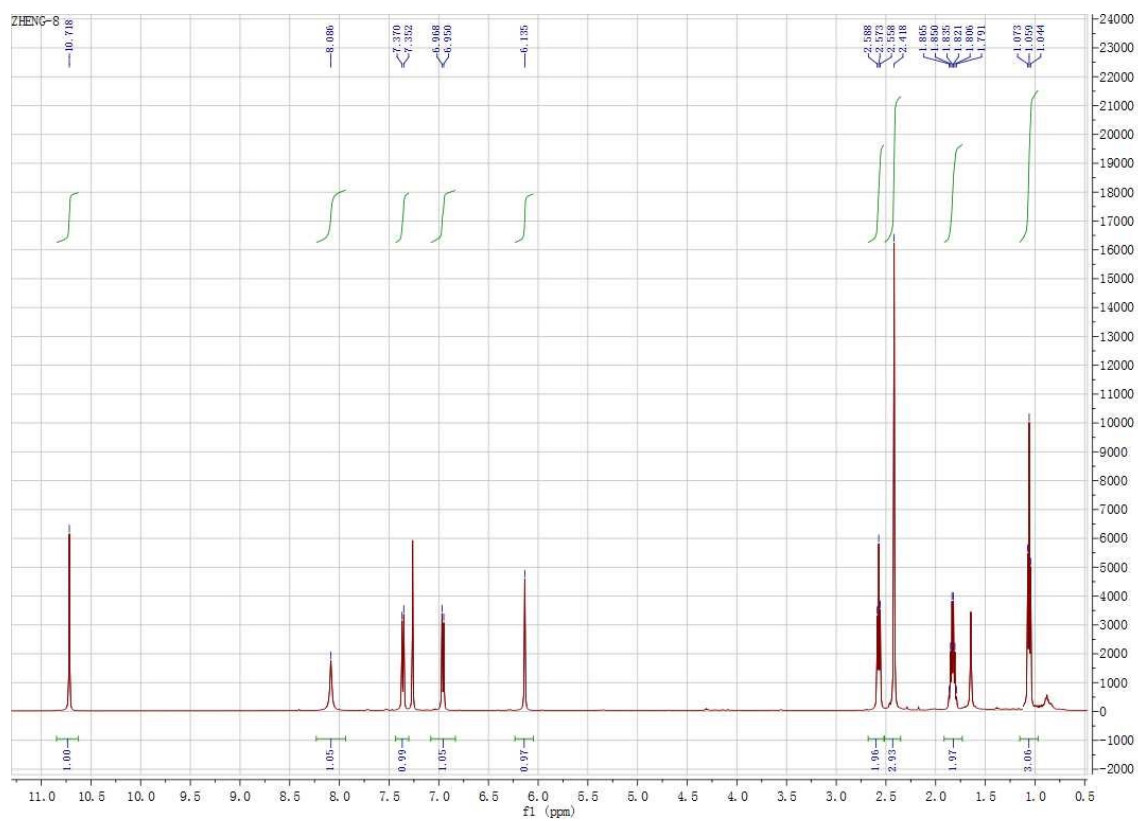


Figure S9.  $^1\text{H}$  NMR of 4ba

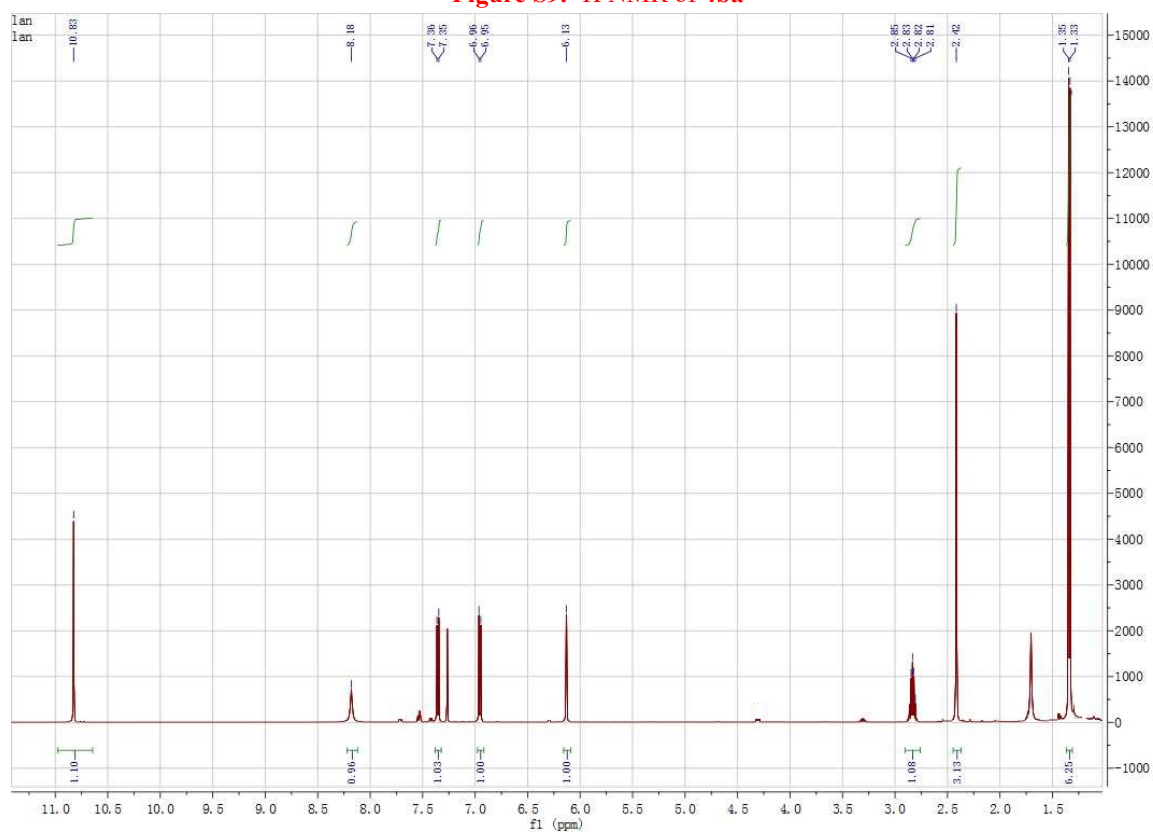
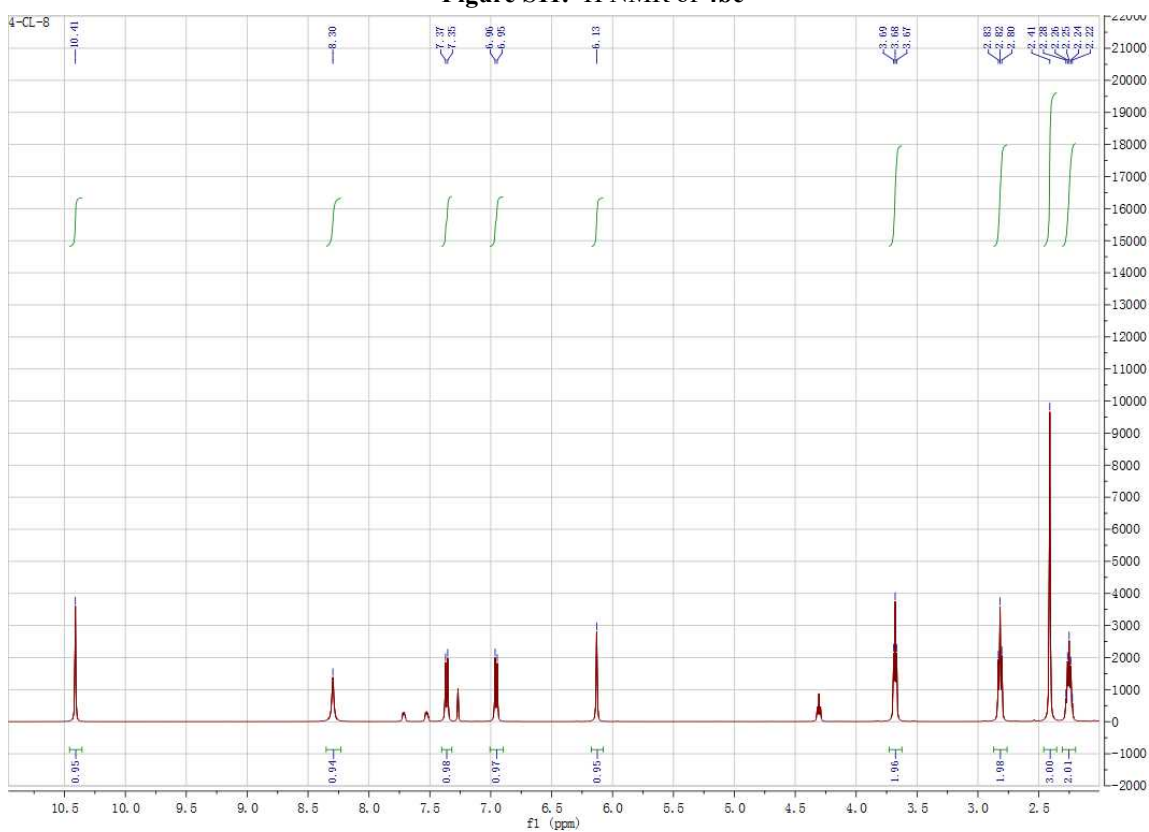
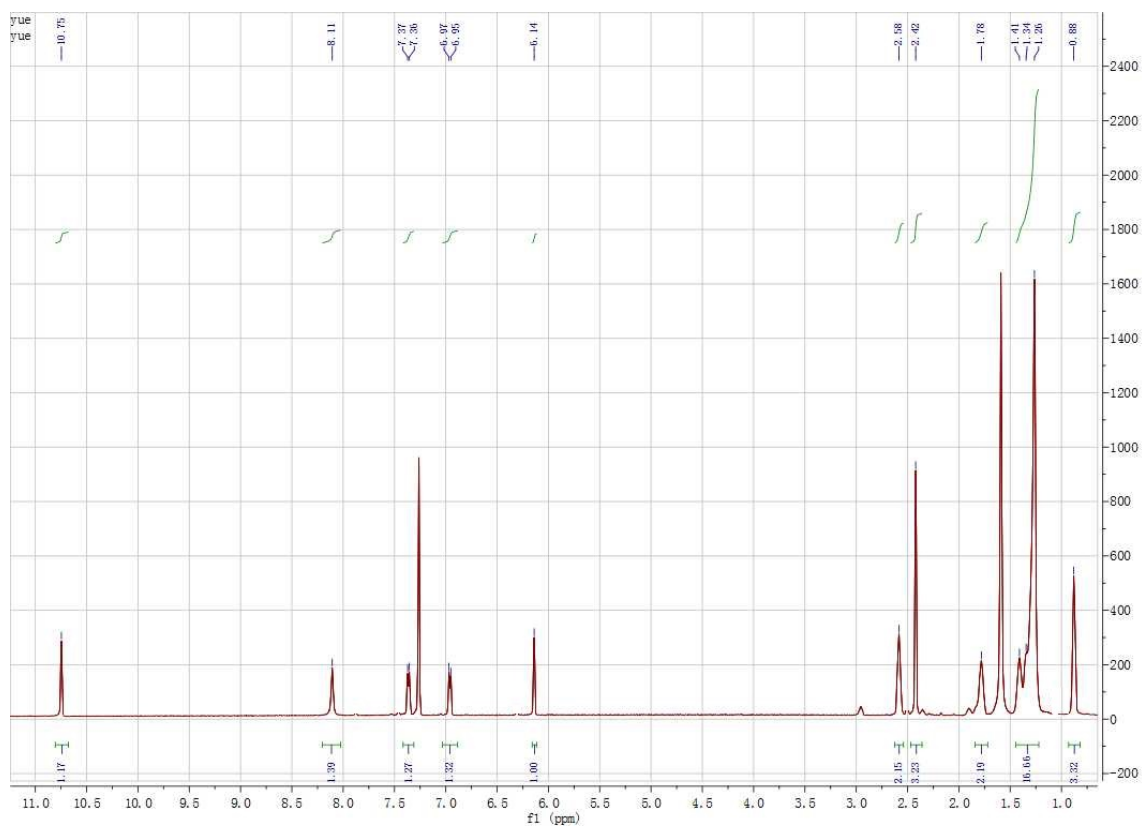


Figure S10.  $^1\text{H}$  NMR of 4bb



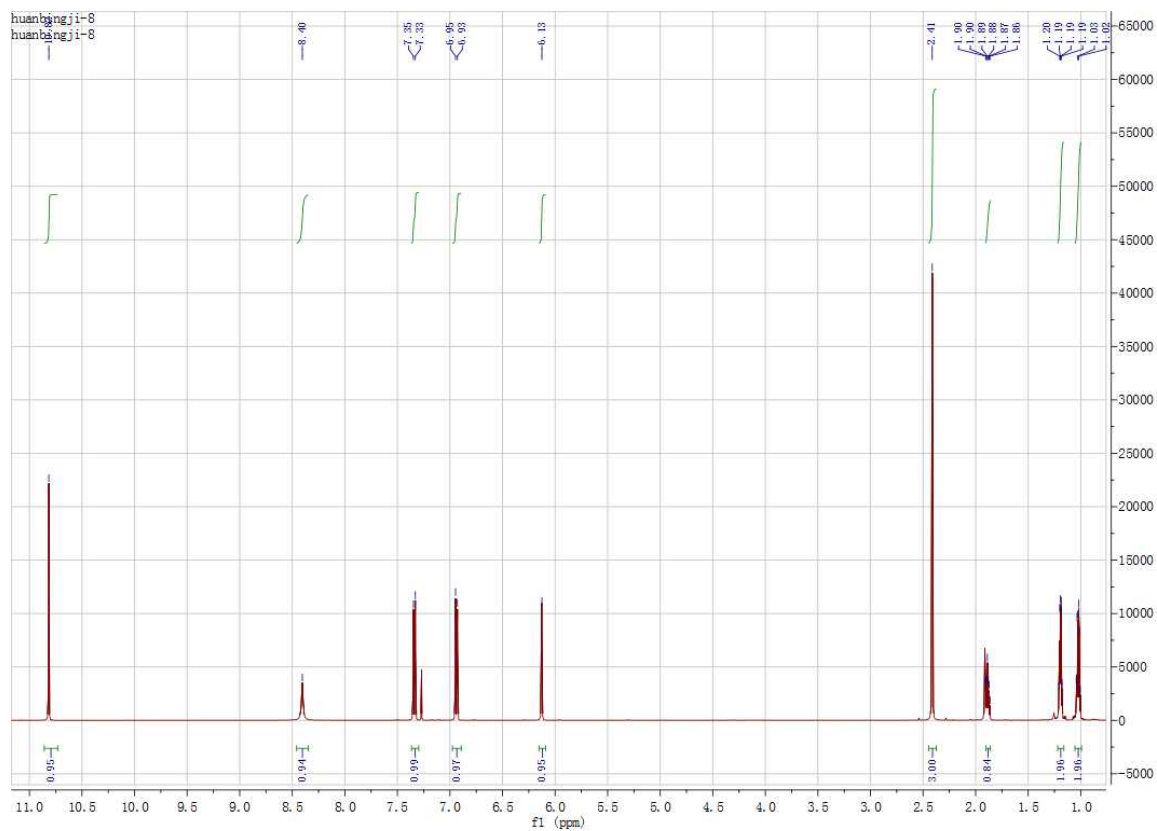


Figure S13.  $^1\text{H}$  NMR of 4be

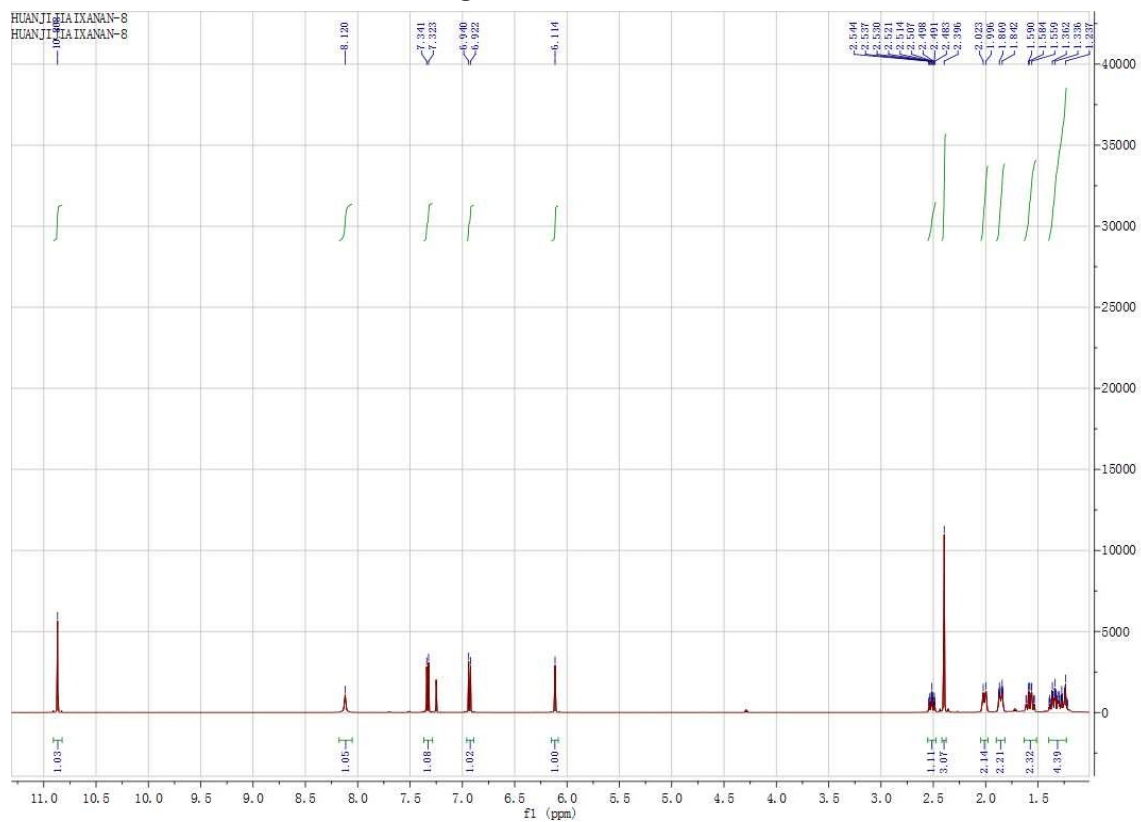


Figure S14.  $^1\text{H}$  NMR of 4bf

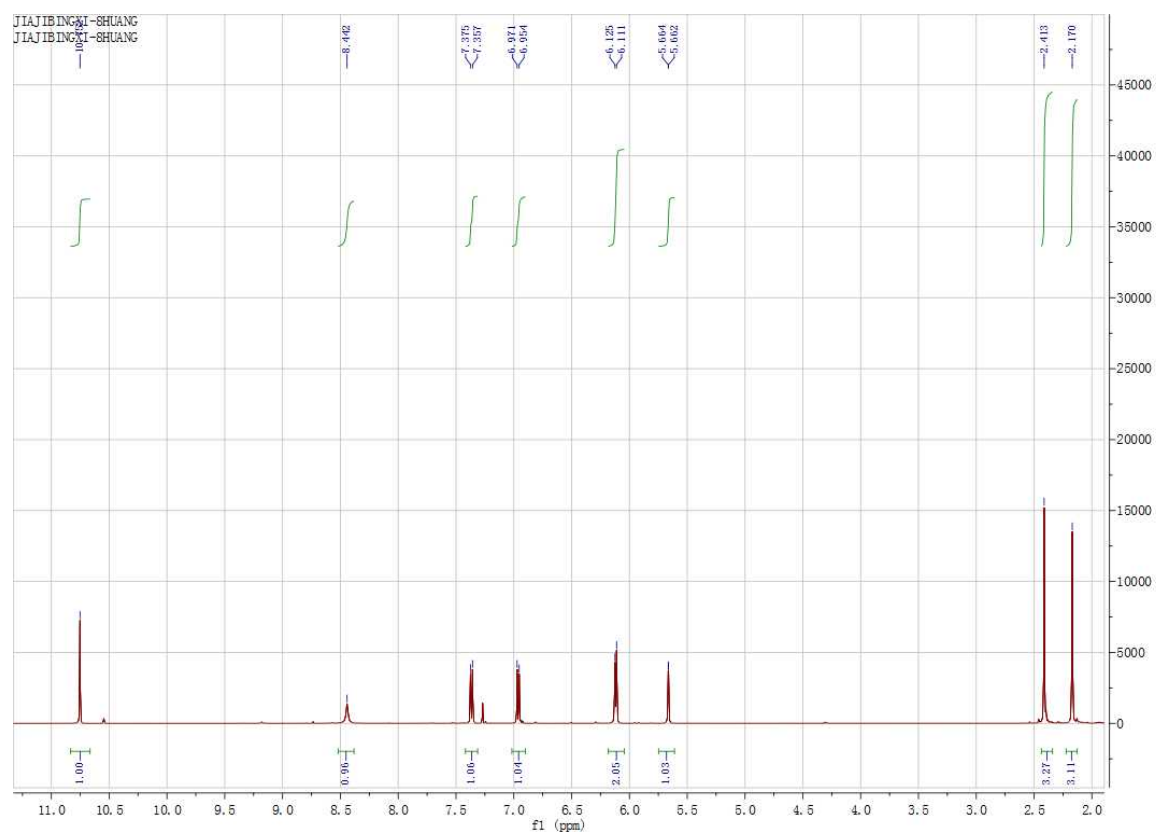


Figure S15.  $^1\text{H}$  NMR of 4bg

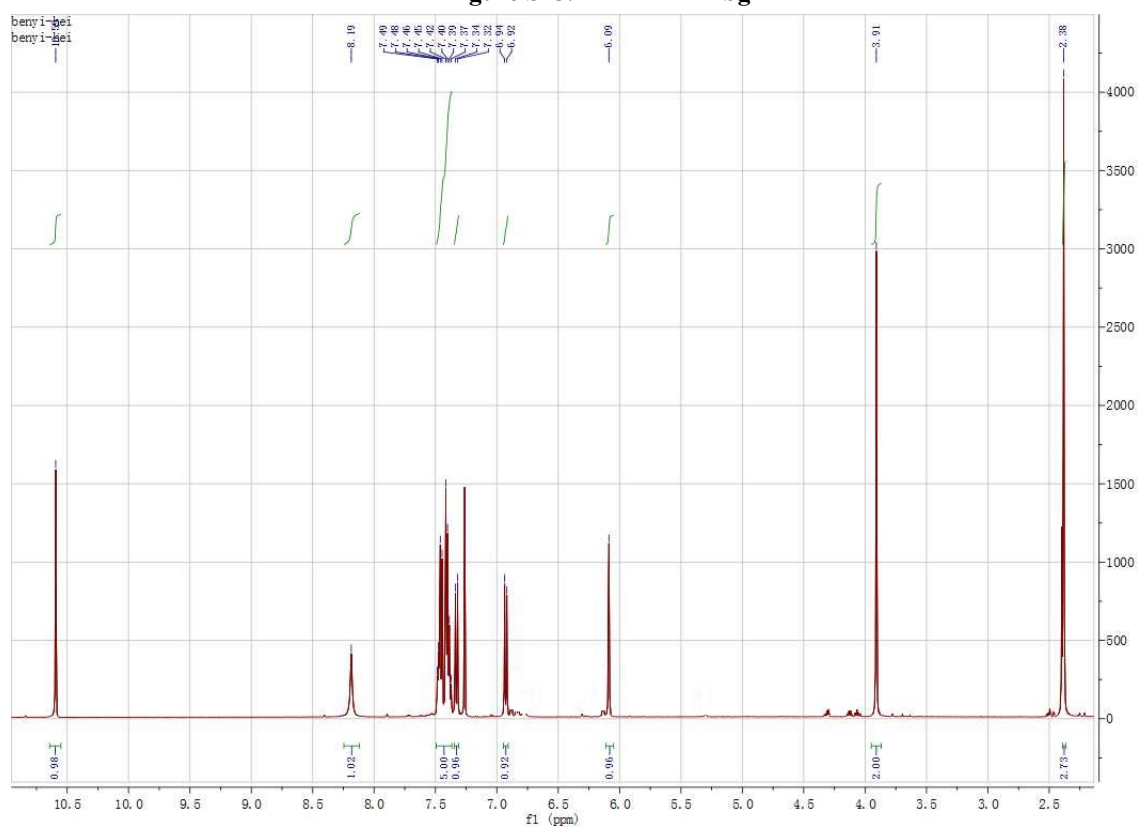


Figure S16.  $^1\text{H}$  NMR of 4bh

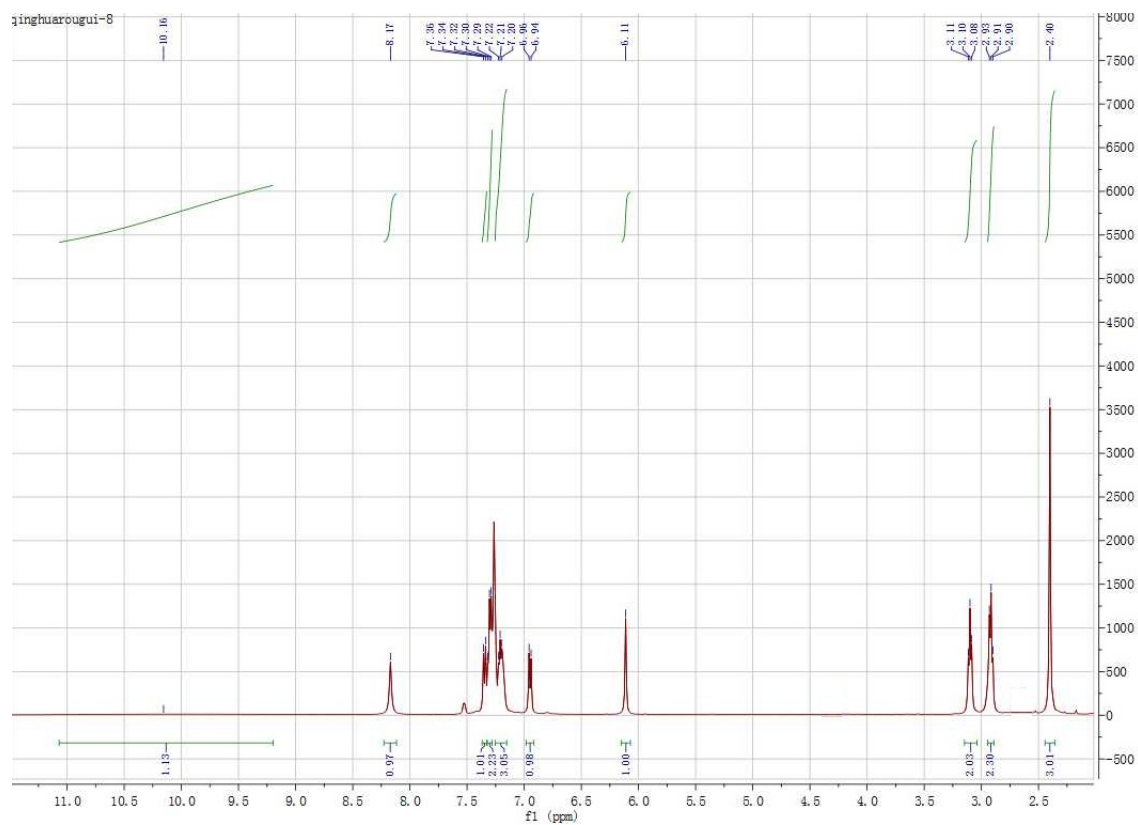


Figure S17.  $^1\text{H}$  NMR of 4bi

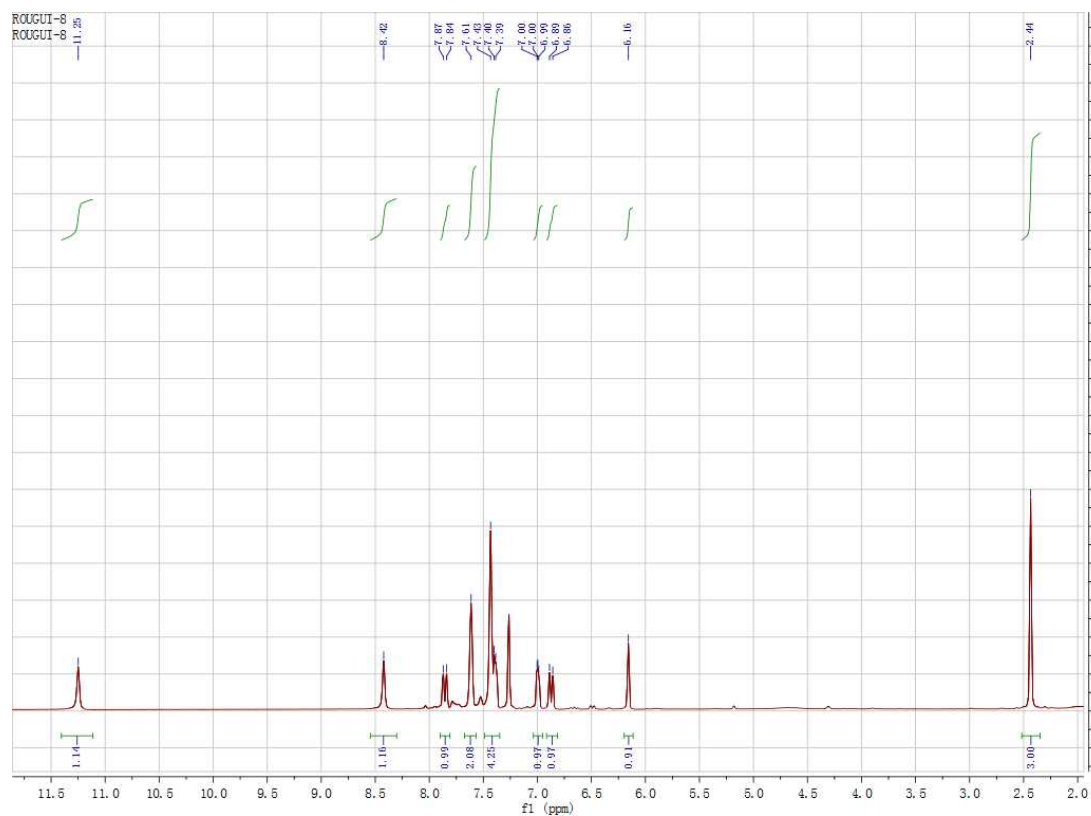


Figure S18.  $^1\text{H}$  NMR of 4bj

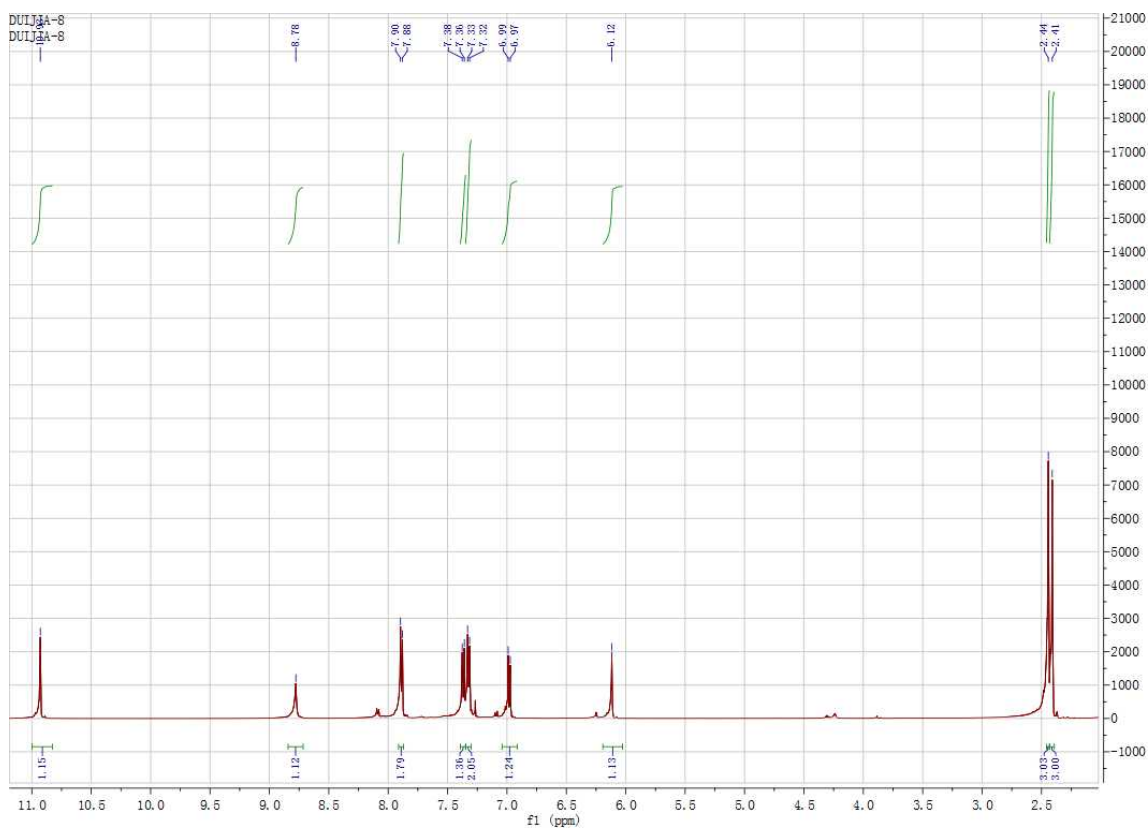


Figure S19.  $^1\text{H}$  NMR of 4bk

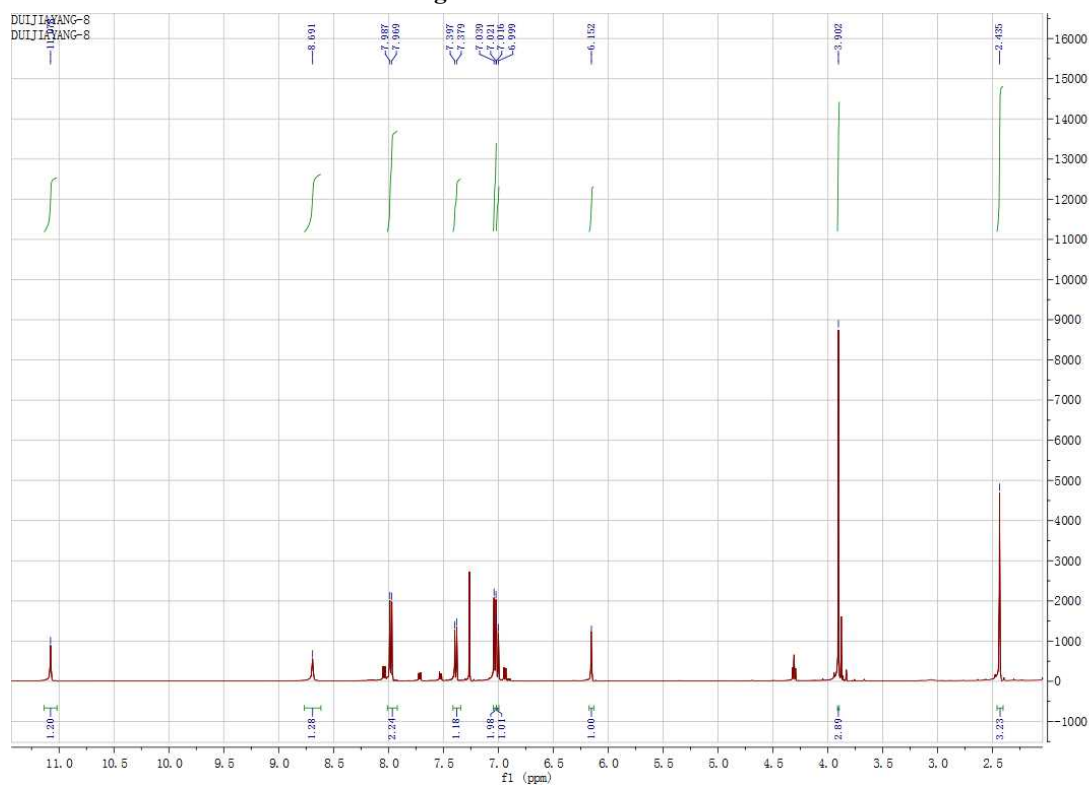
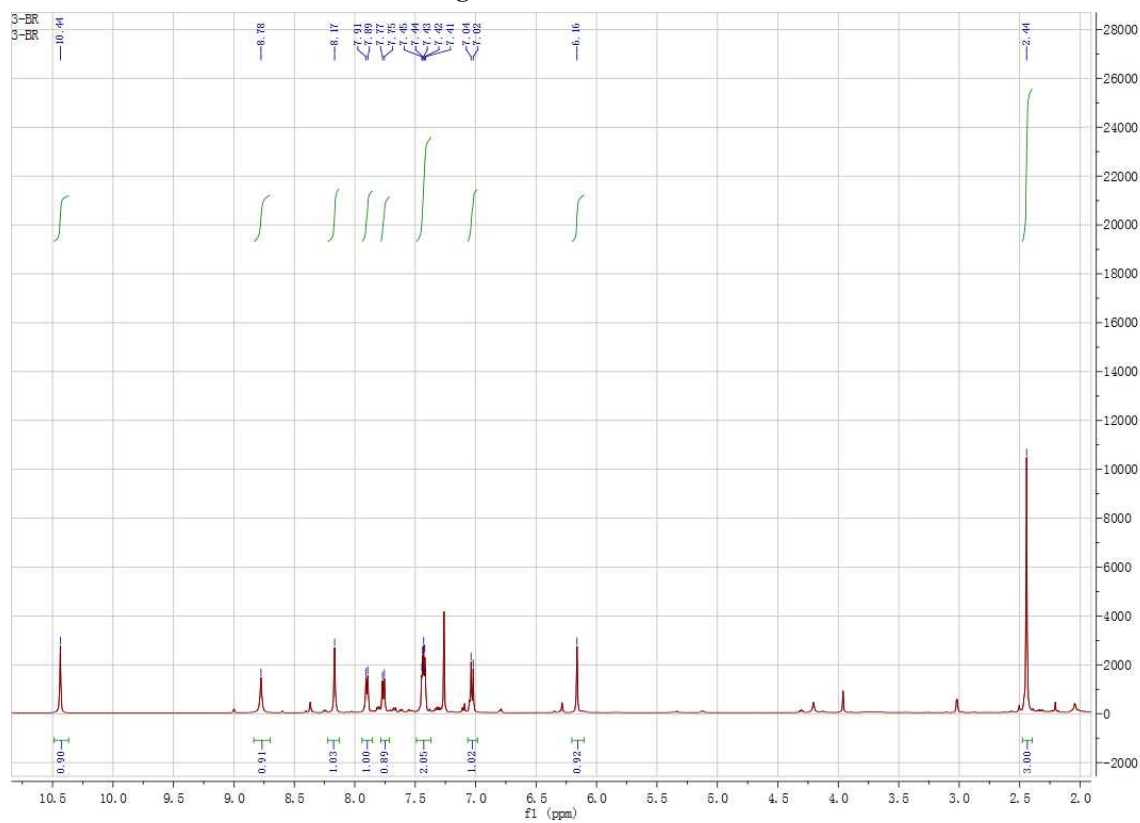
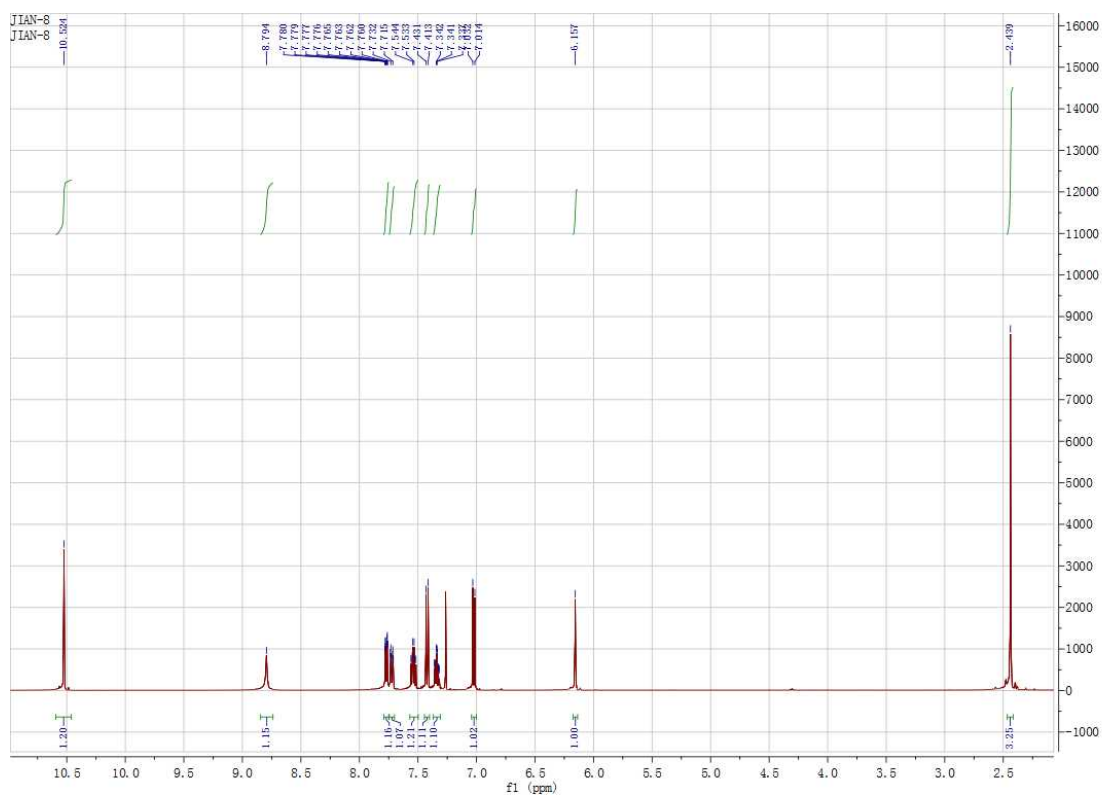


Figure S20.  $^1\text{H}$  NMR of 4bl



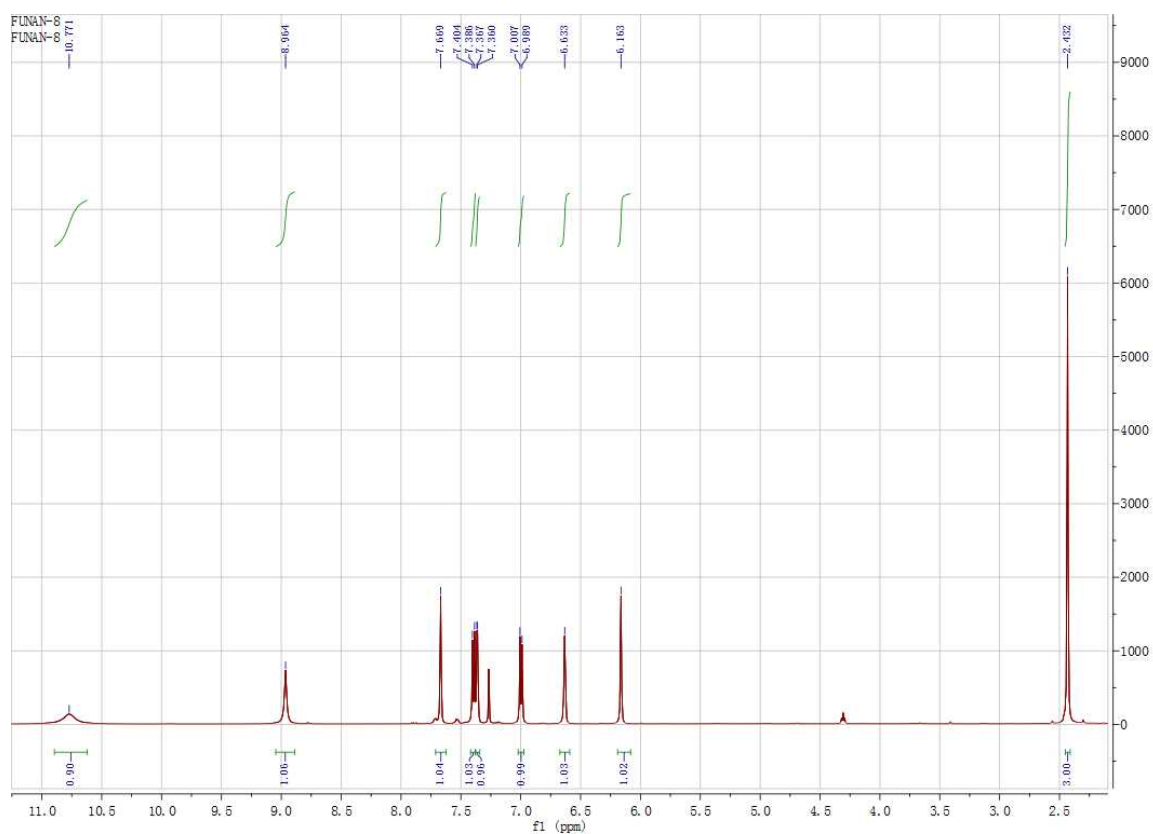


Figure S23.  $^1\text{H}$  NMR of 4bo

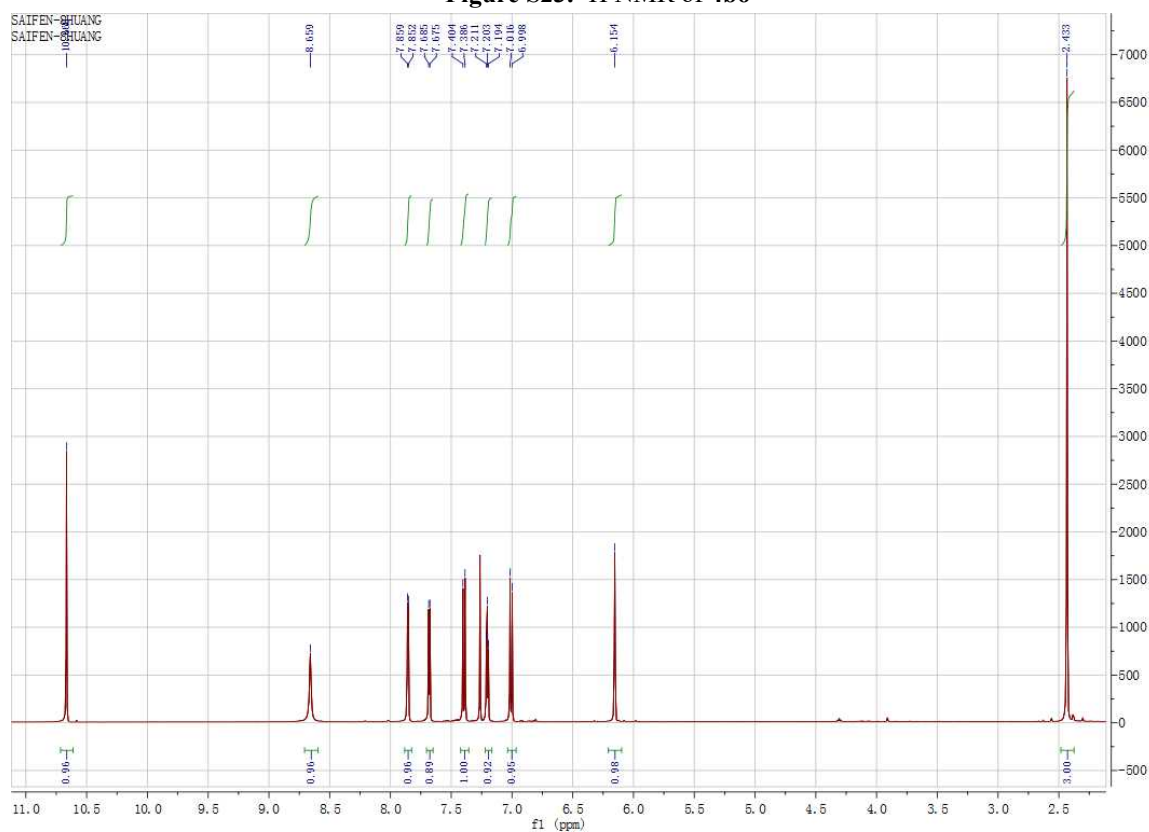


Figure S24.  $^1\text{H}$  NMR of 4bp

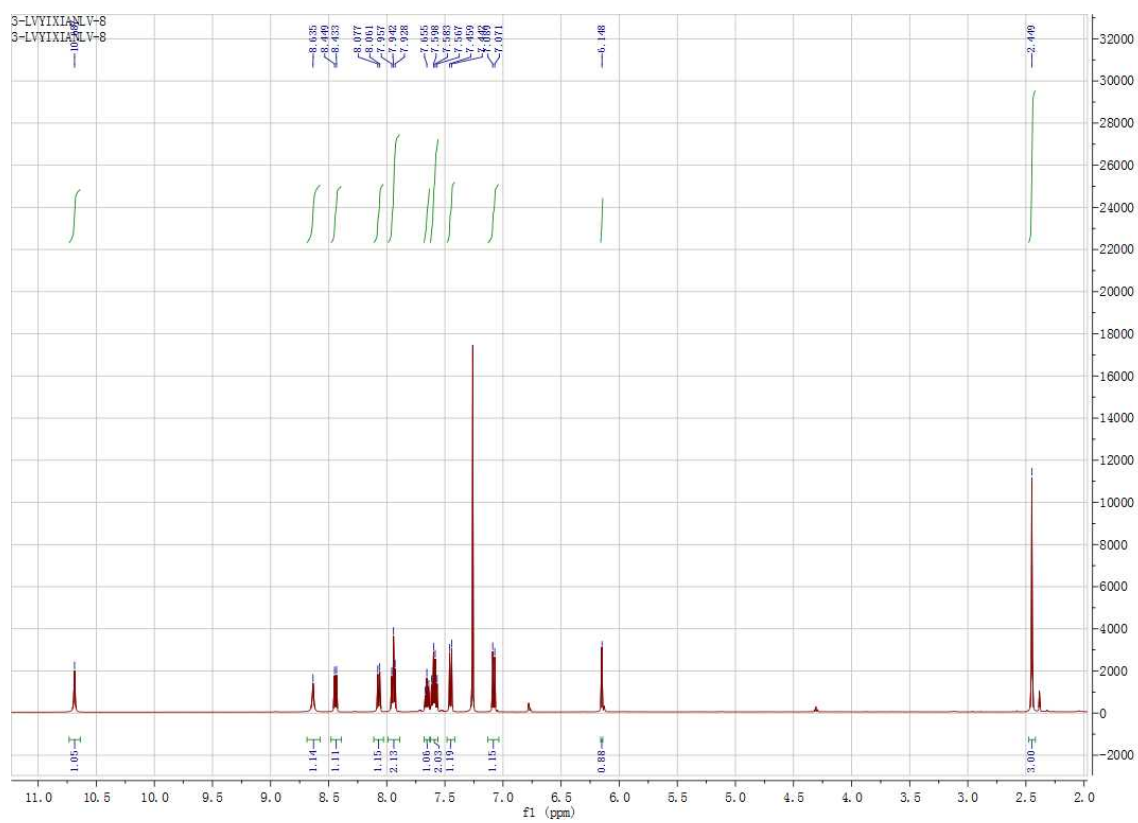


Figure S25.  $^1\text{H}$  NMR of 4bq

The  $^{13}\text{C}$  NMR Spectra of Compounds **4aa-4bq**.

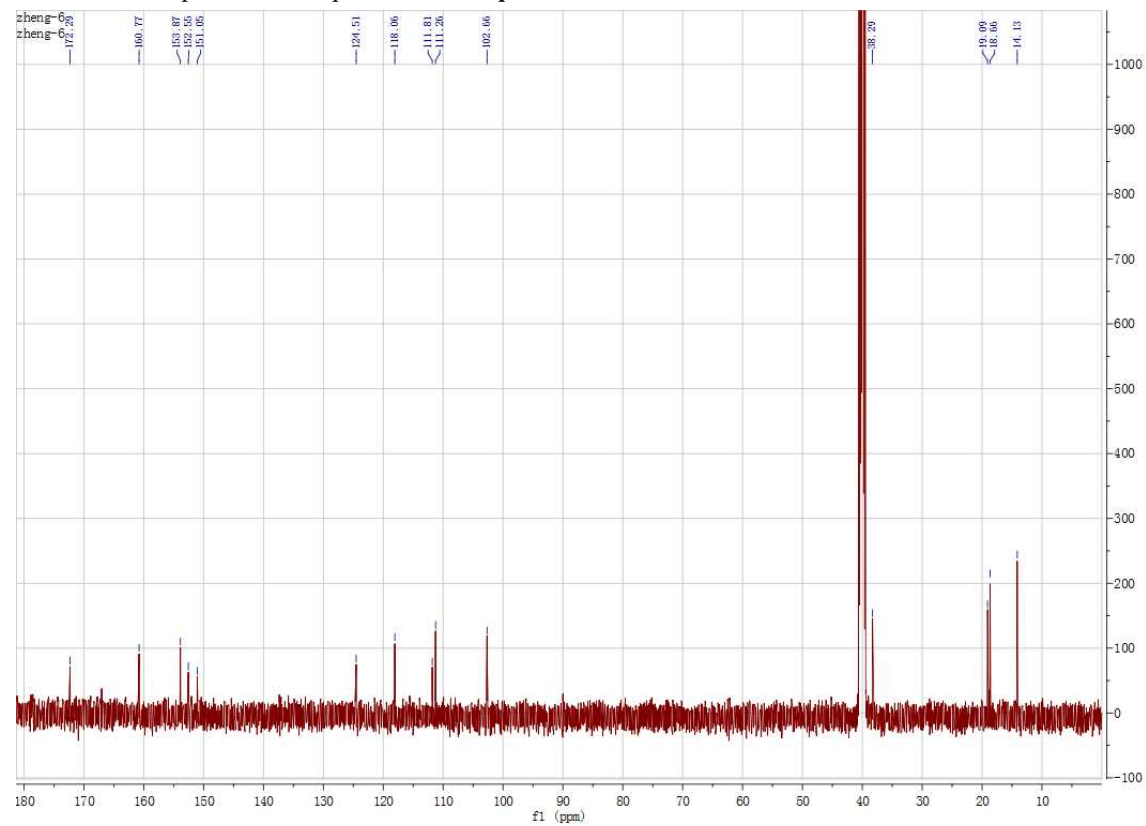


Figure S26.  $^{13}\text{C}$  NMR of **4aa**

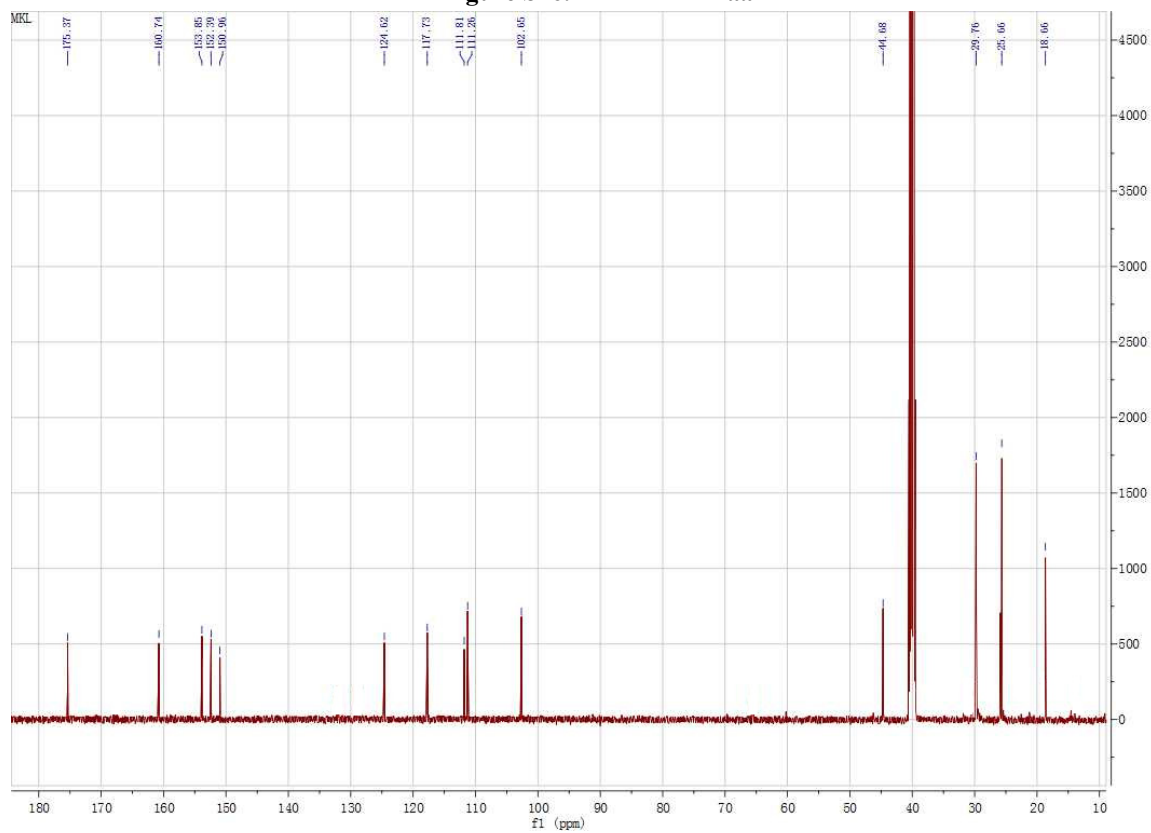


Figure S27.  $^{13}\text{C}$  NMR of **4ab**

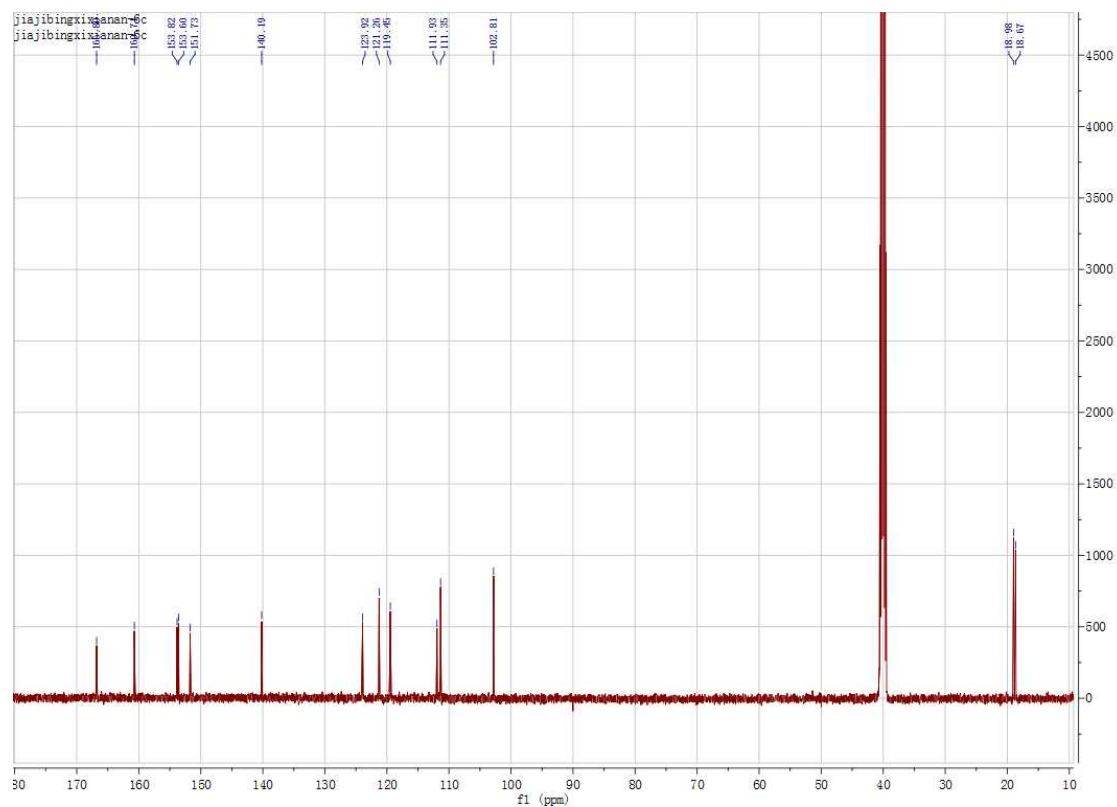


Figure S28. <sup>13</sup>C NMR of 4ac

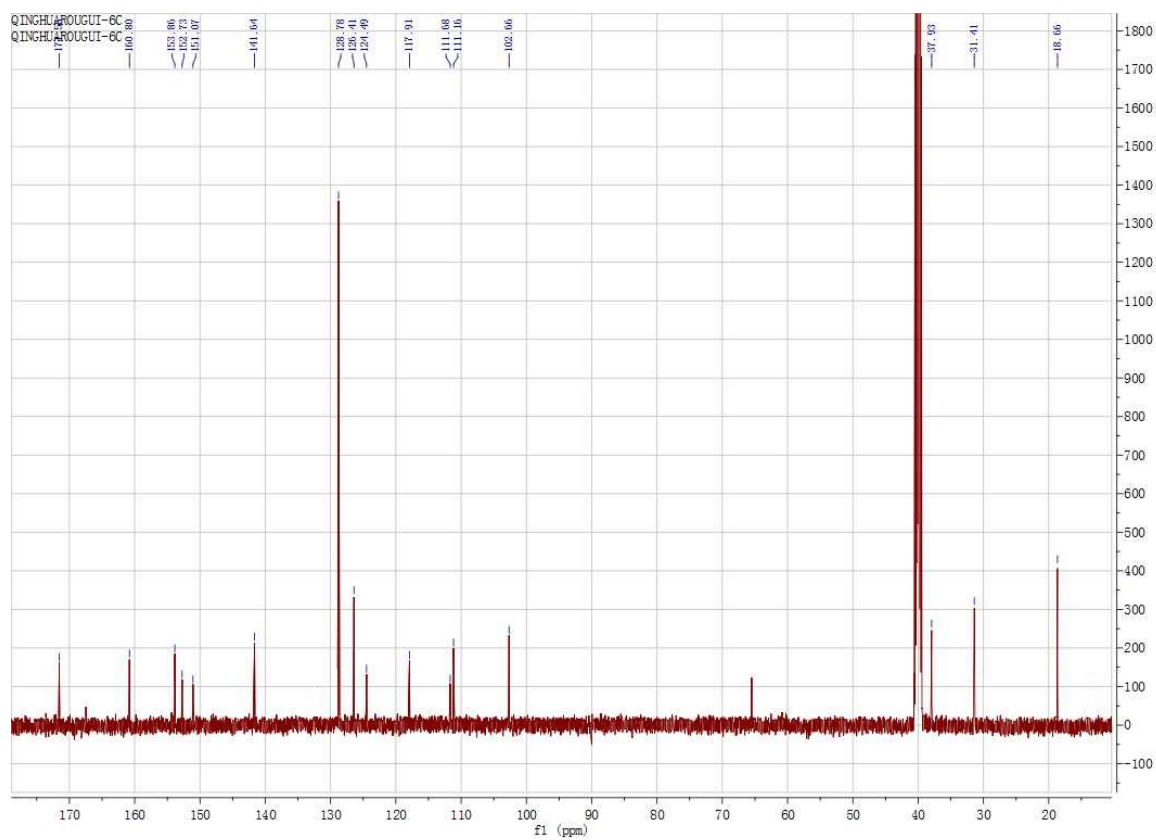


Figure S29. <sup>13</sup>C NMR of 4ad

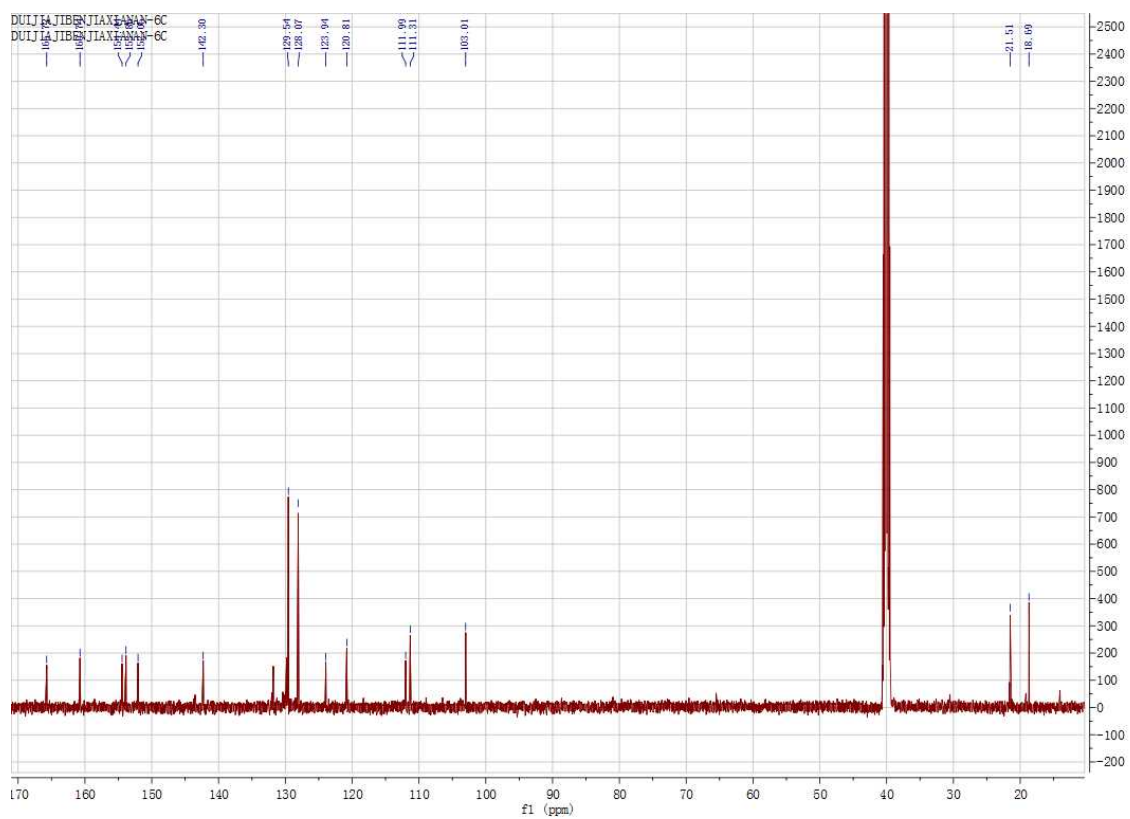


Figure S30.  $^{13}\text{C}$  NMR of 4ae

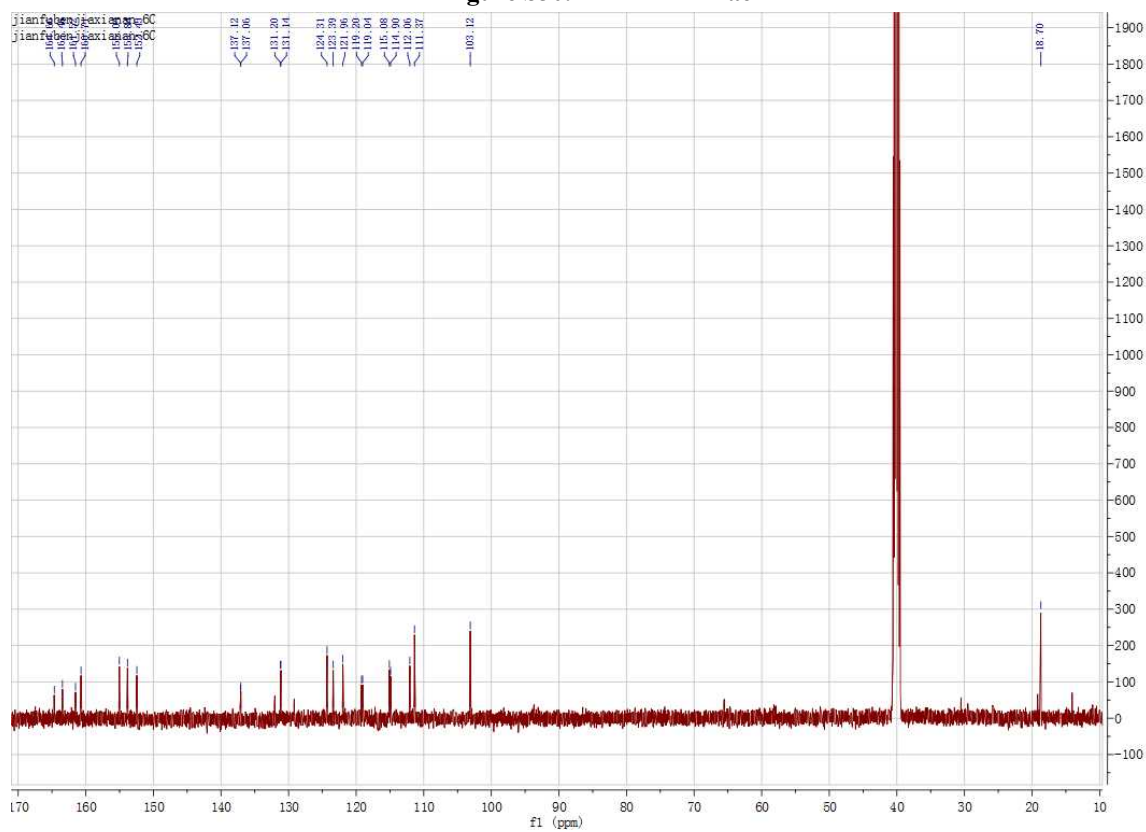


Figure S31.  $^{13}\text{C}$  NMR of 4af

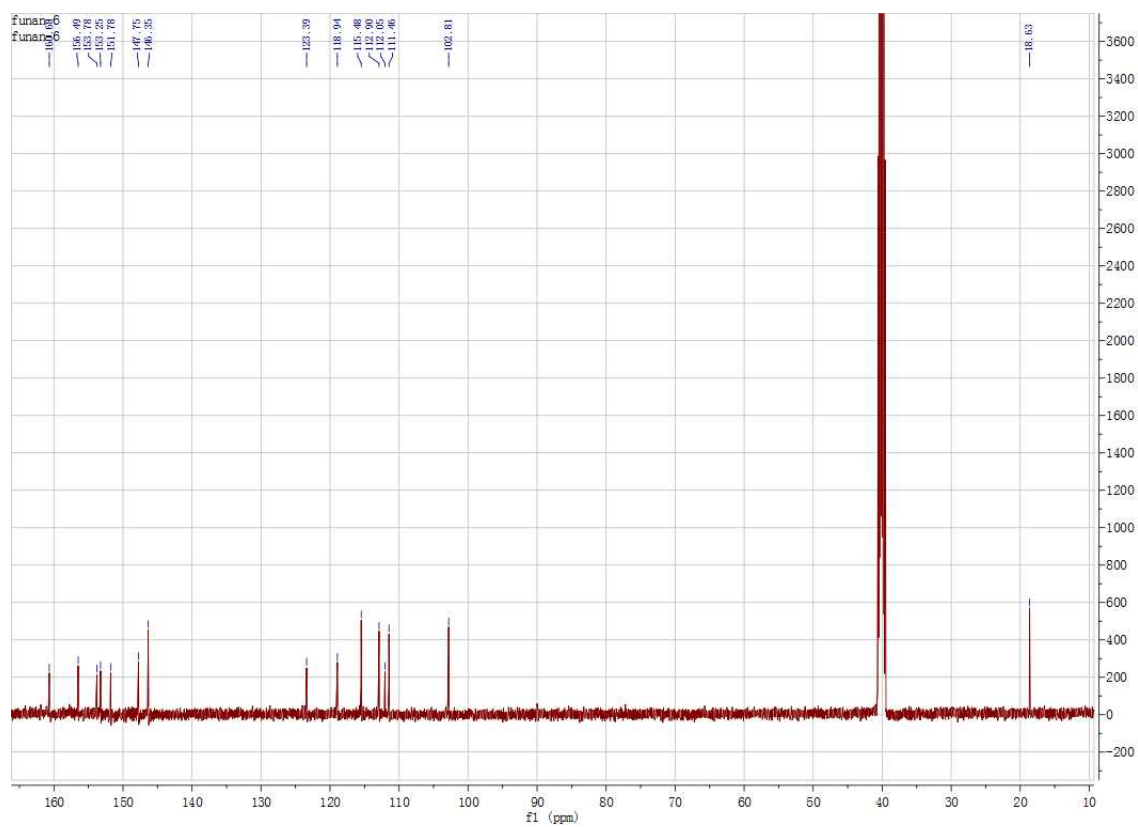


Figure S32.  $^{13}\text{C}$  NMR of 4ag

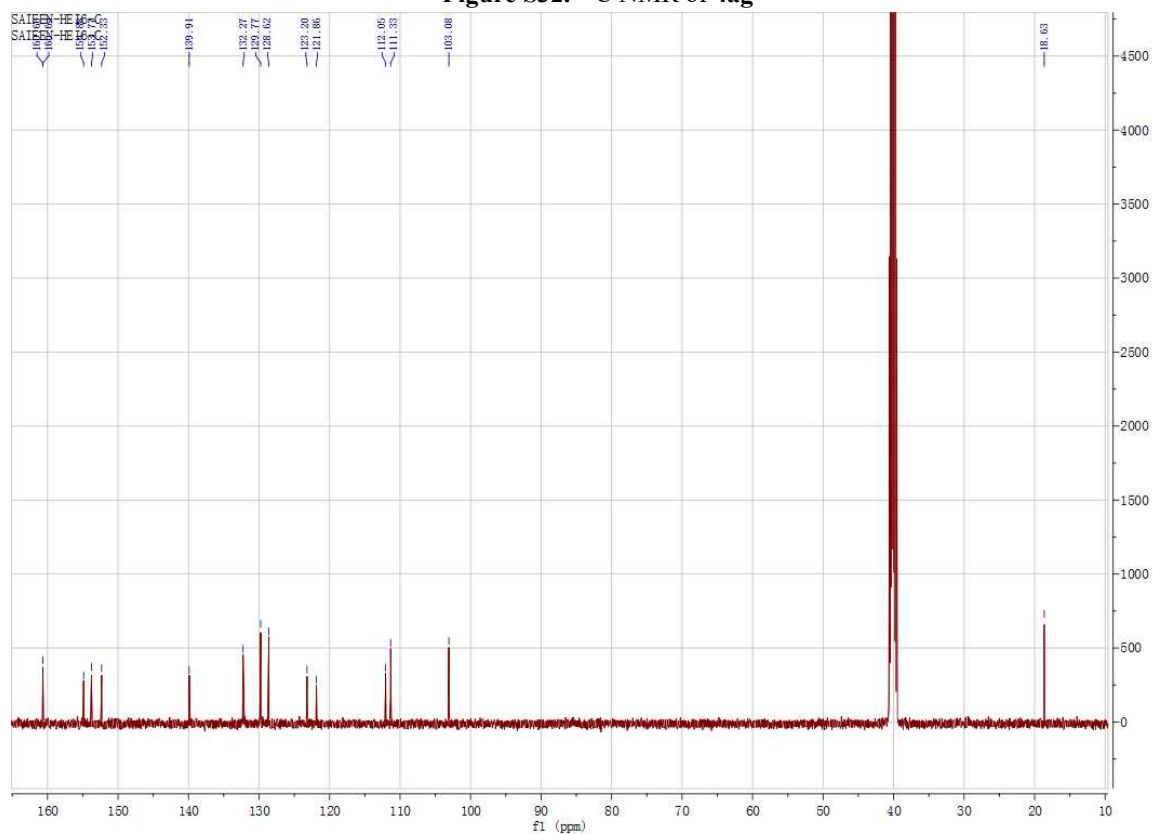


Figure S33.  $^{13}\text{C}$  NMR of 4ah

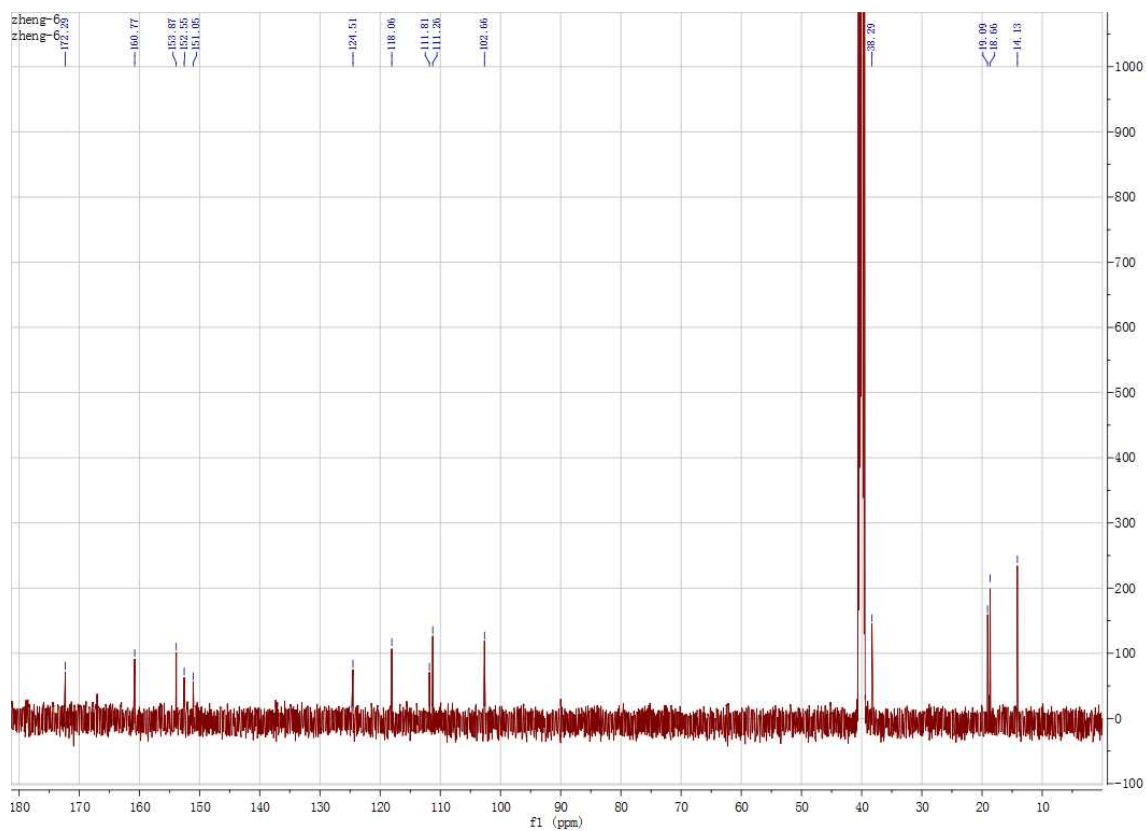


Figure S34.  $^{13}\text{C}$  NMR of 4ba

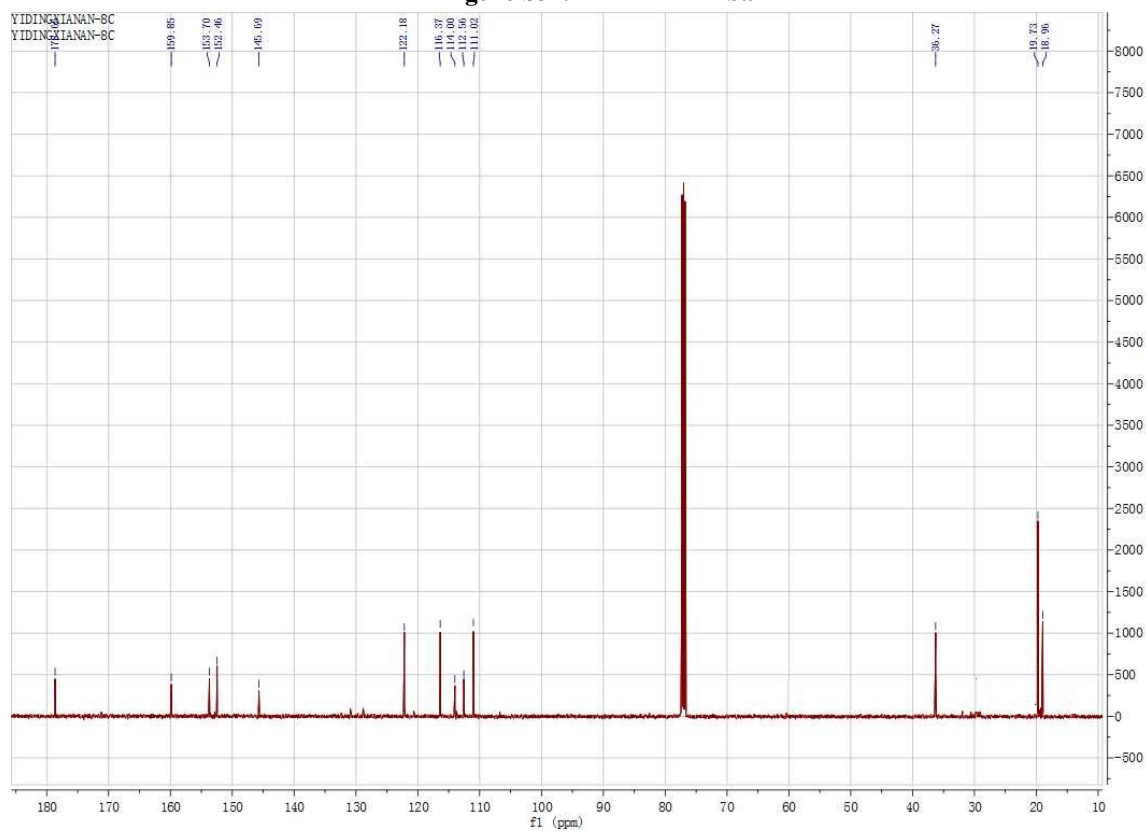


Figure S35.  $^{13}\text{C}$  NMR of 4bb

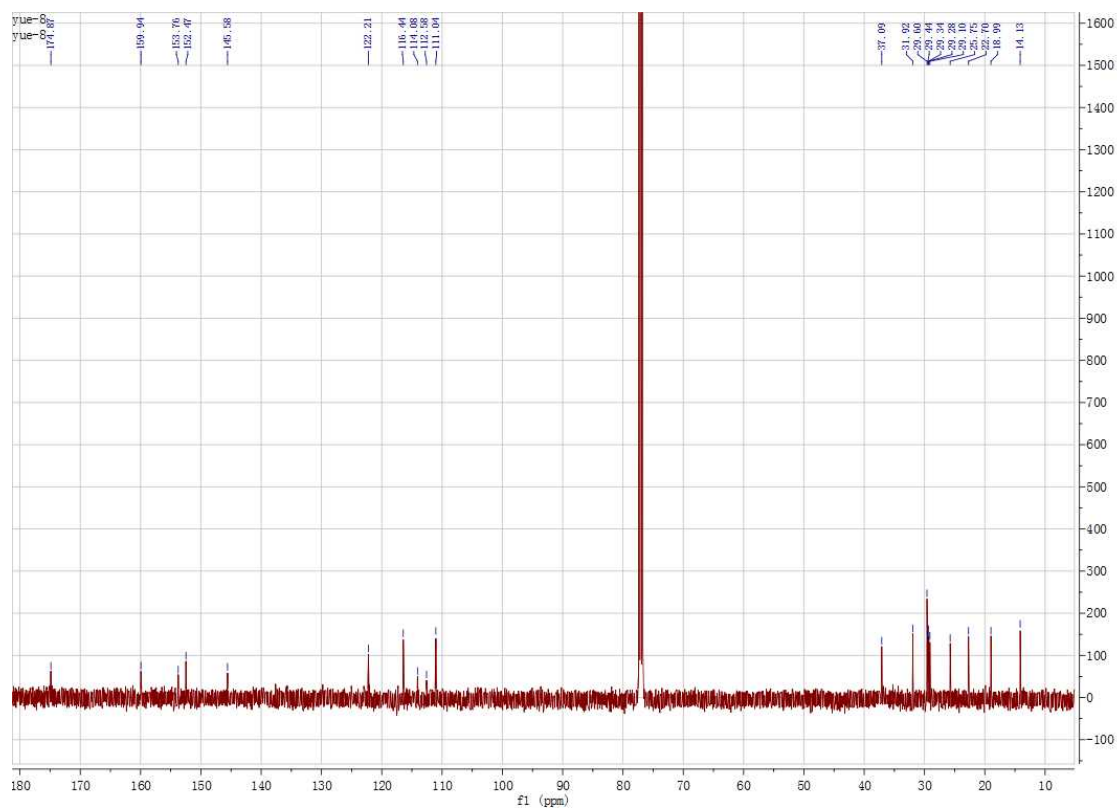


Figure S36. <sup>13</sup>C NMR of 4bc

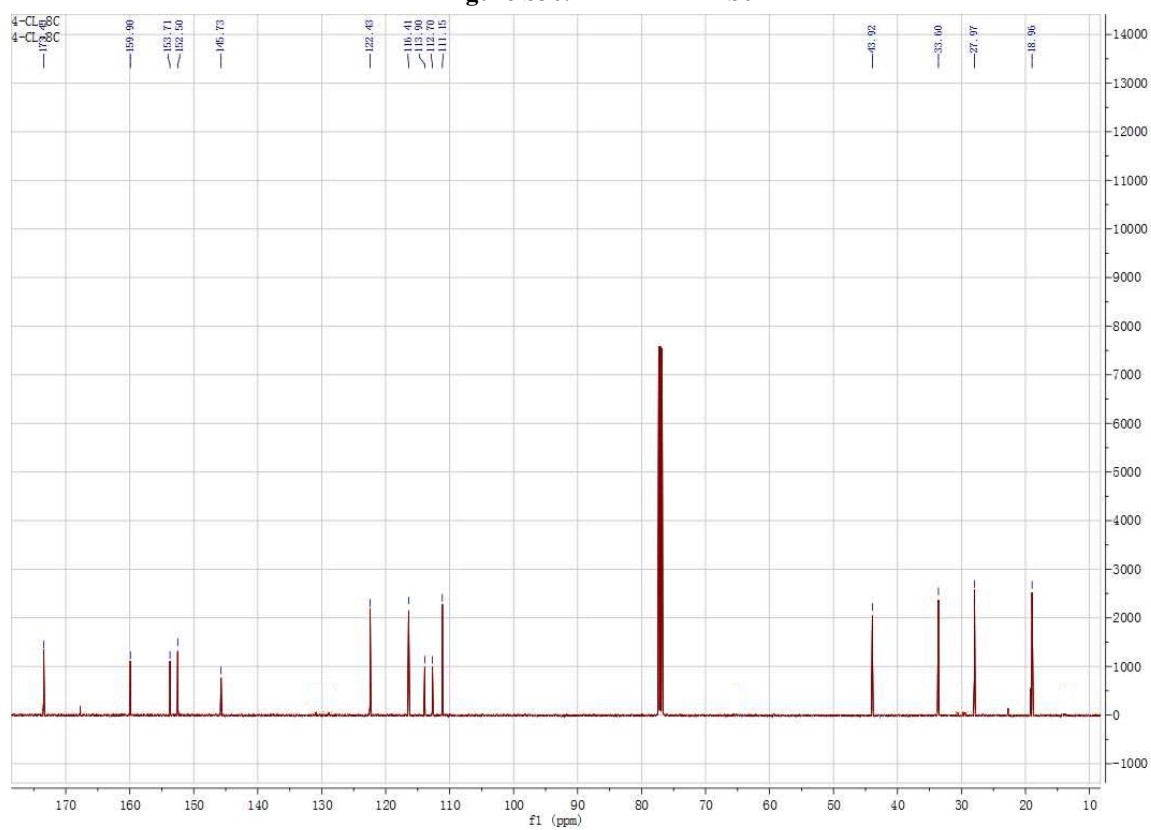


Figure S37. <sup>13</sup>C NMR of 4bd

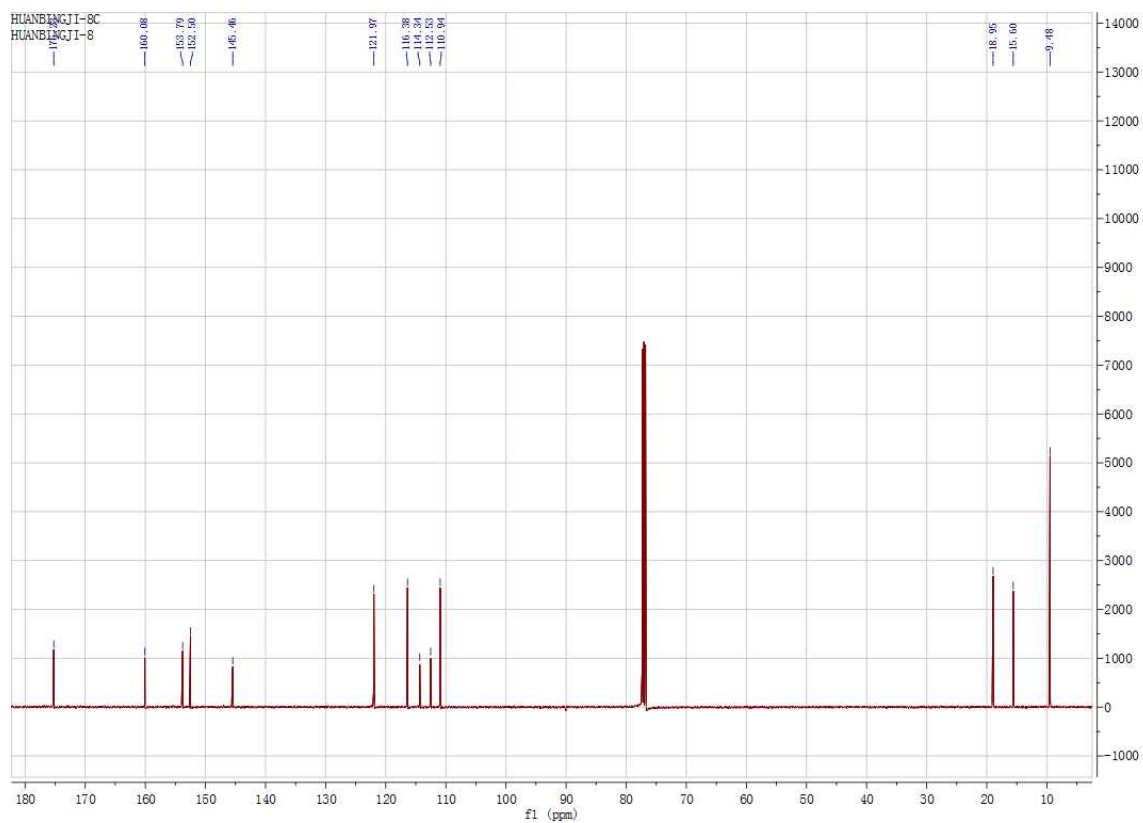


Figure S38.  $^{13}\text{C}$  NMR of 4be

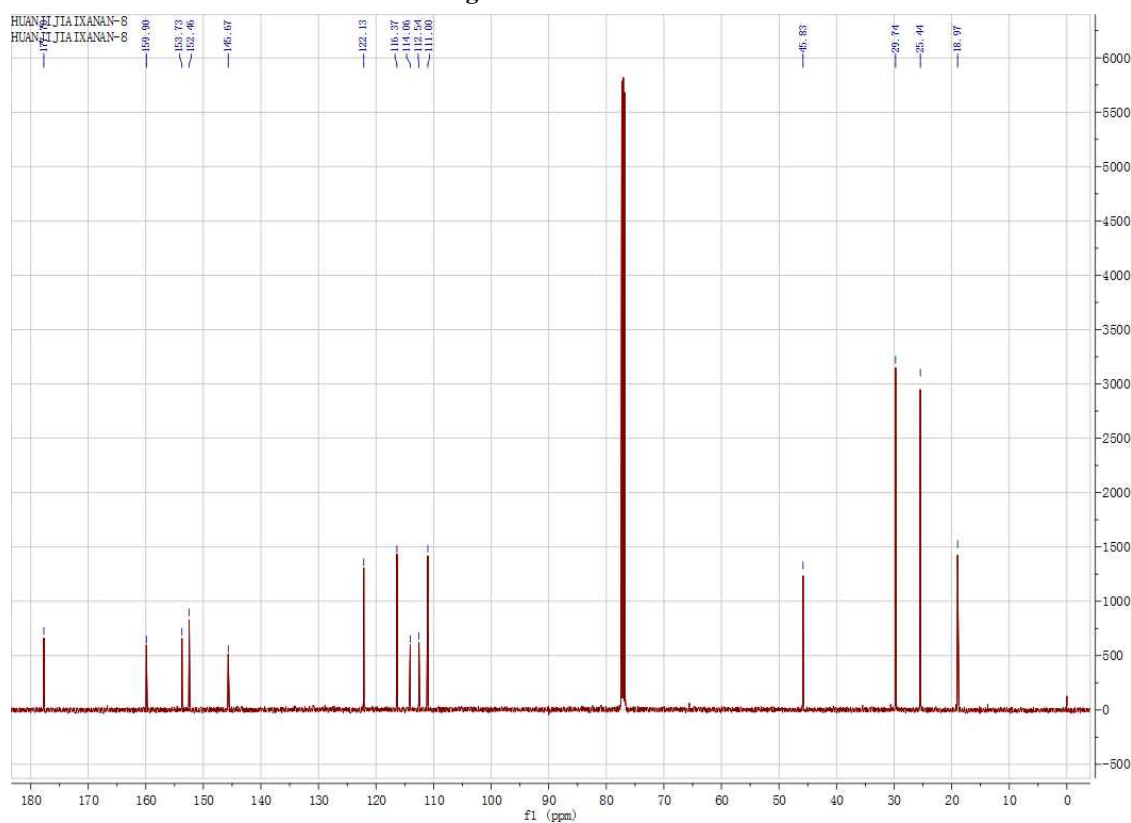


Figure S39.  $^{13}\text{C}$  NMR of 4bf

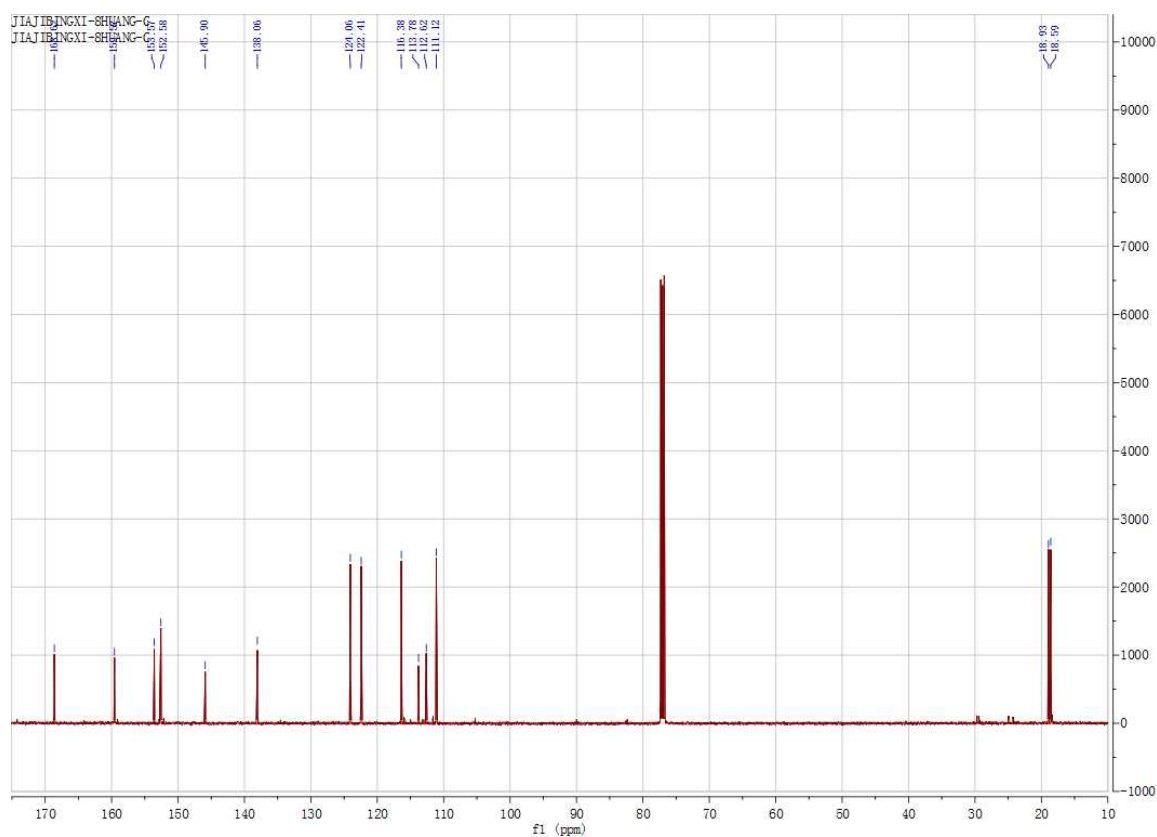


Figure S40. <sup>13</sup>C NMR of 4bg

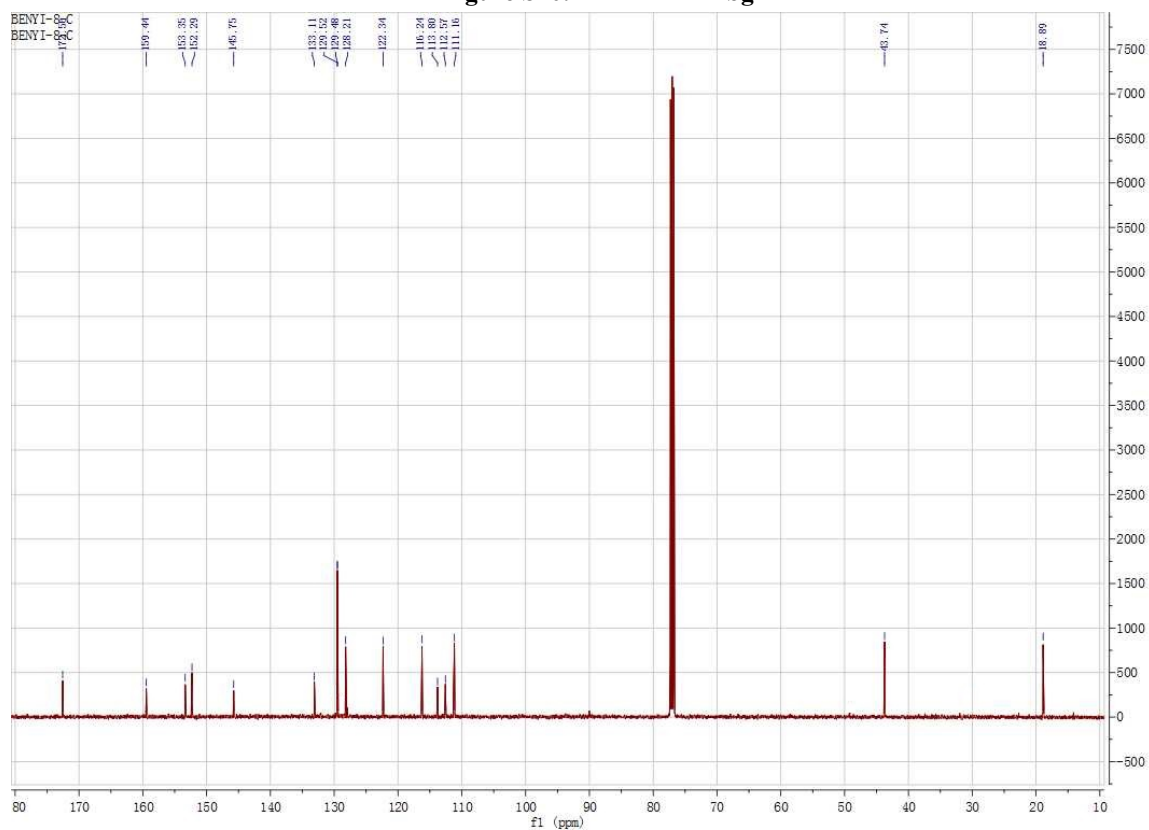


Figure S41. <sup>13</sup>C NMR of 4bh

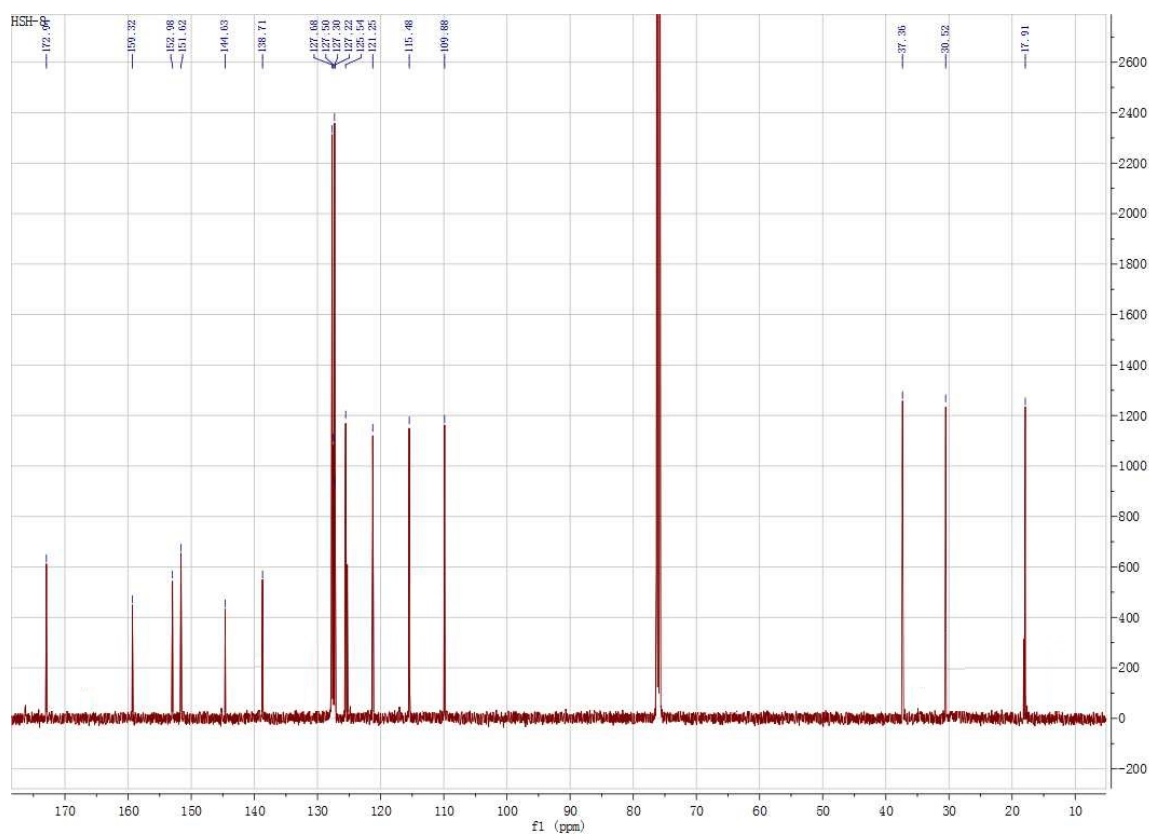


Figure S42.  $^{13}\text{C}$  NMR of 4bi

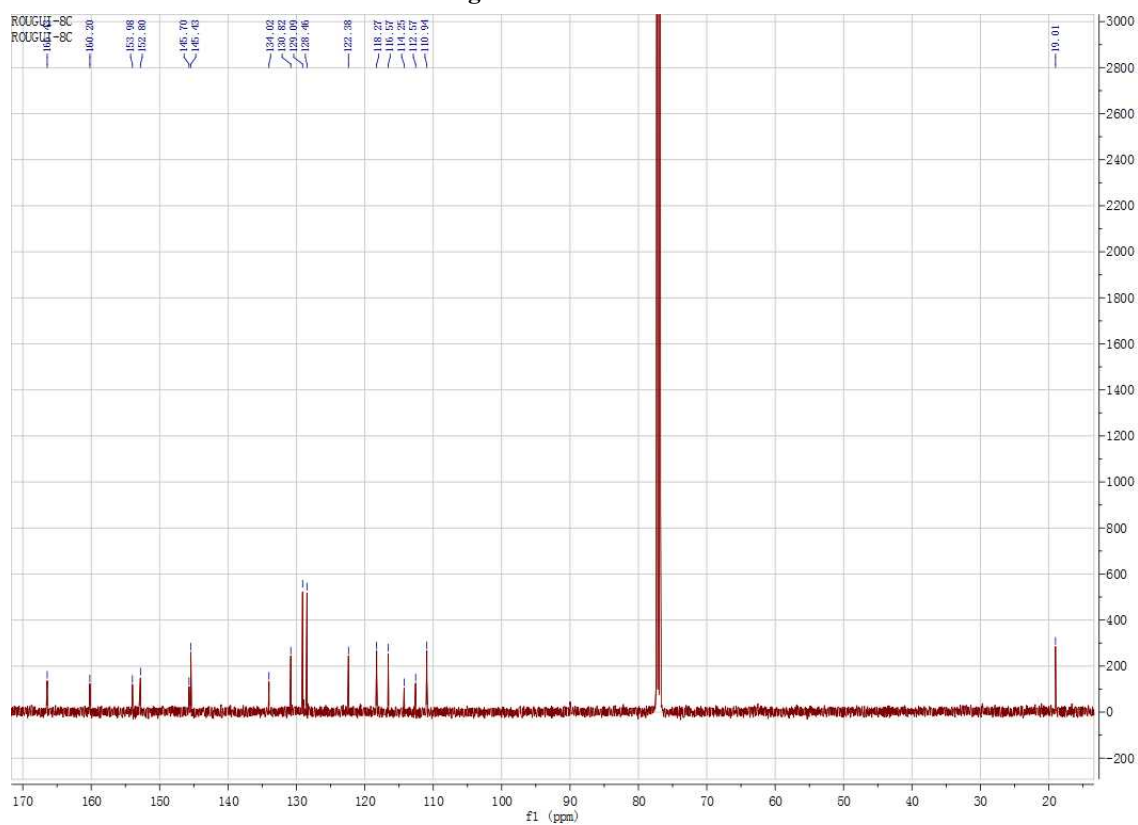


Figure S43.  $^{13}\text{C}$  NMR of 4bj

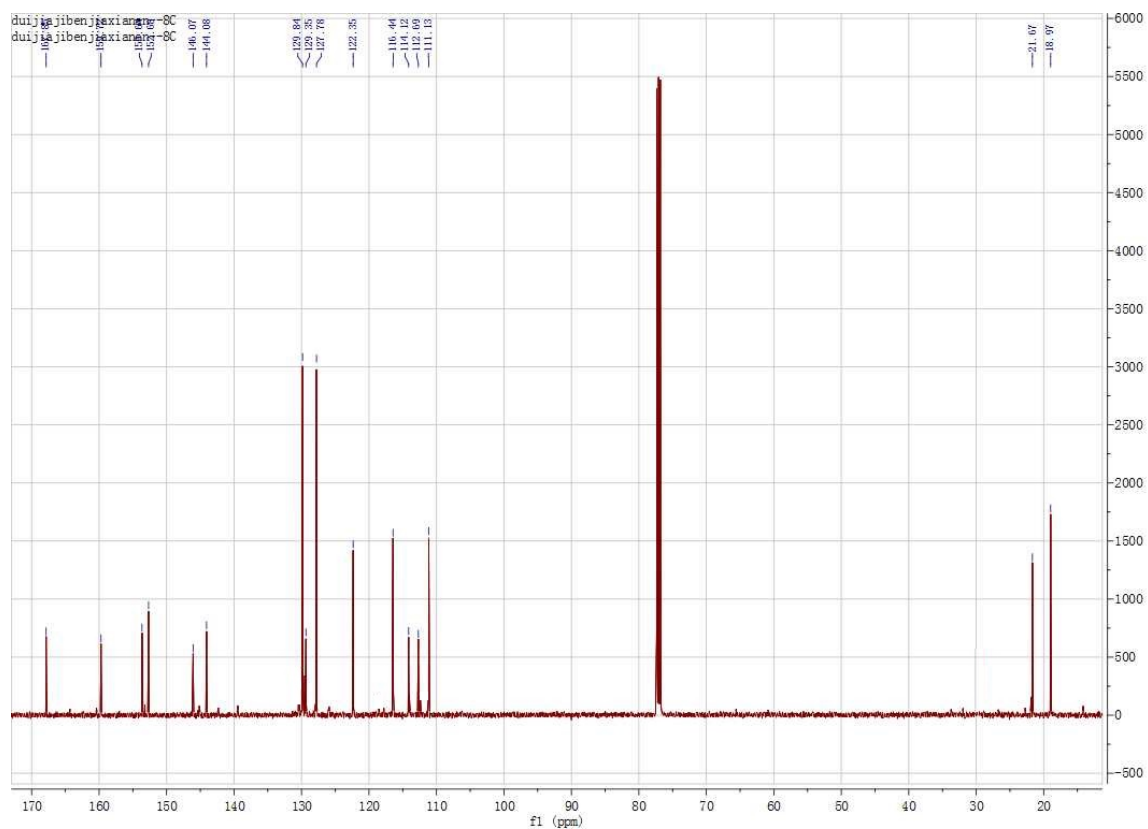


Figure S44.  $^{13}\text{C}$  NMR of 4bk

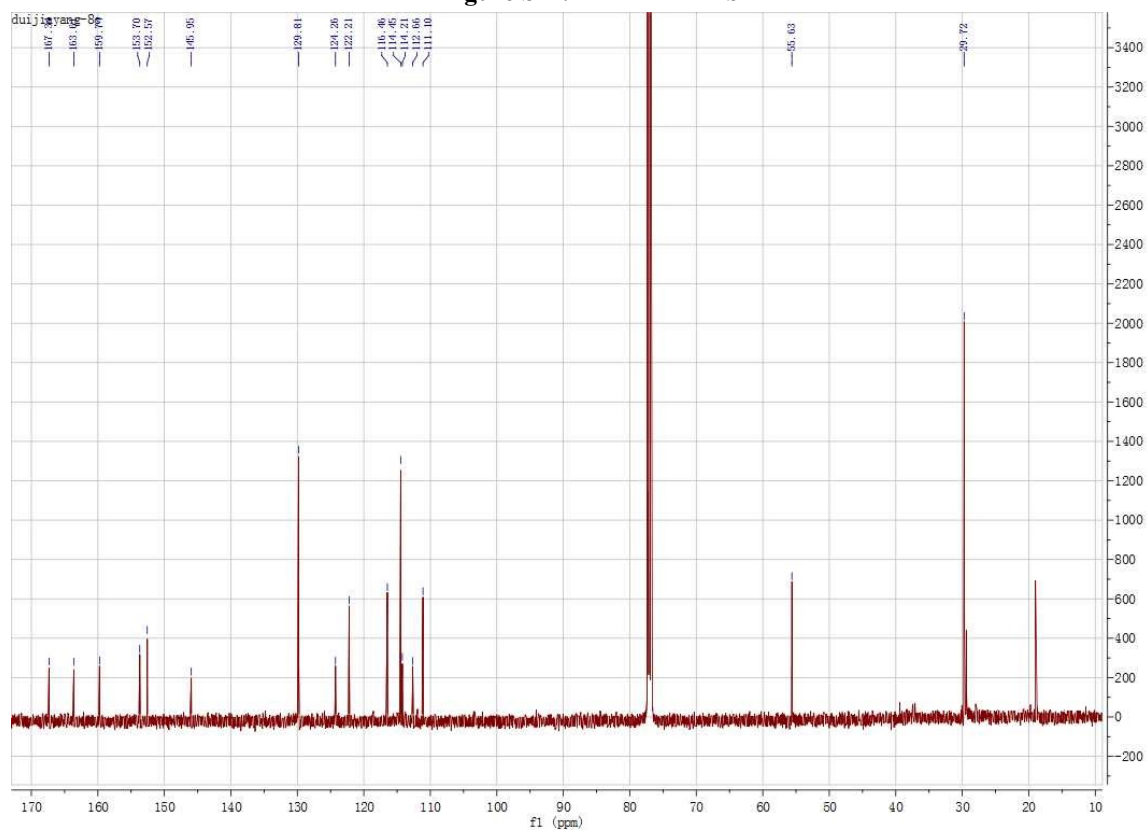
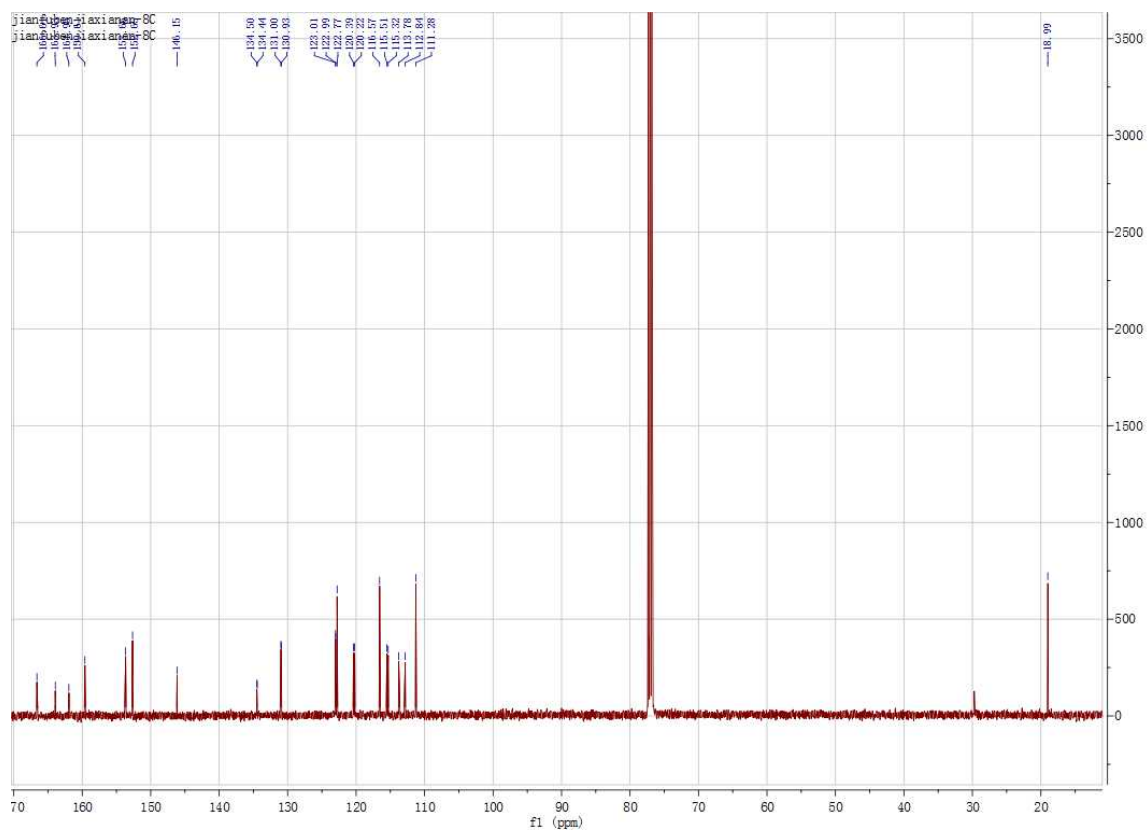


Figure S45.  $^{13}\text{C}$  NMR of 4bl



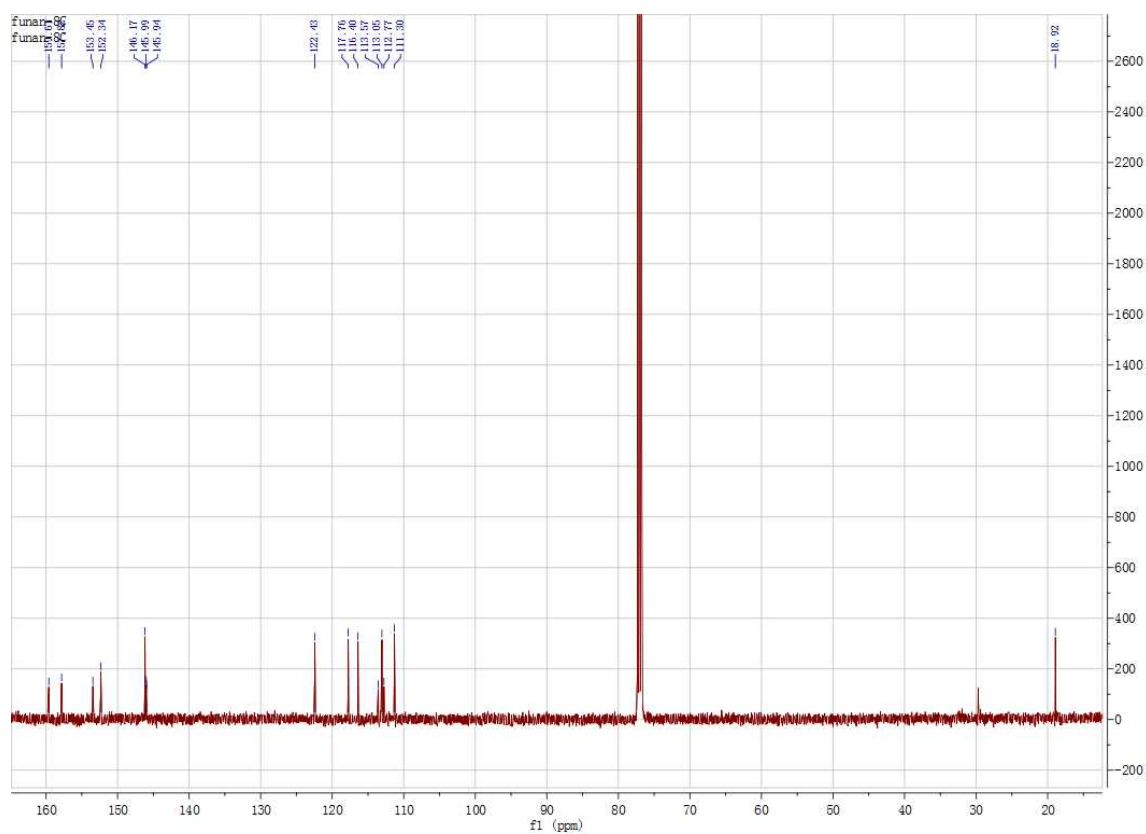


Figure S48. <sup>13</sup>C NMR of 4bo

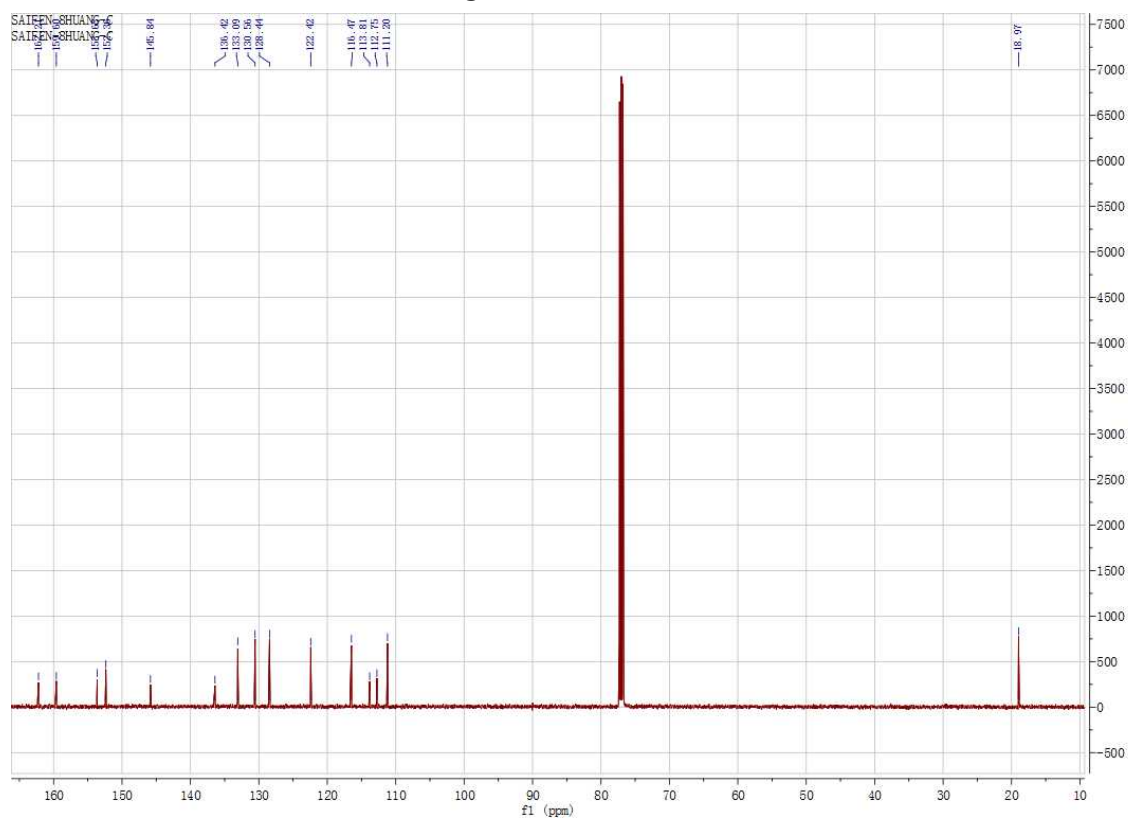


Figure S49. <sup>13</sup>C NMR of 4bp

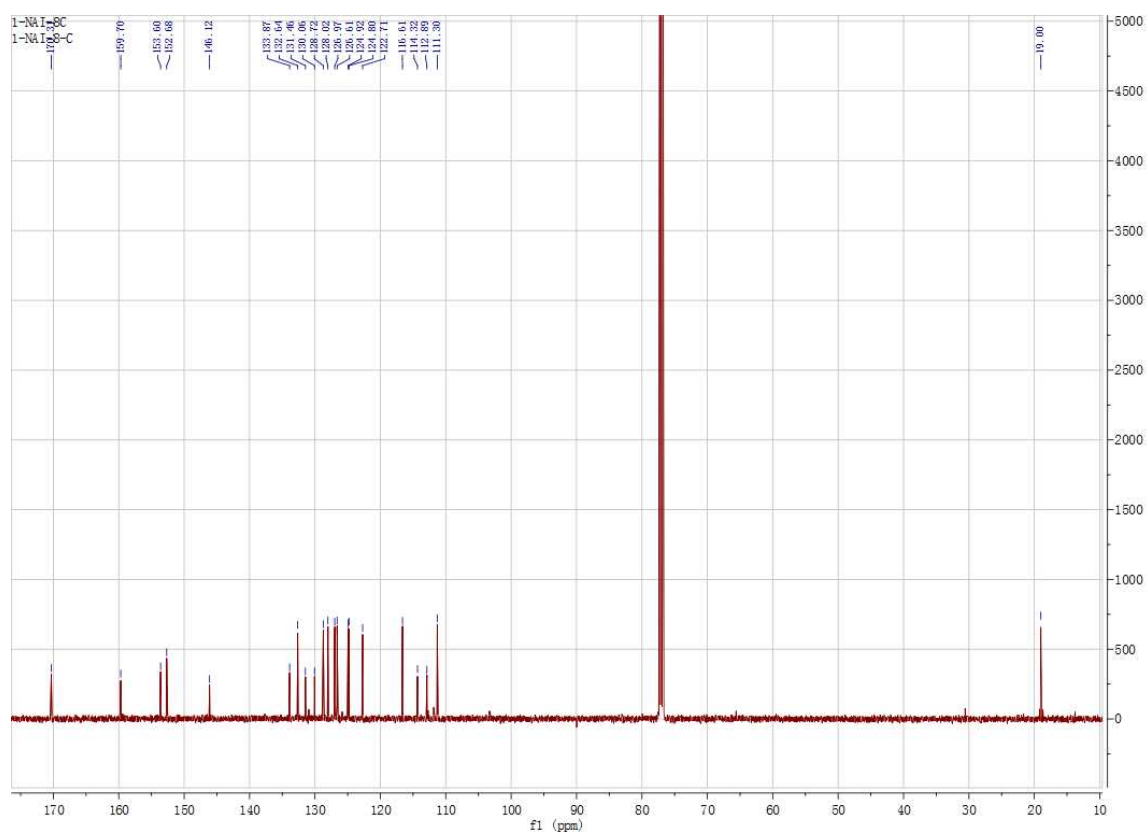


Figure S50.  $^{13}\text{C}$  NMR of 4bq