

## Supplementary Information for

### Silver(I) complexes bearing amine-functionalized N-heterocyclic carbenes: Synthesis, antimicrobial and theoretical studies

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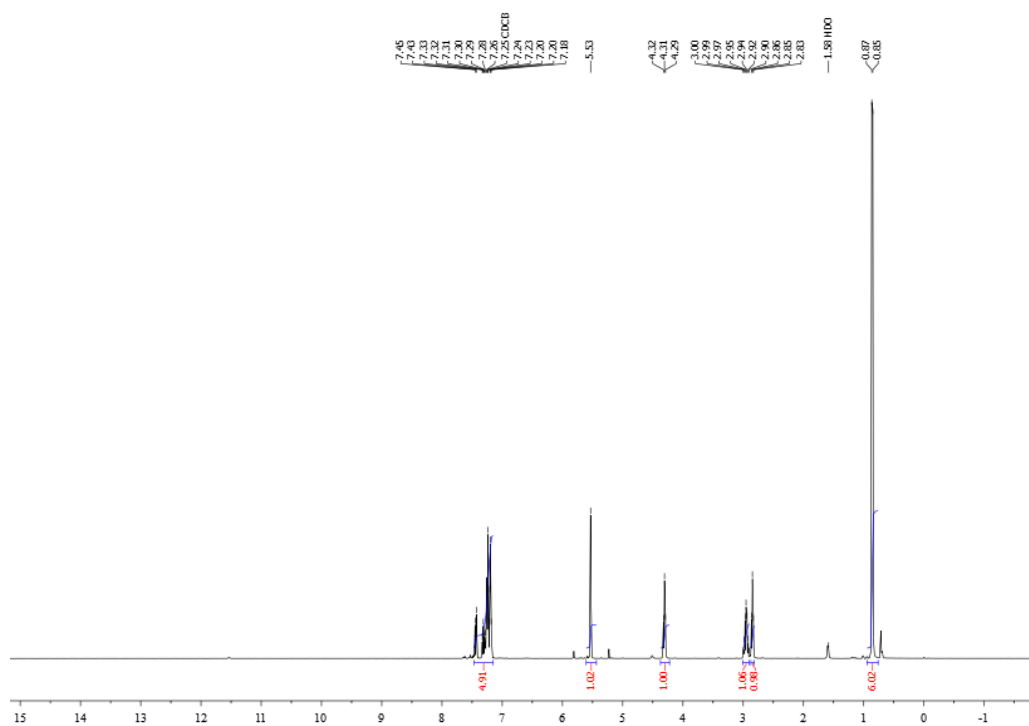


Figure S1.  $^1\text{H}$  NMR Spectrum of **3a**

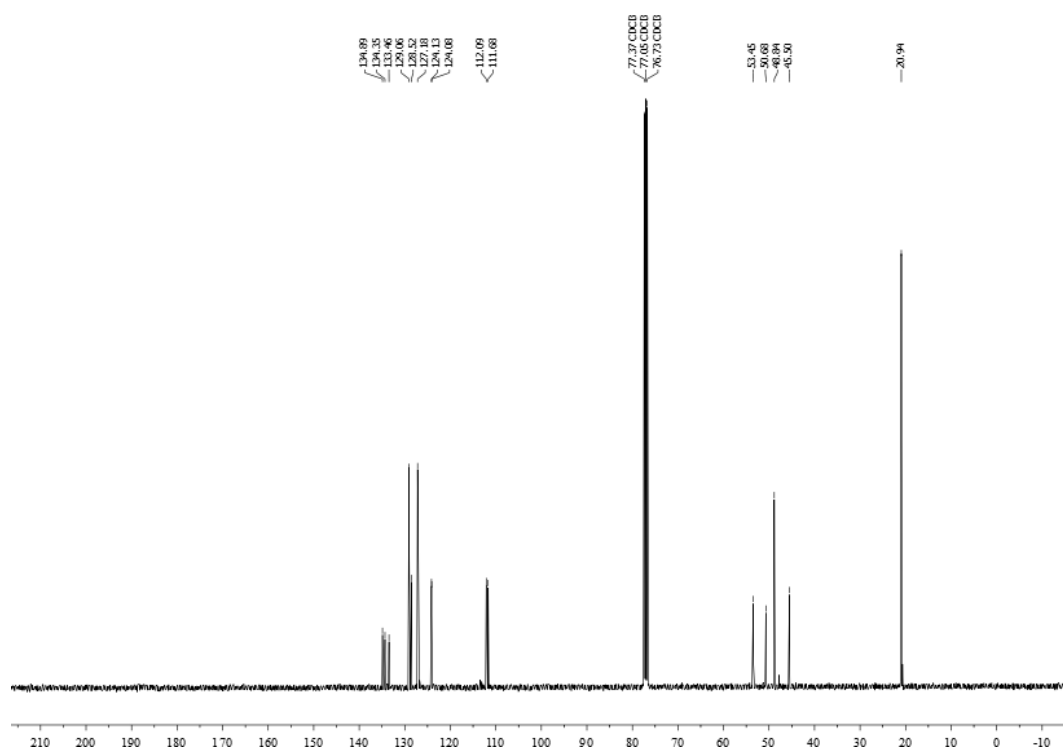


Figure S2.  $^{13}\text{C}$  NMR Spectrum of **3a**

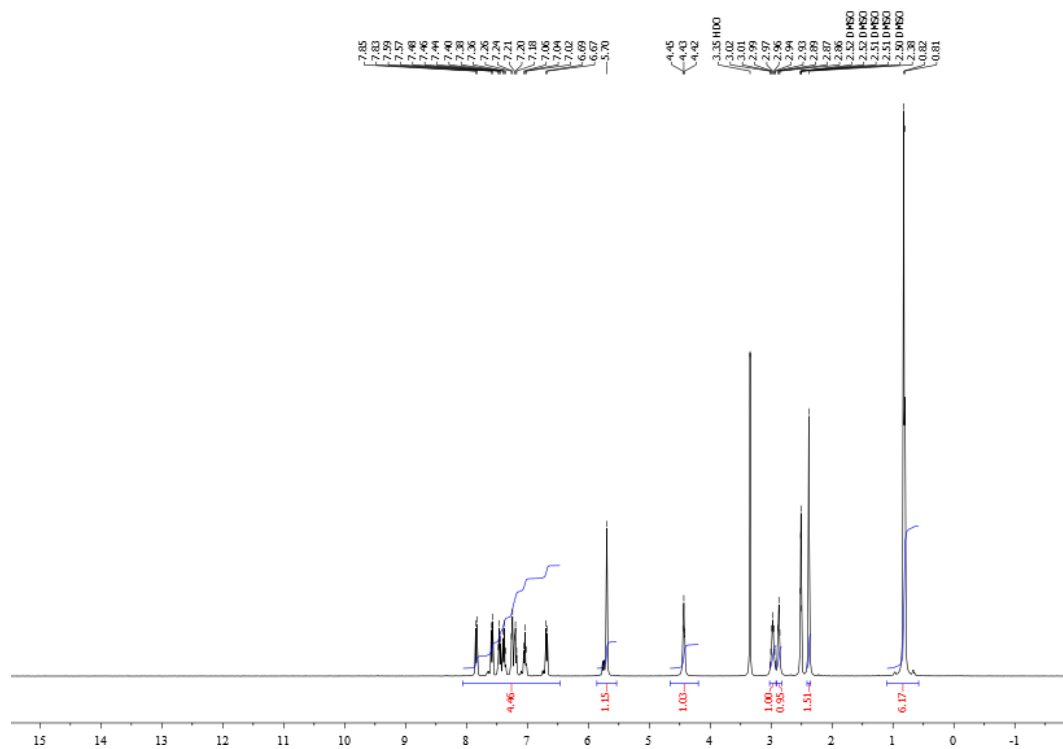


Figure S3.  $^1\text{H}$  NMR Spectrum of **3b**

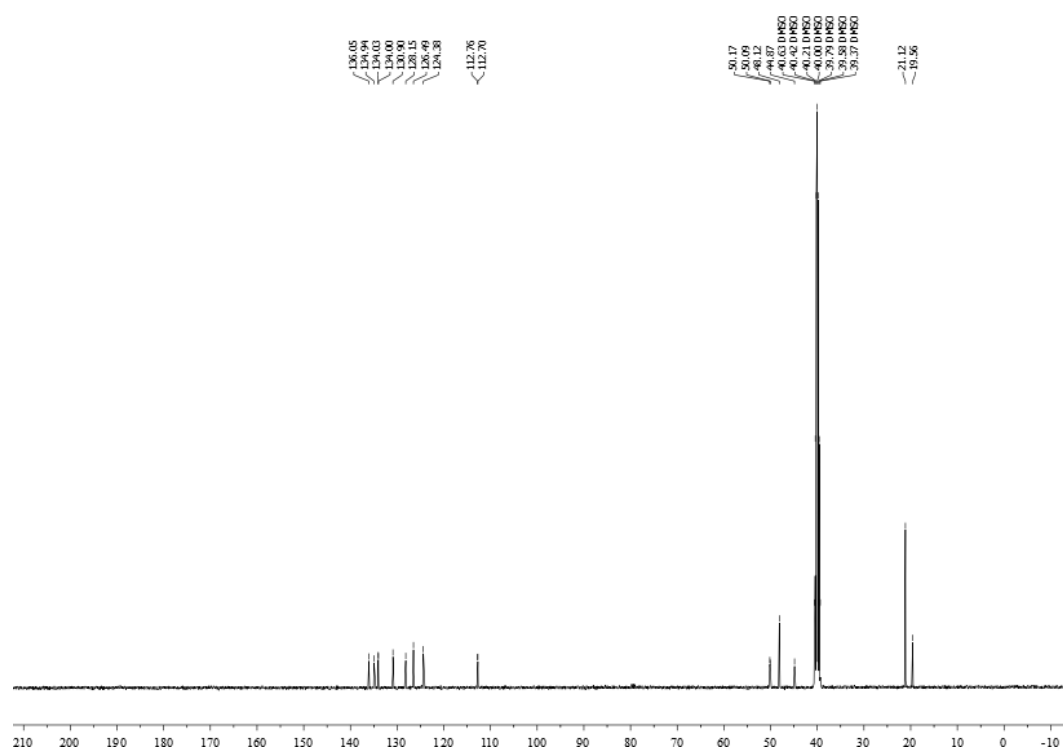


Figure S4.  $^{13}\text{C}$  NMR Spectrum of **3b**

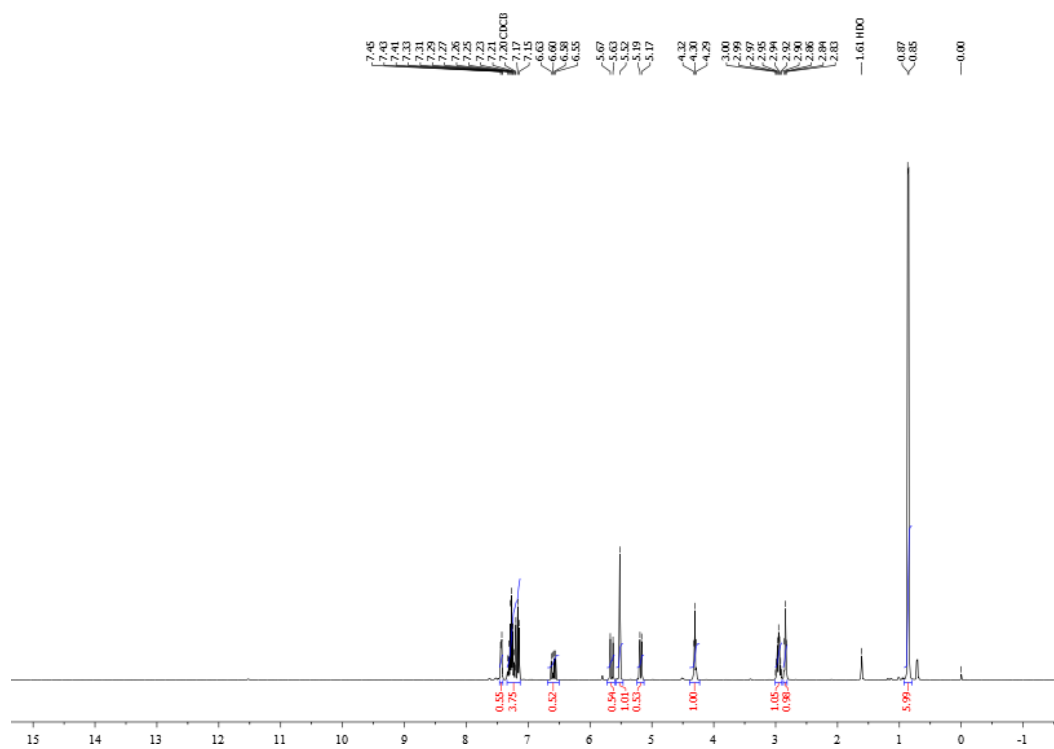


Figure S5. <sup>1</sup>H NMR Spectrum of **3c**

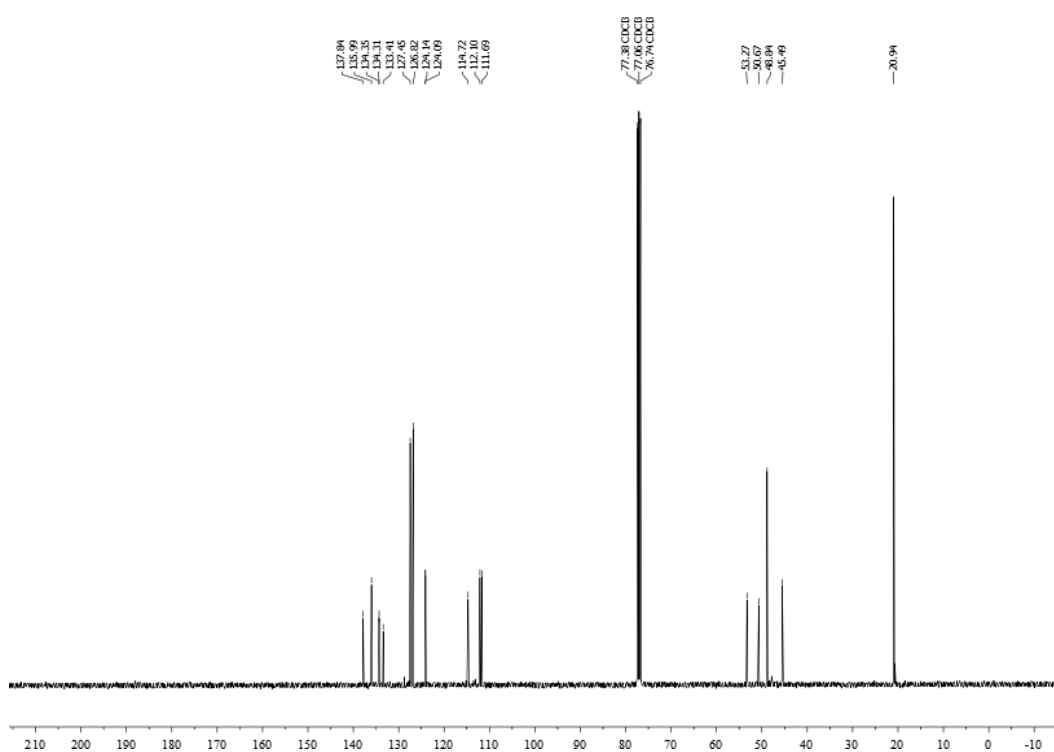
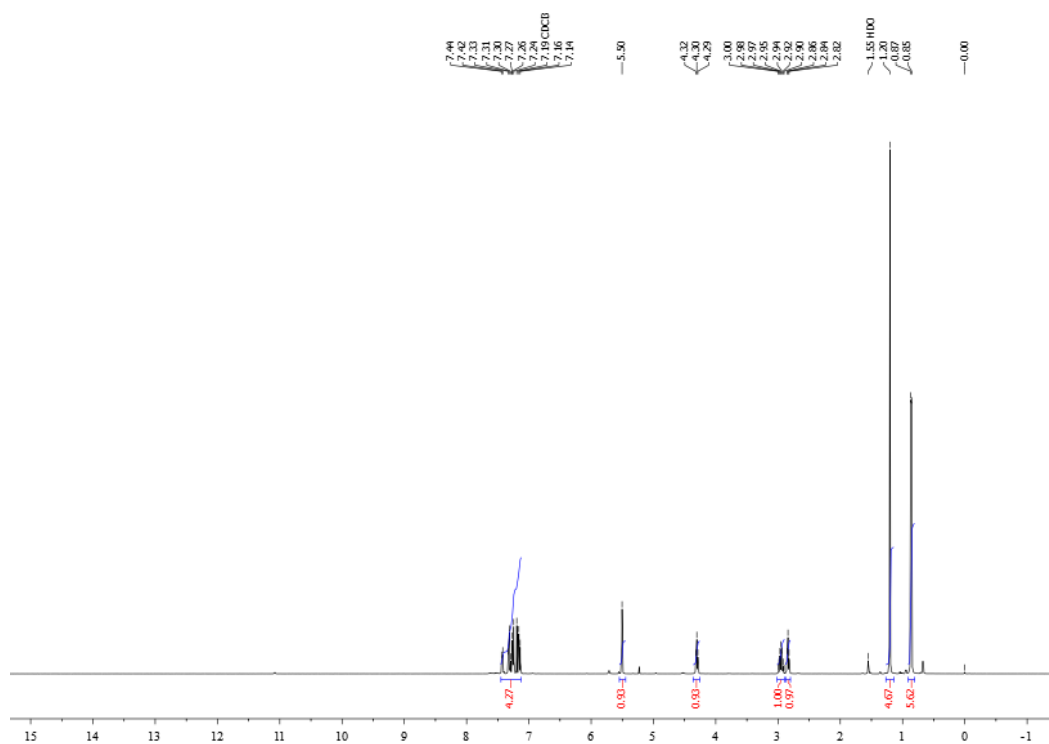
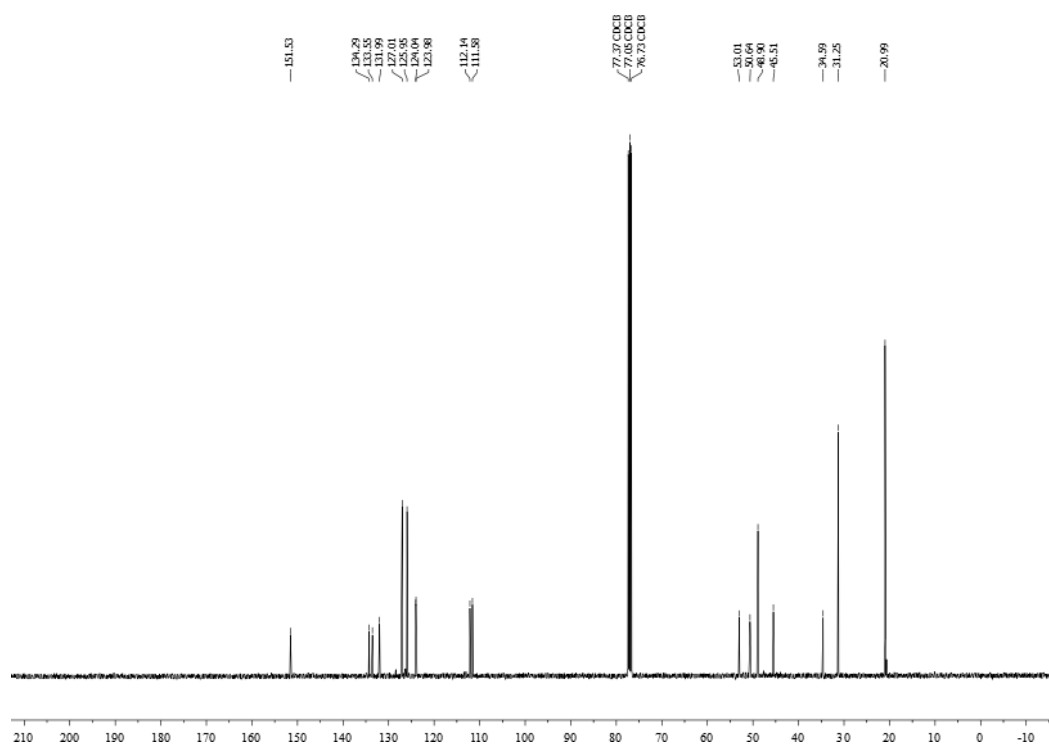


Figure S6. <sup>13</sup>C NMR Spectrum of **3c**



**Figure S7.** <sup>1</sup>H NMR Spectrum of **3d**



**Figure S8.** <sup>13</sup>C NMR Spectrum of **3d**

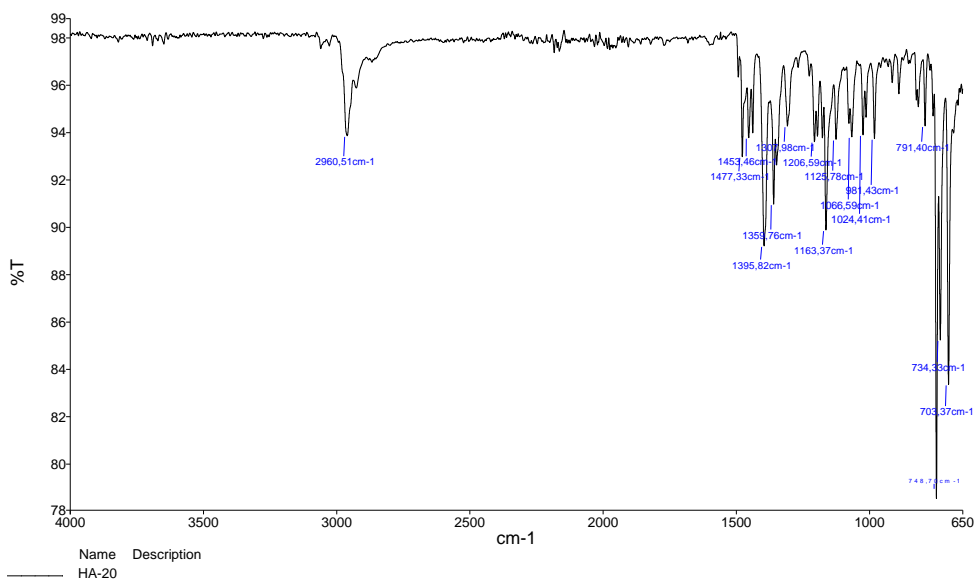


Figure S9. IR Spectrum of 3a

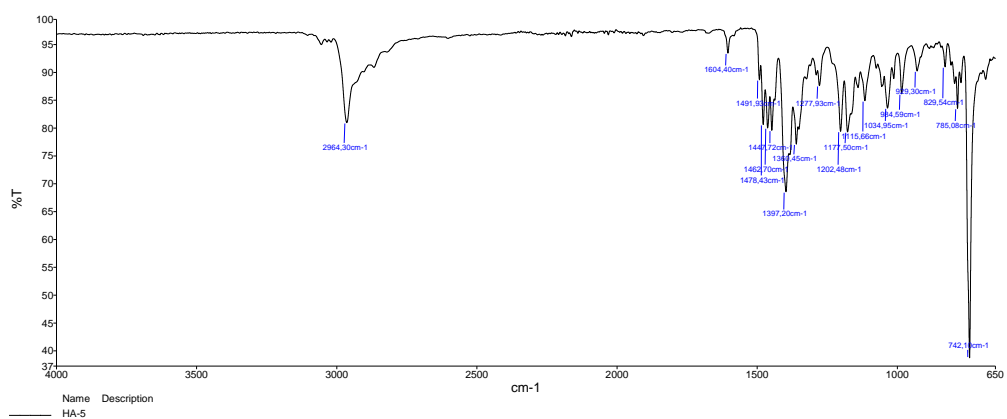


Figure S10. IR Spectrum of 3b

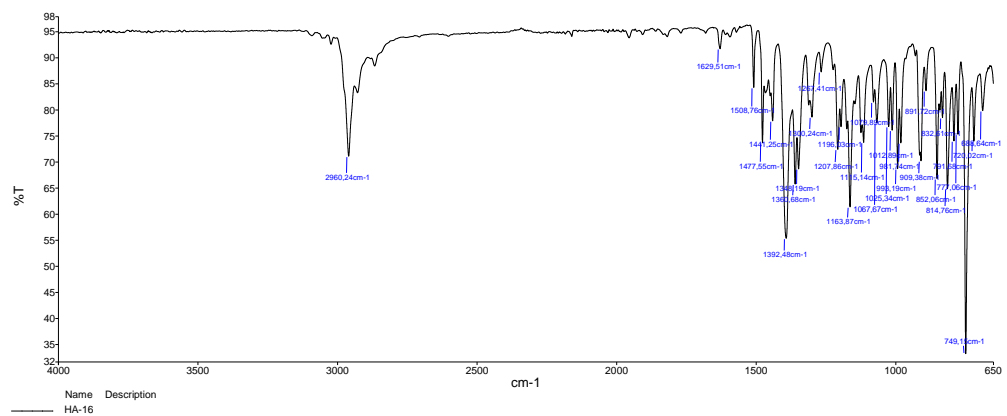
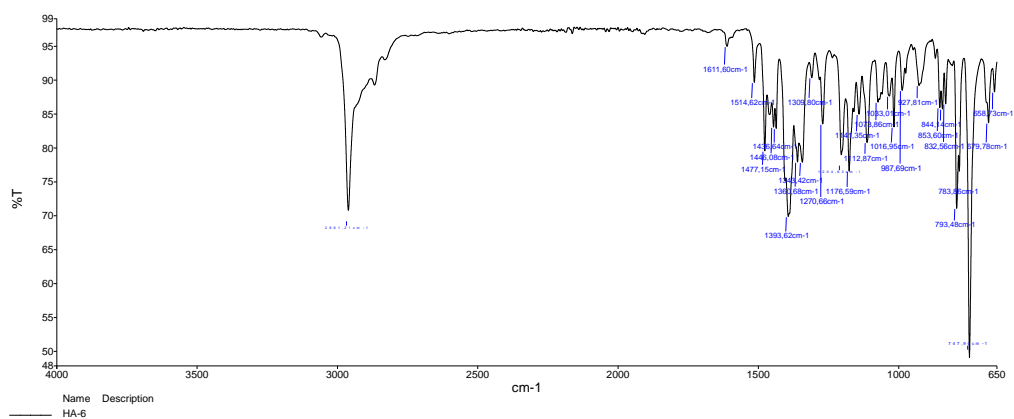
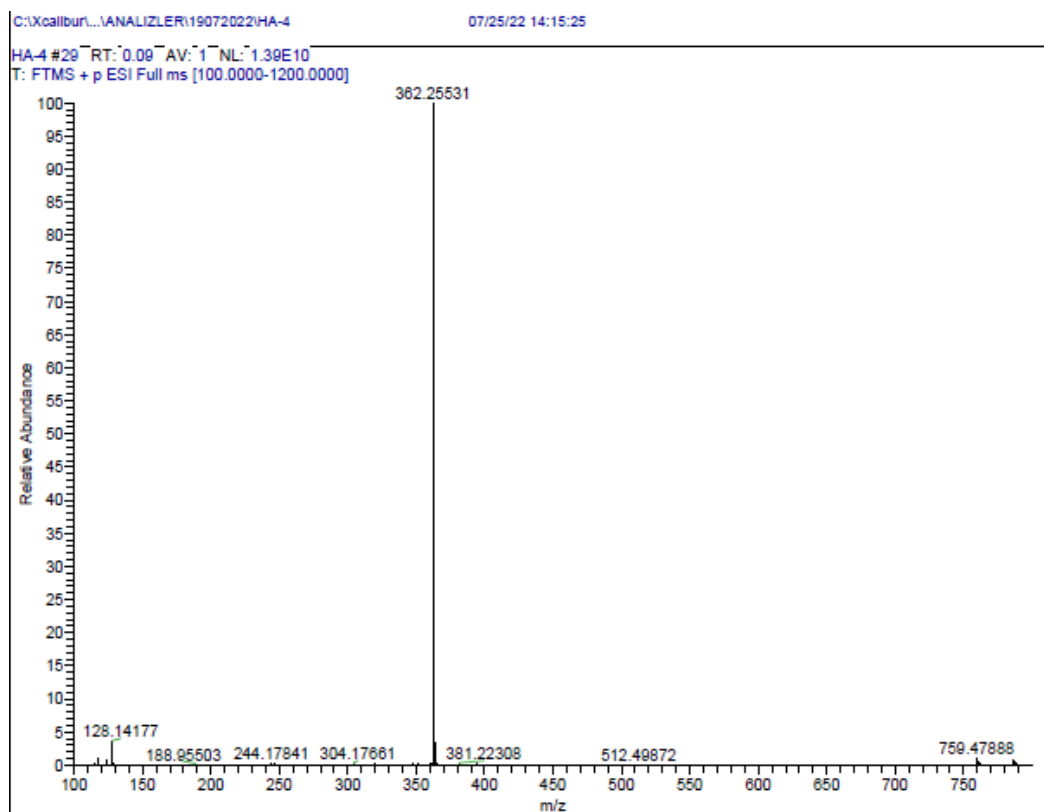


Figure S11. IR Spectrum of 3c



**Figure S12.** IR Spectrum of **3d**



**Figure S13.** Mass Spectrum of **2c**

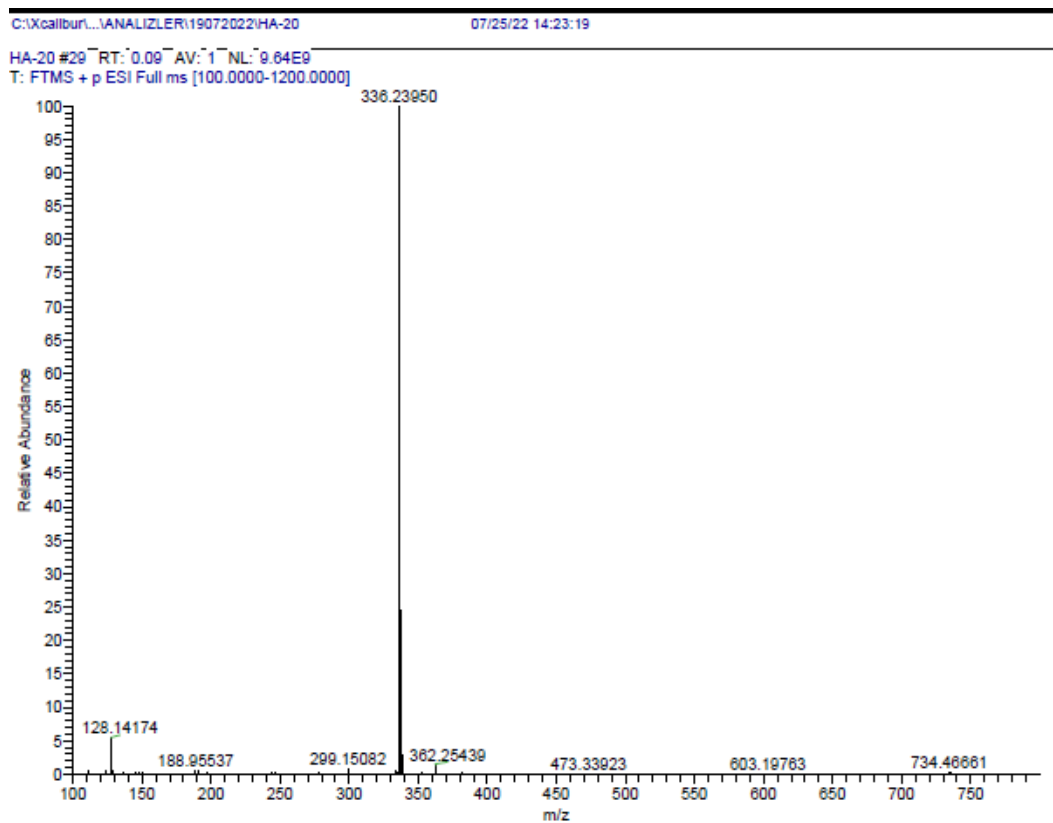


Figure S14. Mass Spectrum of 3a

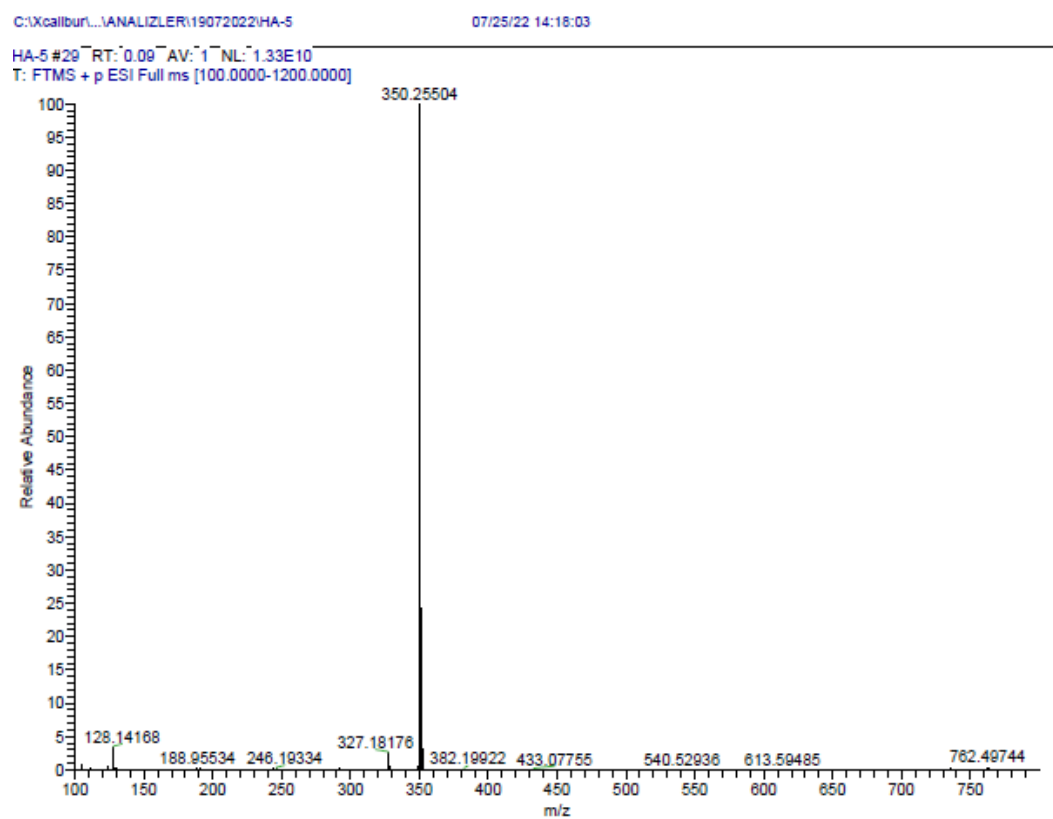


Figure S15. Mass Spectrum of 3b



HA-16 #29 RT: 0.09 AV: 1 NL: 1.38E10  
T: FTMS + p ESI Full ms [100.0000-1200.0000]

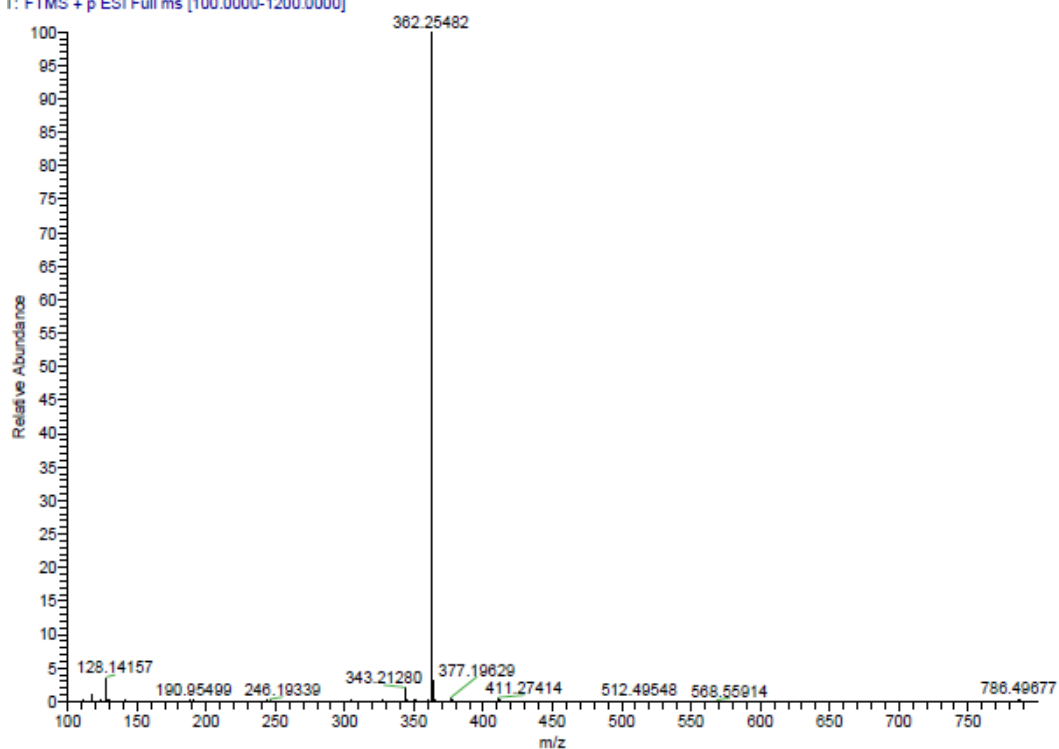


Figure S16. Mass Spectrum of 3c

HA-6 #29 RT: 0.09 AV: 1 NL: 1.25E10  
T: FTMS + p ESI Full ms [100.0000-1200.0000]

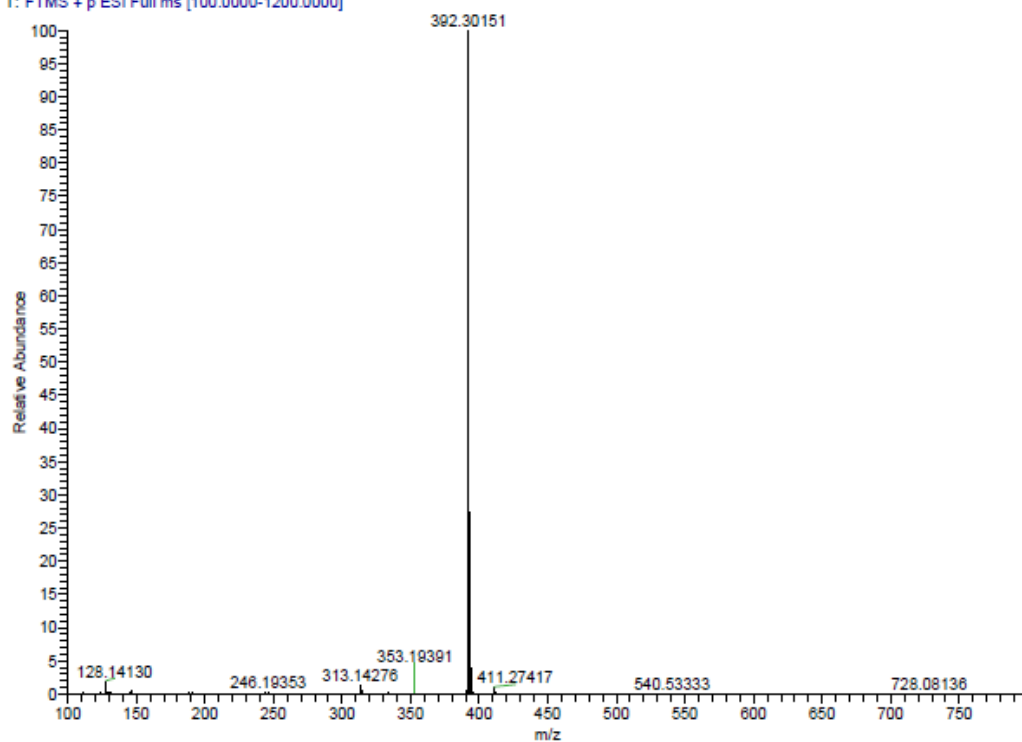
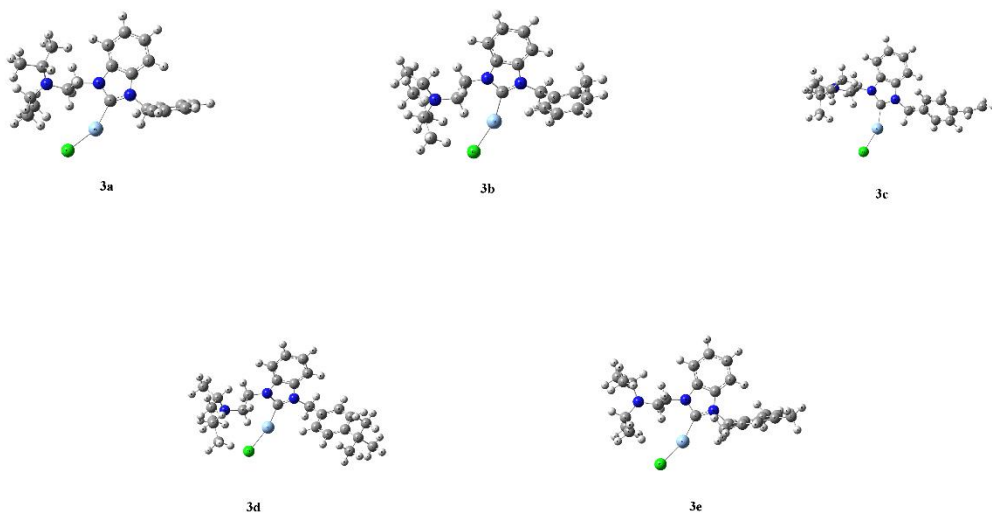


Figure S17. Mass Spectrum of 3d



**Figure S18.** The optimized Ag-complexes at DFT/B3LYP/LAND2DZ basis set by using G09.