

## Supplementary Information

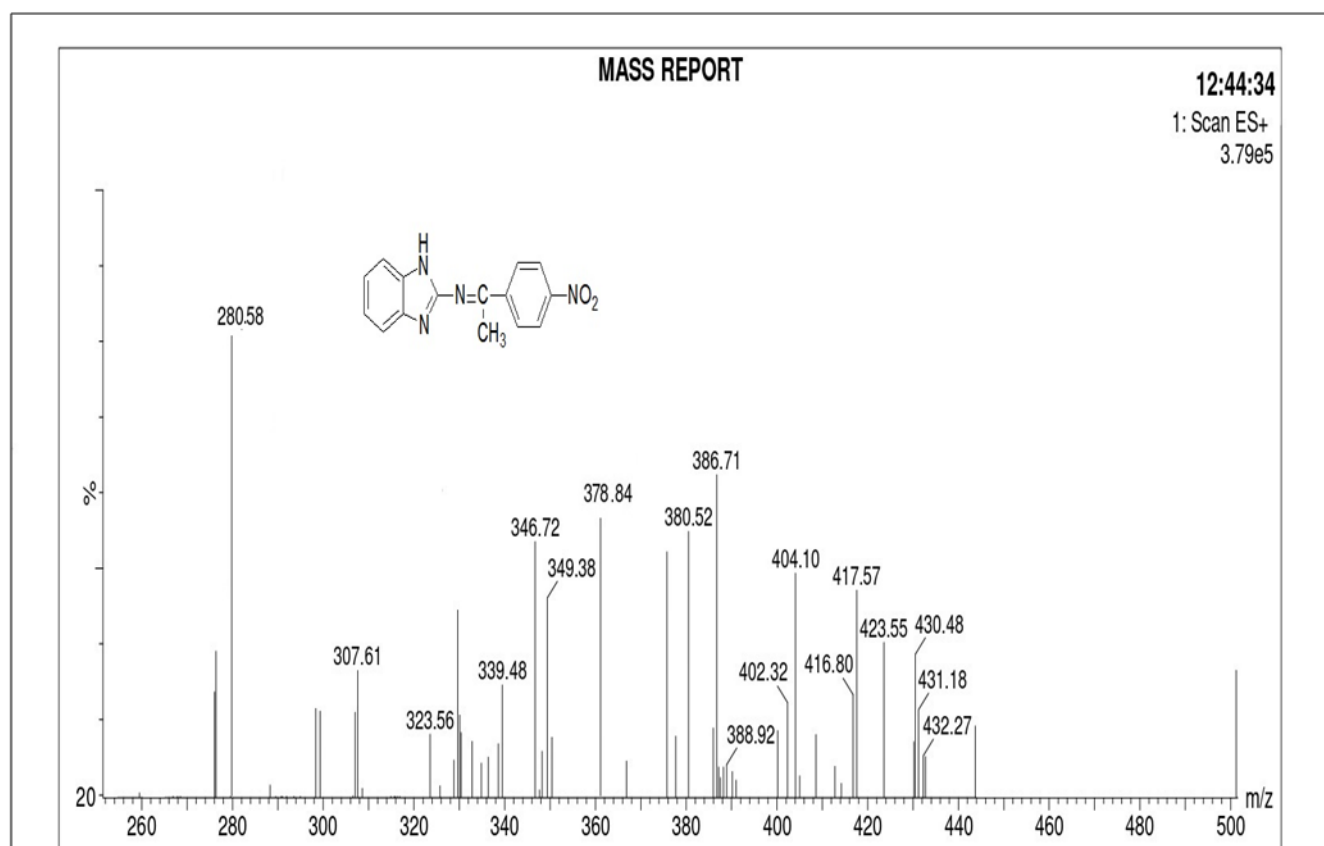
### Synthesis, characterization of N-(1-(4-nitrophenyl)ethylidene)-1H-benzo[d]imidazol-2-amine and amino acid alanine and its metal complexes

Sriramoju Shamili

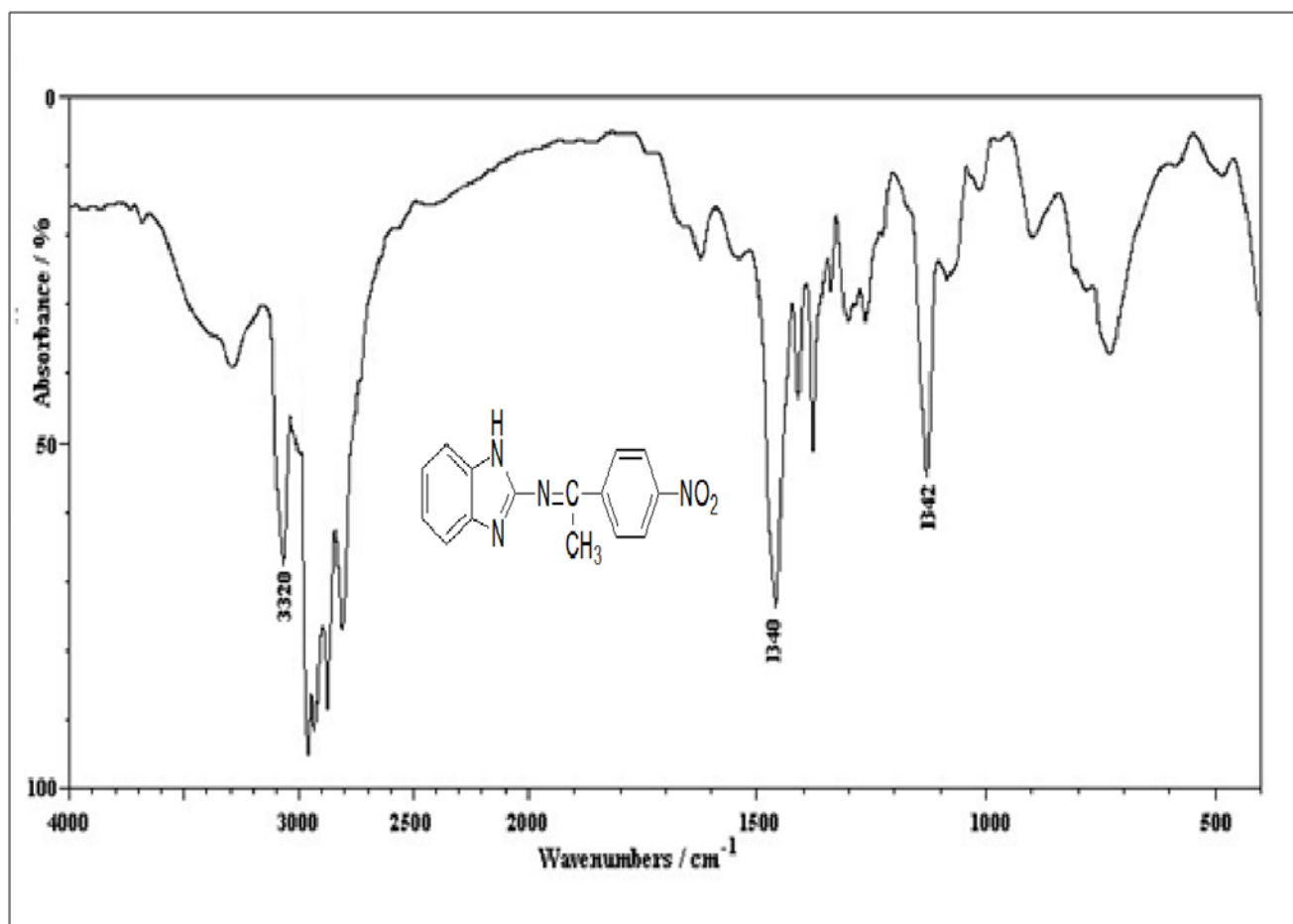
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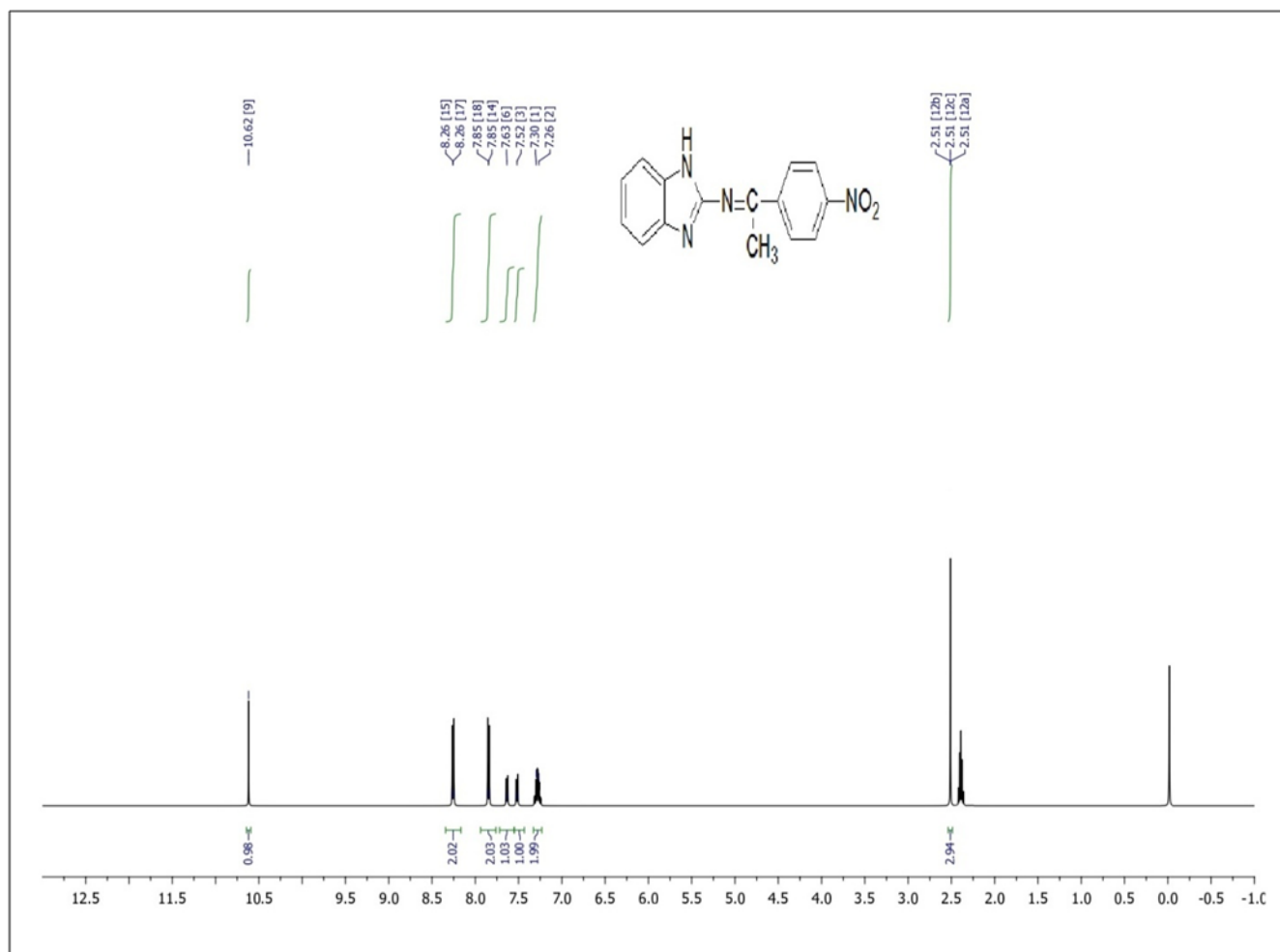
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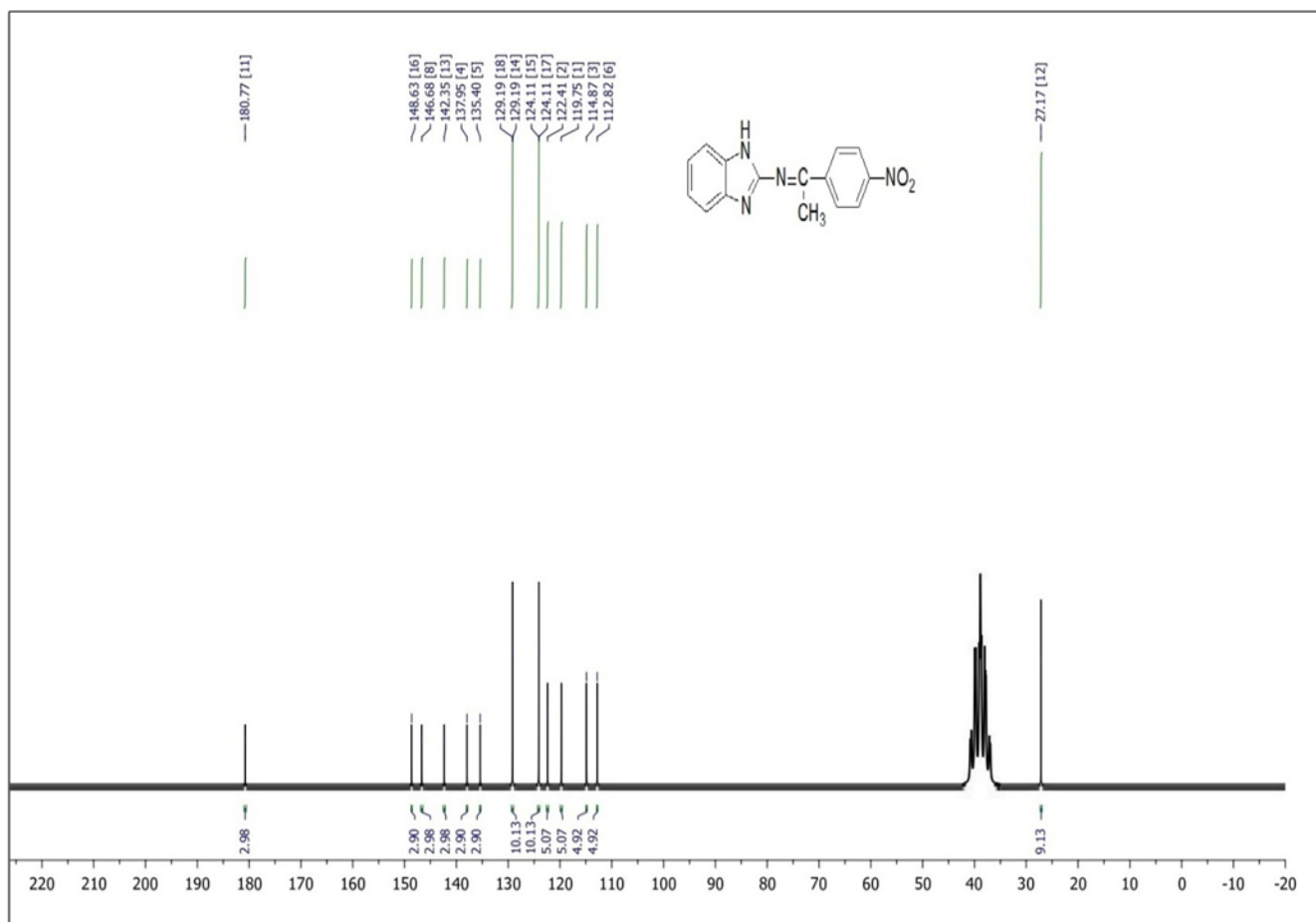
**Fig S1.** Mass spectra of Ligand N-(1-(4-nitrophenyl)ethylidene)-1H-benzo[d]imidazol-2-amine.



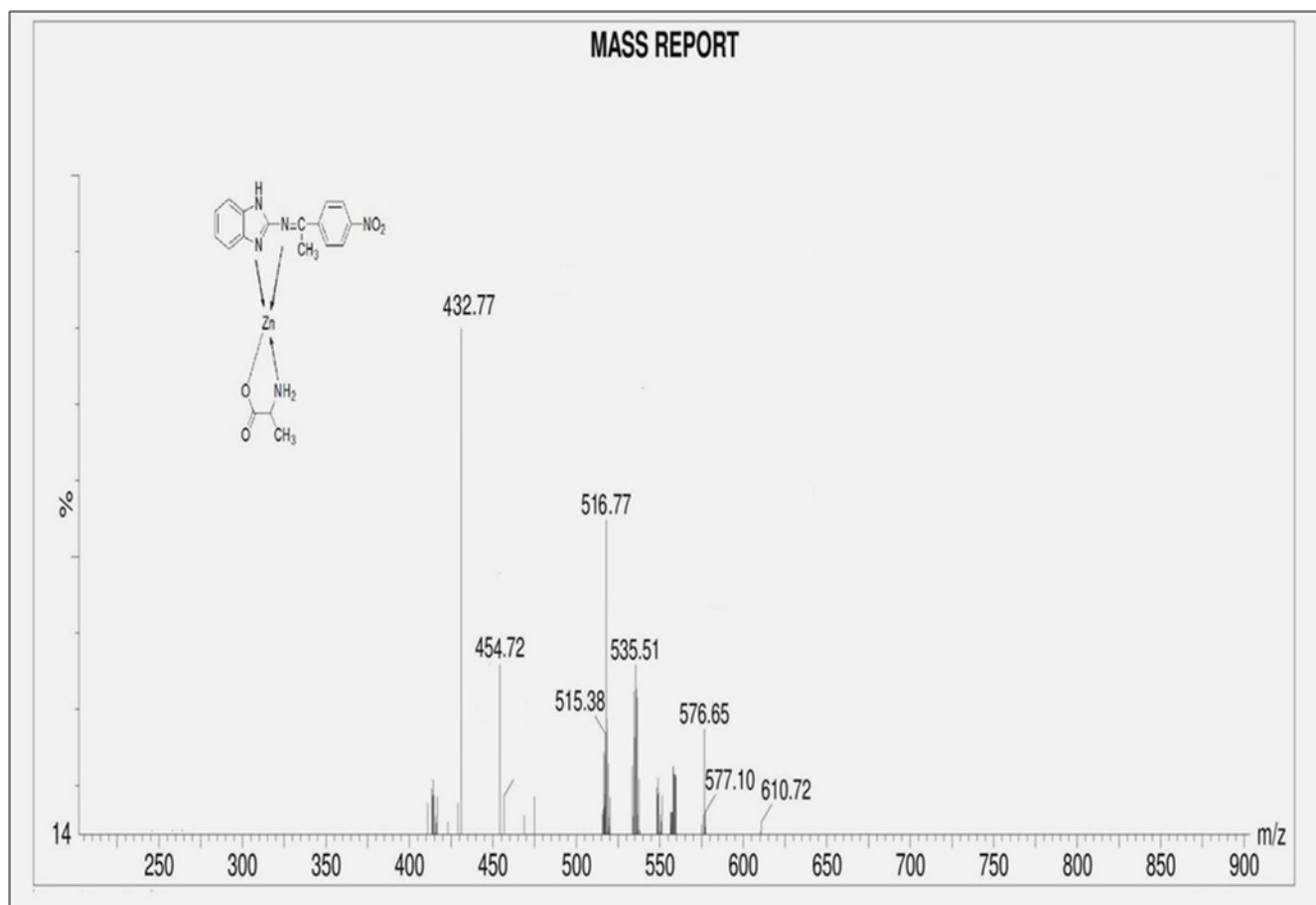
**Fig S2.** IR spectra of Ligand N-(1-(4-nitrophenyl)ethylidene)-1H-benzo[d]imidazol-2-amine.



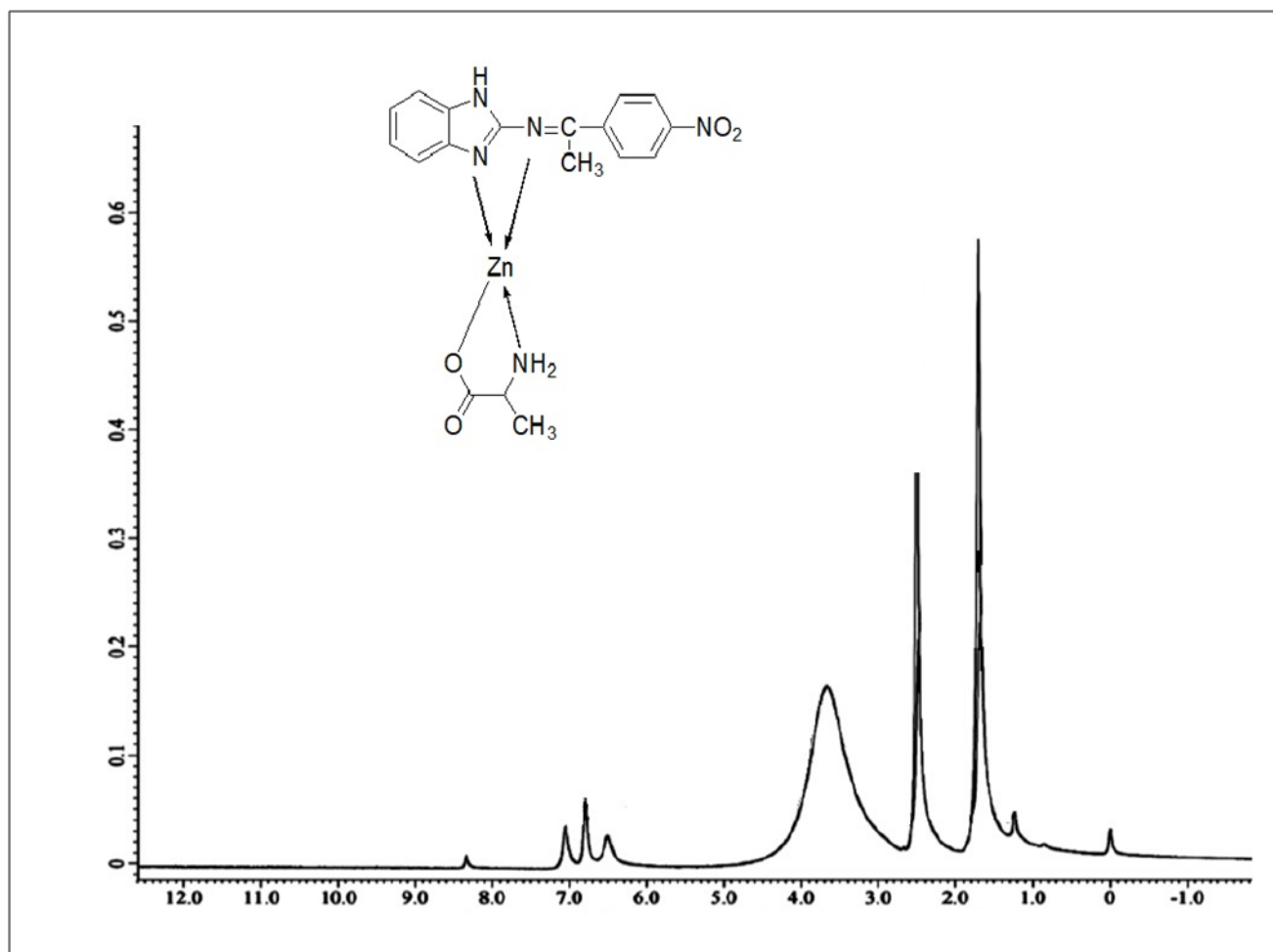
**Fig S3.** <sup>1</sup>H spectra of Ligand N-(1-(4-nitrophenyl)ethylidene)-1H-benzo[d]imidazol-2-amine.



**Fig S4.**  $^{13}\text{C}$  spectra of Ligand Ligand N-(1-(4-nitrophenyl)ethylidene)-1H-benzo[d]imidazol-2-amine.



**Fig S5.** Mass spectra of complex [ZnL<sub>1</sub>L<sub>2</sub>]



**Fig S6.** <sup>1</sup>H NMR spectra of complex [ZnL<sub>1</sub>L<sub>2</sub>]

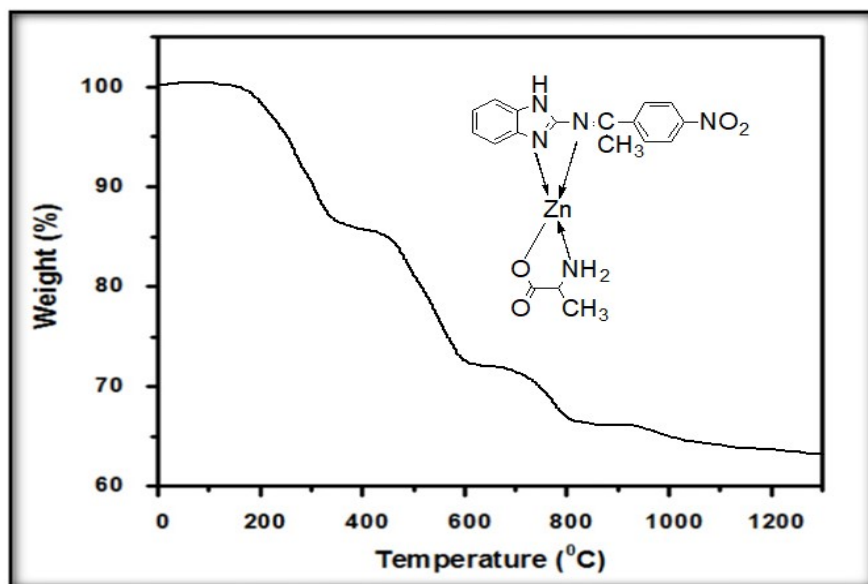


Fig S7. Thermogram of complex [ZnL<sub>1</sub>L<sub>2</sub>]

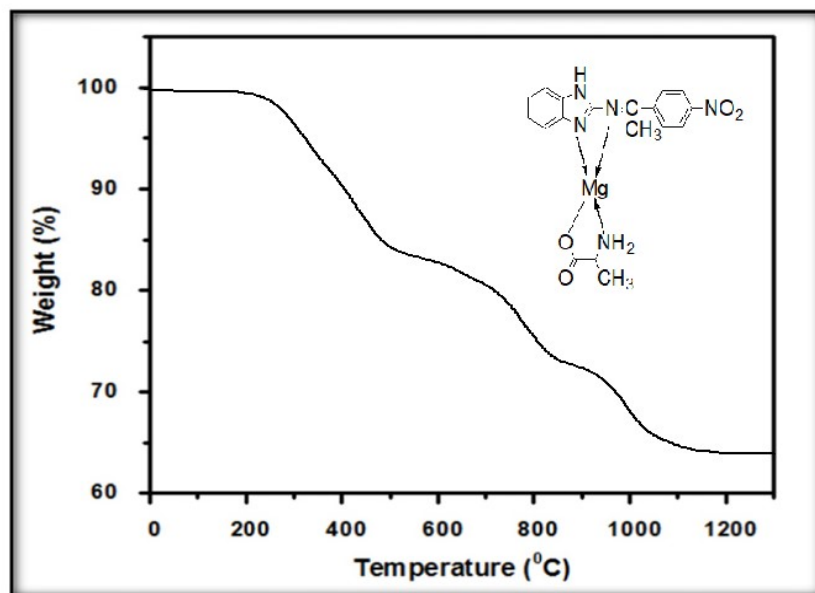


Fig S8. Thermogram of complex [MgL<sub>1</sub>L<sub>2</sub>]

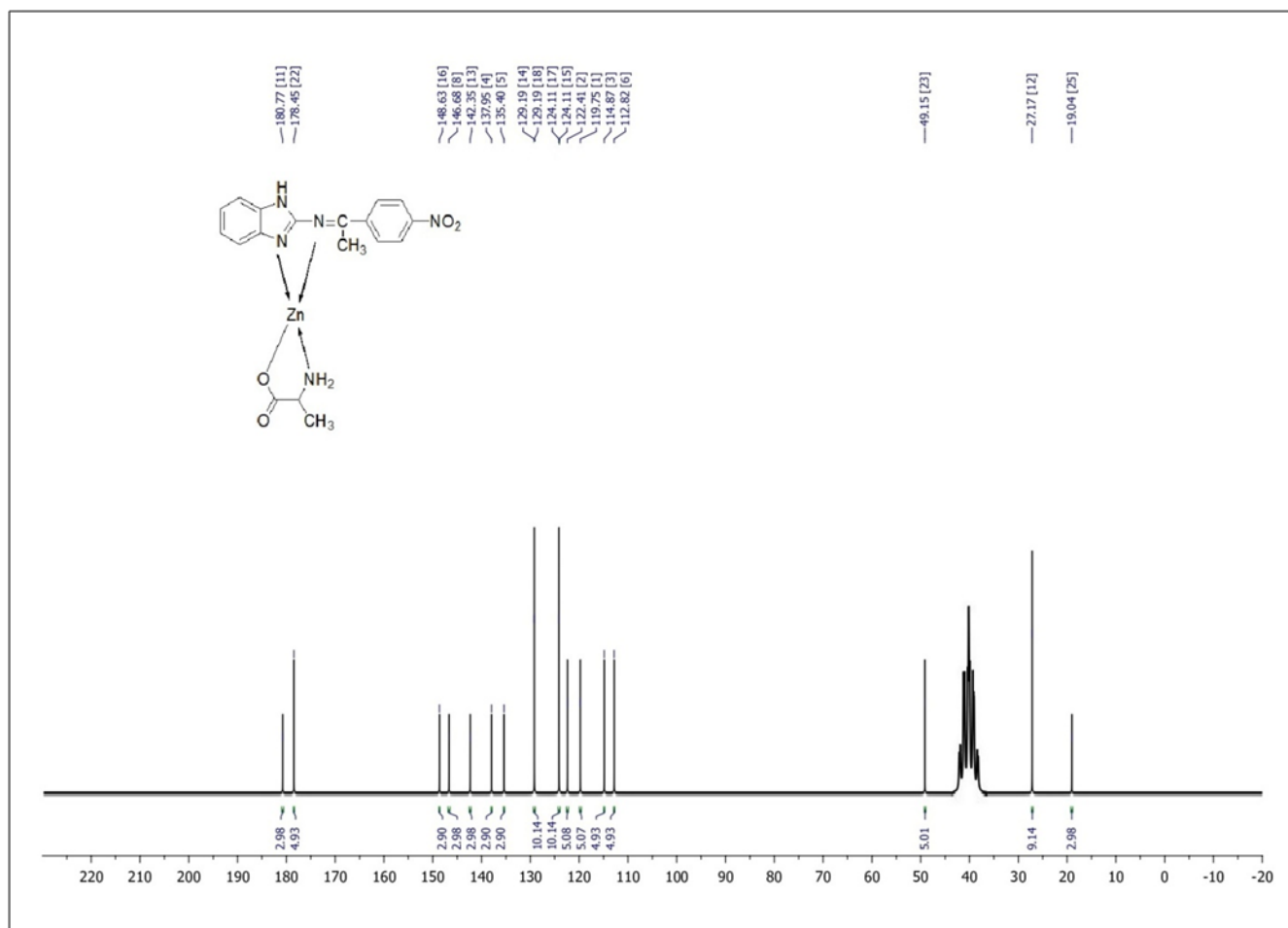


Fig S9.  $^{13}C$  NMR spectra of complex  $[ZnL_1L_2]$

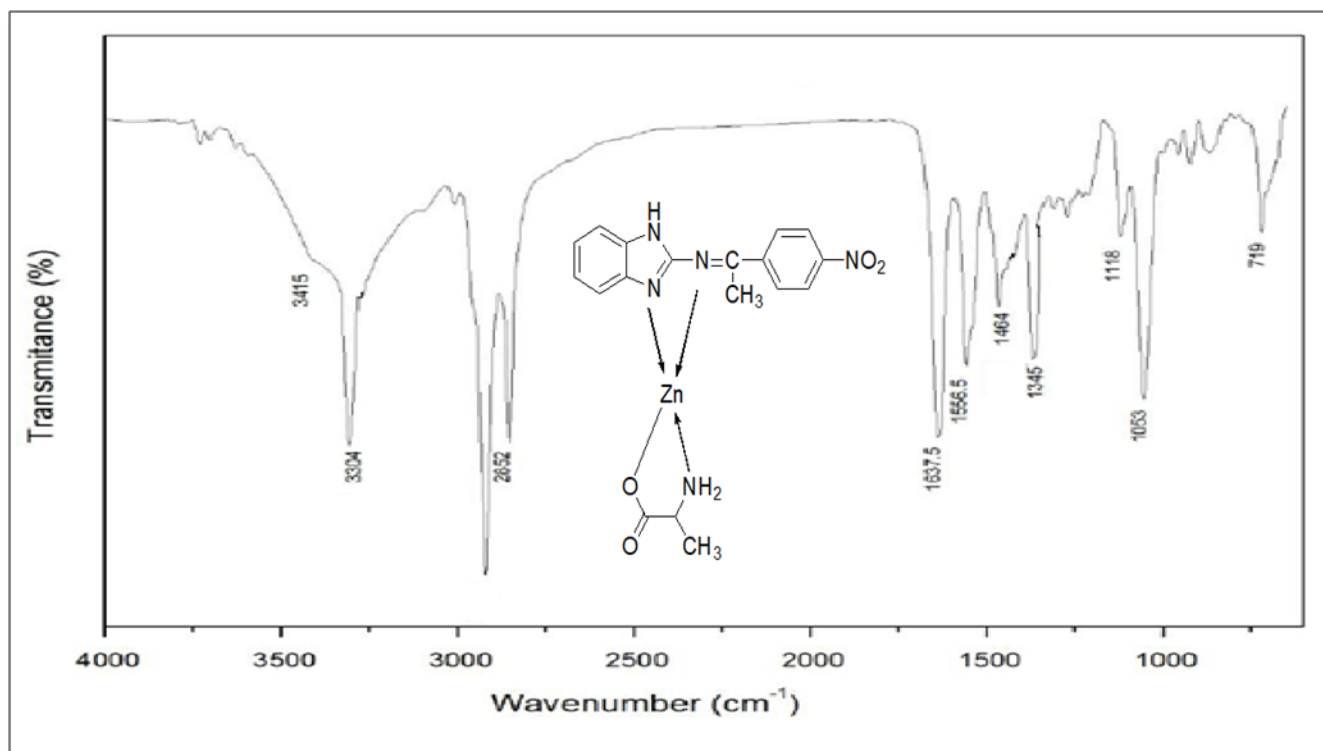


Fig S10. IR spectra of complex [ZnL<sub>1</sub>L<sub>2</sub>]

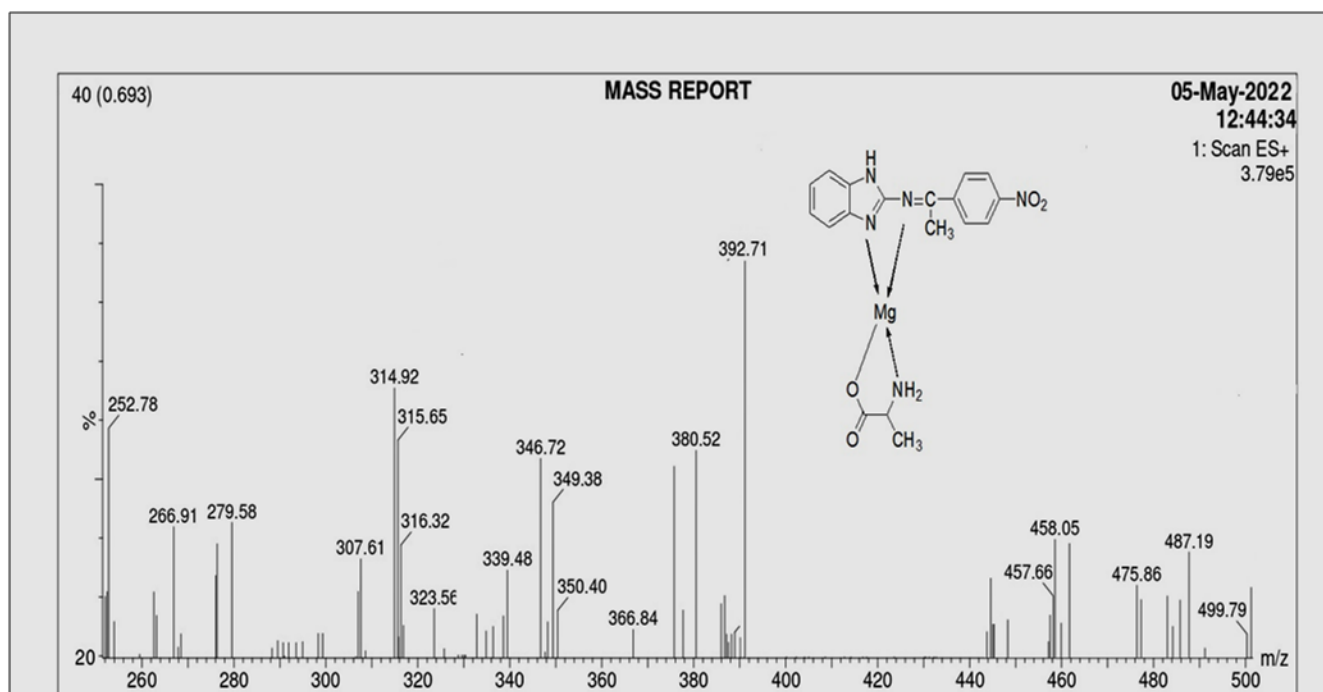


Fig S11. Mass spectra of complex [MgL<sub>1</sub>L<sub>2</sub>]

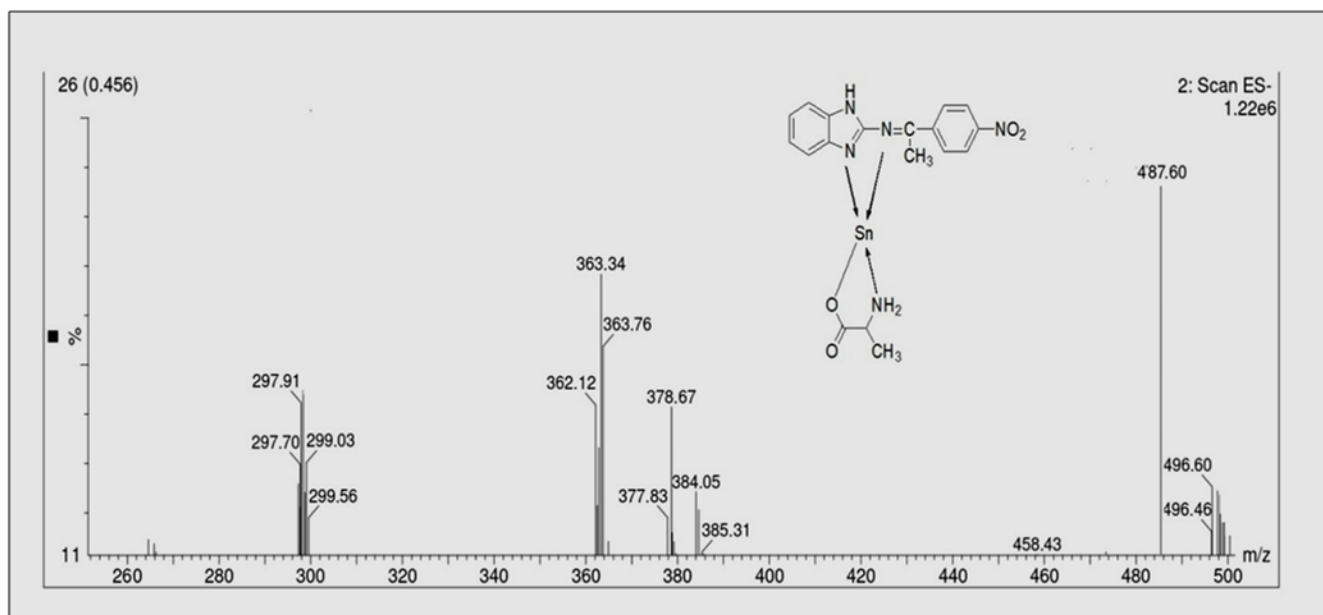


Fig S12. Mass spectra of complex  $[\text{SnL}_1\text{L}_2]$

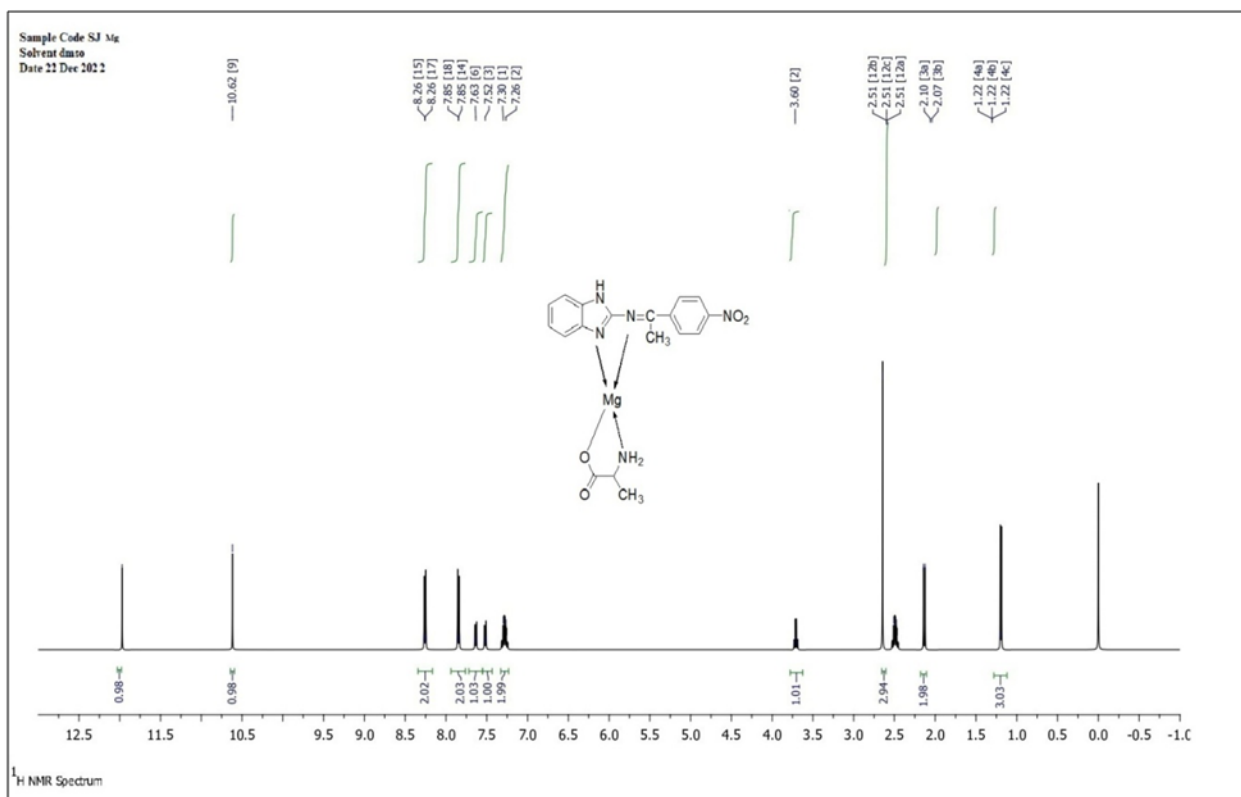


Fig S13.  $^1\text{H}$  NMR spectra of complex  $[\text{MgL}_1\text{L}_2]$

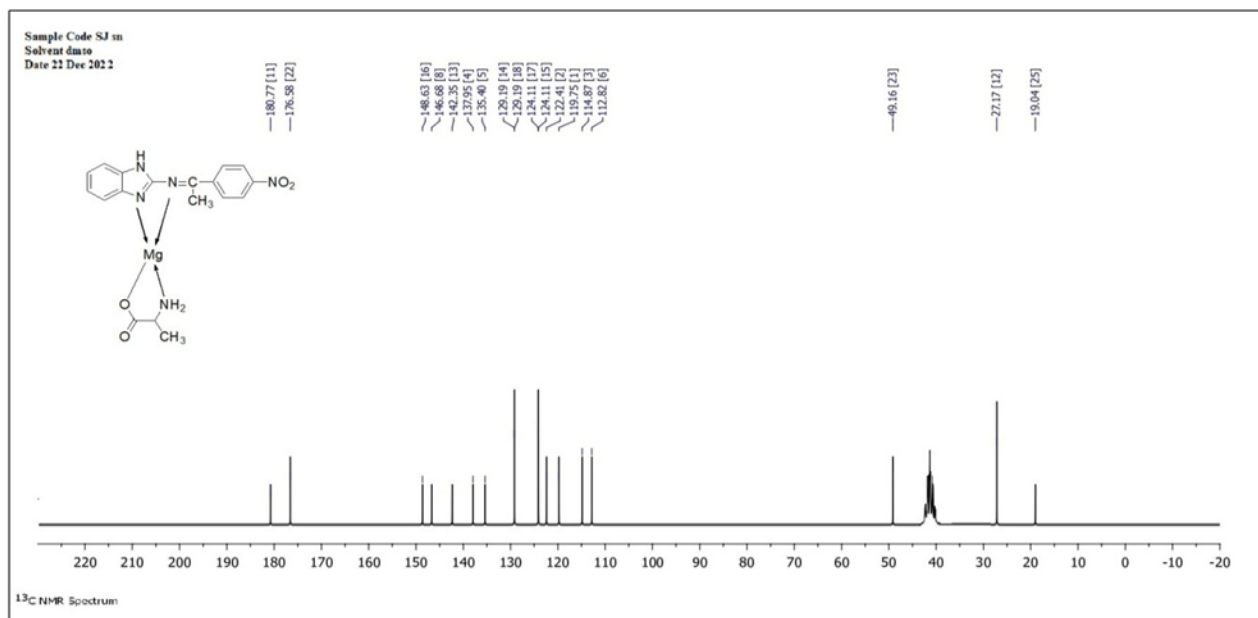


Fig S14. <sup>13</sup>C NMR spectra of complex  $[MgL_1L_2]$

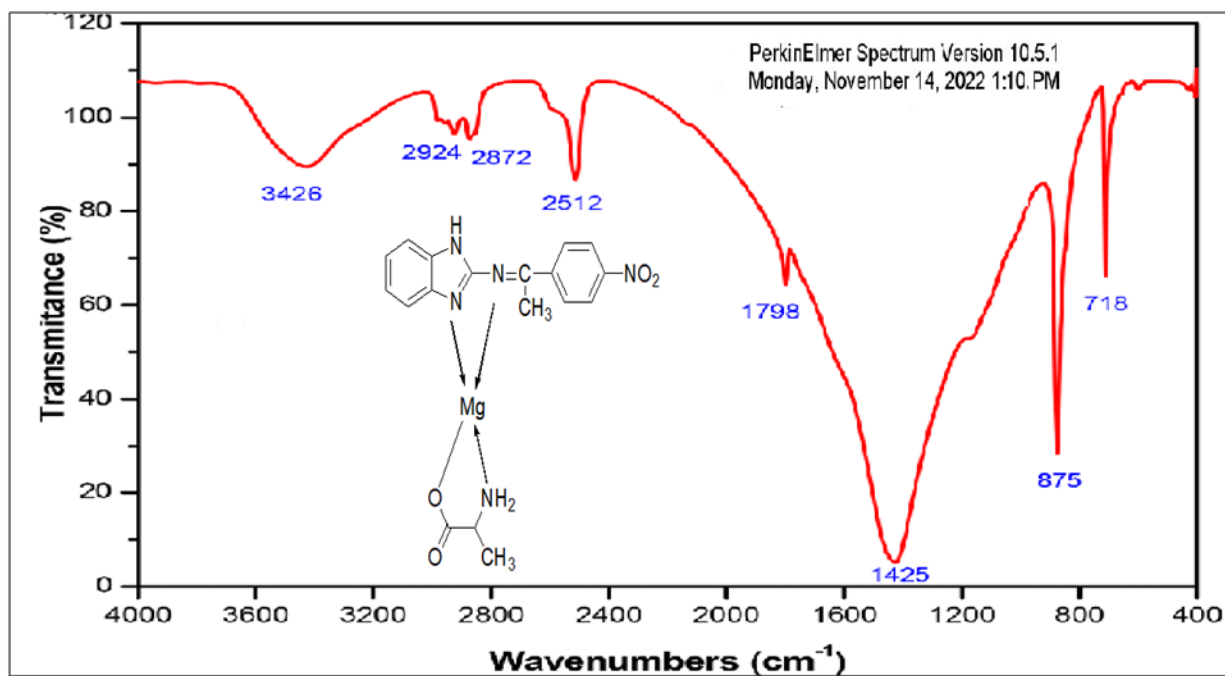


Fig S15. IR spectra of complex  $[MgL_1L_2]$

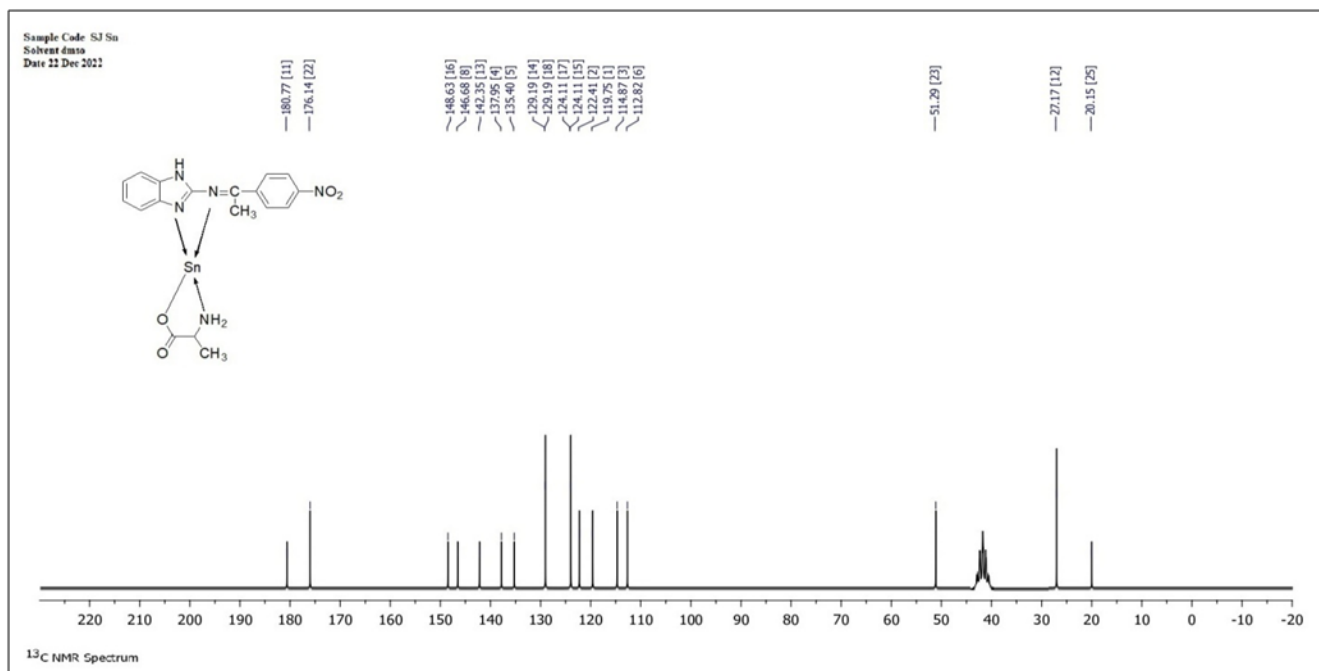


Fig S16.  $^{13}C$  NMR spectra of complex  $[SnL_1L_2]$

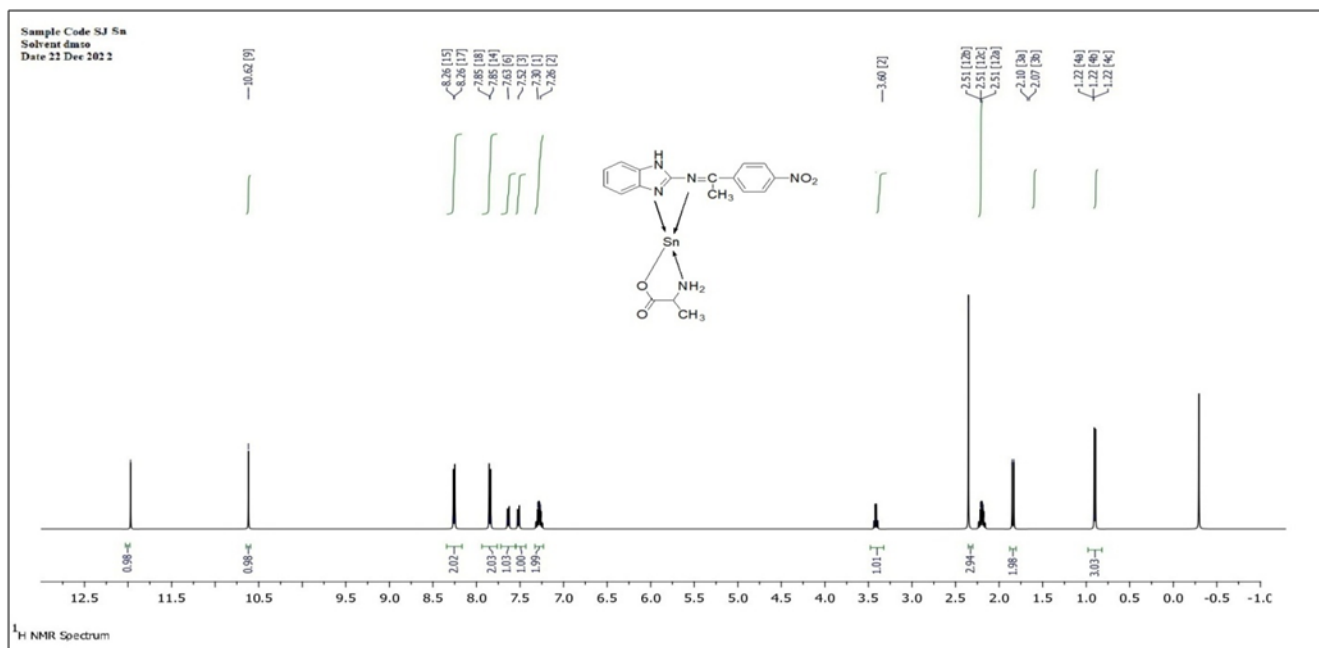


Fig S17.  $^1H$  NMR spectra of complex  $[SnL_1L_2]$

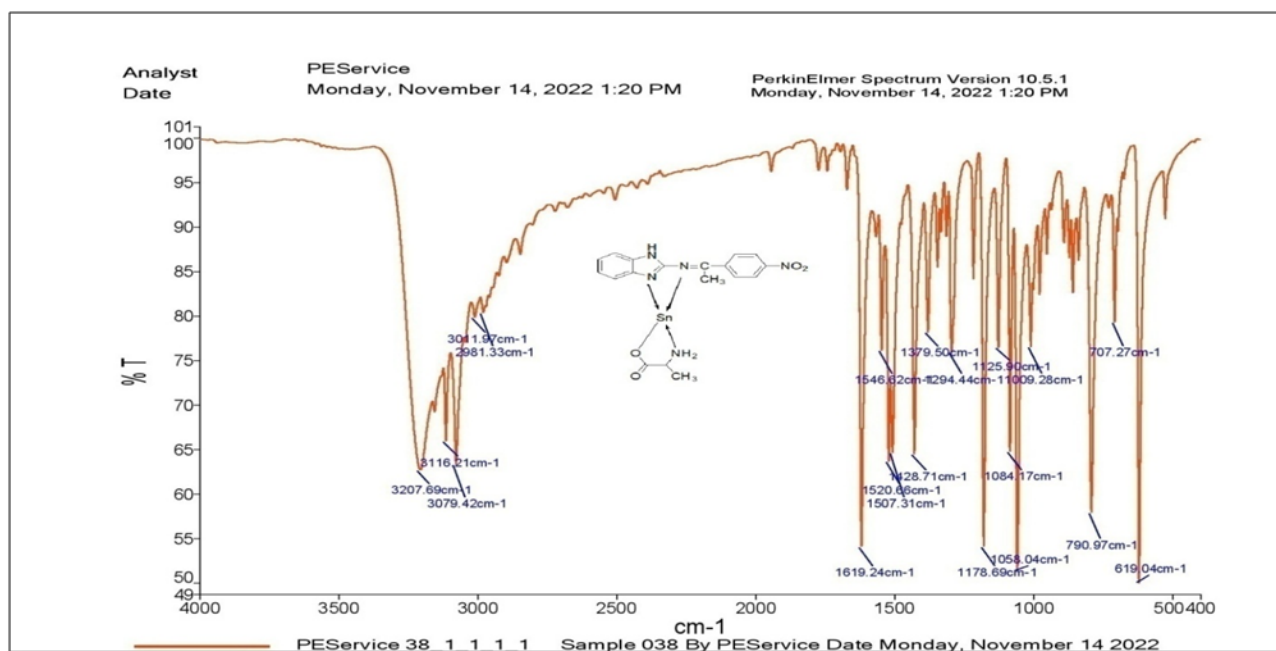


Fig S18. IR spectra of complex [SnL<sub>1</sub>L<sub>2</sub>]

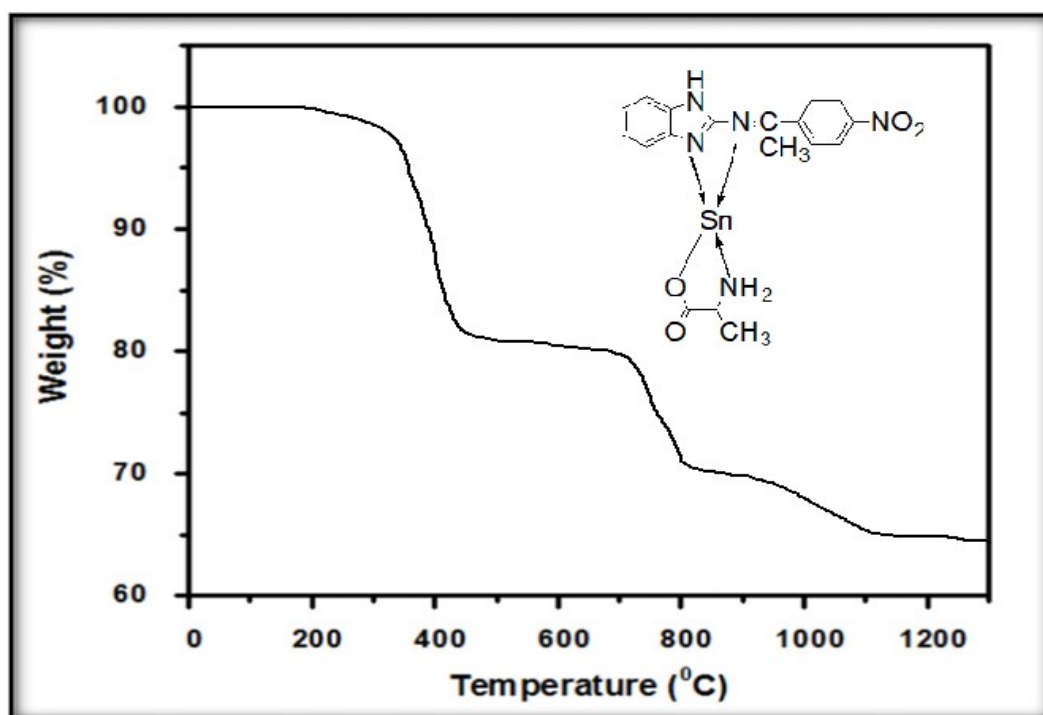


Fig S19. Thermogram of complex [SnL<sub>1</sub>L<sub>2</sub>]