

Supplementary Information

In vitro toxicity and photodynamic properties of porphyrinoids bearing imidazolium salts and N-heterocyclic carbene gold(I) complexes.

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Table of contents

Figure S1. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, CD_2Cl_2 , 298 K) of porphyrin 2 .	3
Figure S2. MALDI-TOF mass spectrum of porphyrin 2 .	3
Figure S3. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 3 .	4
Figure S4. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 3 .	4
Figure S5. ESI-TOF (positive mode) mass spectrum of porphyrin 3 .	5
Figure S6. UV-vis. absorption spectrum (DMSO) of porphyrin 3 .	5
Figure S7. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 4-BF₄ .	6
Figure S8. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 4-BF₄ .	6
Figure S9. Full range ^{19}F NMR spectrum (162.0 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 4-BF₄ .	7
Figure S10. ESI-TOF MS positive mode (left) and ESI-TOF MS negative mode (right) mass spectra of porphyrin 4-BF₄ .	7
Figure S11. UV-vis. absorption spectrum (CH_2Cl_2) of porphyrin 4-BF₄ .	8
Figure S12. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, CD_2Cl_2 , 298 K) of porphyrin 6 .	8
Figure S13. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 6 .	9
Figure S14. ESI-TOF positive mode mass spectrum of porphyrin 6 .	9
Figure S15. UV-vis. absorption spectrum (CH_2Cl_2) of porphyrin 6 .	9
Figure S16. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 7 .	10
Figure S17. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin 7 .	10
Figure S18. ESI-TOF positive mode mass spectrum of porphyrin 7 .	11
Figure S19. UV-vis. absorption spectrum (CH_2Cl_2) of porphyrin 7 .	11
Figure S20. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex 8 .	12
Figure S21. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex 8 .	12
Figure S22. $^1\text{H-}^1\text{H}$ COSY NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex 8 .	13
Figure S23. $^1\text{H-}^{13}\text{C}$ HSQC NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex 8 .	13

Figure S24. ^1H - ^{13}C HMBC NMR spectrum (600.3 MHz, DMSO- d_6 , 298 K) of gold(I) complex 8	14
Figure S25. ESI-TOF (positive mode) mass spectrum of gold(I) complex 8	14
Figure S26. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex 8	15
Figure S27. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, DMSO- d_6 , 298 K) of gold(I) complex 9	15
Figure S28. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, DMSO- d_6 , 298 K) of gold(I) complex 9	16
Figure S29. ^1H - ^1H COSY NMR spectrum (600.3 MHz, DMSO- d_6 , 298 K) of gold(I) complex 9	16
Figure S30. ^1H - ^{13}C HSQC NMR spectrum (600.3 MHz, DMSO- d_6 , 298 K) of gold(I) complex 9	17
Figure S31. ^1H - ^{13}C HMBC NMR spectrum (600.3 MHz, DMSO- d_6 , 298 K) of gold(I) complex 9	17
Figure S32. ESI-TOF positive mode mass spectrum of gold(I) complex 9	18
Figure S33. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex 9	18
Figure S34. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 10	19
Figure S35. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 10	19
Figure S36. MALDI-TOF positive mode mass spectrum of gold(I) complex 10	20
Figure S37. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex 10	20
Figure S38. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 11	21
Figure S39. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 11	22
Figure S40. ^1H - ^1H COSY NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 11	22
Figure S41. ^1H - ^1H ROESY NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 11	23
Figure S42. ^1H - ^{13}C HSQC NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 11	23
Figure S43. ^1H - ^{13}C HMBC NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex 11	24
Figure S44. MALDI-TOF positive mode mass spectrum of gold(I) complex 11	24
Figure S45. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex 11	25
Figure S46. Full range ^1H NMR spectrum (400.1 MHz, CD_2Cl_2 , 298 K) of chlorin 13	25
Figure S47. MALDI-TOF positive mode mass spectrum of chlorin 13	26
Figure S48. UV-vis. absorption spectrum (CH_2Cl_2) of chlorin 13	26
Figure S49. Full range ^1H NMR spectrum (600.3 MHz, CD_2Cl_2 :MeOD (9/1) (v/v), 298 K) of monocationic chlorin 14	27
Figure S50. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, CD_2Cl_2 :MeOD (9/1) (v/v), 298 K) of monocationic chlorin 14	27
Figure S51. ^1H 2D NMR spectrum (600 MHz, CD_2Cl_2 , 298 K) of chlorin 14	28
Figure S52. UV-vis. absorption spectrum (CH_2Cl_2) of chlorin 14	28
Figure S54. HR ESI-TOF positive mode mass spectrum of chlorin 14	29

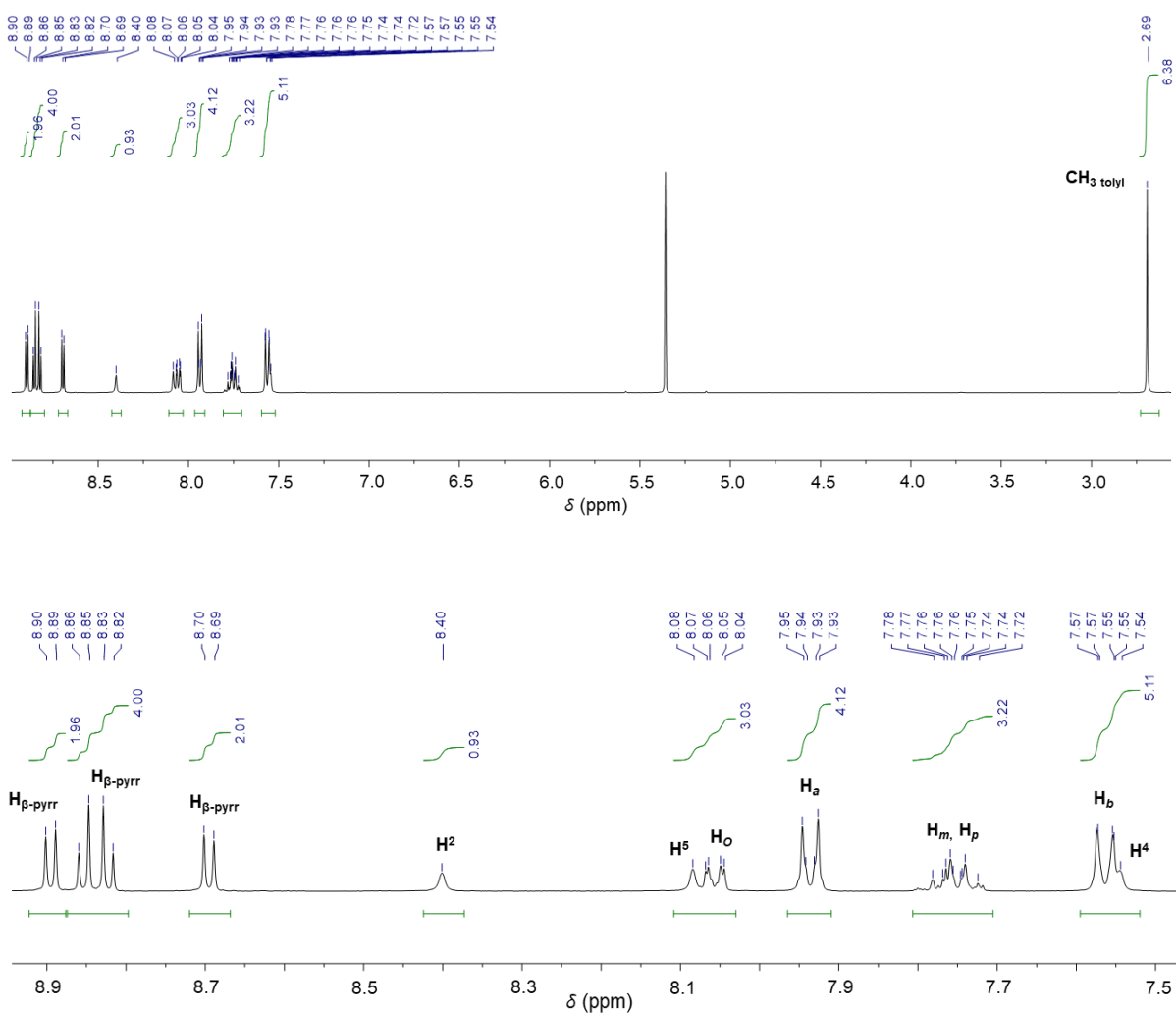


Figure S1. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, CD_2Cl_2 , 298 K) of porphyrin **2**.

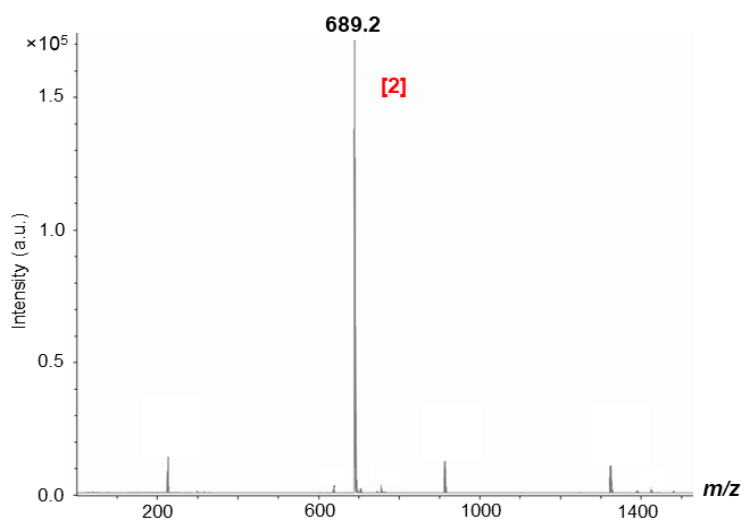


Figure S2. MALDI-TOF mass spectrum of porphyrin **2**.

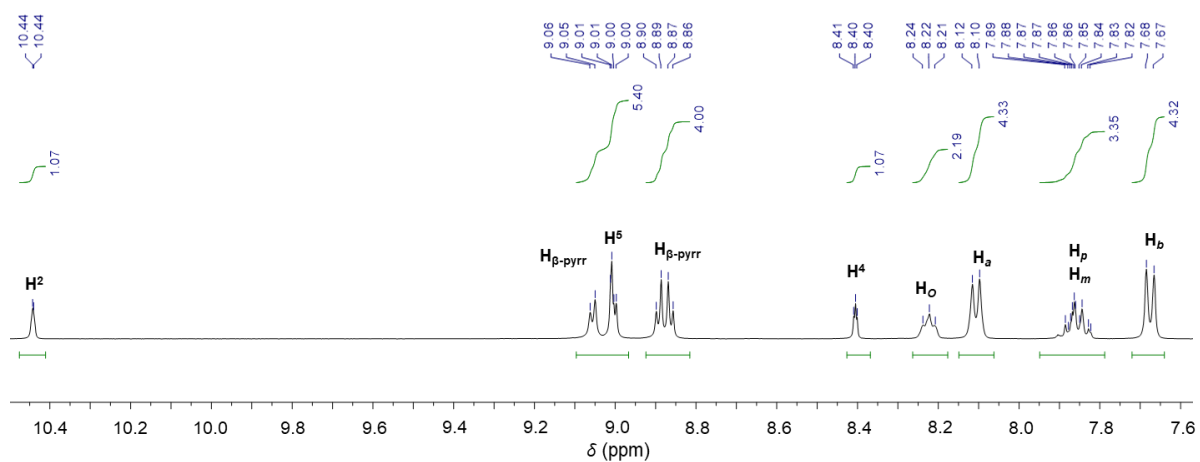
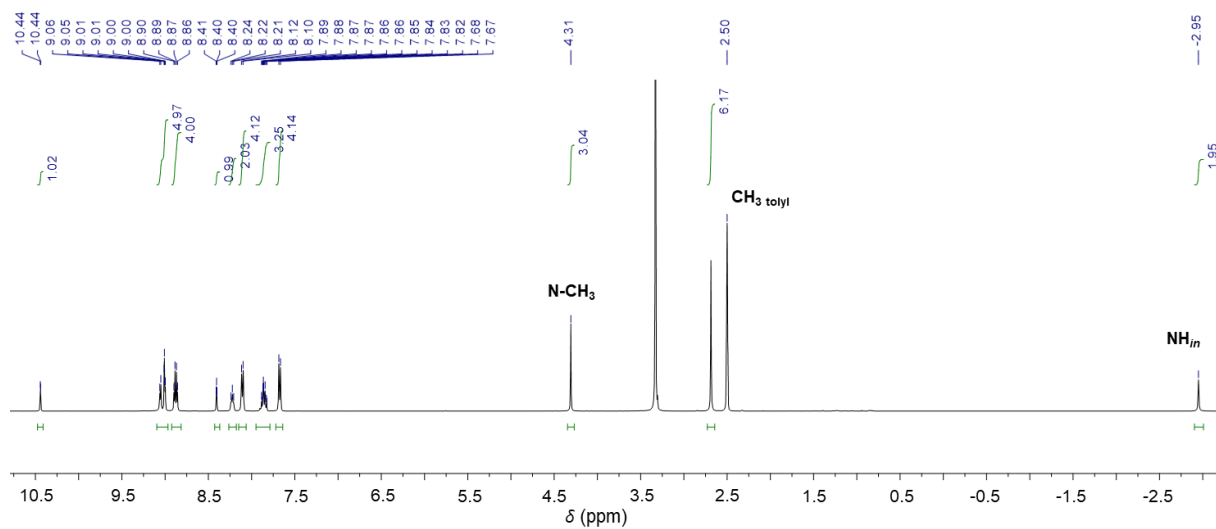


Figure S3. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin **3**.

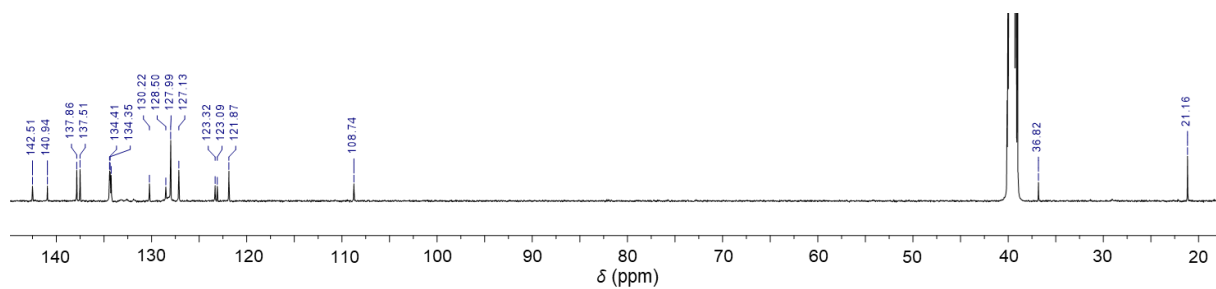


Figure S4. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin **3**.

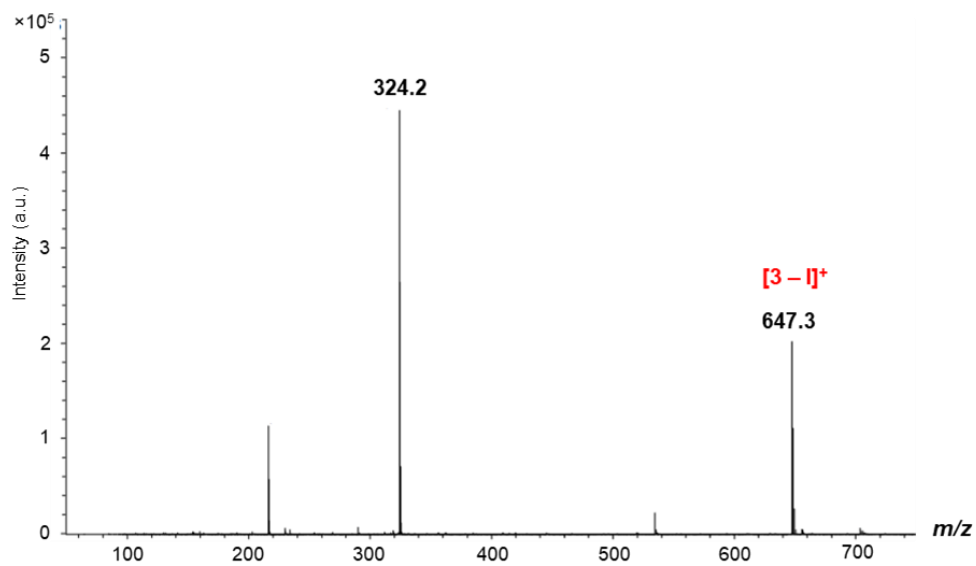


Figure S5. ESI-TOF (positive mode) mass spectrum of porphyrin **3**.

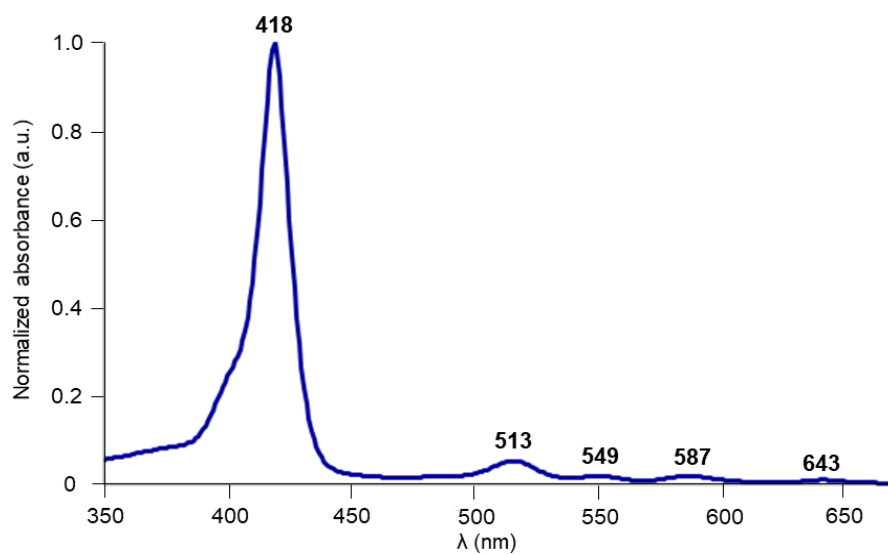


Figure S6. UV-vis. absorption spectrum (DMSO) of porphyrin **3**.

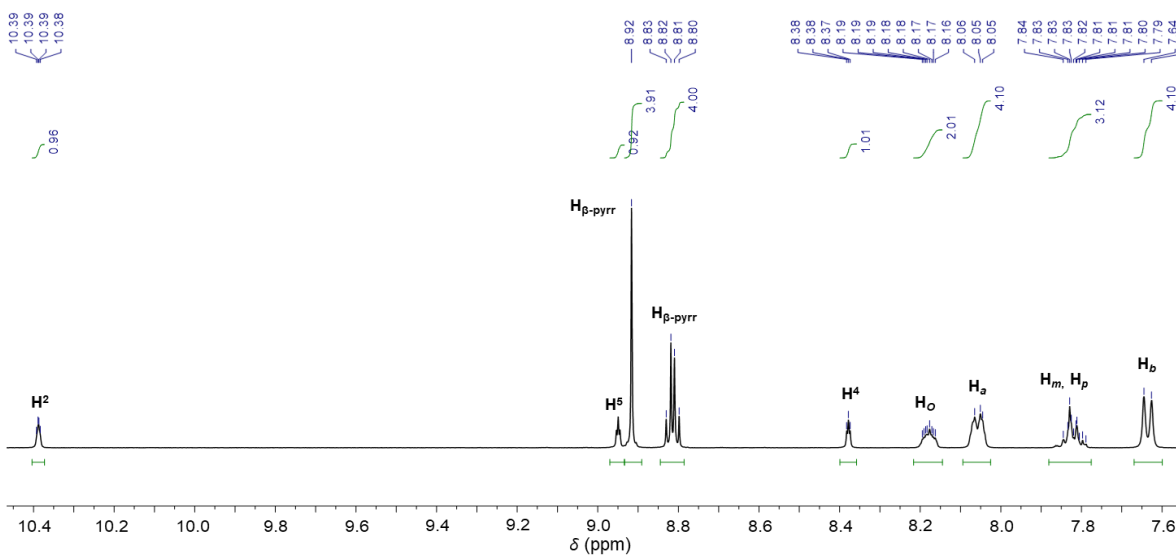
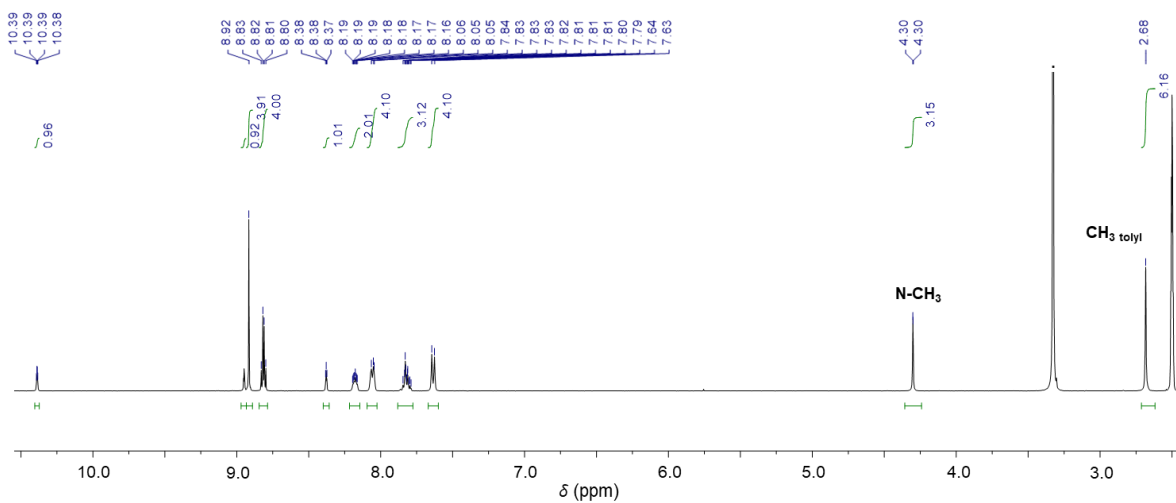


Figure S7. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin **4-BF₄**.

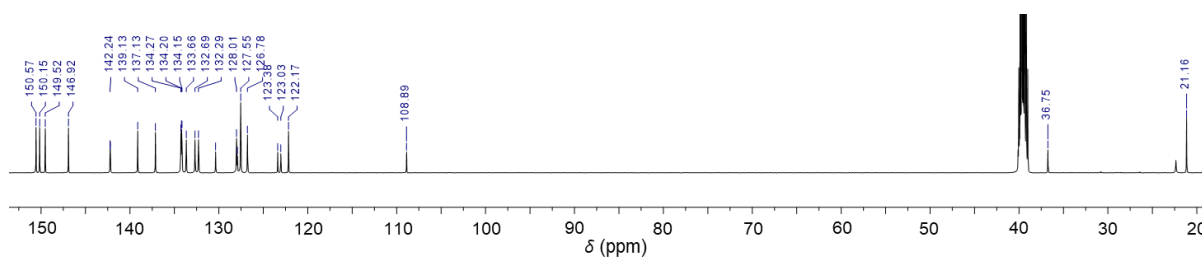


Figure S8. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin **4-BF₄**.

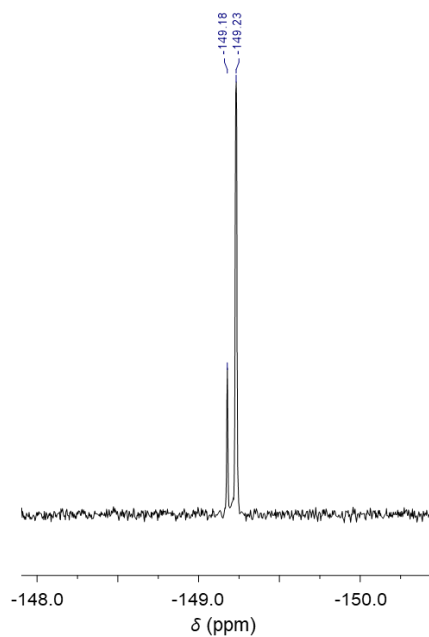


Figure S9. Full range ^{19}F NMR spectrum (162.0 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin **4-BF₄**.

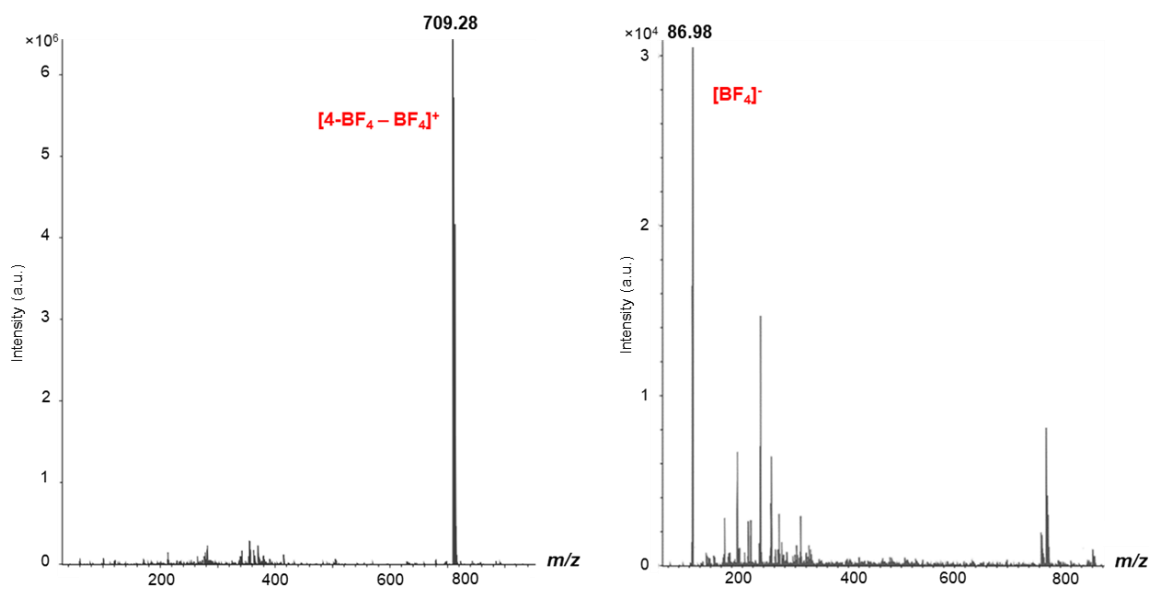


Figure S10. ESI-TOF MS positive mode (left) and ESI-TOF MS negative mode (right) mass spectra of porphyrin **4-BF₄**.

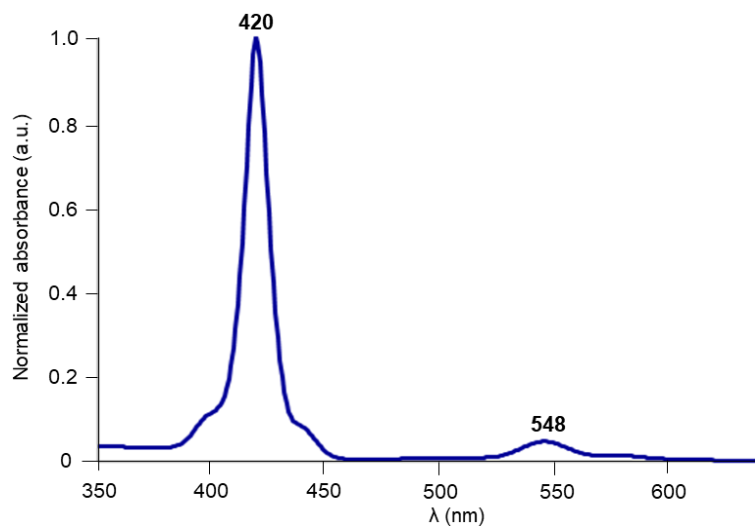


Figure S11. UV-vis. absorption spectrum (CH_2Cl_2) of porphyrin **4-BF**₄.

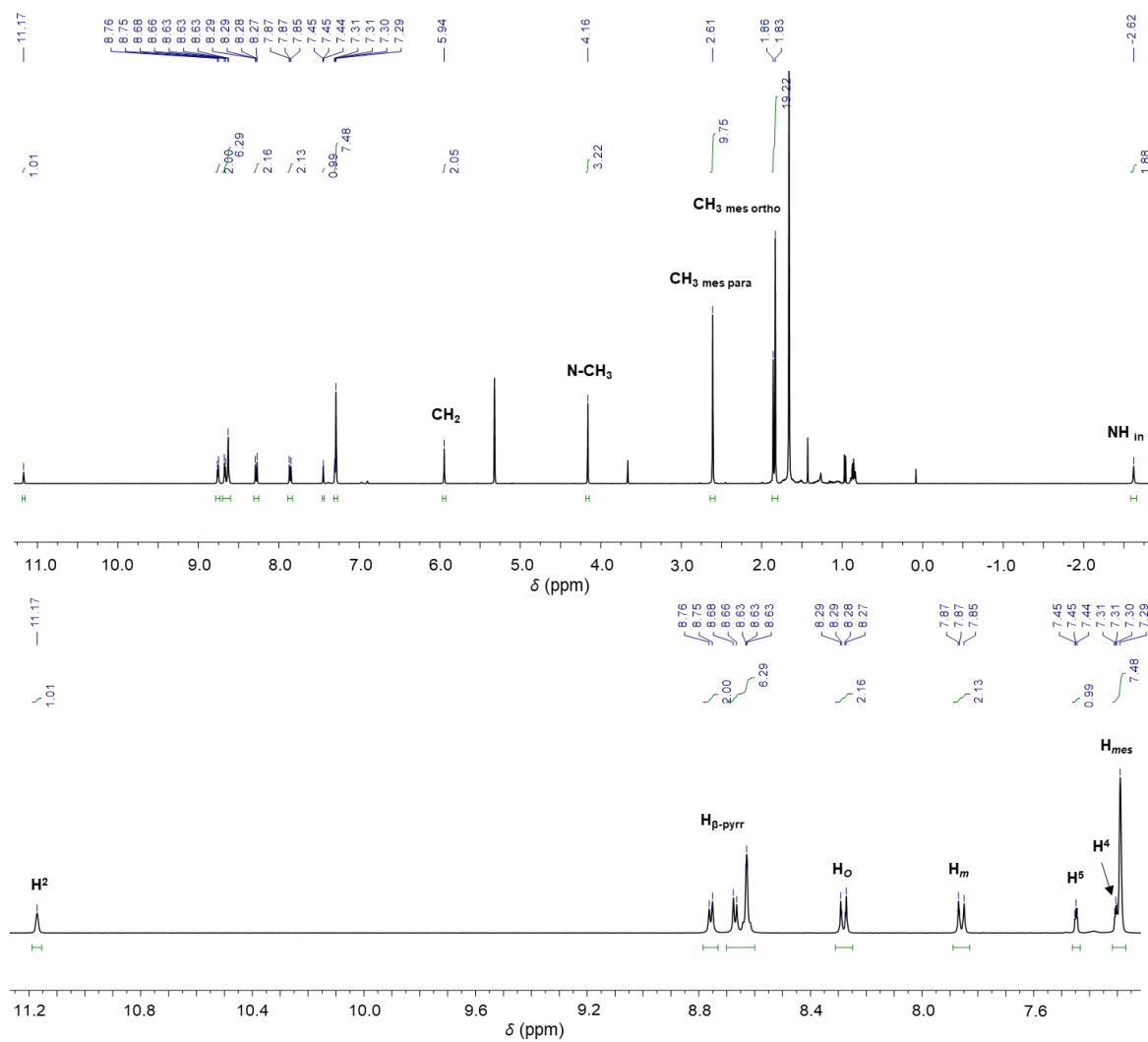


Figure S12. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, CD_2Cl_2 , 298 K) of porphyrin **6**.

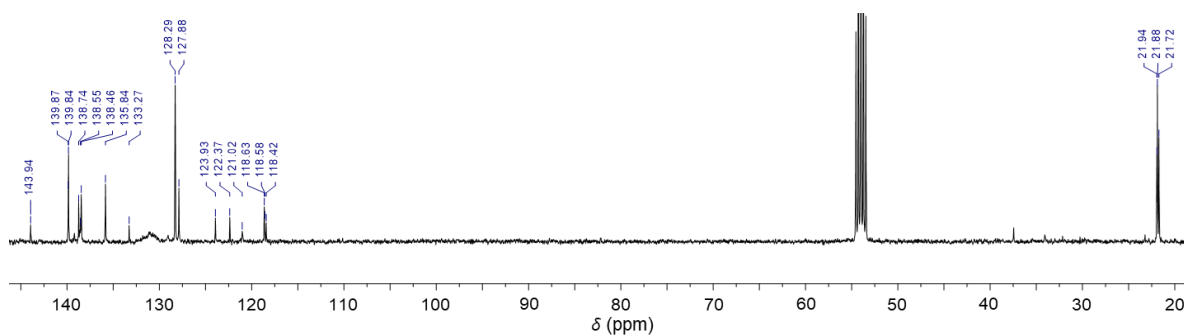


Figure S13. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of porphyrin **6**.

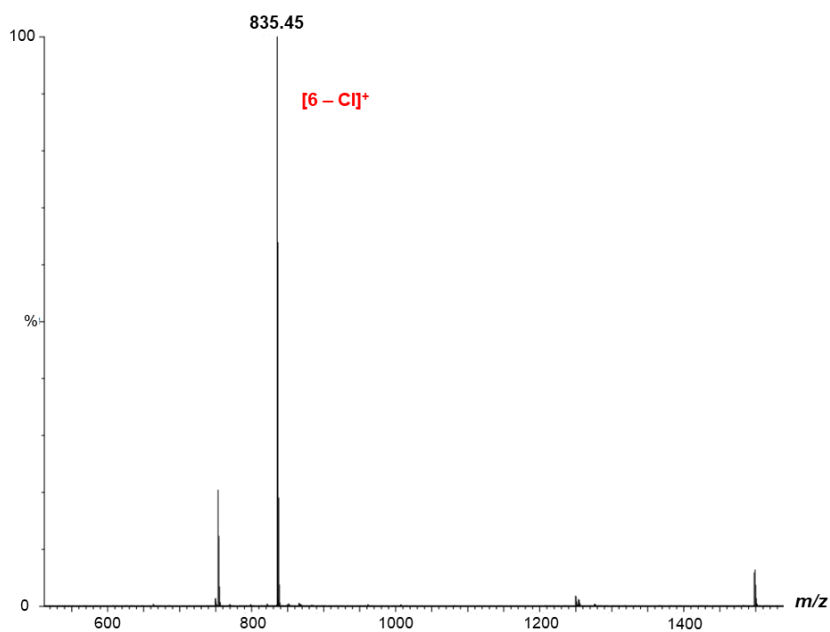


Figure S14. ESI-TOF positive mode mass spectrum of porphyrin **6**.

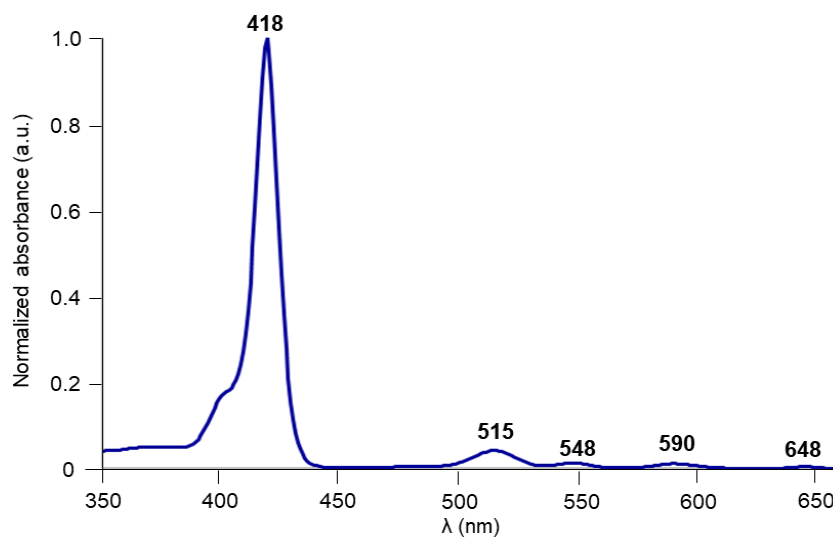


Figure S15. UV-vis. absorption spectrum (CH_2Cl_2) of porphyrin **6**.

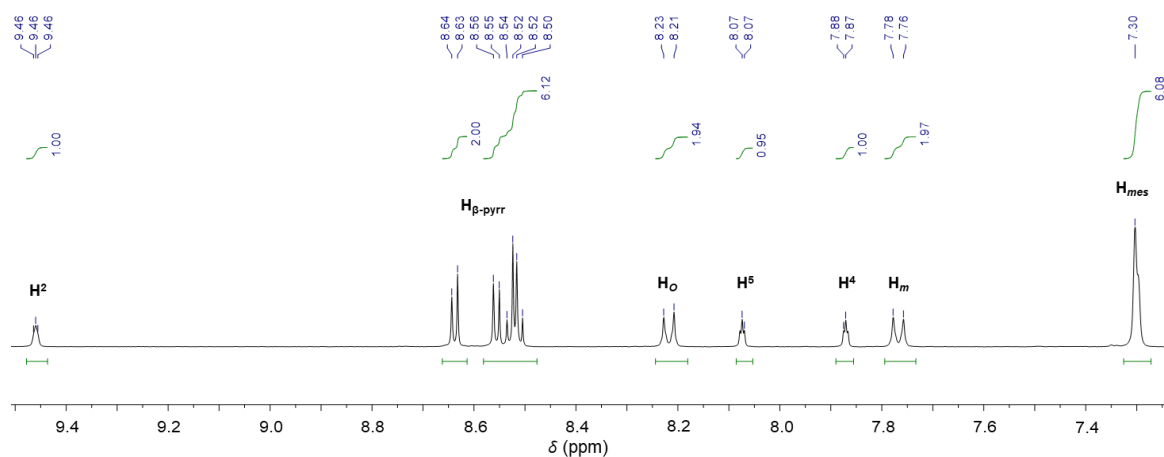
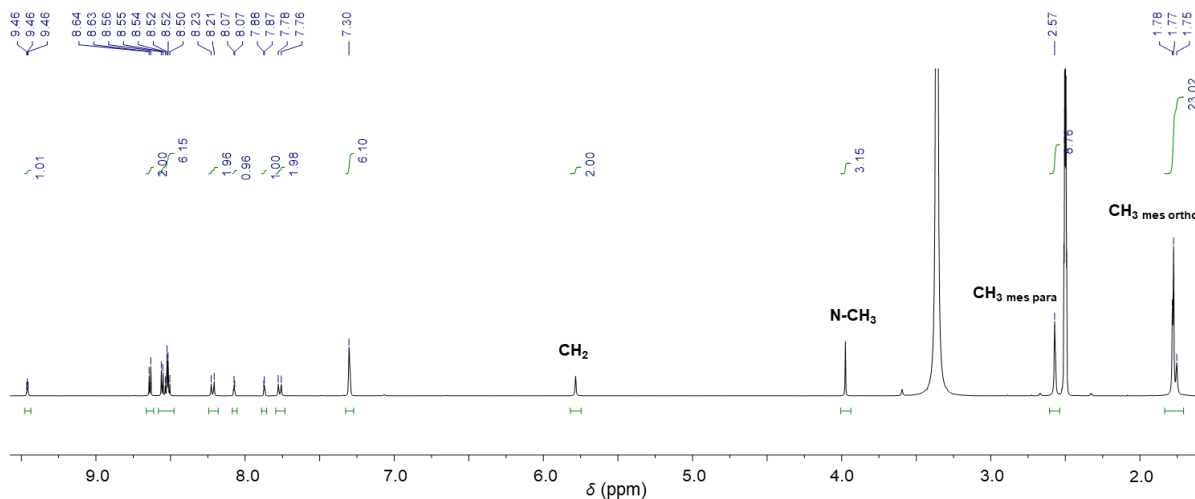


Figure S16. Full range (top) and partial (bottom) ^1H NMR spectra (400.1 MHz, DMSO- d_6 , 298 K) of porphyrin **7**.

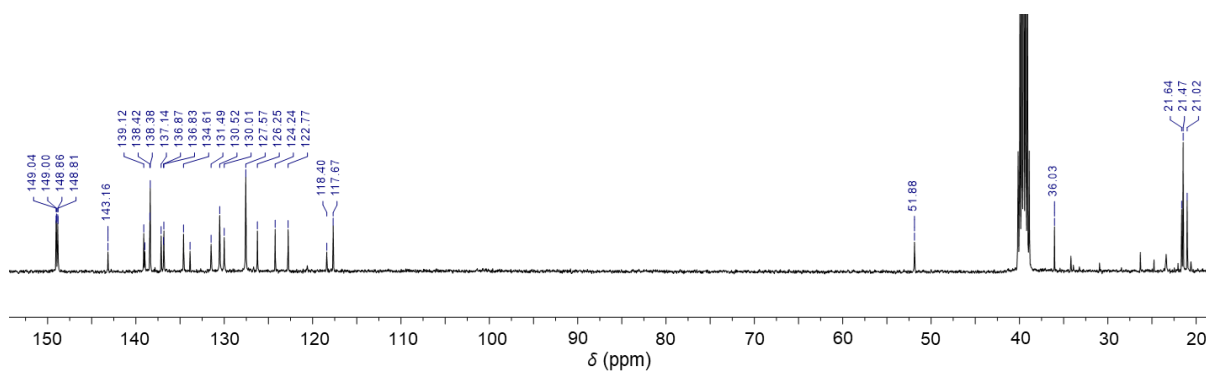


Figure S17. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, DMSO- d_6 , 298 K) of porphyrin **7**.

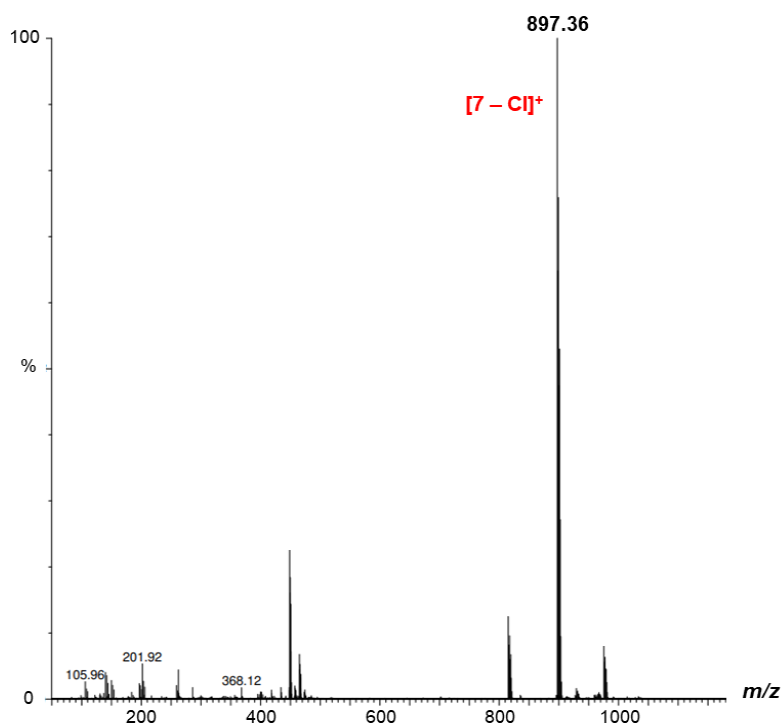


Figure S18. ESI-TOF positive mode mass spectrum of porphyrin 7.

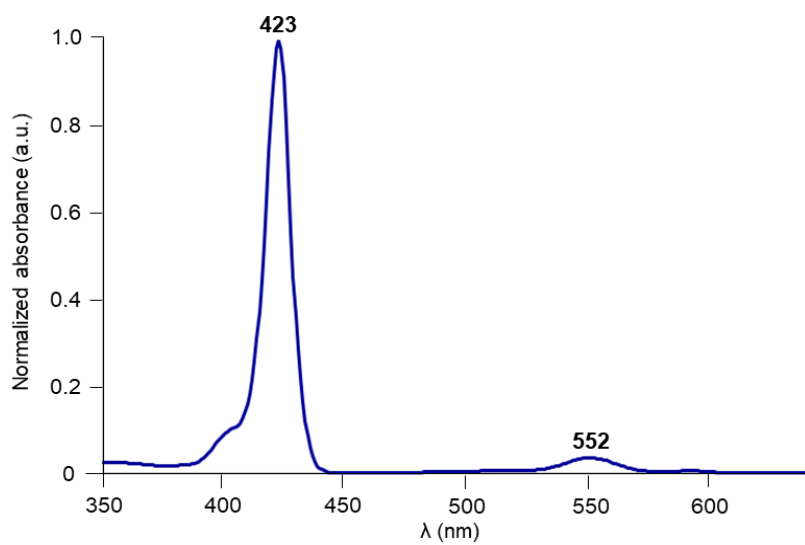


Figure S19. UV-vis. absorption spectrum (CH_2Cl_2) of porphyrin 7.

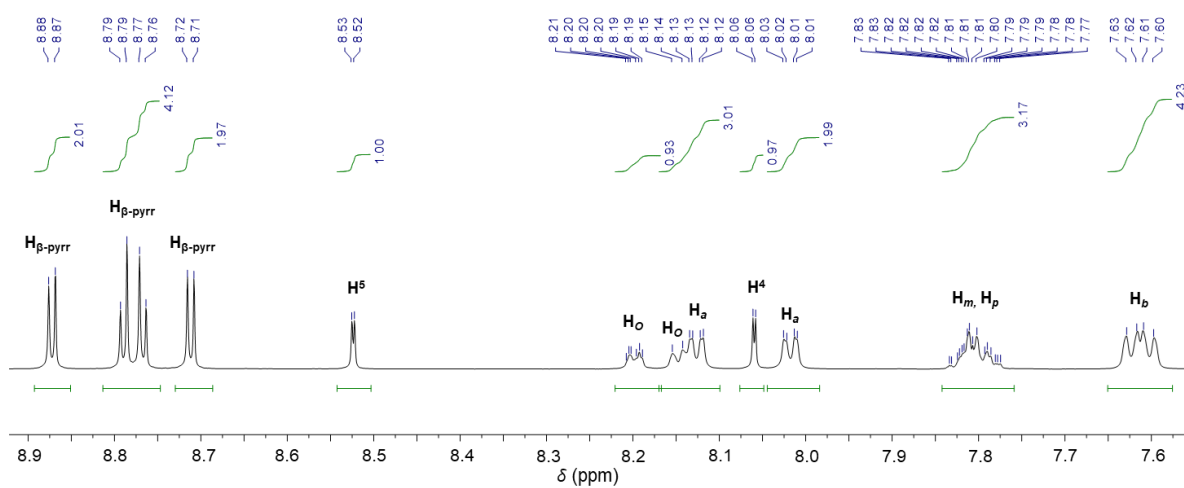
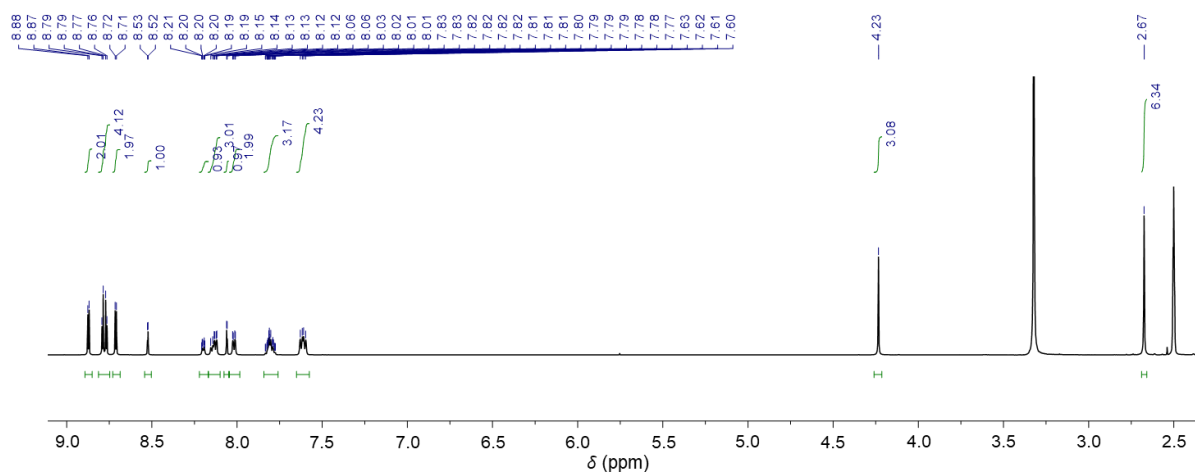


Figure S20. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **8**.

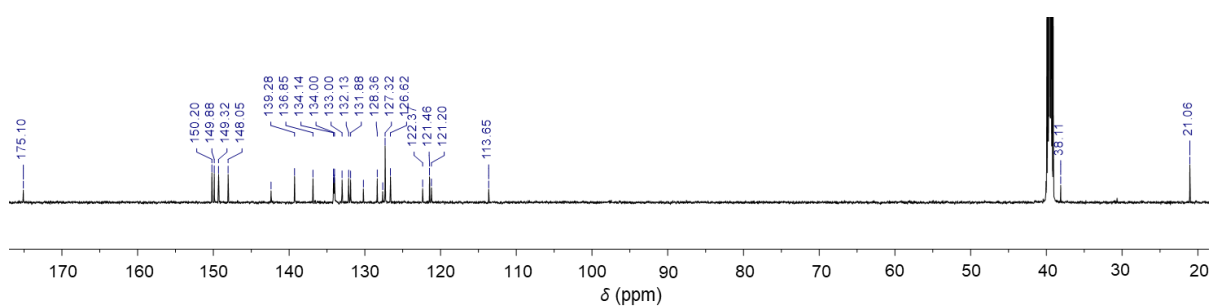


Figure S21. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **8**.

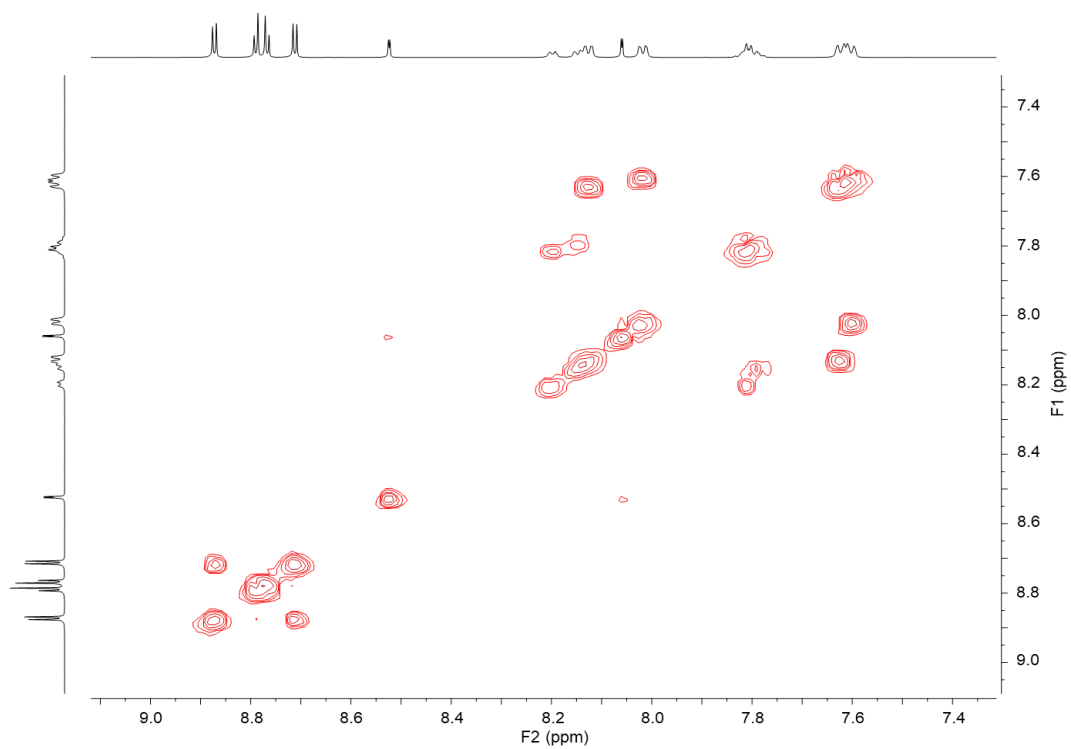


Figure S22. ^1H - ^1H COSY NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **8**.

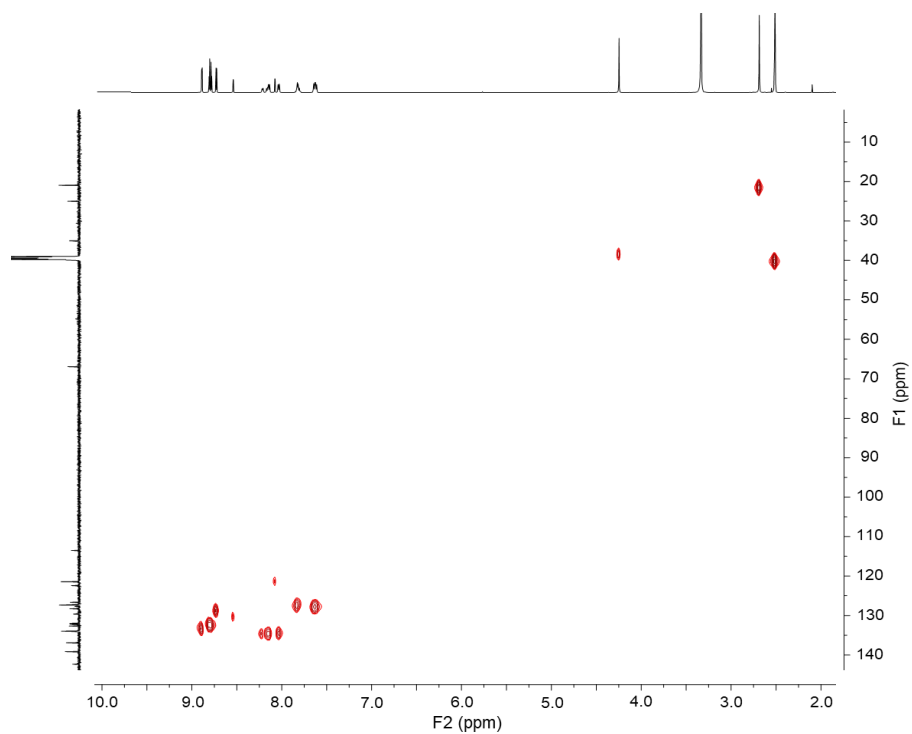


Figure S23. ^1H - ^{13}C HSQC NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **8**.

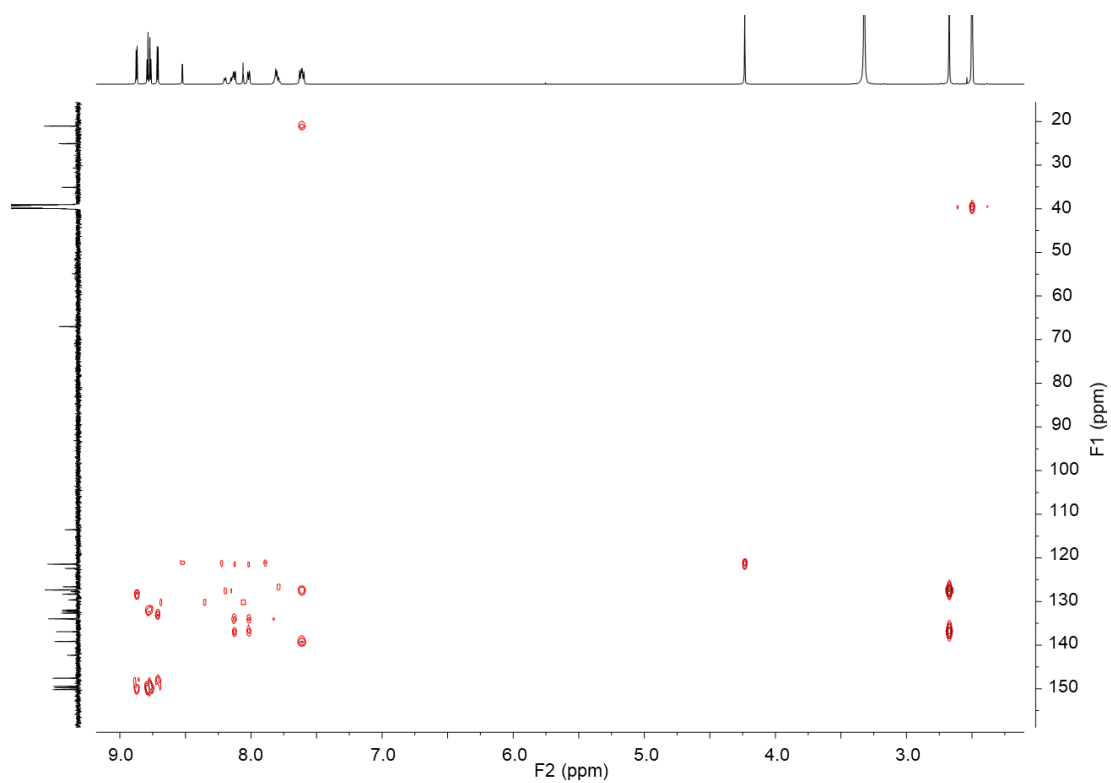


Figure S24. ^1H - ^{13}C HMBC NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **8**.

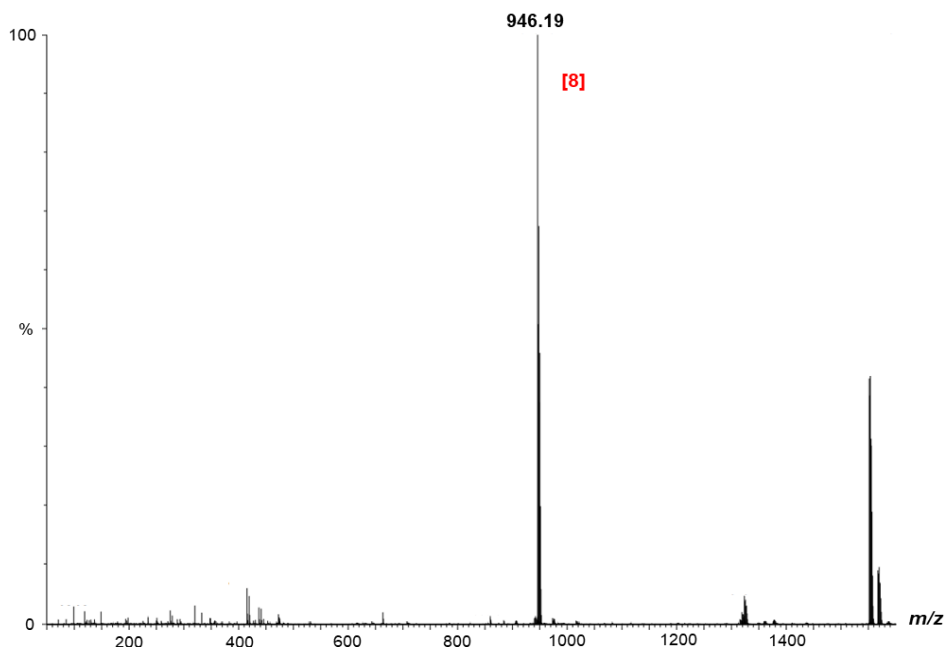


Figure S25. ESI-TOF (positive mode) mass spectrum of gold(I) complex **8**.

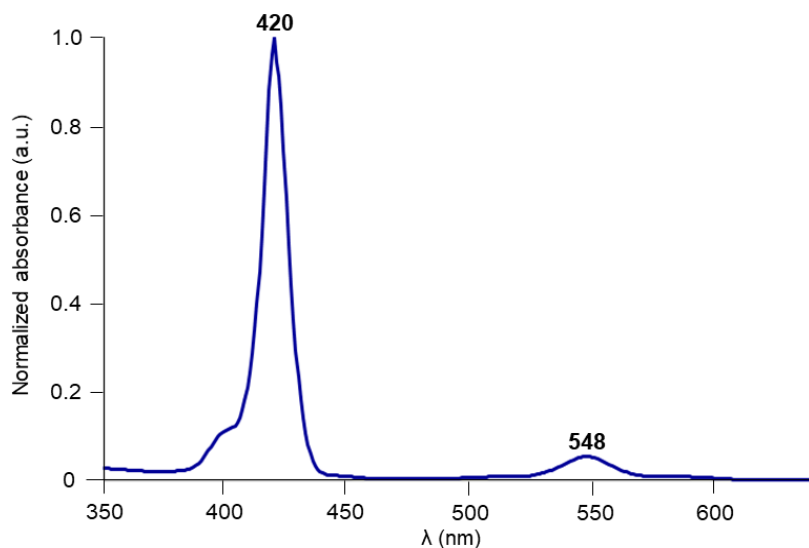


Figure S26. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex **8**.

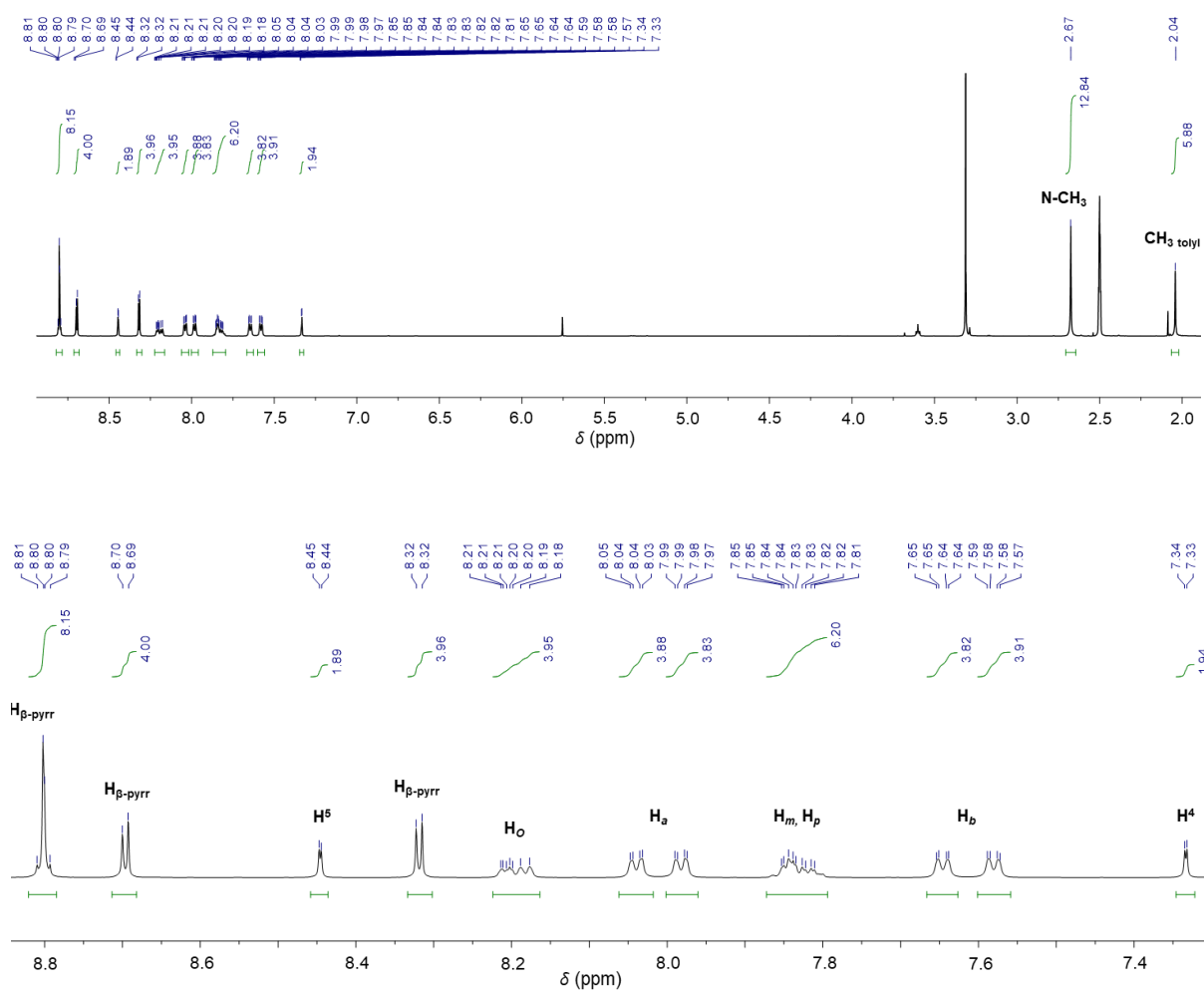


Figure S27. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, $\text{DMSO}-d_6$, 298 K) of gold(I) complex **9**.

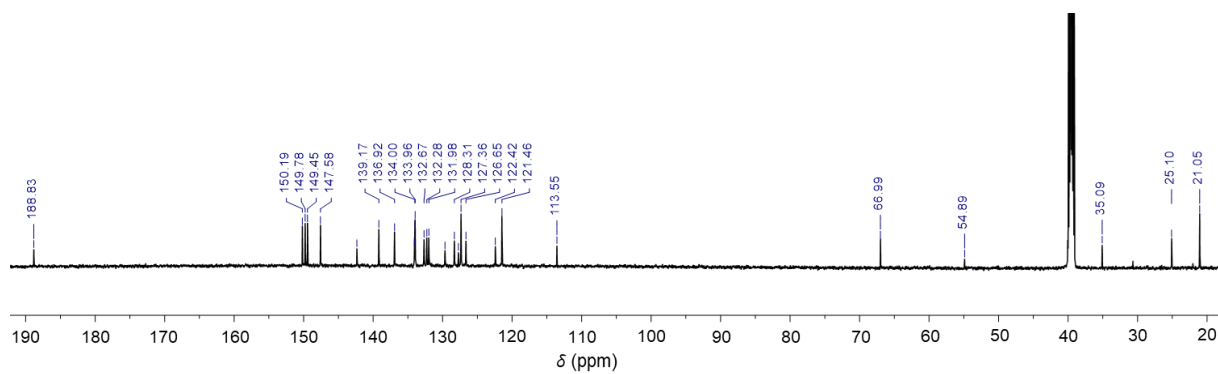


Figure S28. Full range $^{13}\text{C} \{^1\text{H}\}$ NMR spectrum (100.1 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **9**.

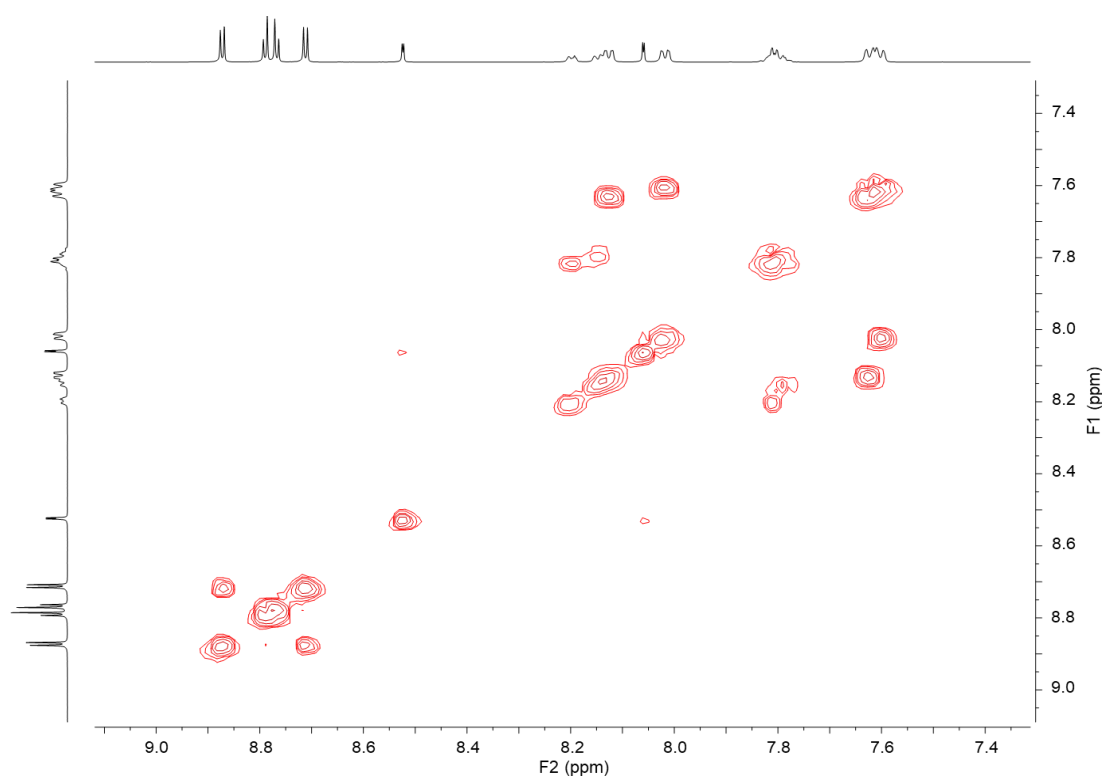


Figure S29. $^1\text{H-}^1\text{H}$ COSY NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **9**.

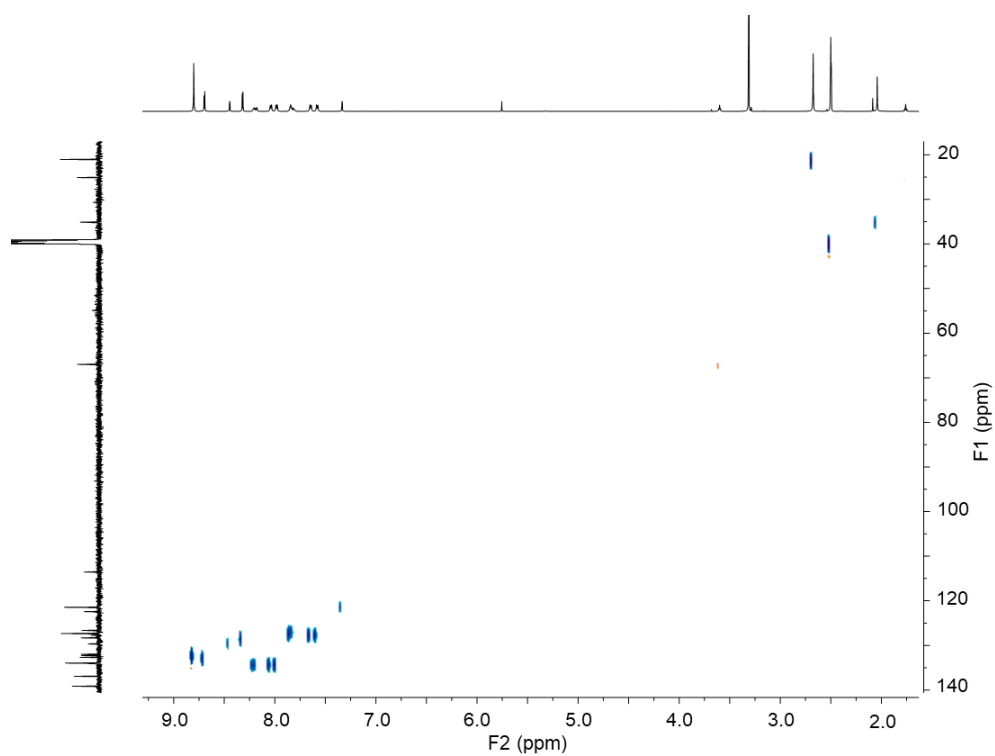


Figure S30. ^1H - ^{13}C HSQC NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **9**.

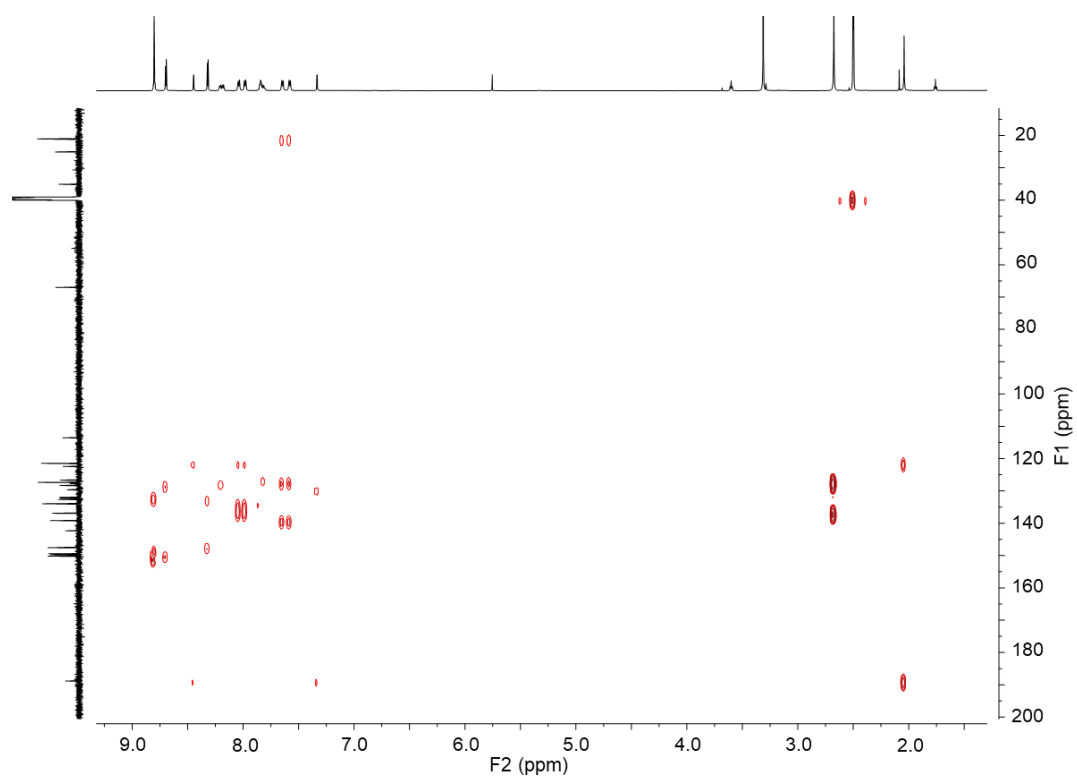


Figure S31. ^1H - ^{13}C HMBC NMR spectrum (600.3 MHz, $\text{DMSO-}d_6$, 298 K) of gold(I) complex **9**.

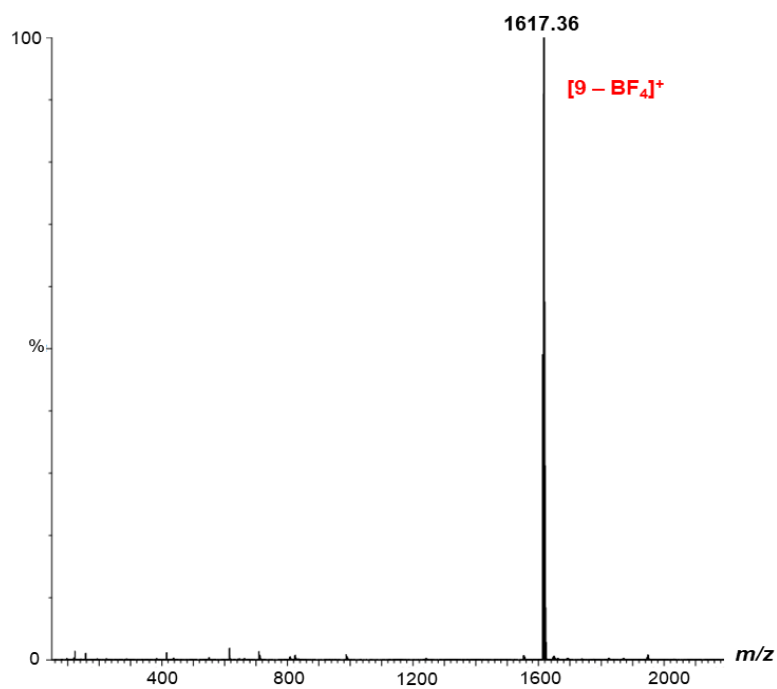


Figure S32. ESI-TOF positive mode mass spectrum of gold(I) complex **9**.

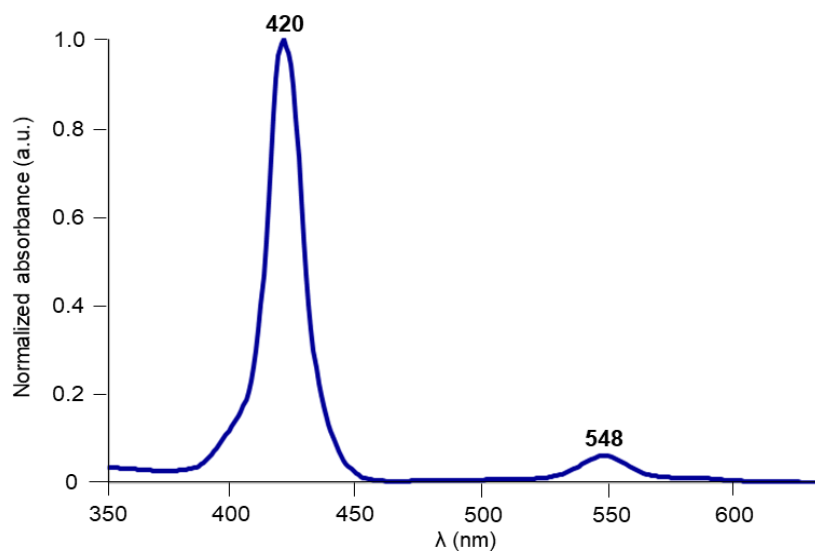


Figure S33. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex **9**.

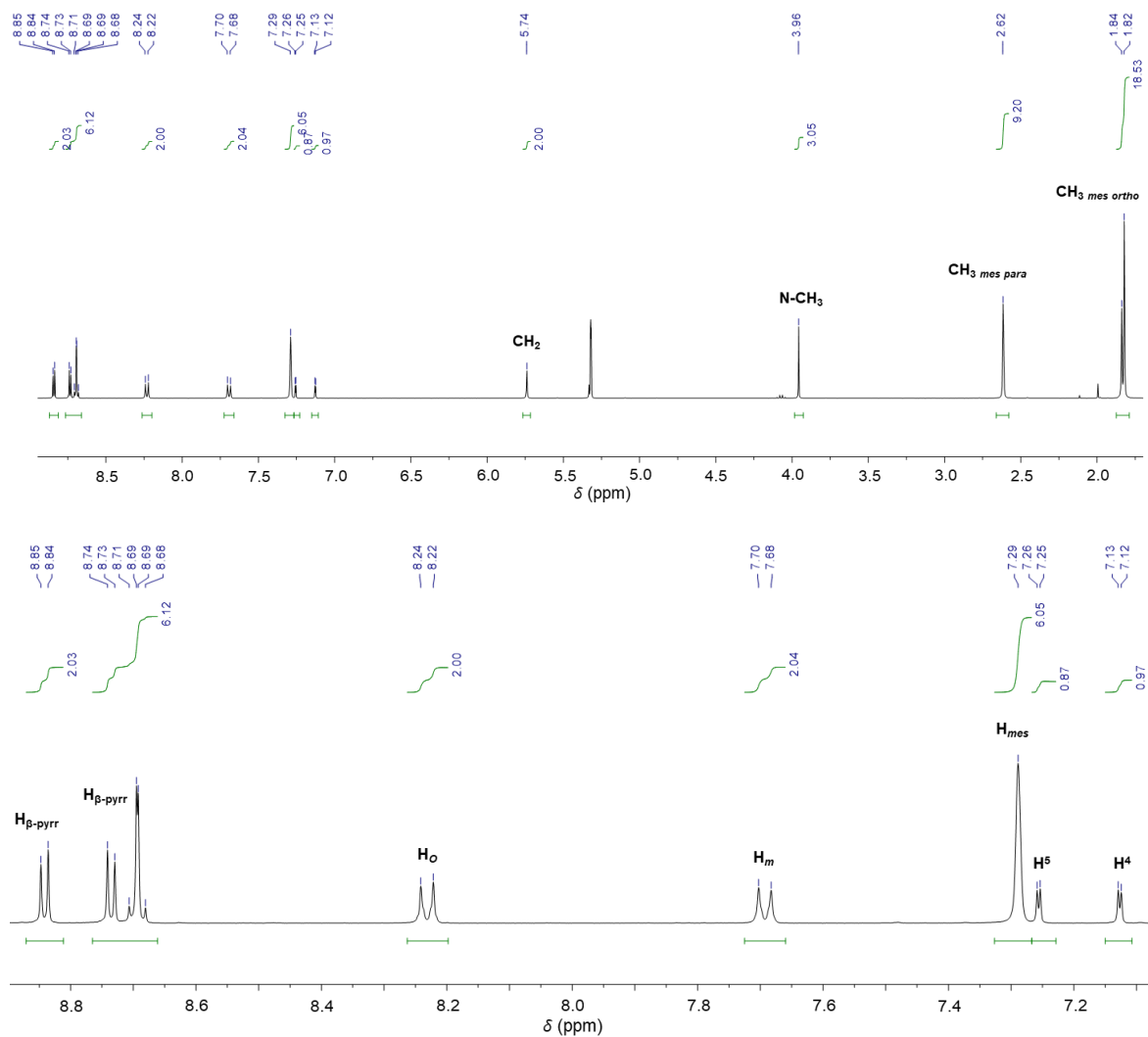


Figure S34. Full range (top) and partial (bottom) ^1H NMR spectra (600.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **10**.

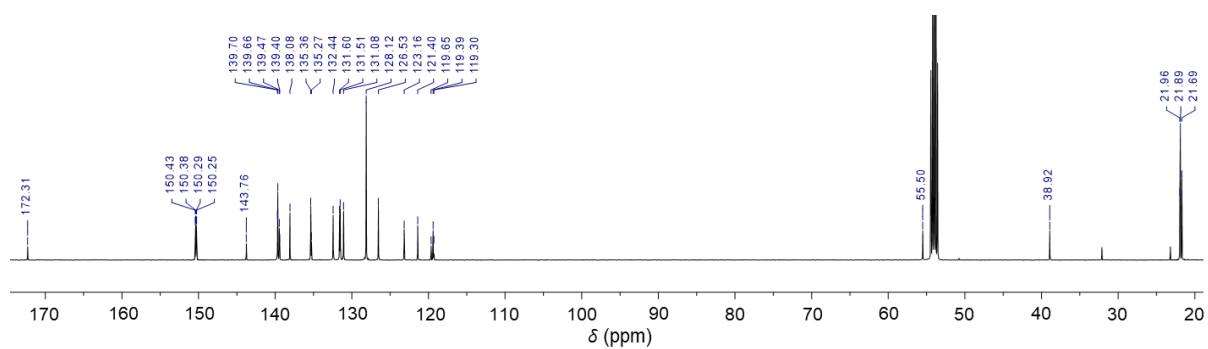


Figure S35. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **10**.

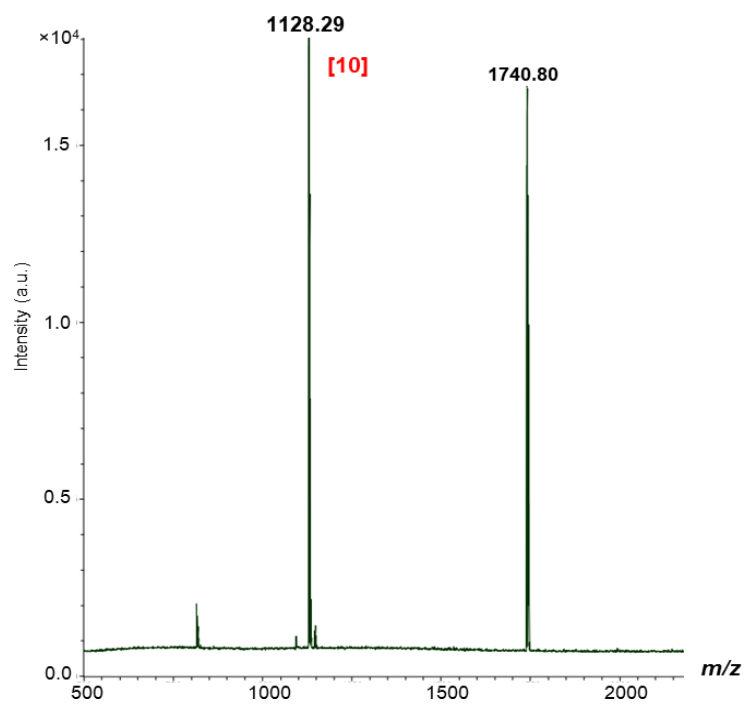


Figure S36. MALDI-TOF positive mode mass spectrum of gold(I) complex **10**.

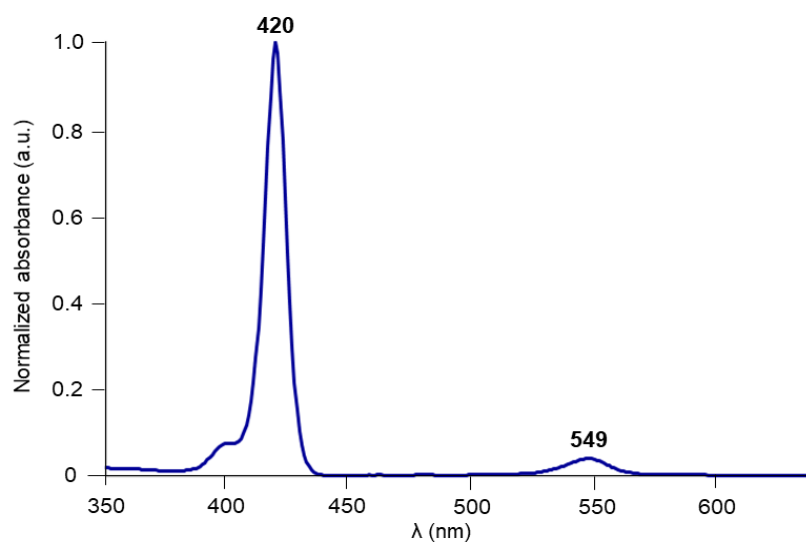


Figure S37. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex **10**.

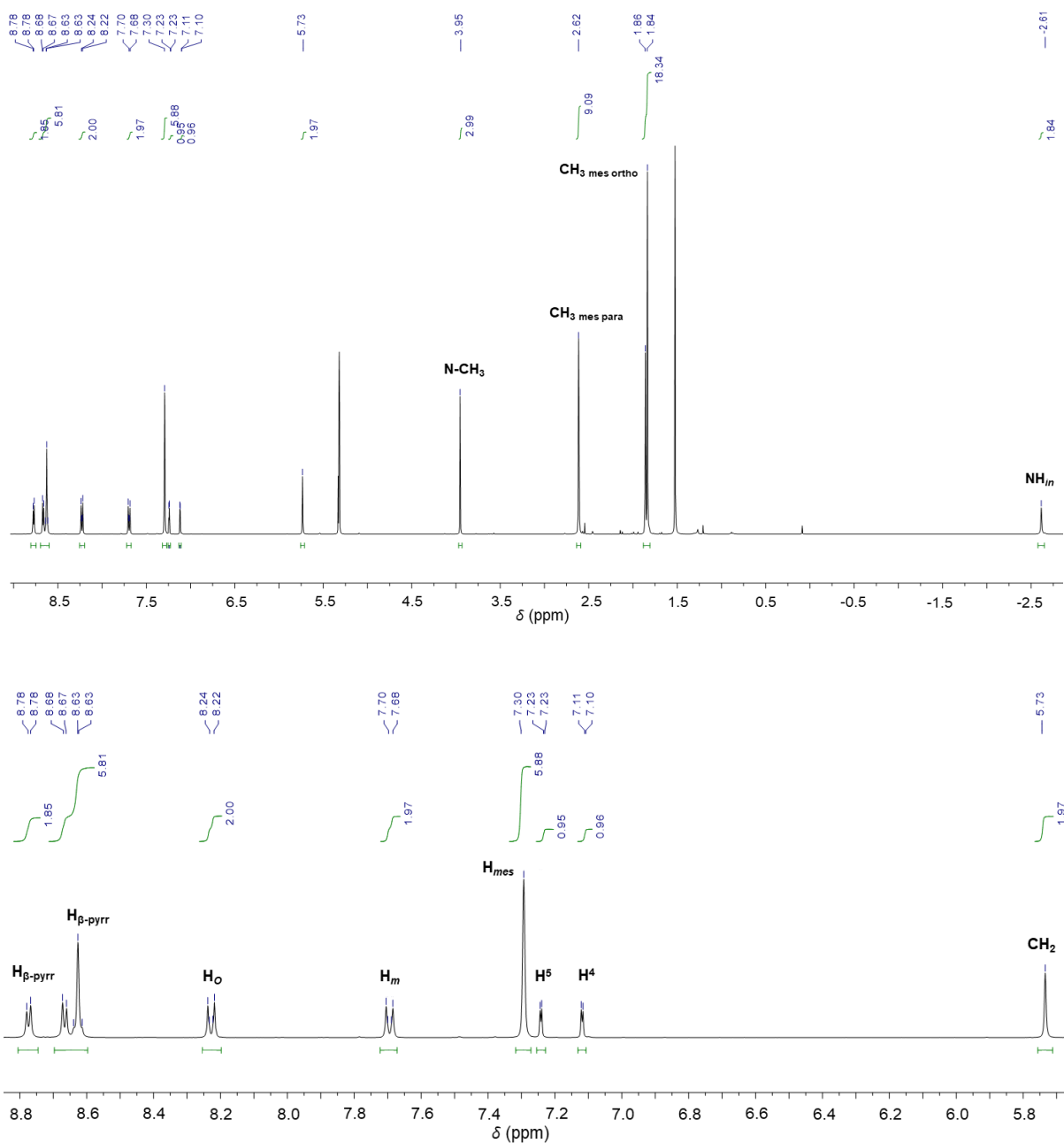


Figure S38. Full range (top) and partial (bottom) ¹H NMR spectra (600.1 MHz, CD₂Cl₂, 298 K) of gold(I) complex **11**.

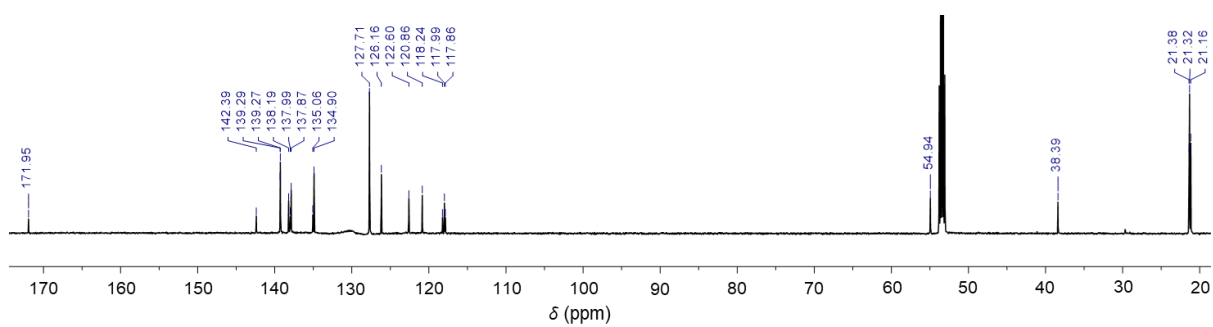


Figure S39. Full range ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **11**.

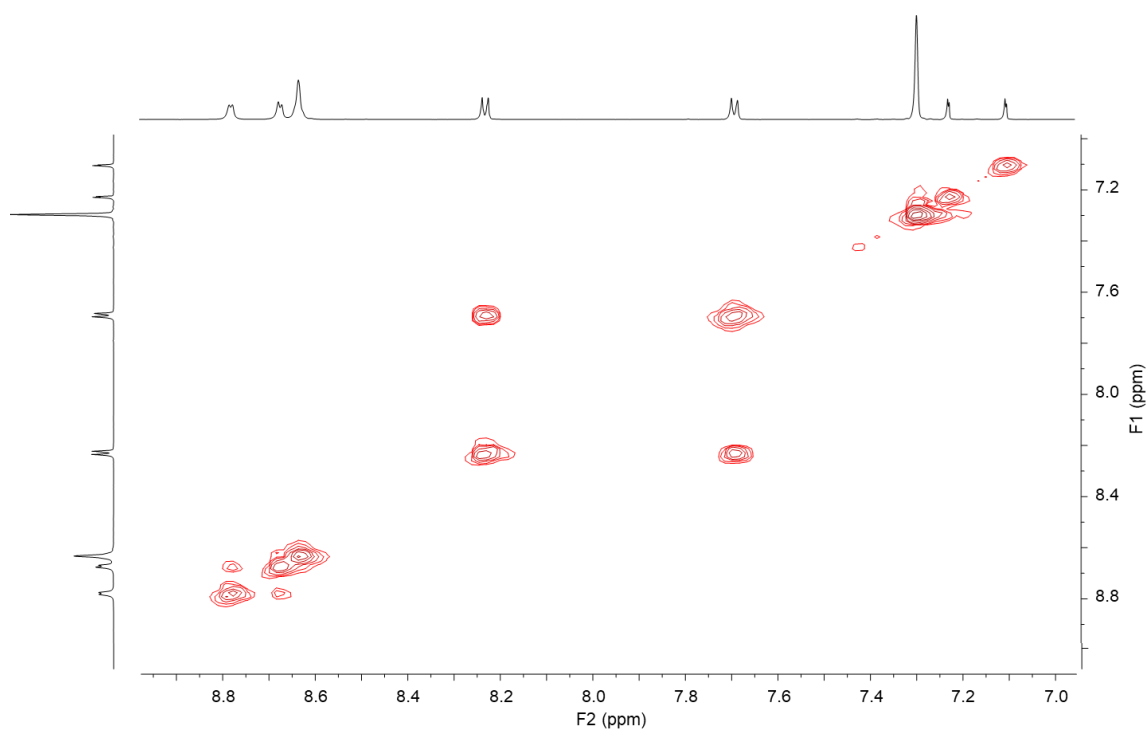


Figure S40. ^1H - ^1H COSY NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **11**.

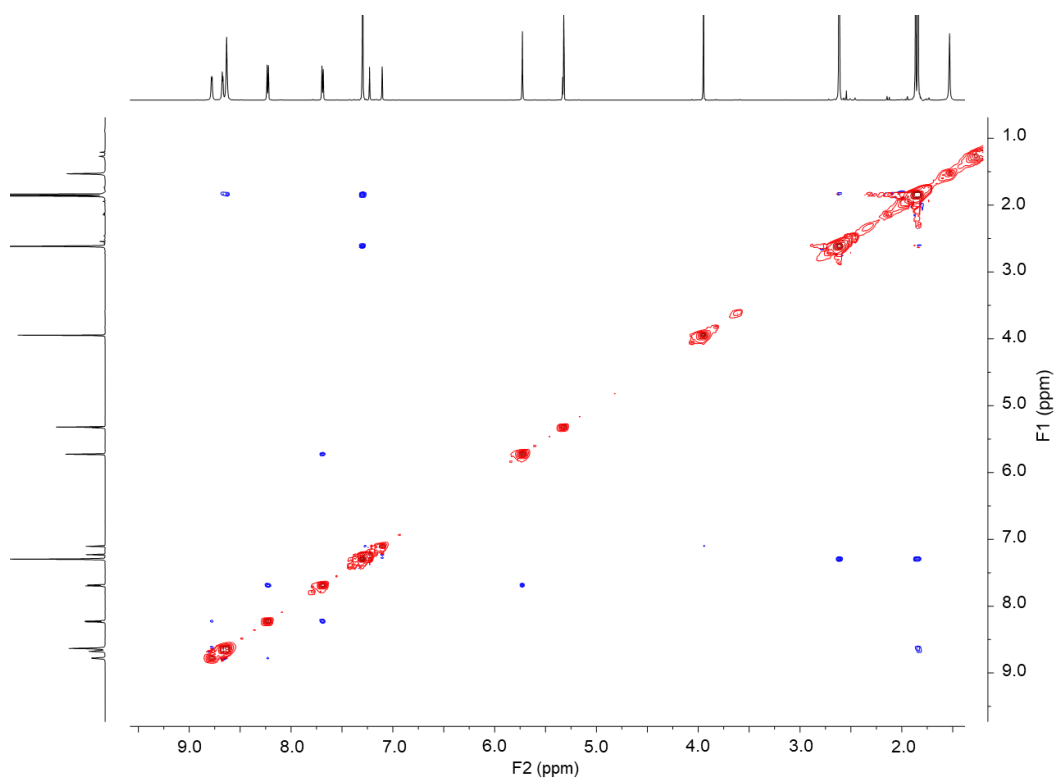


Figure S41. ^1H - ^1H ROESY NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **11**.

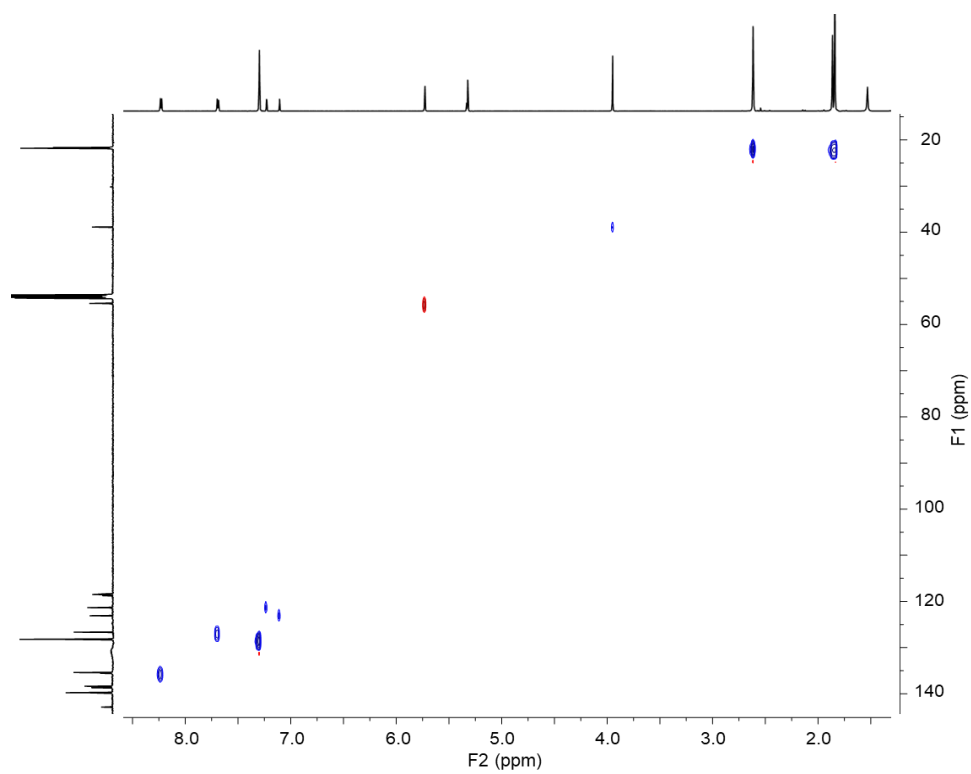


Figure S42. ^1H - ^{13}C HSQC NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **11**.

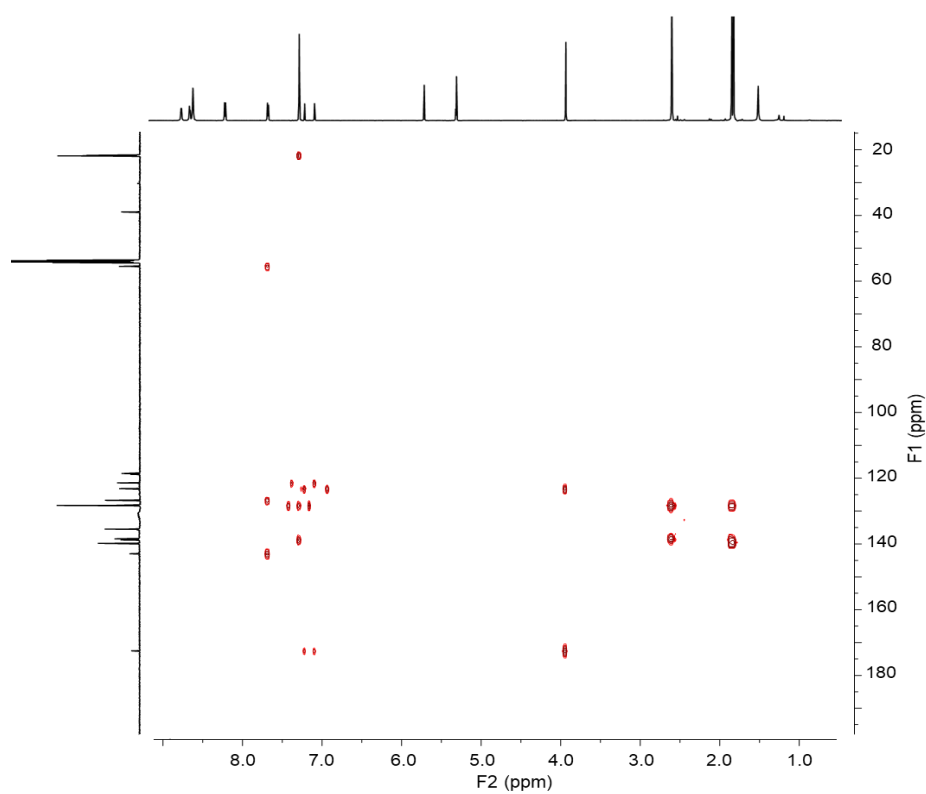


Figure S43. ^1H - ^{13}C HMBC NMR spectrum (600.3 MHz, CD_2Cl_2 , 298 K) of gold(I) complex **11**.

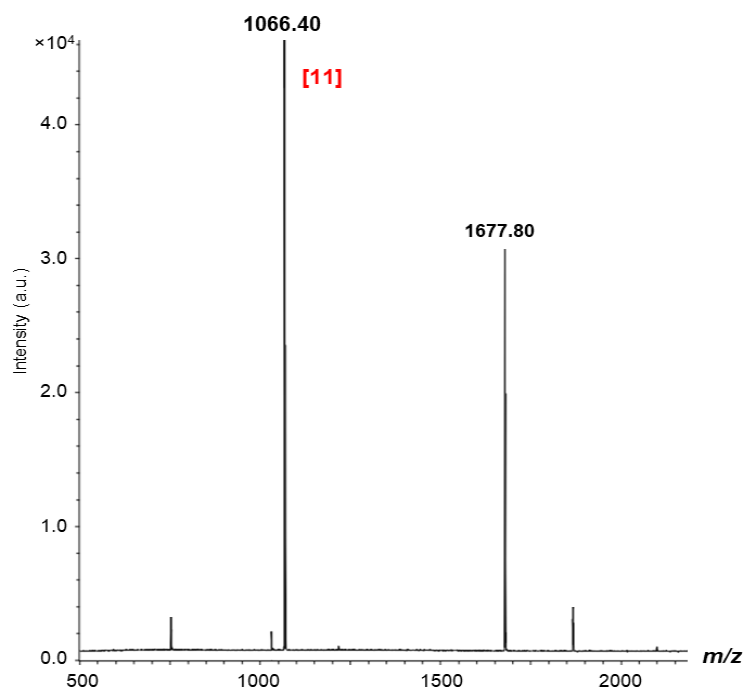


Figure S44. MALDI-TOF positive mode mass spectrum of gold(I) complex **11**.

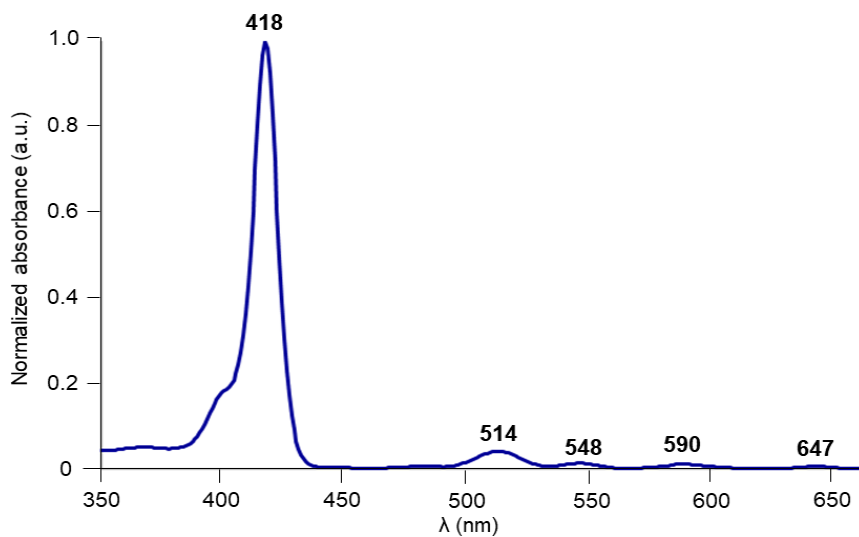


Figure S45. UV-vis. absorption spectrum (CH_2Cl_2) of gold(I) complex **11**.

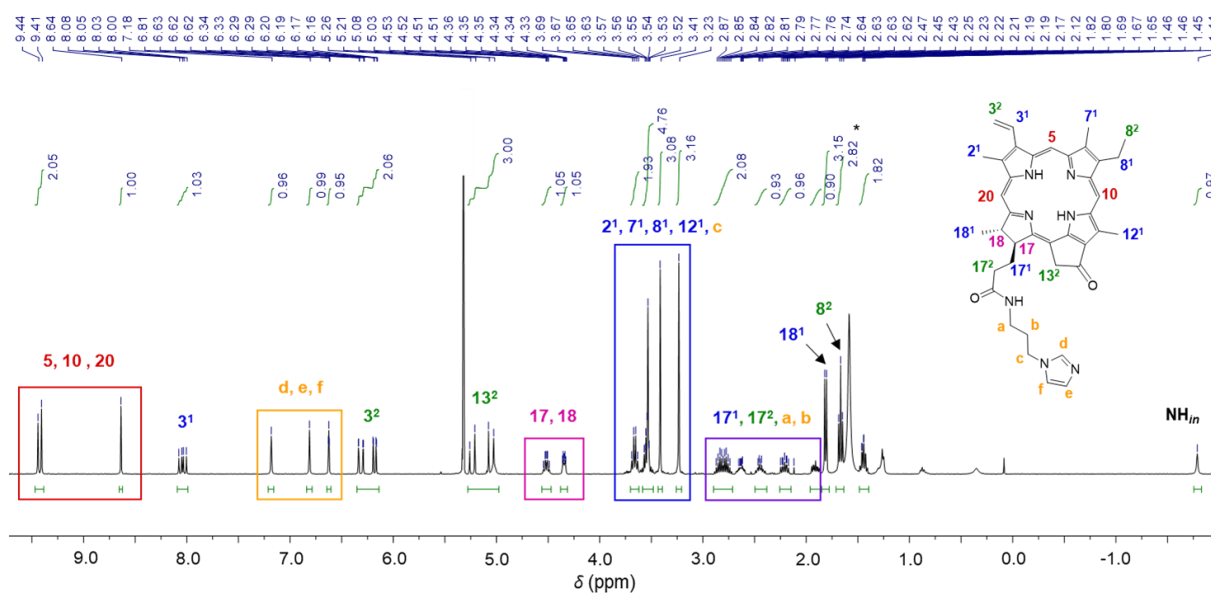


Figure S46. Full range ^1H NMR spectrum (400.1 MHz, CD_2Cl_2 , 298 K) of chlorin **13**.

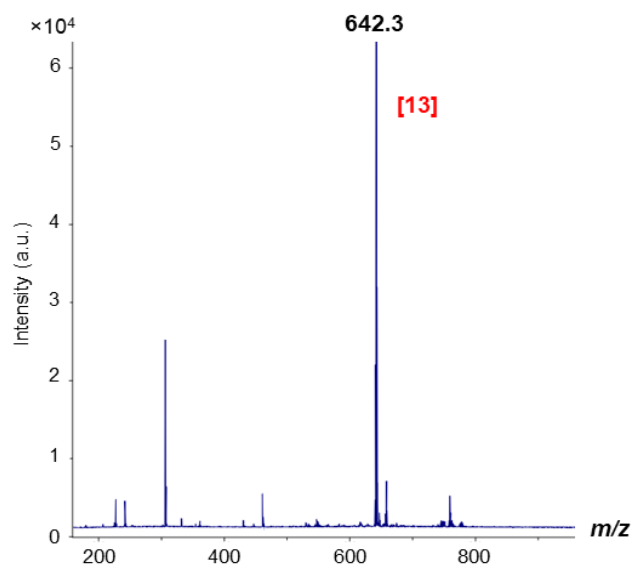


Figure S47. MALDI-TOF positive mode mass spectrum of chlorin **13**.

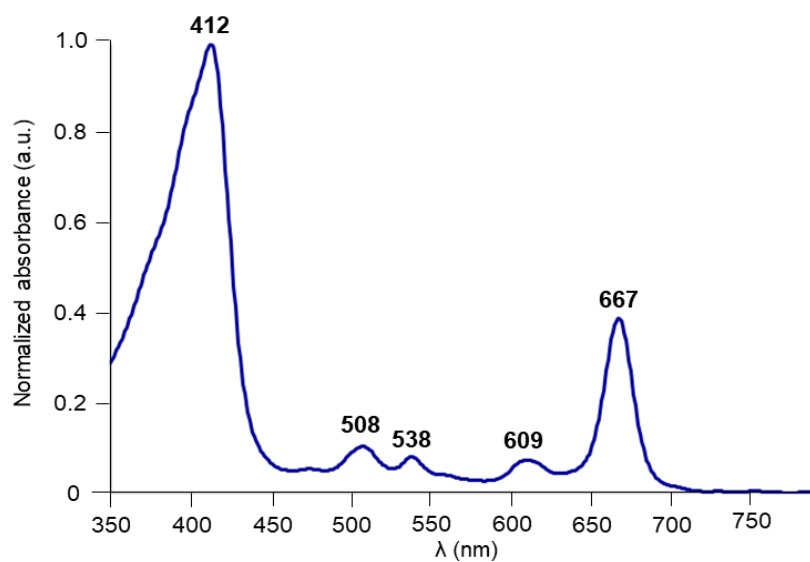


Figure S48. UV-vis. absorption spectrum (CH_2Cl_2) of chlorin **13**.

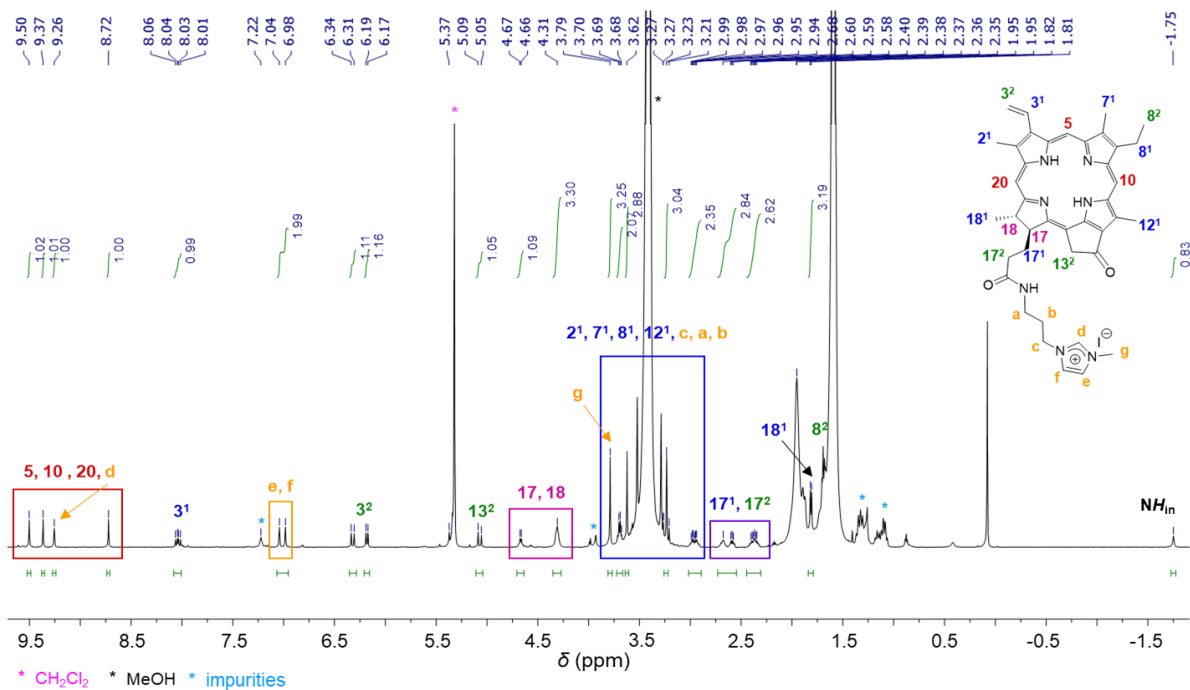


Figure S49. Full range ^1H NMR spectrum (600.3 MHz, CD_2Cl_2 :MeOD (9/1) (v/v), 298 K) of monocationic chlorin **14**.

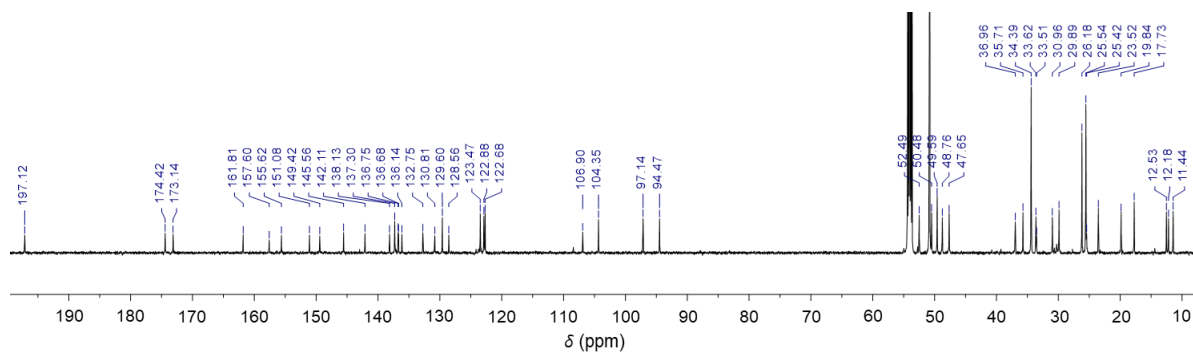


Figure S50. ^{13}C $\{^1\text{H}\}$ NMR spectrum (100.1 MHz, CD_2Cl_2 :MeOD (9/1) (v/v), 298 K) of monocationic chlorin **14**.

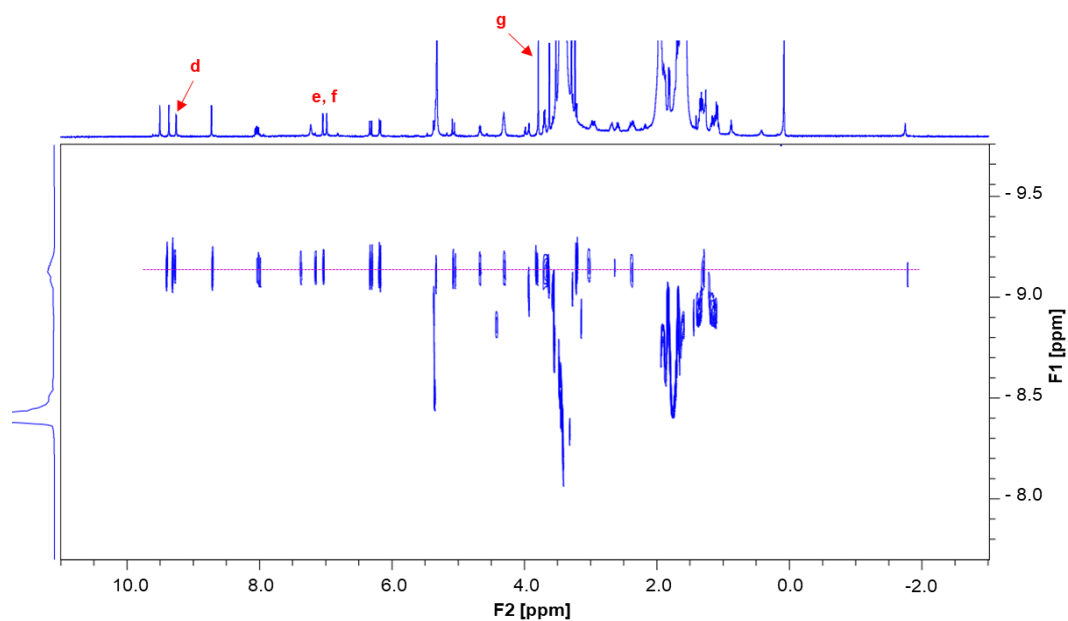


Figure S51. ^1H 2D NMR spectrum (600 MHz, CD_2Cl_2 , 298 K) of chlorin **14**.

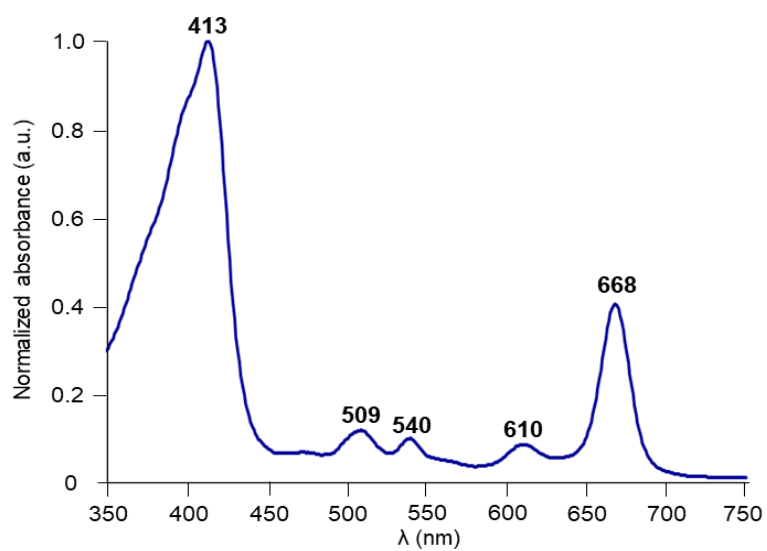


Figure S52. UV-vis. absorption spectrum (CH_2Cl_2) of chlorin **14**.

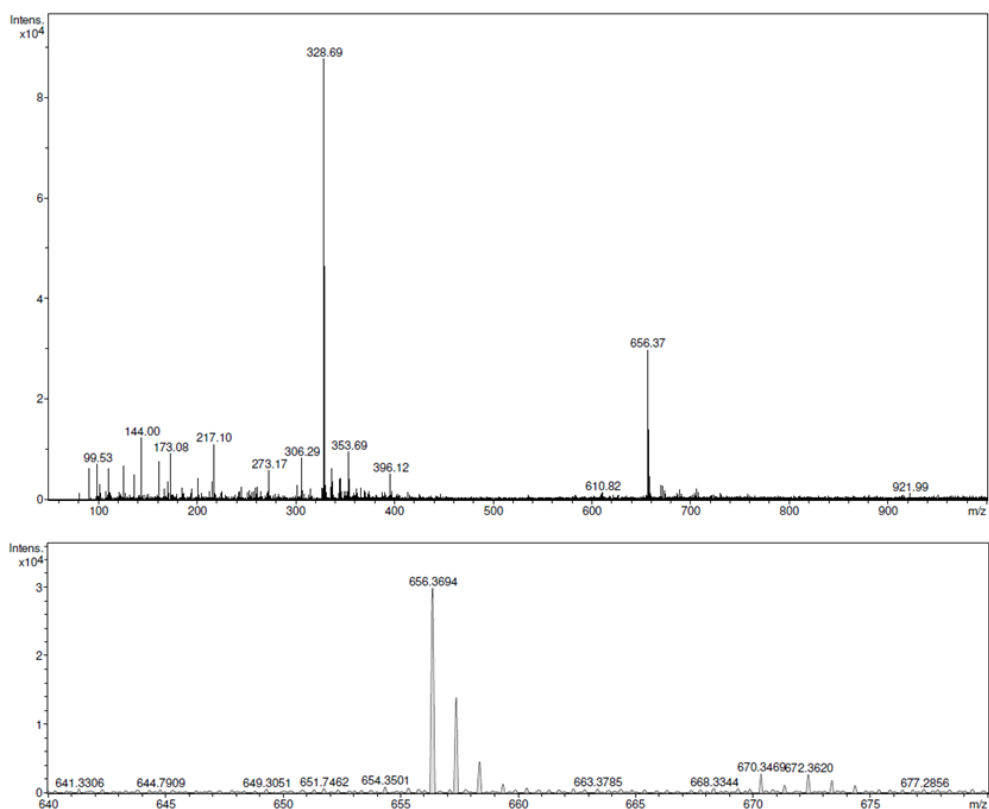


Figure S54. HR ESI-TOF positive mode mass spectrum of chlorin **14**.