

Tetra-Substituted Phthalocyanines Bearing Thiazolidine Derivative: Synthesis, Anticancer Activity on Different Cancer Cell Lines, and Molecular Docking Studies

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Content of supplementary material

- Fig. S1** ¹H-NMR spectrum of (4R)-2-(2-hydroxyphenyl)thiazolidine-4-carboxylic acid.
- Fig. S2** ¹H-NMR spectrum of 2-(3-(3,4-dicyanophenoxy)phenyl)thiazolidine-4-carboxylic acid (**1**).
- Fig. S3** FTIR spectra of synthesized compounds (**1-4**).
- Fig. S4** UV-Vis spectra of ZnPc(**2**) at different concentrations in DMSO (inset: the plot of Q band absorbance versus concentration).
- Fig. S5** UV-Vis spectra of CoPc(**4**) at different concentrations in DMSO (inset: the plot of Q band absorbance versus concentration).
- Fig. S6** UV-Vis spectra of ZnPc (**2**) in different solvents (inset: The plot of the Q band frequency of ZnPc (**2**) against $(n^2 - 1)/(2n^2 + 1)$)
- Fig. S7** UV-Vis spectra of CoPc (**4**) in different solvents (inset: The plot of the Q band frequency of CoPc (**4**) against $(n^2 - 1)/(2n^2 + 1)$)
- Fig. S8** UV-Vis spectra of ZnPc (**2**) during the titration with Ag(I) ions (Inset: the plot of Q-, B-, and J-aggregation bands absorption values versus the amount of Ag(I) ions).
- Fig. S9** UV-Vis spectra of CoPc (**4**) during the titration with Ag(I) ions (Inset: the plot of Q and B bands absorption values versus the amount of Ag(I) ions).

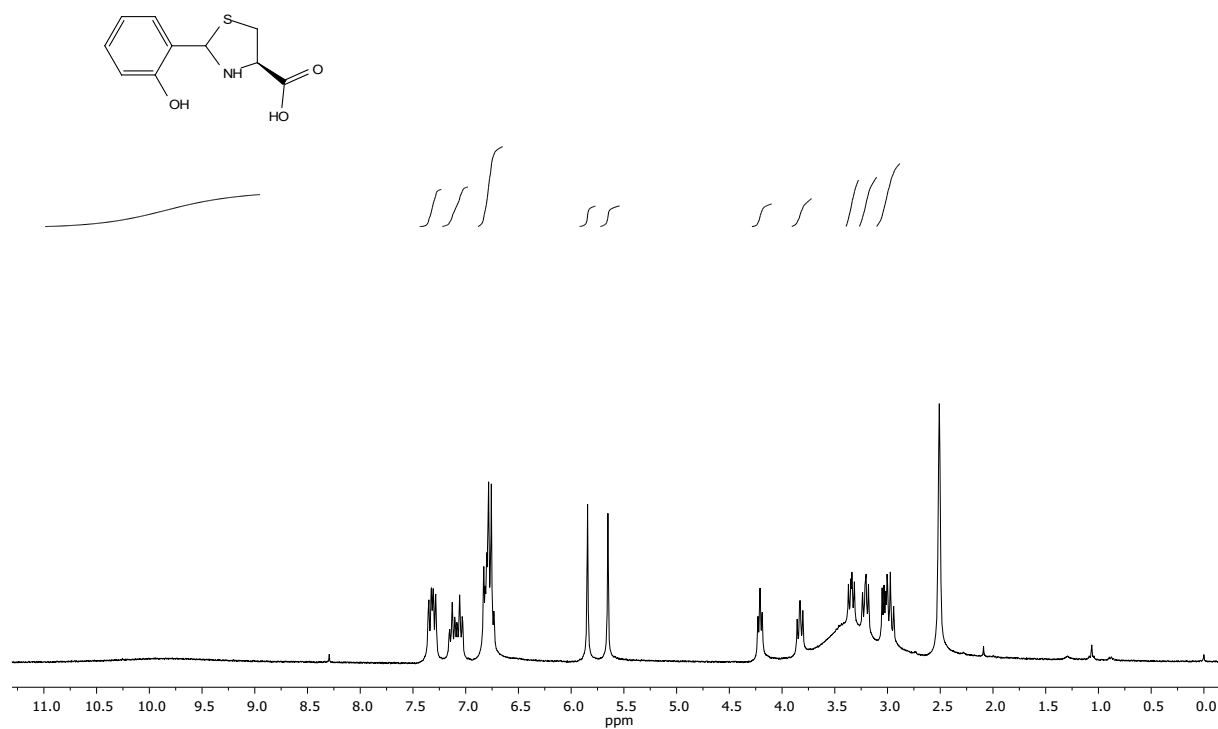


Fig. S1 ¹H-NMR spectrum of (4R)-2-(2-hydroxyphenyl)thiazolidine-4-carboxylic acid.

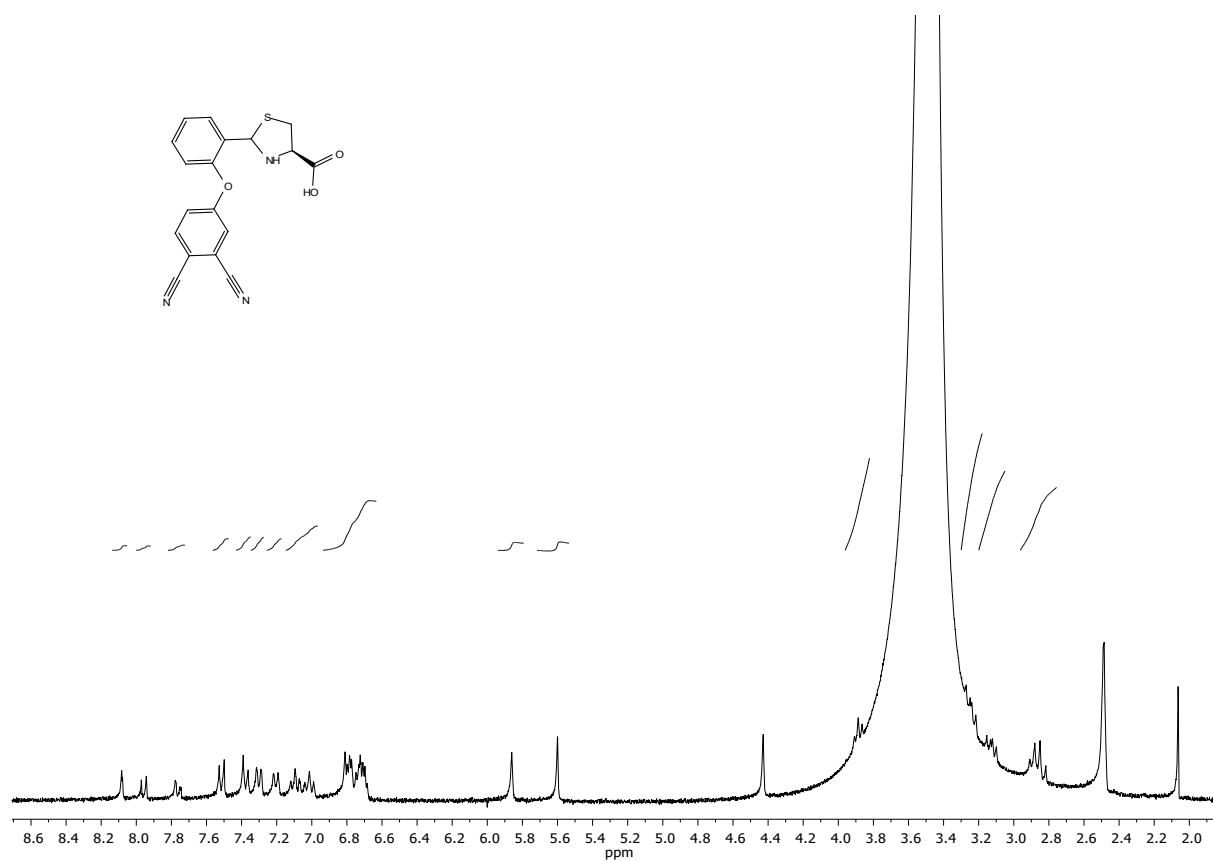


Fig. S2 ¹H-NMR spectrum of 2-(3-(3,4-dicyanophenoxy)phenyl)thiazolidine-4-carboxylic acid (**1**).

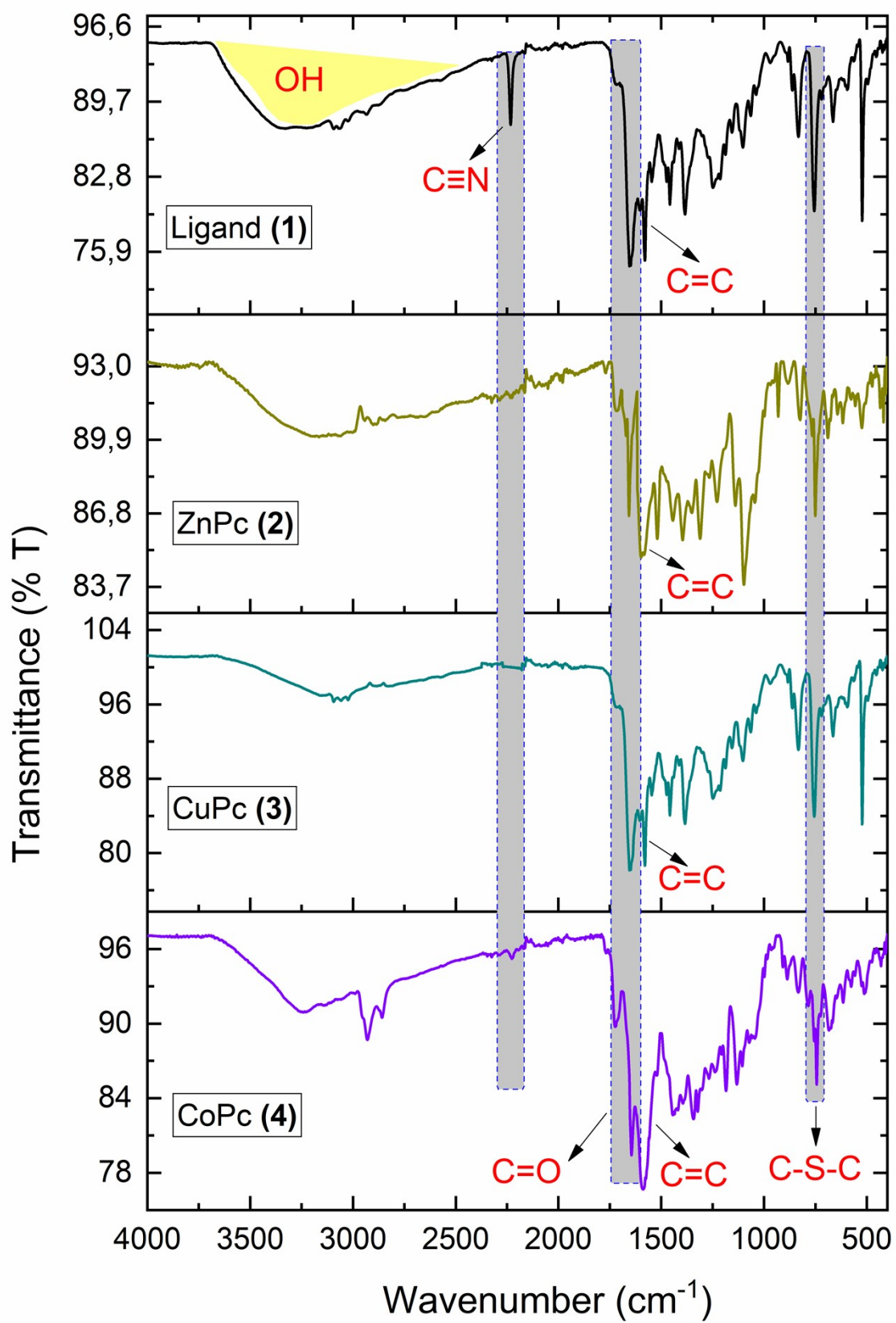


Fig. S3 FTIR spectra of synthesized compounds (1-4).

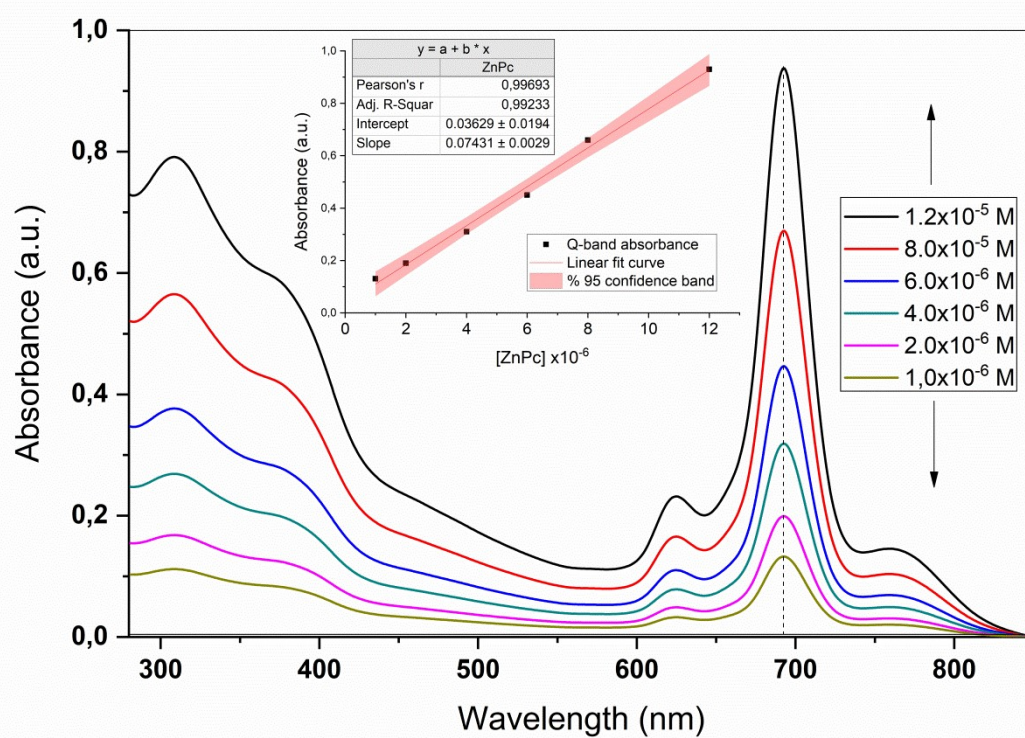


Fig. S4 UV-Vis spectra of ZnPc (**2**) at different concentration in DMSO (inset: the plot of Q band absorbance versus concentration).

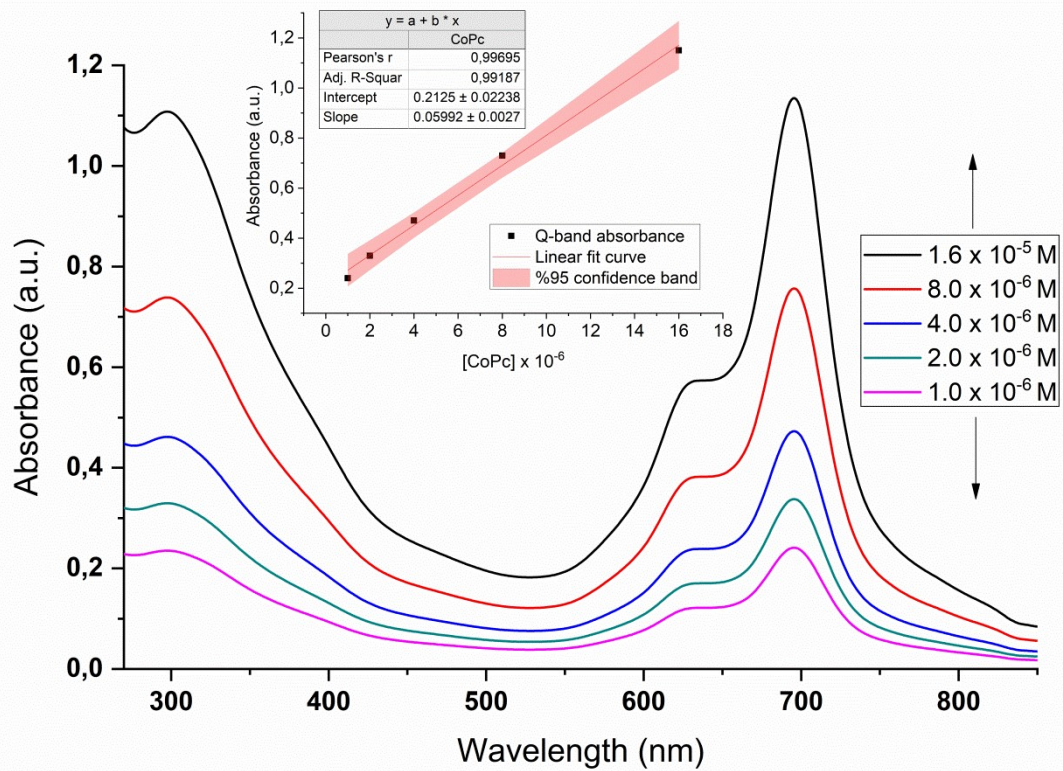


Fig. S5 UV-Vis spectra of CoPc (**4**) at different concentration in DMSO (inset: the plot of Q band absorbance versus concentration).

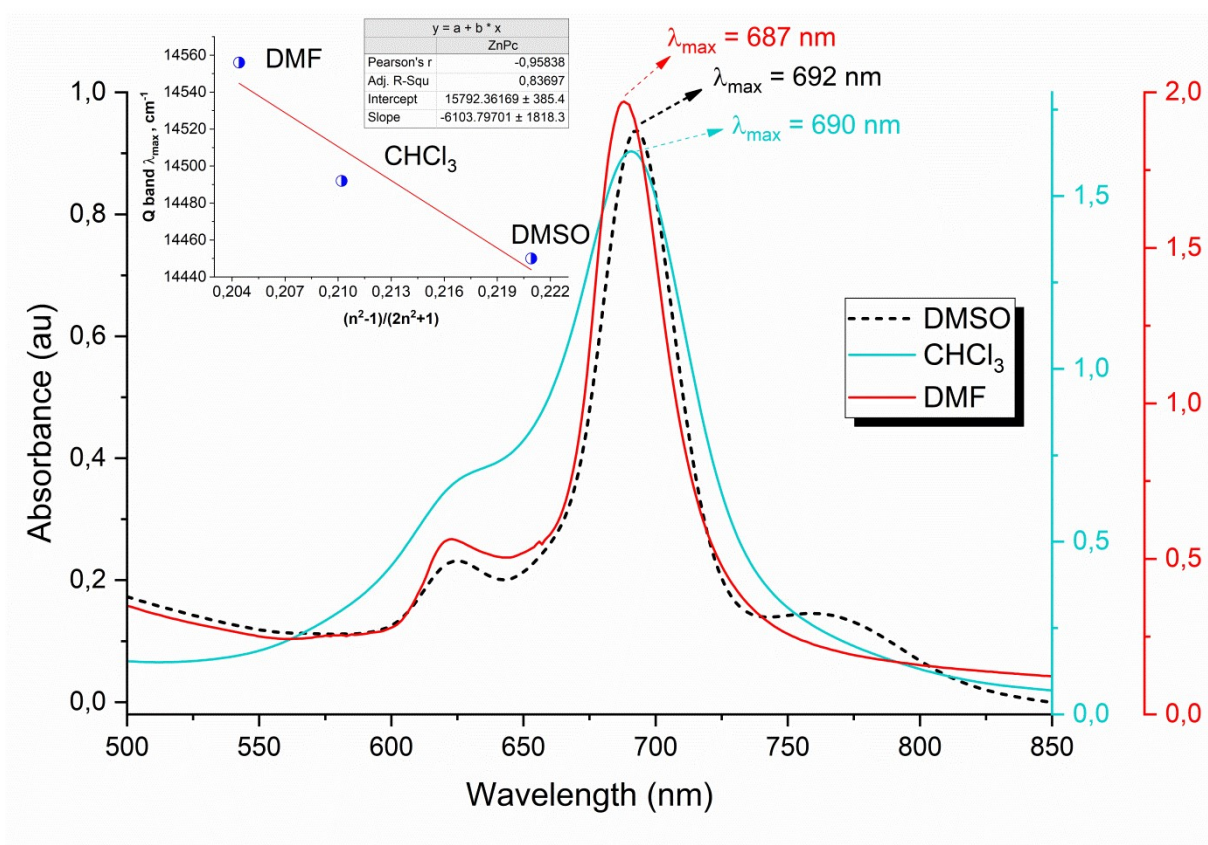


Fig. S6. UV-Vis spectra of ZnPc (**2**) in different solvents (inset: The plot of the Q band frequency of ZnPc (**2**) against $(n^2 - 1)/(2n^2 + 1)$)

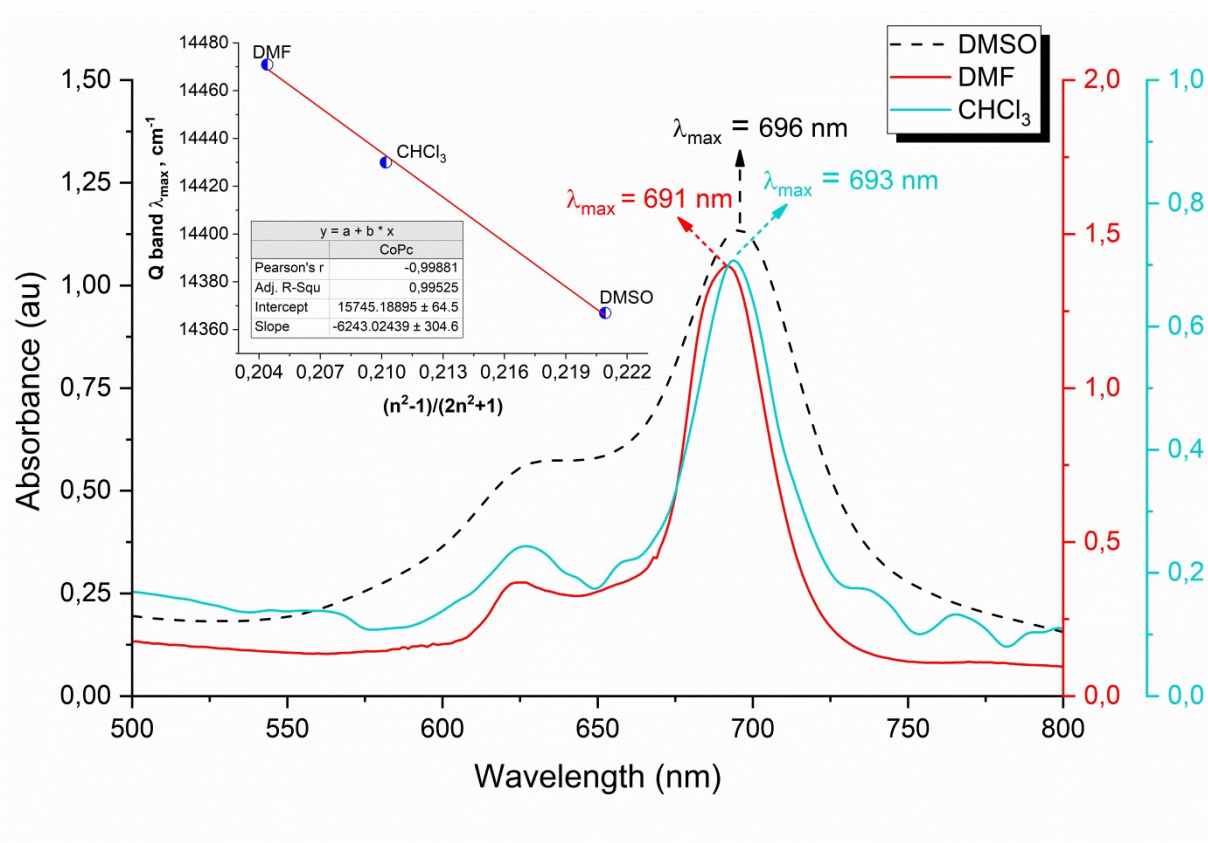


Fig. S7. UV-Vis spectra of CoPc (**4**) in different solvents (inset: The plot of the Q band frequency of CoPc (**4**) against $(n^2 - 1)/(2n^2 + 1)$)

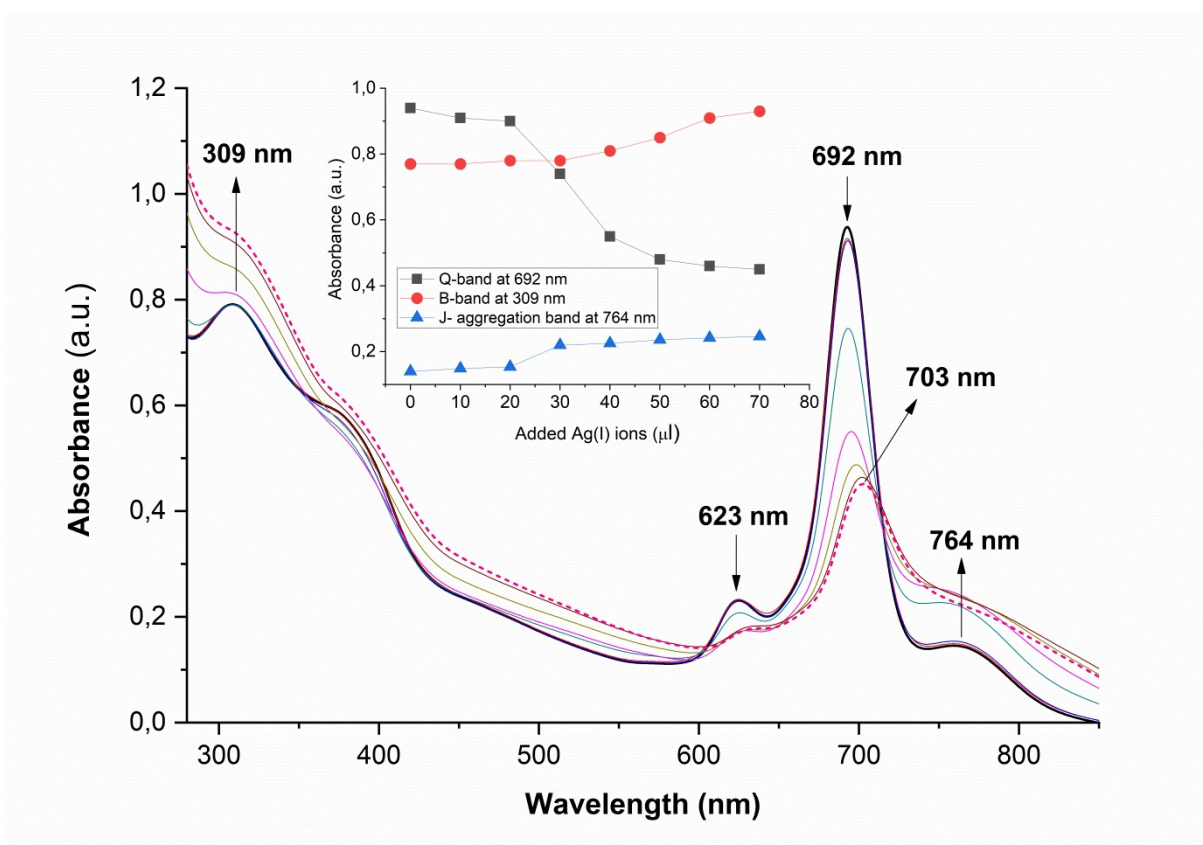


Fig. S8 UV-Vis spectra of ZnPc (**2**) during the titration with Ag(I) ions (Inset: the plot of Q-, B- and J-aggregation bands absorption values versus the amount of Ag(I) ions).

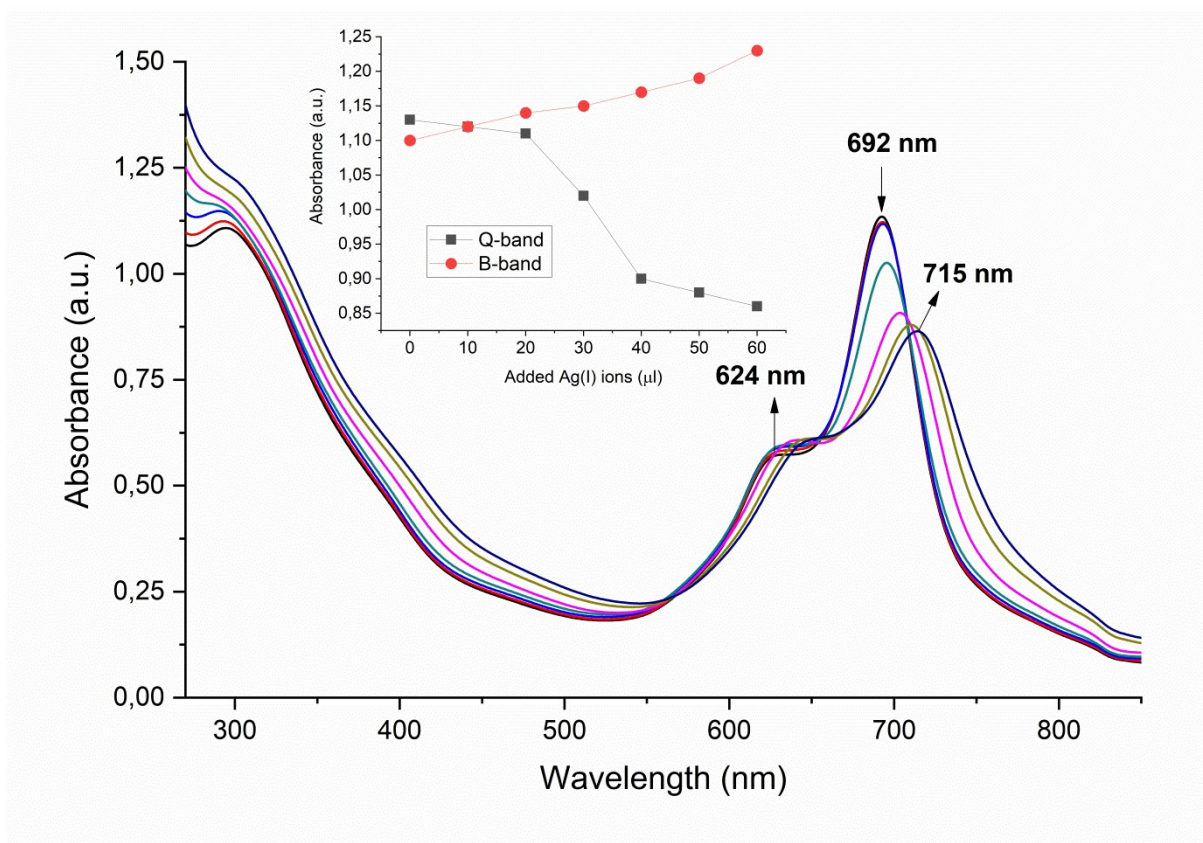


Fig. S9 UV-Vis spectra of CoPc (**4**) during the titration with Ag(I) ions (Inset: the plot of Q and B bands absorption values versus the amount of Ag(I) ions).