**Supplementary Data**

Synthesis, DFT, electrochemical, biological and DNA-interaction studies of a novel copper(II) complex of salicylic acid and N-tosyl substituted benzimidazole

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**CCDC 1001906**

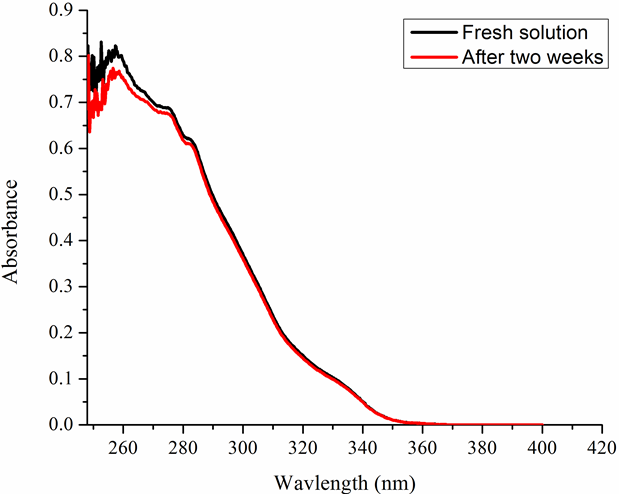


Figure S1. The UV-Visible spectra of 5×104 M solutions of [Cu(L1)(L2)] for fresh and after two weeks.

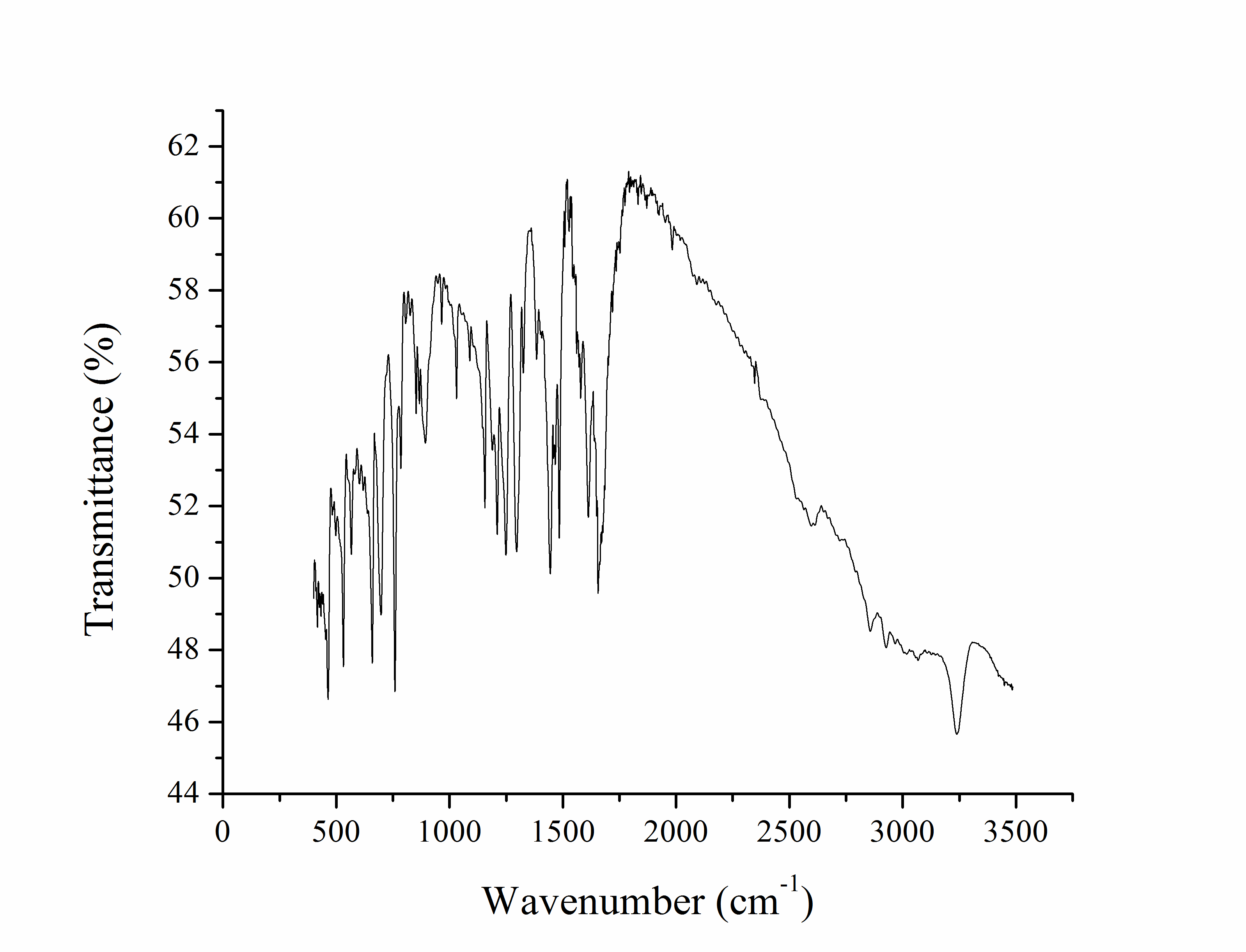


Figure S2. FTIR spectrum of L1.

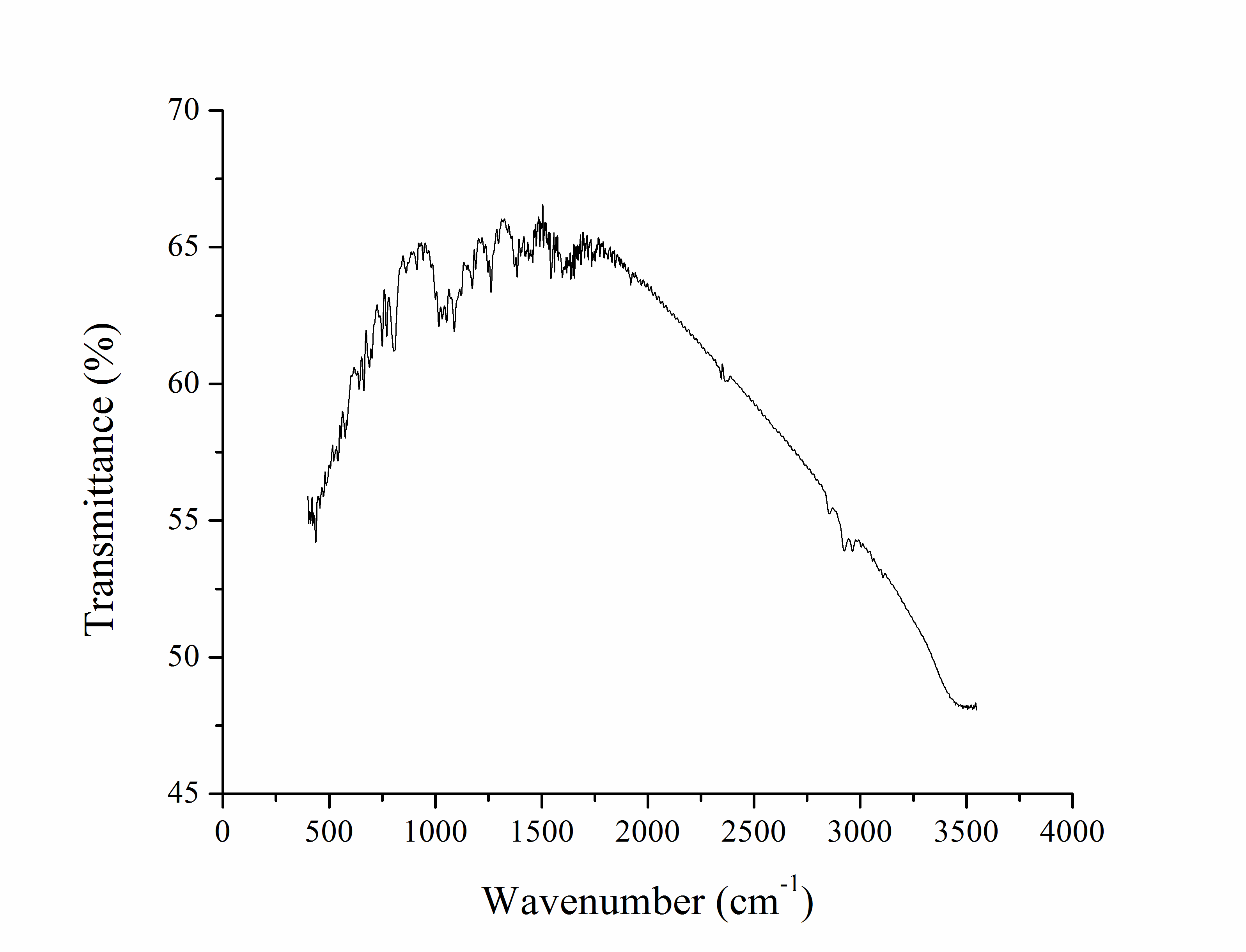


Figure S3. FTIR spectrum of L2.

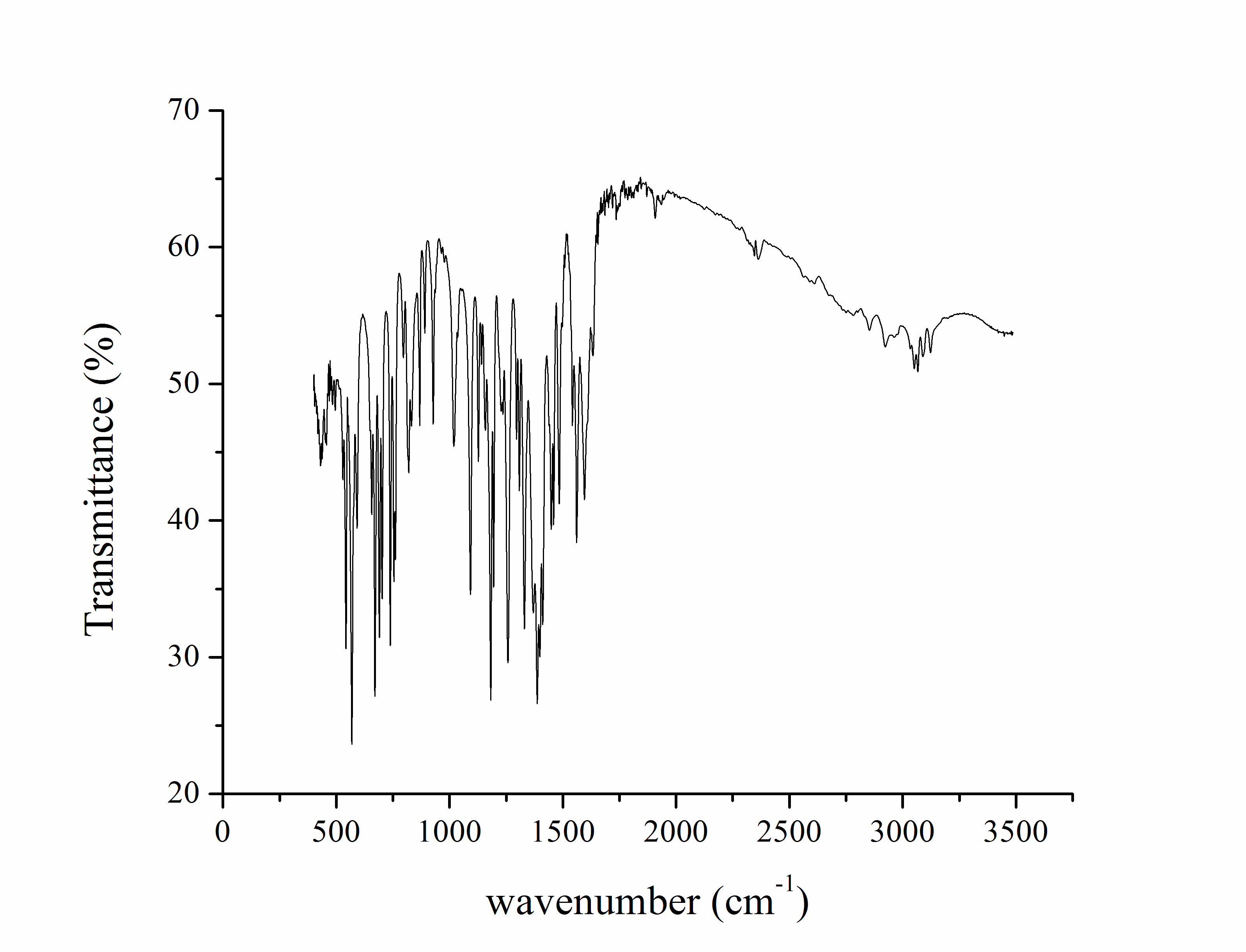


Figure S4. FTIR spectrum of [Cu(L1)(L2)].

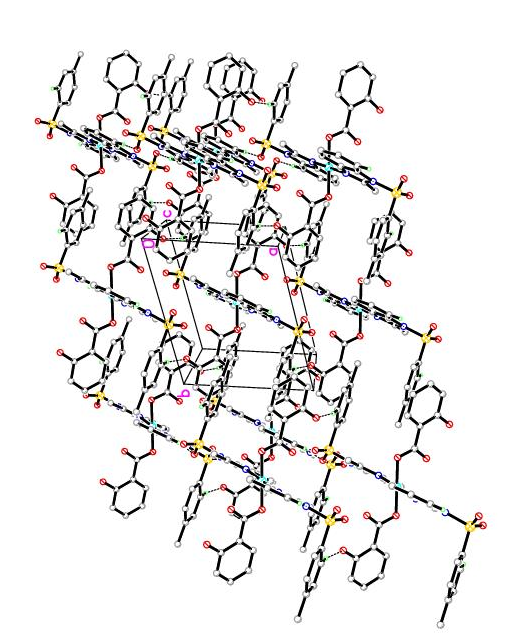


Figure S5. Molecular packing of [Cu(L1)(L2)] viewed down the *c*-axis. All hydrogens except hydrogen bonded are omitted for clarity.

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Figure S6. Optimized structure of [Cu(L1)(L2)] determined from DFT method.

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Figure S7. (A) HOMO and (B) LUMO energy levels of [Cu(L1)(L2)].

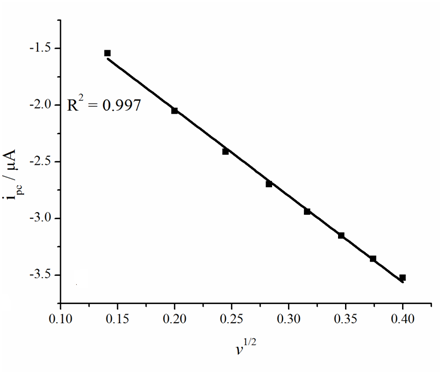


Figure S8. Plot of *ipc* *vs.* *V1/2* for determination of diffusion coefficient for 1 mM [Cu(L1)(L2)].

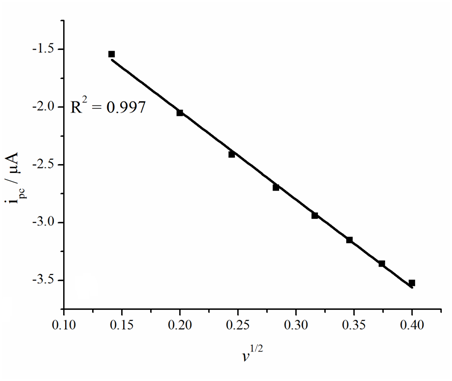


Figure S9. Plot of *ipc* *vs.* *V1/2* for determination of diffusion coefficient for 1 mM [Cu(L1)(L2)] in the presence of 2.2 μM DNA.

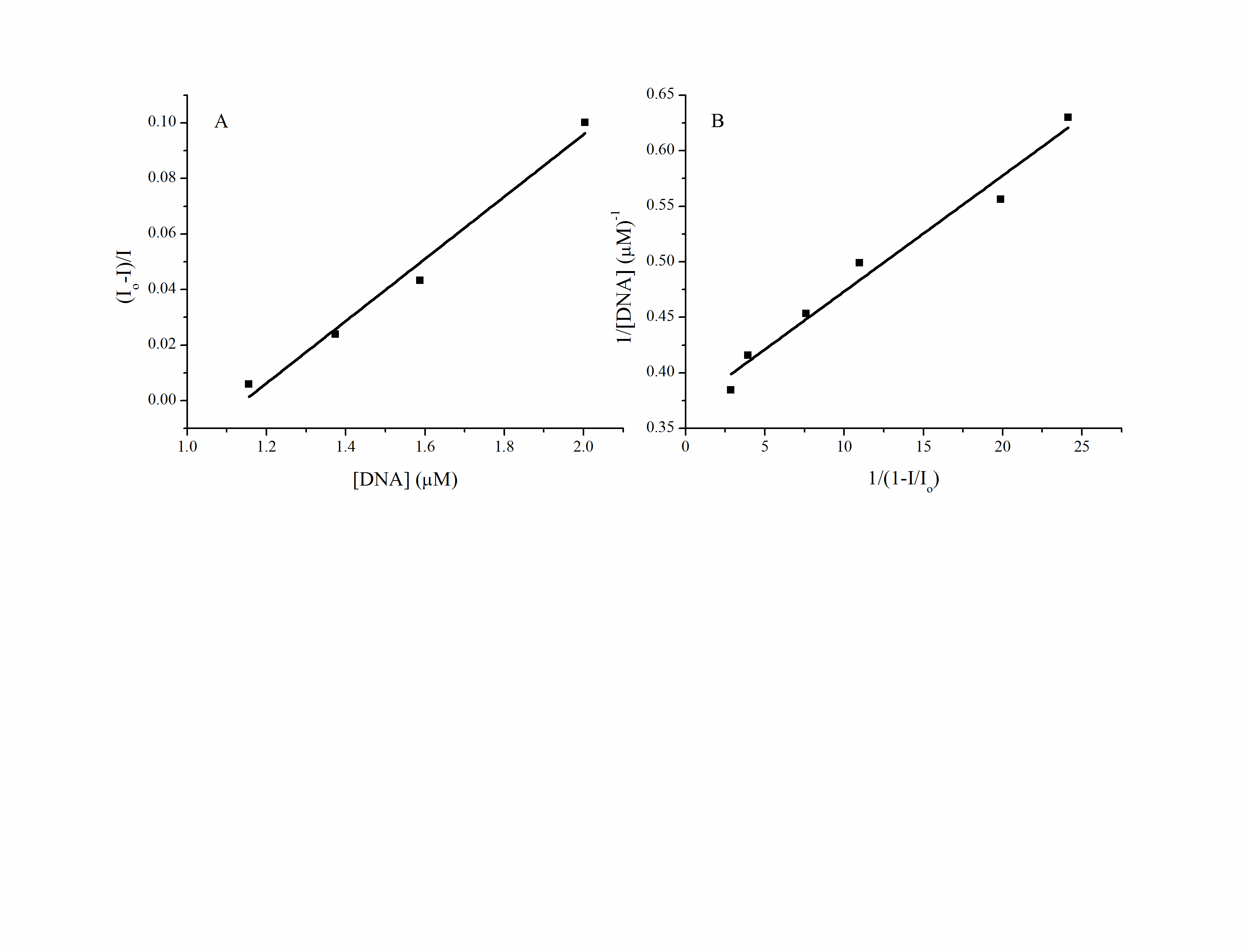


Figure S10. (A) Plot of (Io-I)/I *vs.* [DNA] for 1 mM [Cu(L1)(L2)] for determination of size of binding site and (B) plot of 1/[DNA] *vs.* 1/(1-I/Io) for 1 mM [Cu(L1)(L2)] for determination of binding constant.

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Figure S11. Plot of [DNA]/εa-εf *vs.* [DNA] for determination of binding constant.

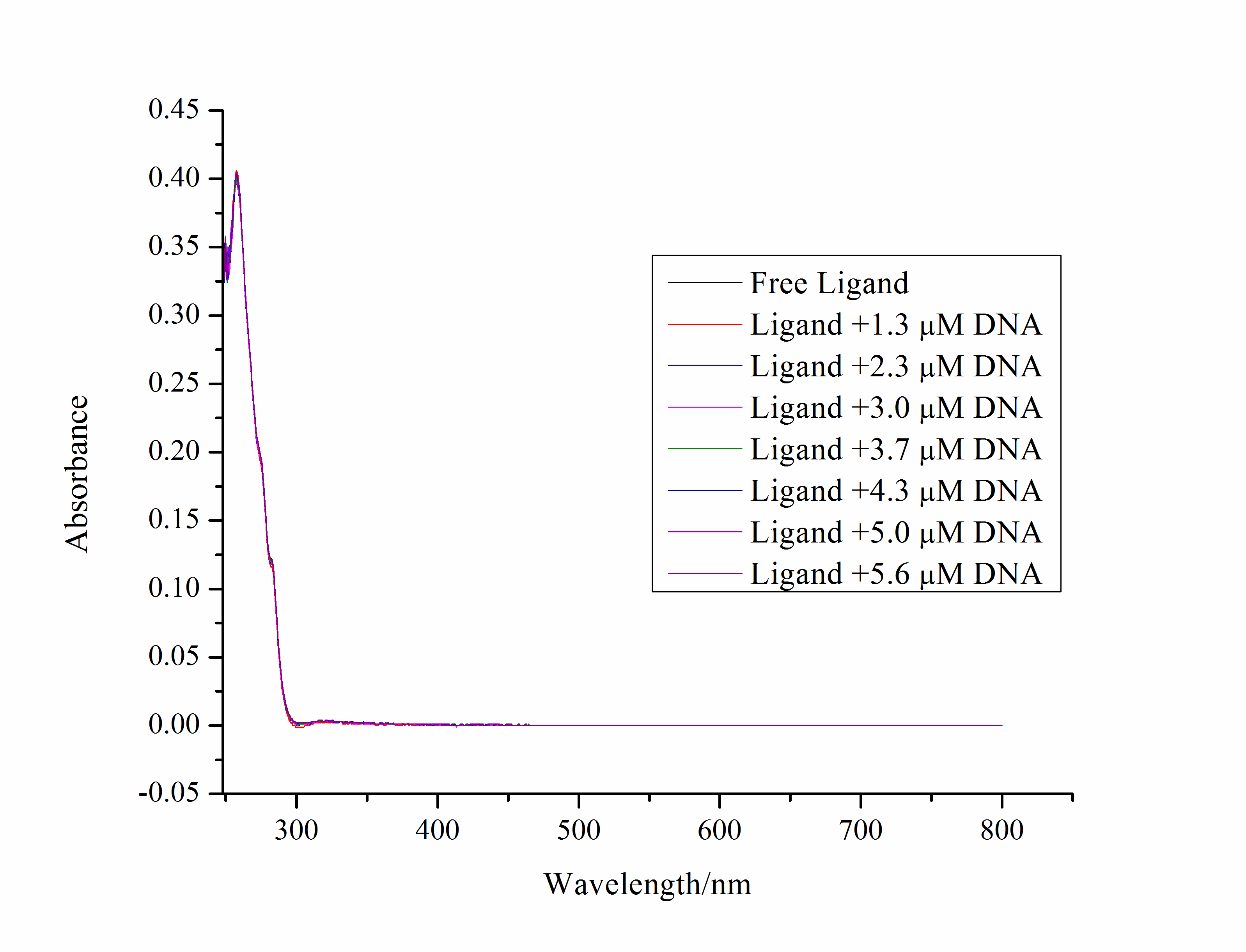


Figure S12. UV/Visible spectra of 5×10-4 M L2 recorded in the absence and presence of 1.3, 2.3, 3.0, 3.7 4.3, 5.0 and 5.6 μM DNA in DMSO/water (9/1) solution at room temperature.