

# Supplementary Materials: Synthesis and Structural Characterization of Half-Sandwich Arene–Ruthenium(II) Complexes with Bis(imidazol-1-yl)methane, Imidazole and Benzimidazole

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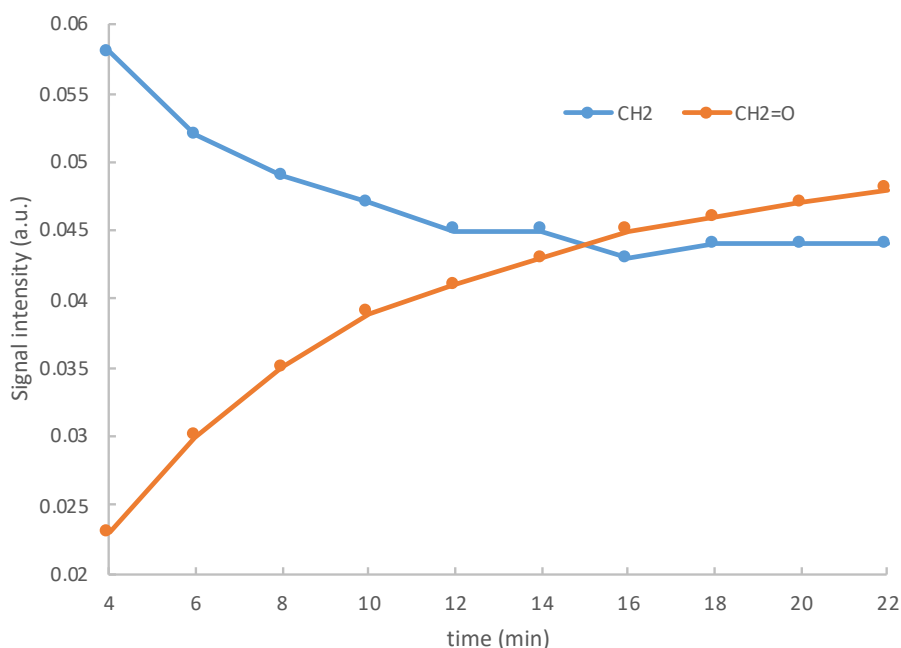
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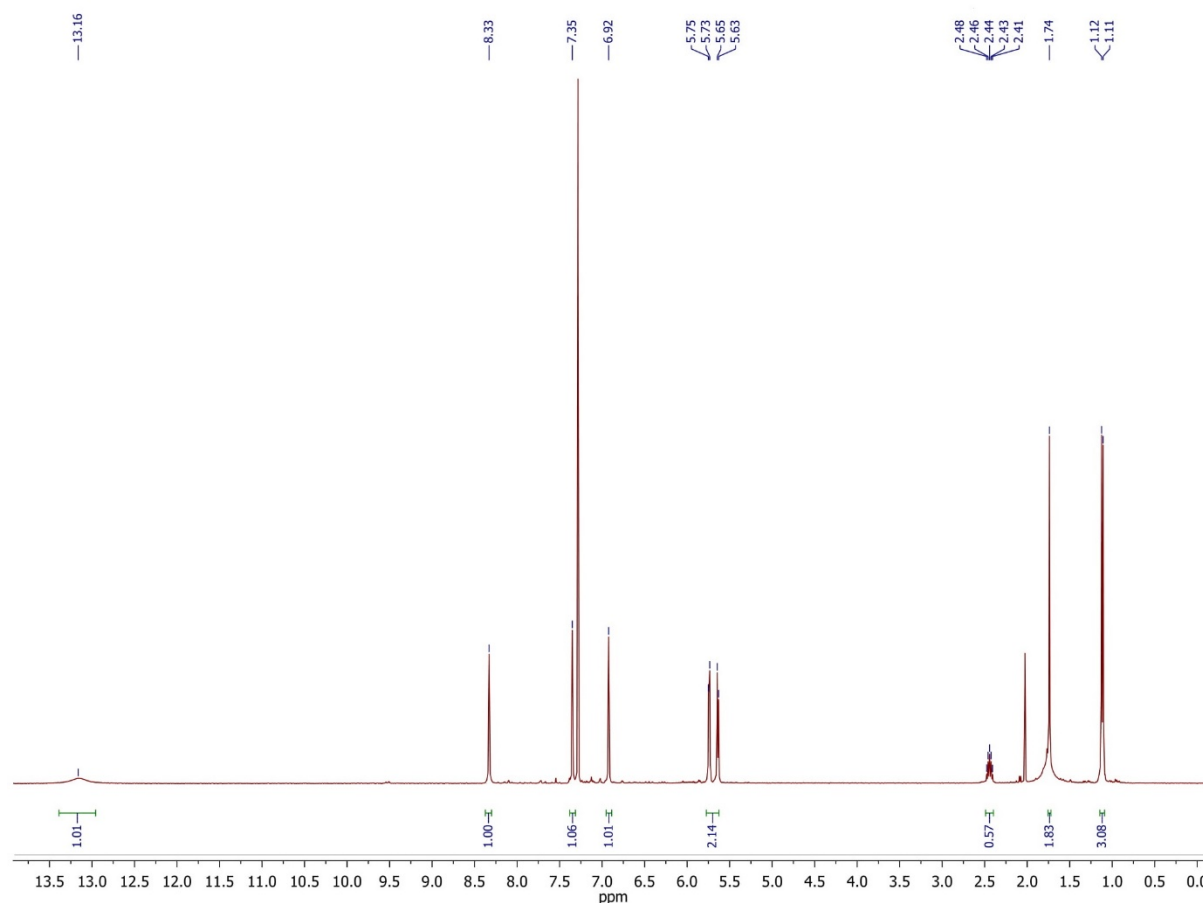
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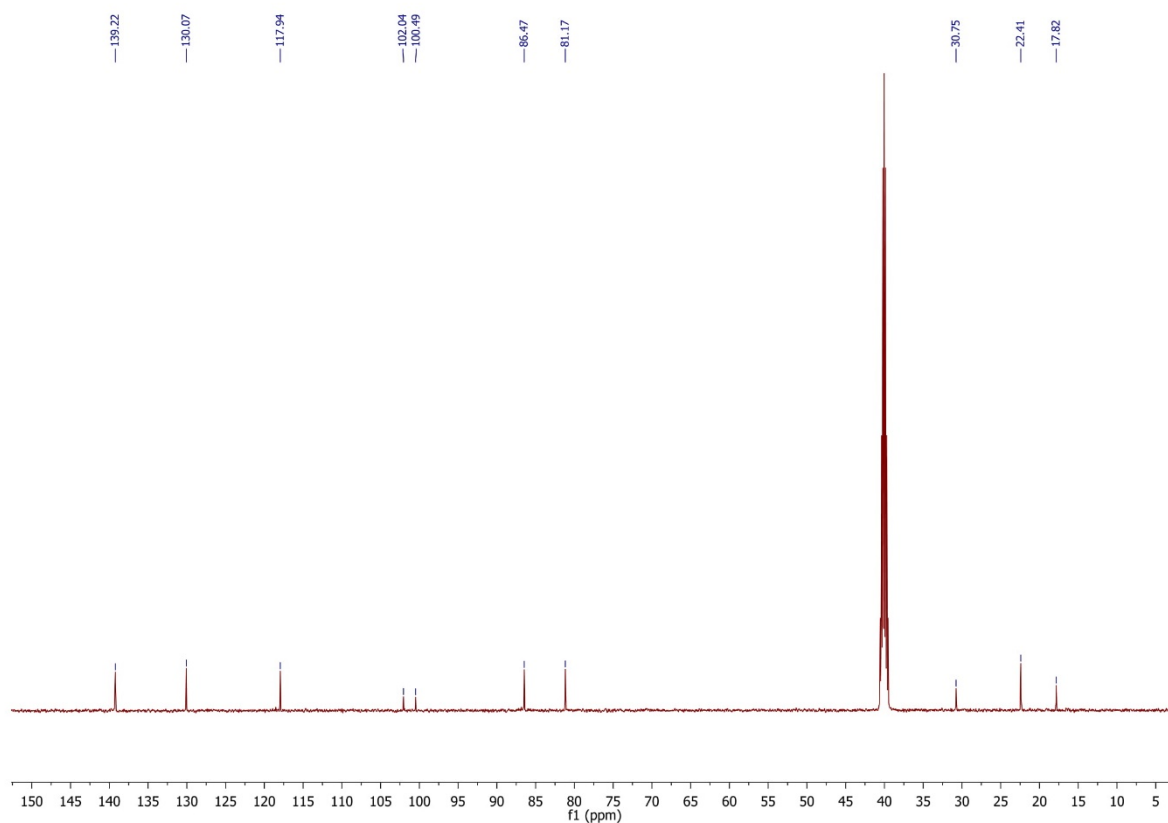
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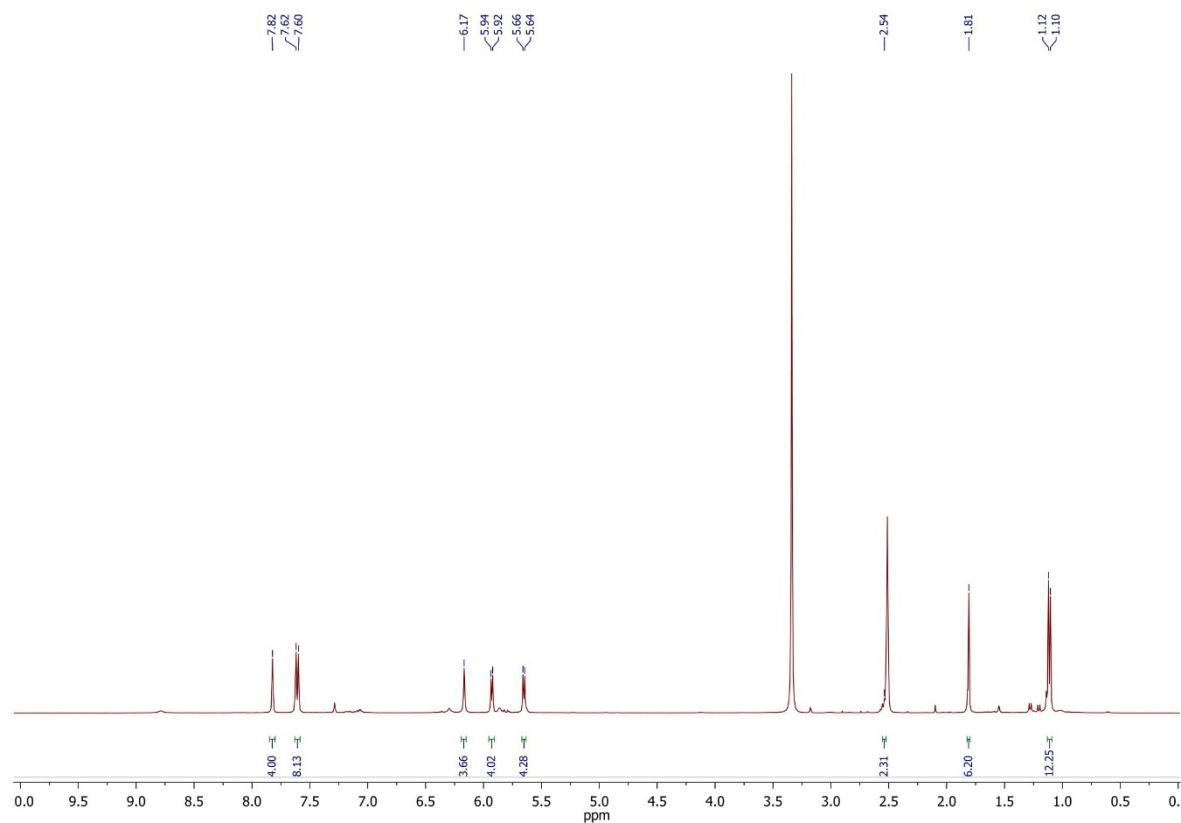
**Figure S1.** Change in relative intensities of methylene signals of L1 (CH<sub>2</sub>) and formaldehyde (CH<sub>2</sub>=O). Integral intensities were determined relative to solvent residual peak of acetonitrile.



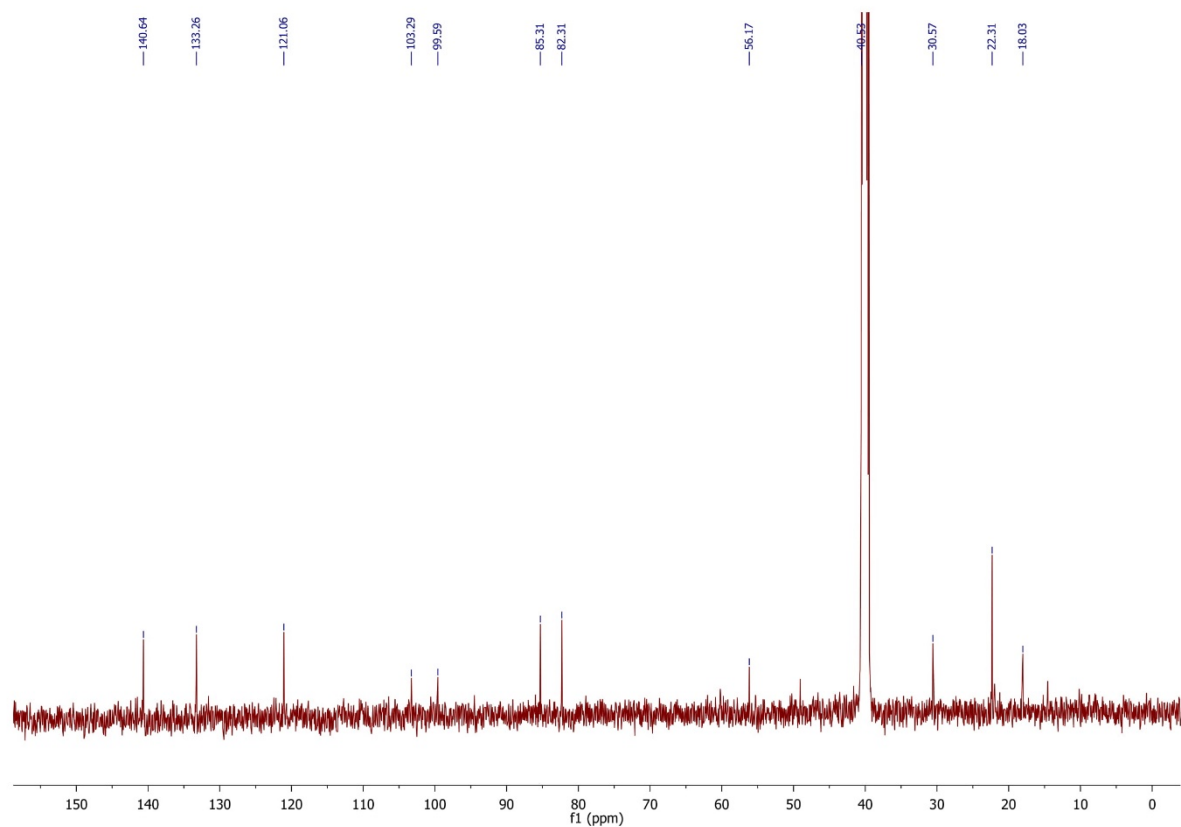
**Figure S2.** <sup>1</sup>H NMR spectrum of complex 1 in DMSO-d<sub>6</sub>



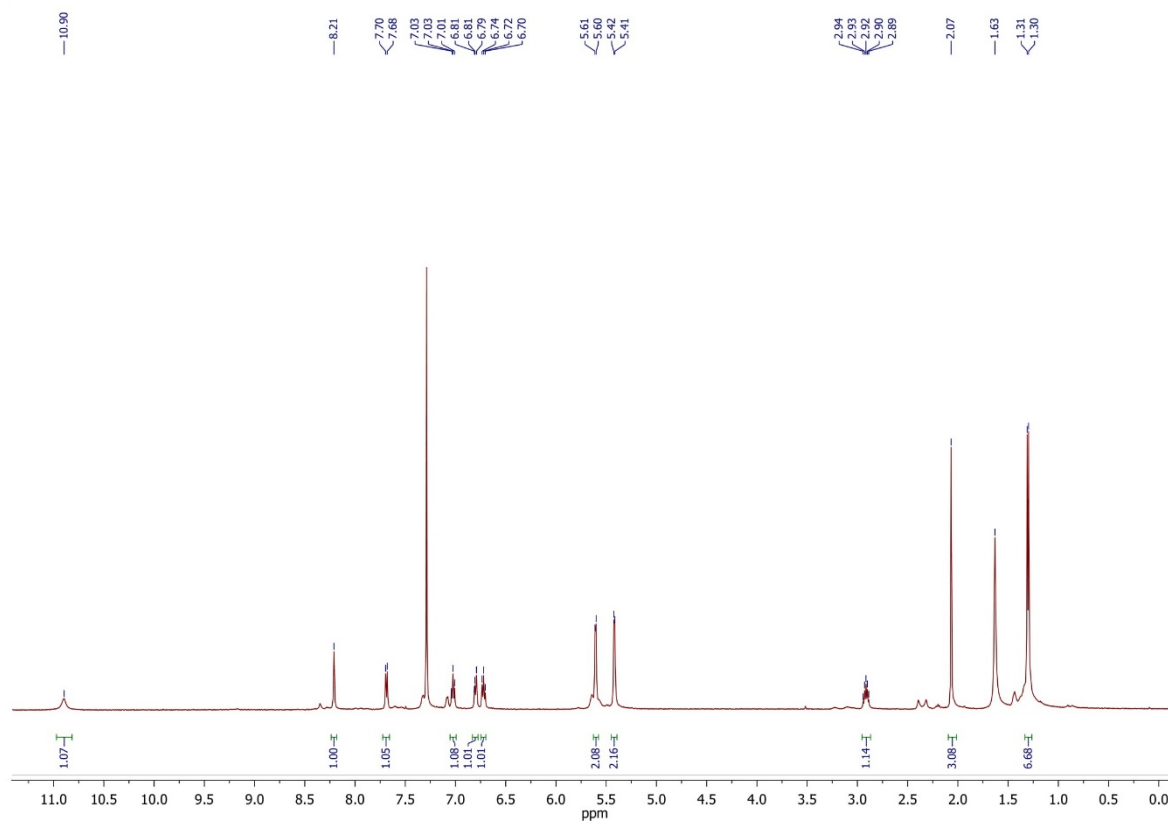
**Figure S3.** <sup>13</sup>C NMR spectrum of complex 1 in DMSO-d<sub>6</sub>



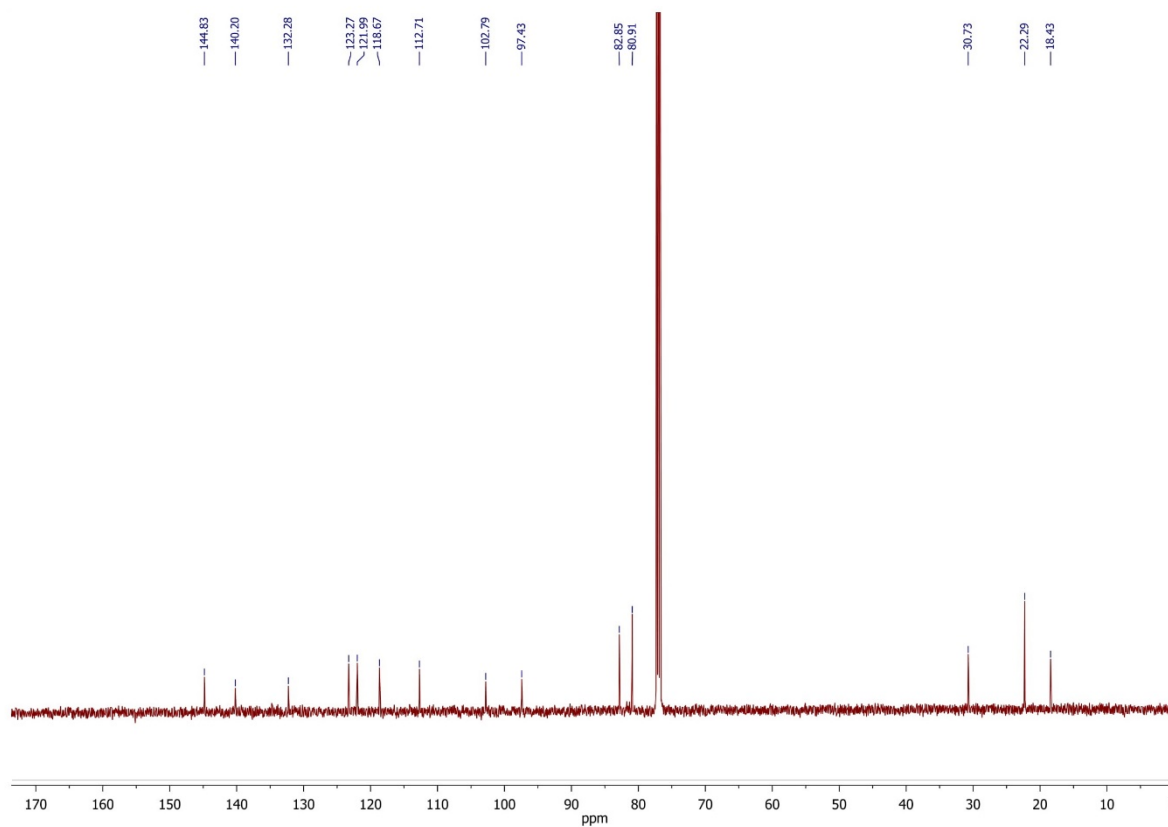
**Figure S4.** <sup>1</sup>H NMR spectrum of complex 2 in DMSO-d<sub>6</sub>



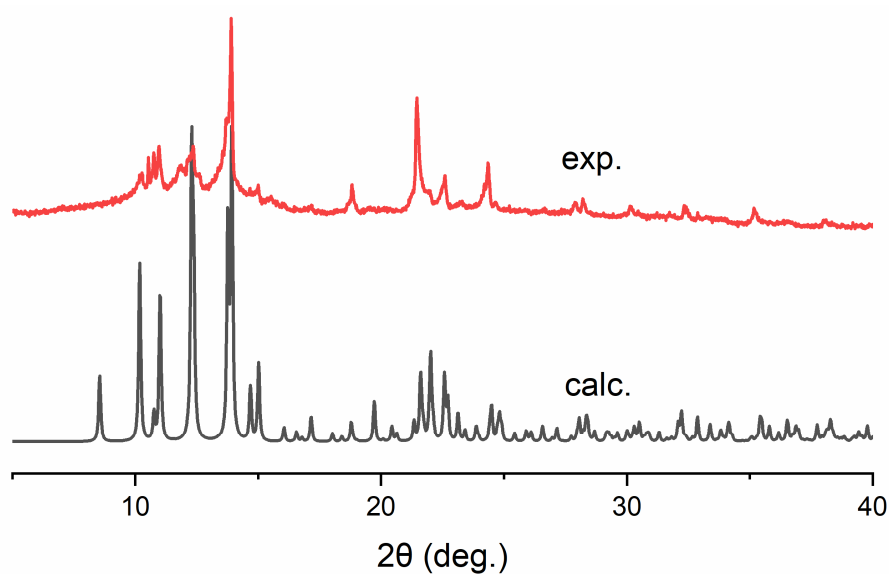
**Figure S5.** <sup>13</sup>C NMR spectrum of complex 2 in DMSO-d<sub>6</sub>



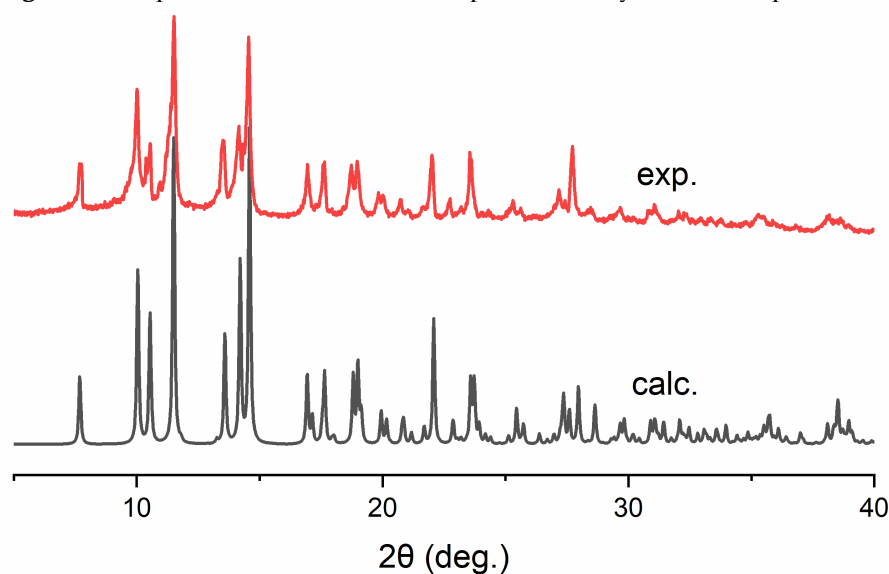
**Figure S6.** <sup>1</sup>H NMR spectrum of complex **3** in CDCl<sub>3</sub>



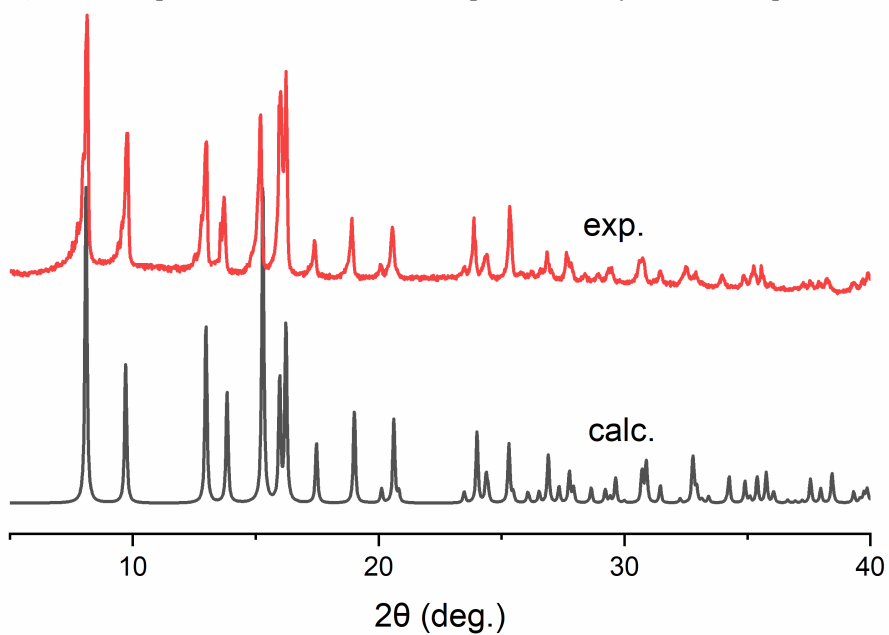
**Figure S7.** <sup>13</sup>C NMR spectra of complex **3** in CDCl<sub>3</sub>



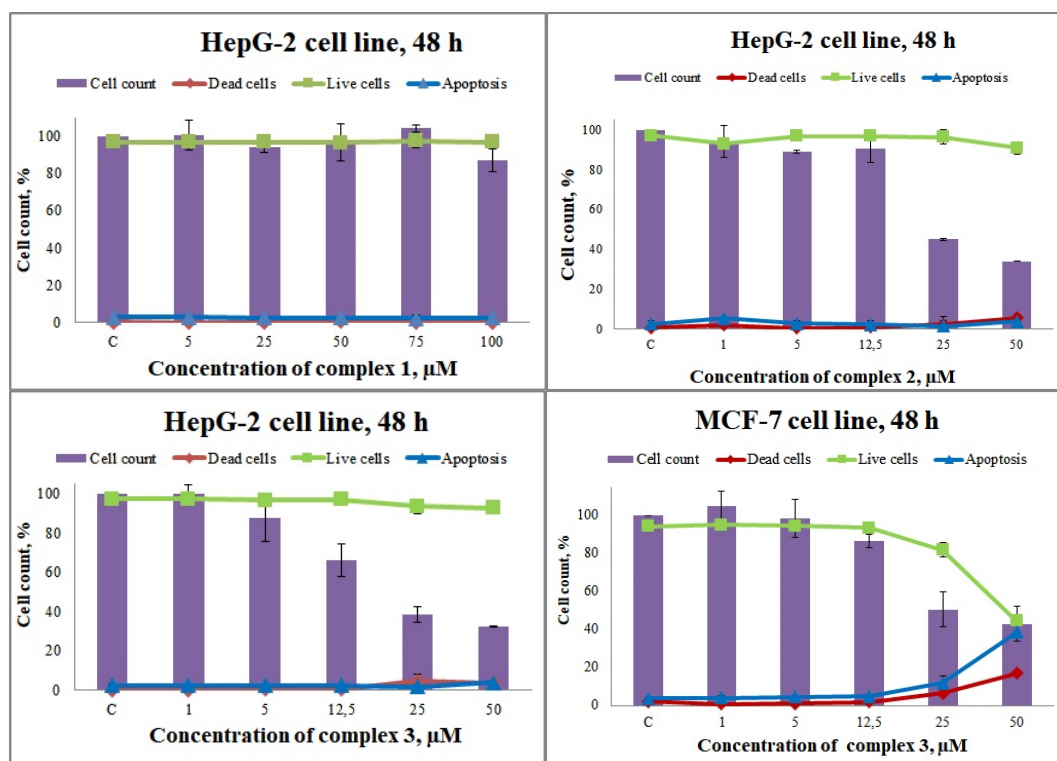
**Figure S8.** Experimental and calculated powder X-ray diffraction patterns of complex 1.



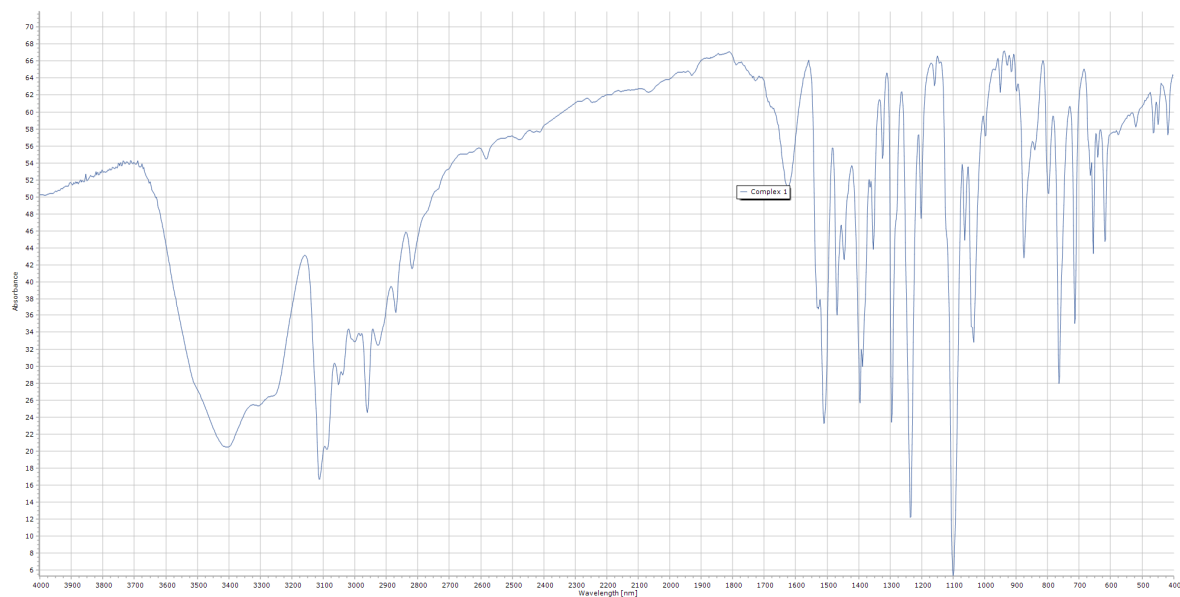
**Figure S9.** Experimental and calculated powder X-ray diffraction patterns of complex 2.



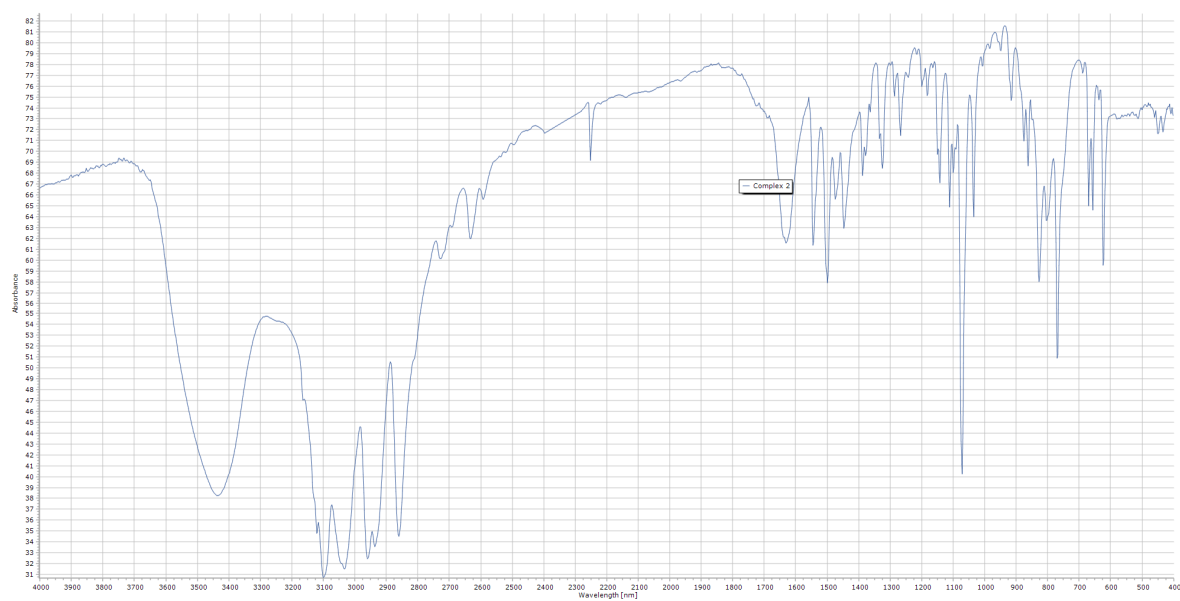
**Figure S10.** Experimental and calculated powder X-ray diffraction patterns of complex 3.



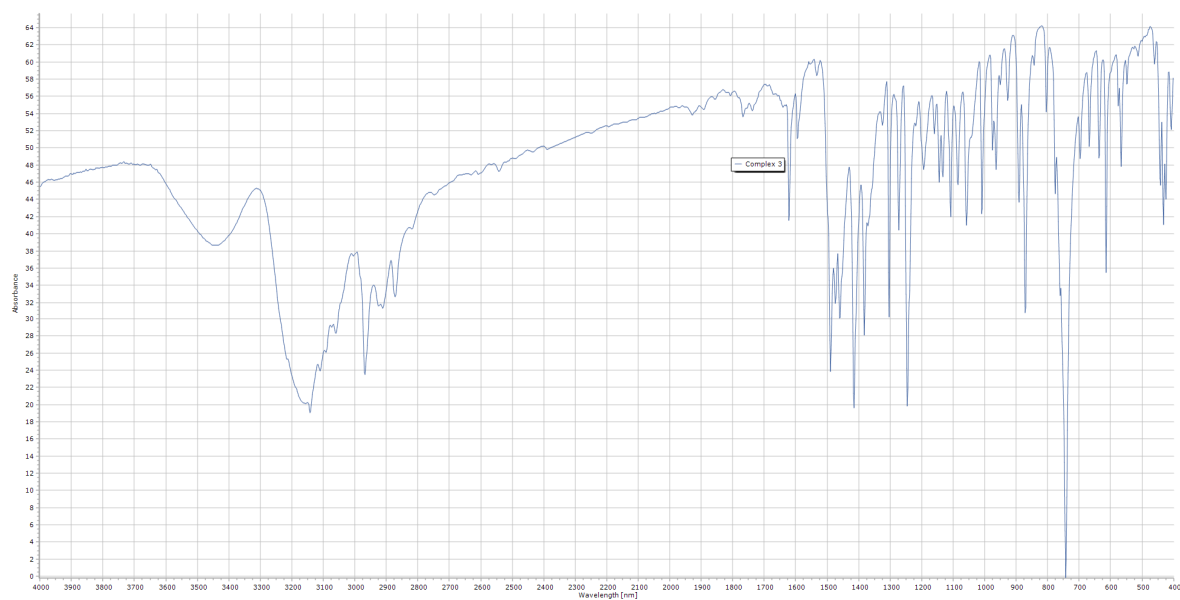
**Figure S11.** Effect of complexes 1-3 on the viability of HepG2 and MCF-7 cells determined by dual staining with Hoechst 33342/propidium iodide.



**Figure S12.** FT-IR spectrum of complex 1



**Figure S13.** FT-IR spectrum of complex 2



**Figure S14.** FT-IR spectrum of complex 3