Newly synthesized palladium(II) complexes with dialkyl esters of (*S,S*)-propylenediamine-*N,N'*-di-(2,2'-di-(4-hydroxy-benzil)) acetic acid: *In vitro* investigation of biological activities and HSA/DNA binding

Kemal Ćorović[af], Danijela Lj. Stojković[b1], Đorđe S. Petrović[c], Sandra S. Jovičić Milić[b], Maja B. Đukić[c], Ivana D. Radojević[d], Ivana Raković[e], Milena Jurisević[f,g], Nevena Gajović[g], Marina Jovanović[g,h], Jovana Marinković[g], Ivan Jovanović[g], Bojan Stojanović[g,i]

[a]Community heath center Tutin, Department of Emergency medicine, Bogoljuba Čukića 12, 36320 Tutin, Republic of Serbia

[b]University of Kragujevac, Institute for Information Technologies, Department of Science, Jovana Cvijića bb, 34000 Kragujevac, Republic of Serbia

[c]University of Kragujevac, Faculty of Science, Department of Chemistry, Radoja Domanovića 12, 34000 Kragujevac, Republic of Serbia

[d]University of Kragujevac, Faculty of Science, Department of Biology and Ecology, Radoja Domanovića 12, 34000 Kragujevac, Republic of Serbia

[e]University of Kragujevac, Faculty of Medical Sciences, Department of Infectious diseases, Svetozara Markovića 69, 34000 Kragujevac, Republic of Serbia

[f]University of Kragujevac, Faculty of Medical Sciences, Department of Pharmacy, Svetozara Markovića 69, 34000 Kragujevac, Republic of Serbia

[g]University of Kragujevac, Faculty of Medical Sciences, Center for Molecular Medicine and Stem Cell Research, Svetozara Markovića 69, 34000 Kragujevac, Republic of Serbia

[h]University of Kragujevac, Faculty of Medical Sciences, Department of Otorinolaringology, Svetozara Markovića 69, 34000 Kragujevac, Republic of Serbia

[i]University of Kragujevac, Faculty of Medical Sciences, Department of Surgery, Svetozara Markovića 69, 34000 Kragujevac, Republic of Serbia

[1]Corresponding author.
E-mail address: danijela.stojkovic@kg.ac.rs

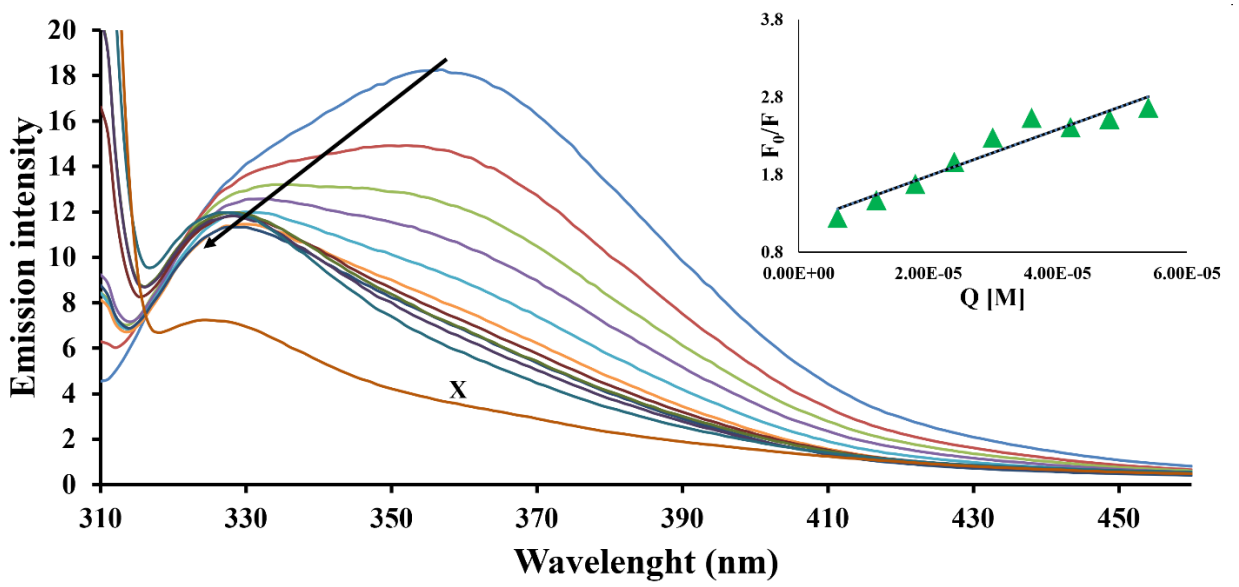

Fig. S1 Fluorescence emission spectra of HSA in the presence of various concentrations of **C2** (T = 298 K, pH = 7.4). [HSA] = 2 μM; [**C2**] = 0-80 μM. The inset shows the Stern–Volmer plots of the fluorescence quenching of HSA by [**C2**]. x represents 80 μM [**C2**] only.

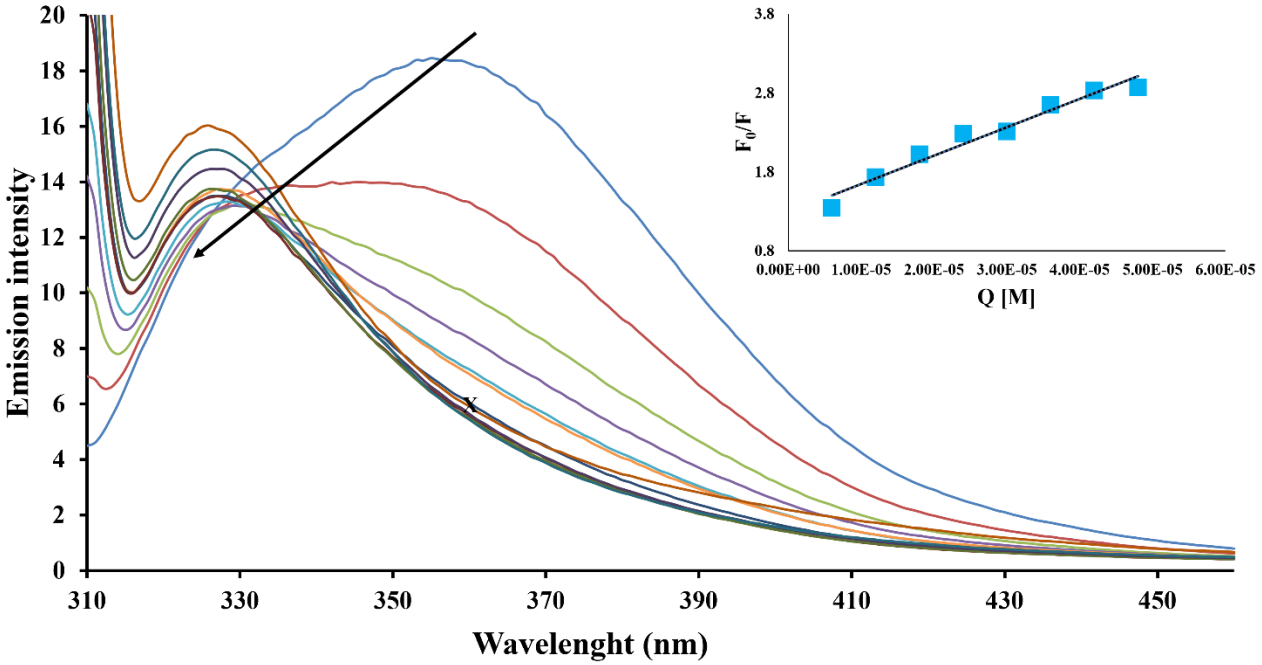

Fig. S2 Fluorescence emission spectra of HSA in the presence of various concentrations of **C3** (T = 298 K, pH = 7.4). [HSA] = 2 μM; [**C3**] = 0-80 μM. The inset shows the Stern–Volmer plots of the fluorescence quenching of HSA by [**C3**]. x represents 80 μM [**C3**] only.

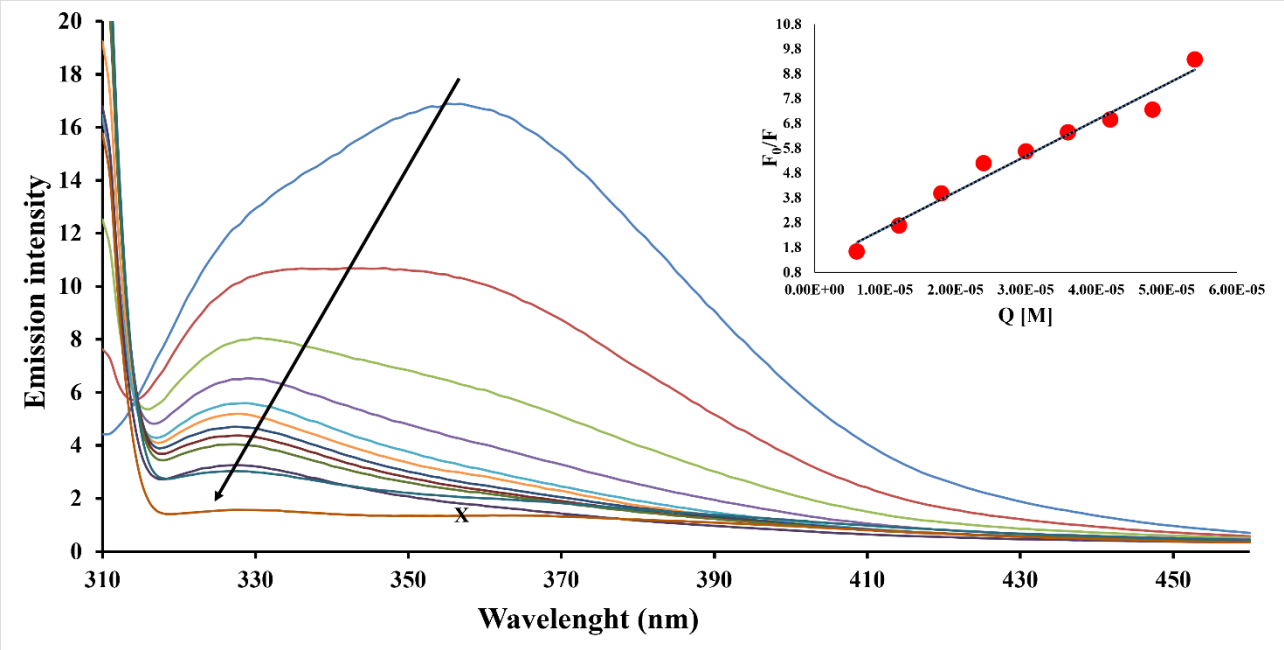

Fig. S3 Fluorescence emission spectra of HSA in the presence of various concentrations of **C4** (T = 298 K, pH = 7.4). [HSA] = 2 μM; [**C4**] = 0-80 μM. The inset shows the Stern–Volmer plots of the fluorescence quenching of HSA by [**C4**]. x represents 80 μM [**C4**] only.

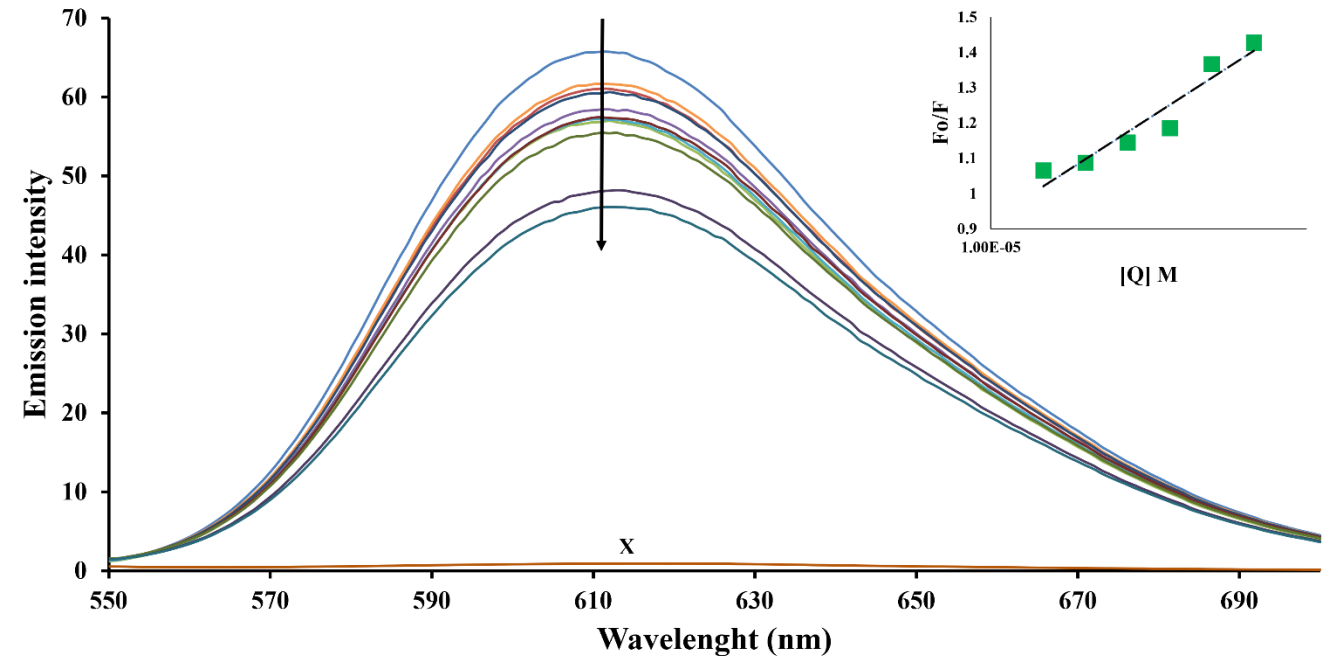

Fig. S4 The fluorescence emission spectra of EB-DNA in the absence and presence of increasing amounts of **C2** (T = 298 K, pH = 7.4). [DNA] = 2.27 × 10^{-5} M; [EB] = 2 × 10^{-5} M; [**C2**] = 0-6 × 10^{-5} M; The inset shows the plot of F_0/F vs. [Q]. **X** represents 6 × 10^{-5} [**C2**] only.

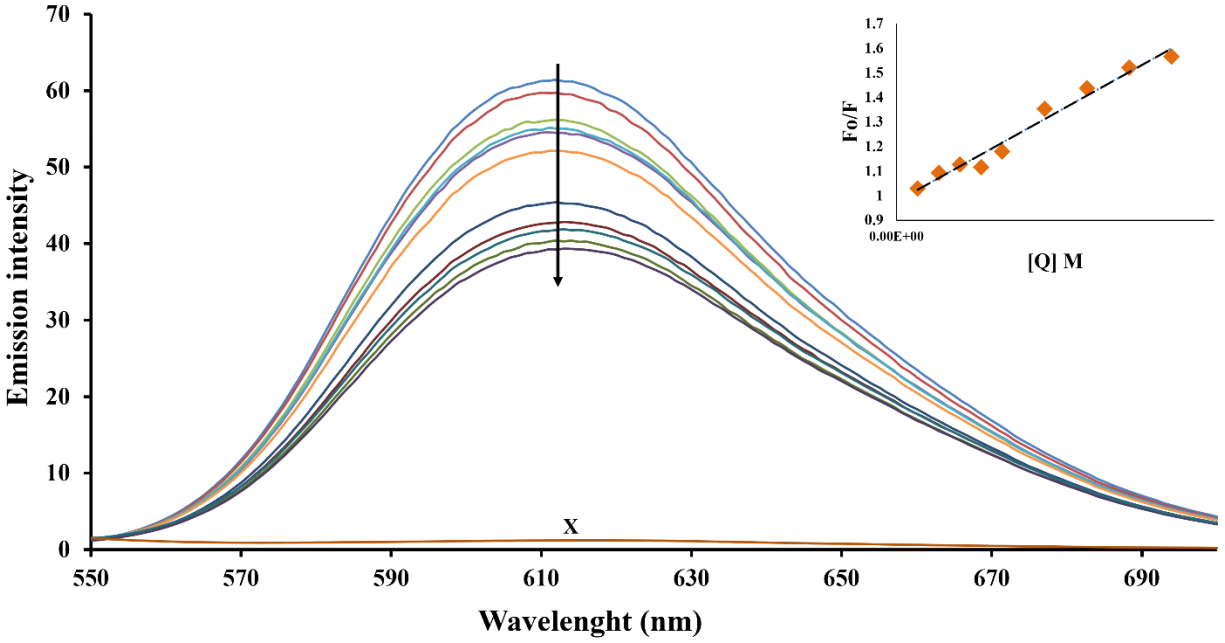

Fig. S5 The fluorescence emission spectra of EB–DNA in the absence and presence of increasing amounts of **C3** (T = 298 K, pH = 7.4). [DNA] = 2.27 × 10^{-5} M; [EB] = 2 × 10^{-5} M; [**C3**] = 0-6 × 10^{-5} M; The inset shows the plot of F_0/F vs. [Q]. **X** represents 6 × 10^{-5} [**C3**] only.

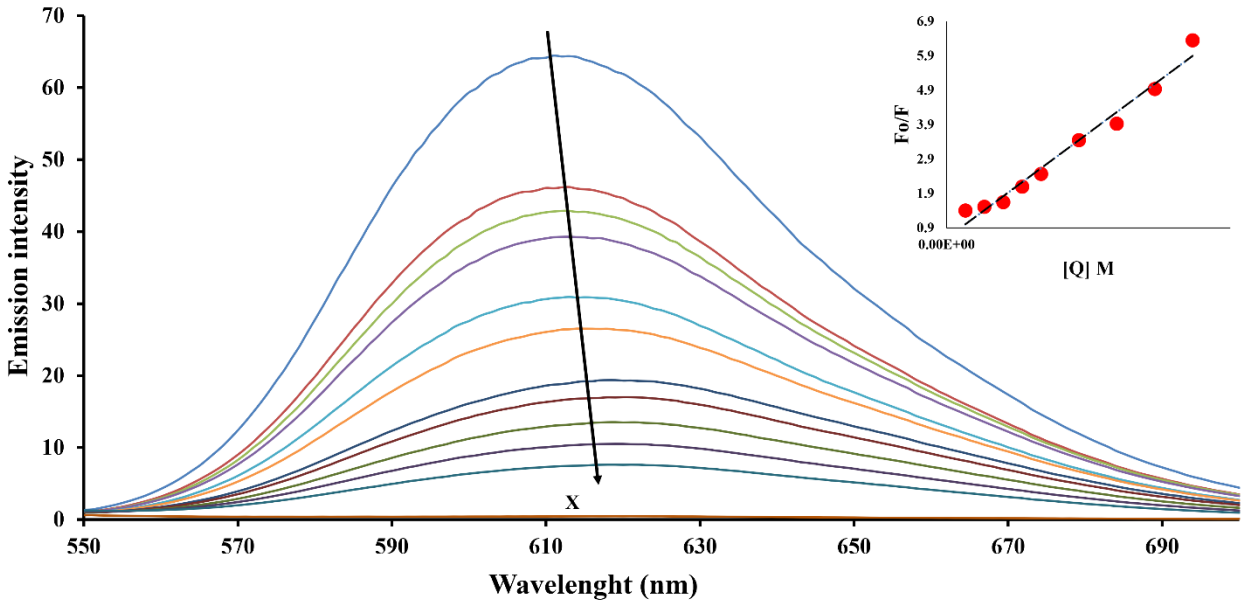

Fig. S6 The fluorescence emission spectra of EB–DNA in the absence and presence of increasing amounts of **C4** (T = 298 K, pH = 7.4). [DNA] = 2.27 × 10^{-5} M; [EB] = 2 × 10^{-5} M; [**C4**] = 0-6 × 10^{-5} M; The inset shows the plot of F_0/F vs. [Q]. **X** represents 6 × 10^{-5} [**C4**] only.

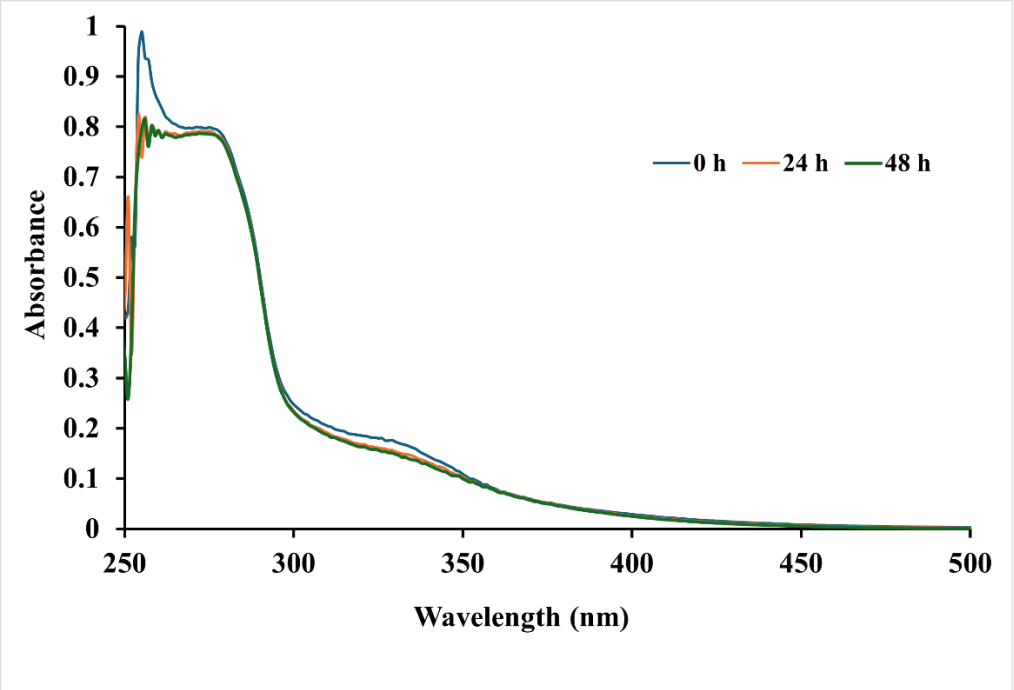

Fig. S7 Stability of the **C1** complex in DMSO during 0, 24, and 48 hours

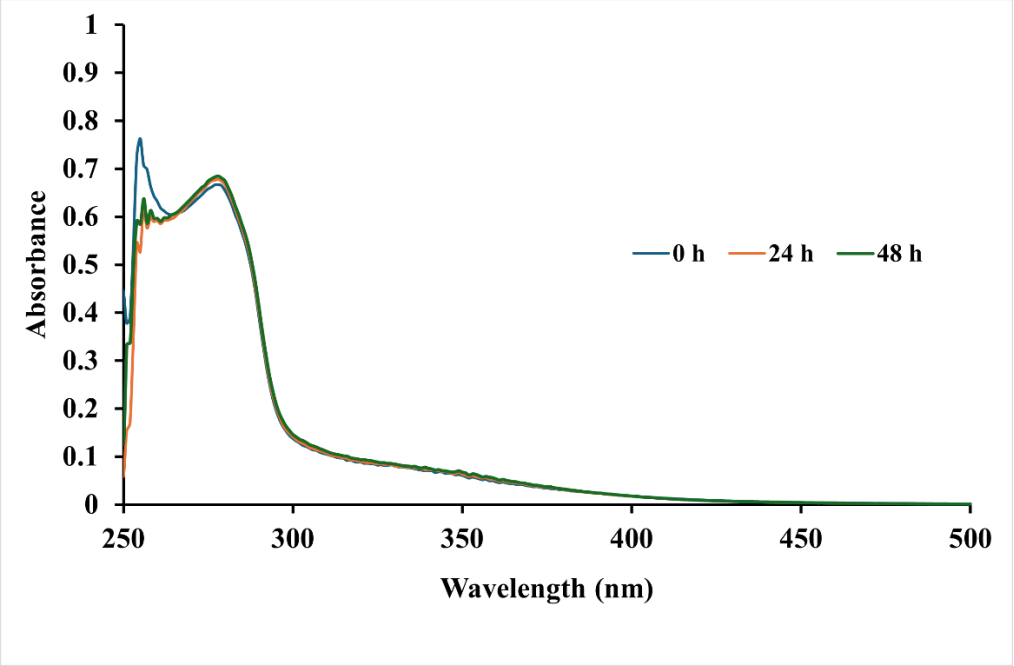

Fig. S8 Stability of the **C2** complex in DMSO during 0, 24, and 48 hours

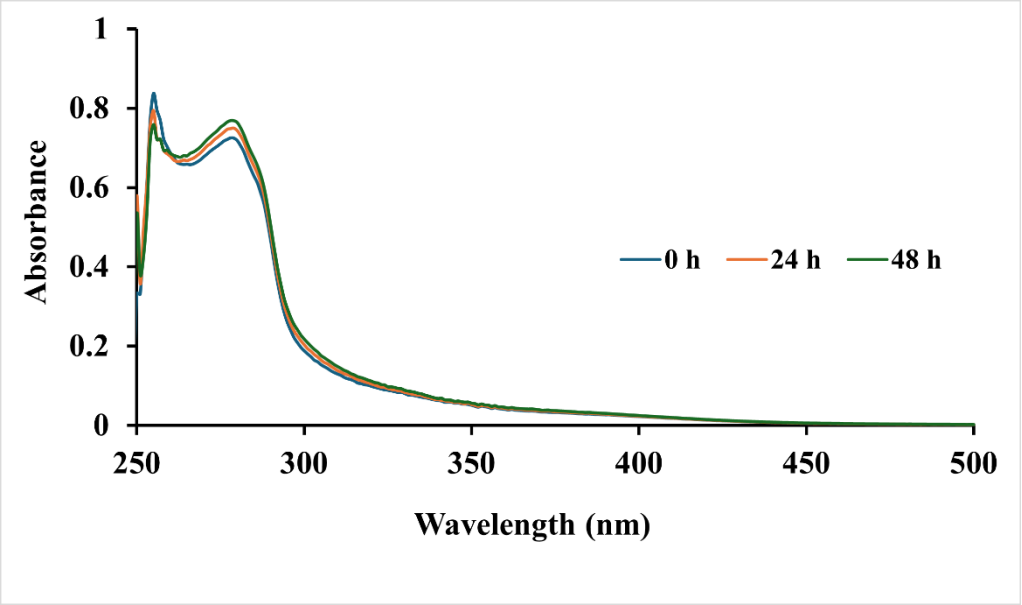

Fig. S9 Stability of the **C3** complex in DMSO during 0, 24, and 48 hours

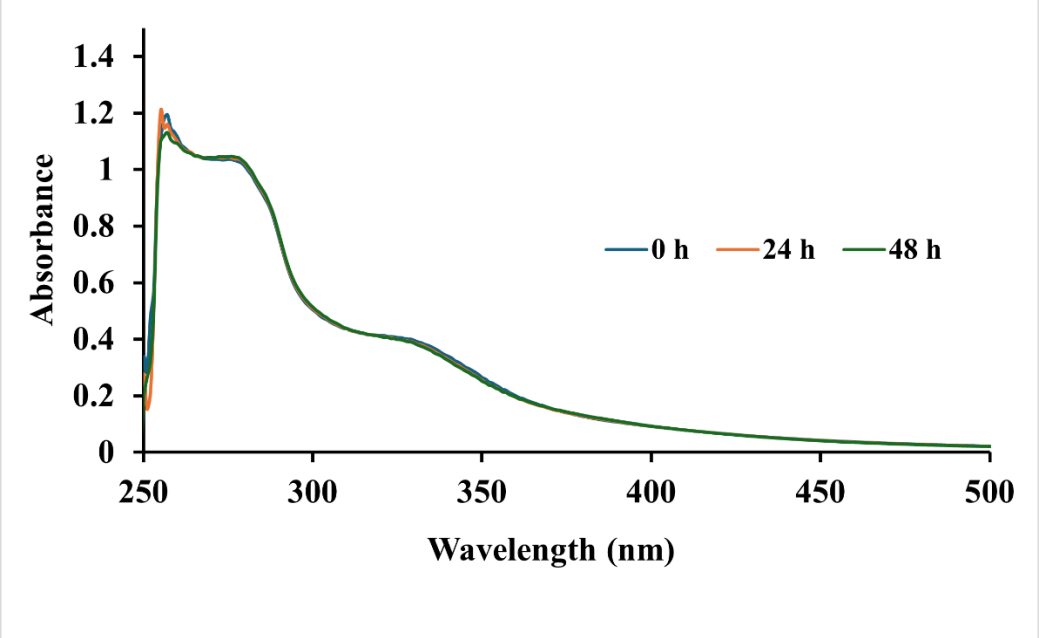

Fig. S10 Stability of the **C4** complex in DMSO during 0, 24, and 48 hours

Values of conductometric measurements: **C1** Mol. Cond. (DMSO, Ω^{-1} cm^2 mol^{-1}) = 15.3; **C2** Mol. Cond. (DMSO, Ω^{-1} cm^2 mol^{-1}) = 13.8; **C3** Mol. Cond. (DMSO, Ω^{-1} cm^2 mol^{-1}) = 10.2; **C4** Mol. Cond. (DMSO, Ω^{-1} cm^2 mol^{-1}) = 8.7. Based on the measured values, we come to the conclusion that the complexes are neutral.