Electronic Supplementary Material (ESI) for New Journal of Chemistry.


# Supporting Information

## Exploring oxidovanadium (IV) homoleptic complexes with hydroxyquinoline derivatives as prospective antitrypanosomal agents

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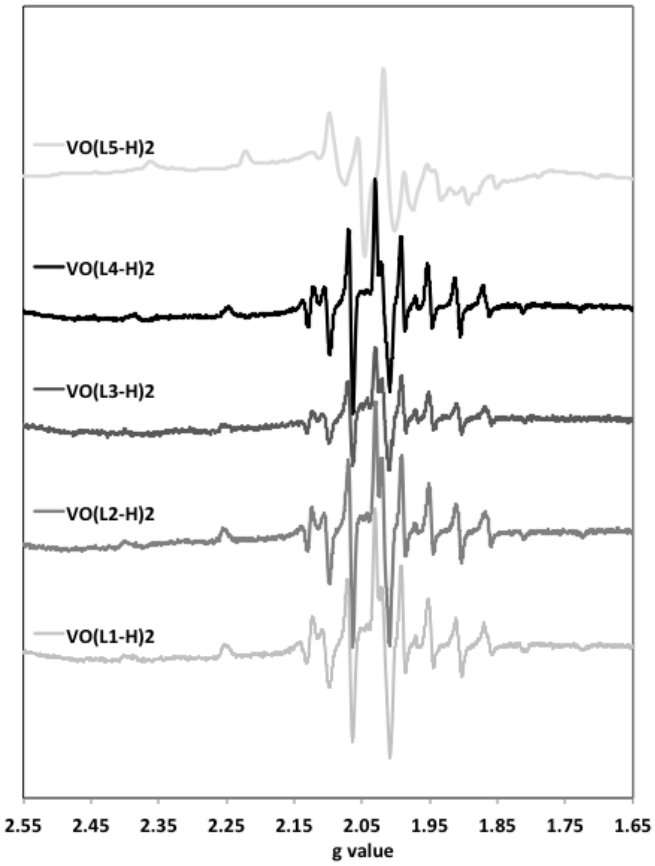



**Figure S1.** First derivative X-Band EPR spectra measured at *ca.* 100 K in DMF (concentration *ca.* 3 mM).

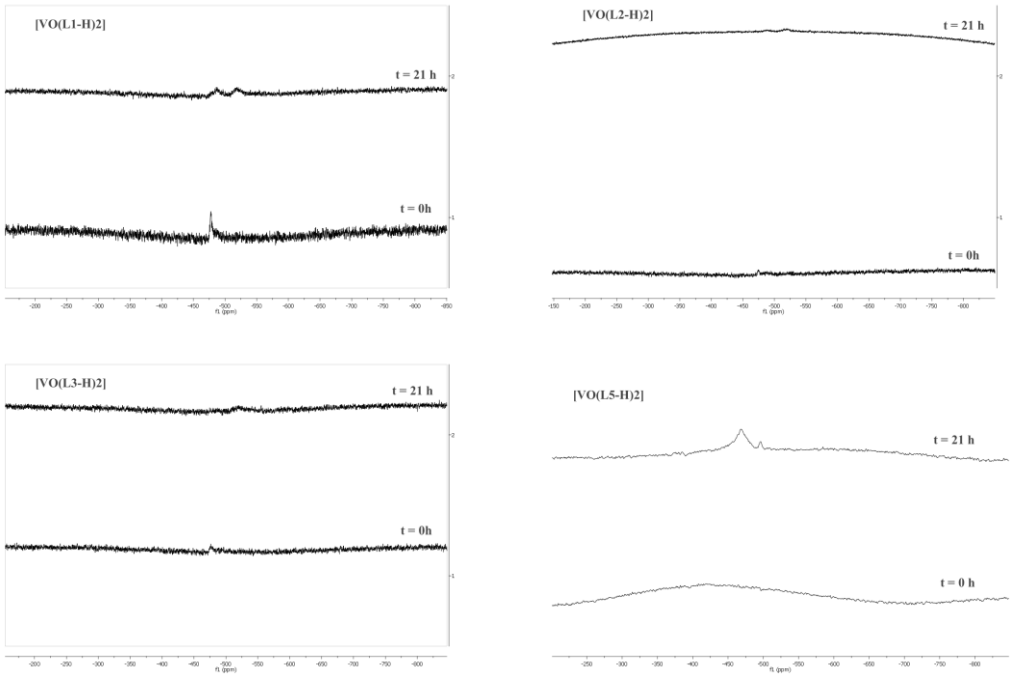



**Figure S2.** $^{51}V$ NMR spectra measured for 3 mM solutions of $[V^{IV}O(L\text{-}H)_2]$ in DMF immediately after dissolution and after 21 h.

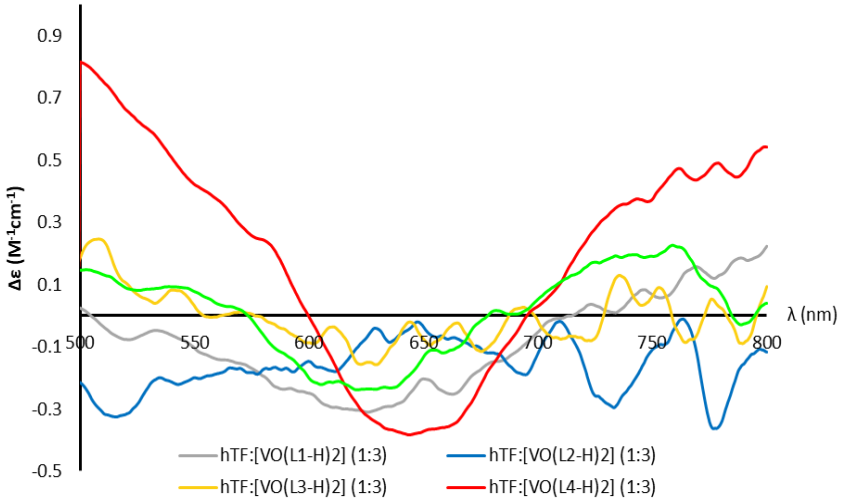
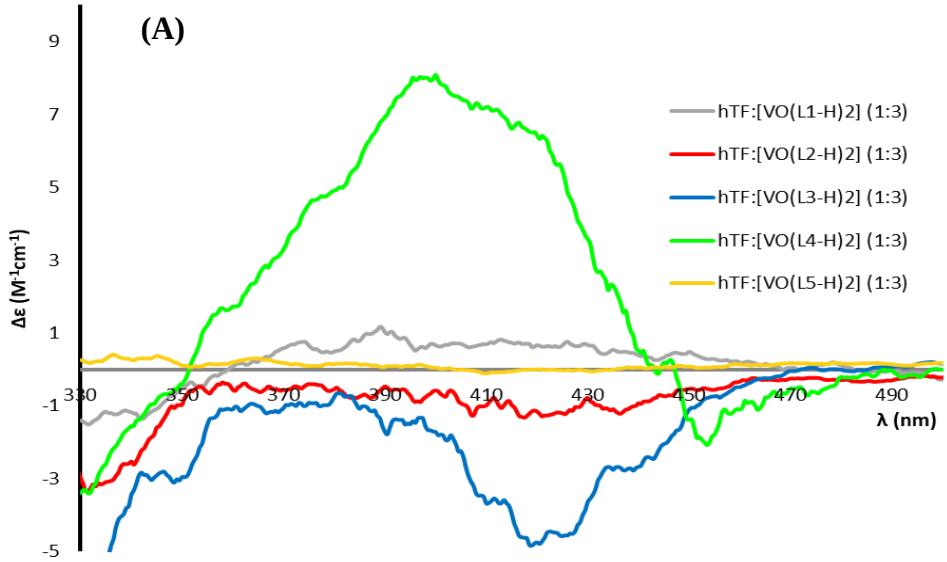



**Figure S3**. Circular dichroism spectra in the visible range of solutions containing apo-HTF (~150 mM) all [$V^{IV}O(L\text{-}H)_2$] complexes in the (1:3) molar ratio. Quartz cells with optical paths of 1.0 and 0.5 cm were used.



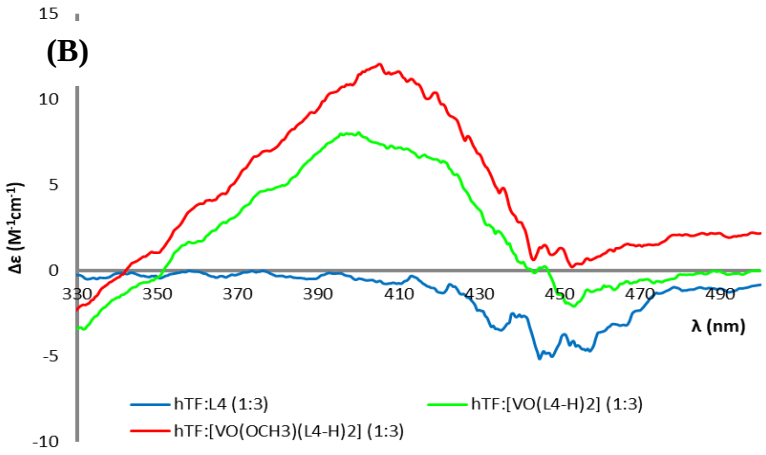



**Figure S4**. Circular dichroism spectra in the range of 350-500 of solutions containing apo-HTF (~150 mM) and (A) $[V^{IV}O(L\text{-}H)_2]$ or $[V^{V}O(OCH_3)(L\text{-}H)_2]$ in the indicated $V^{IV}$:apo-HTF molar ratios; (B) $[V^{IV}O(L4\text{-}H)_2]$, $[V^{V}O(OCH_3)(L4\text{-}H)_2]$ and free L4 in the (1:3) molar ratio. Quartz cells with optical path of 1.0 and 0.5 cm was used.

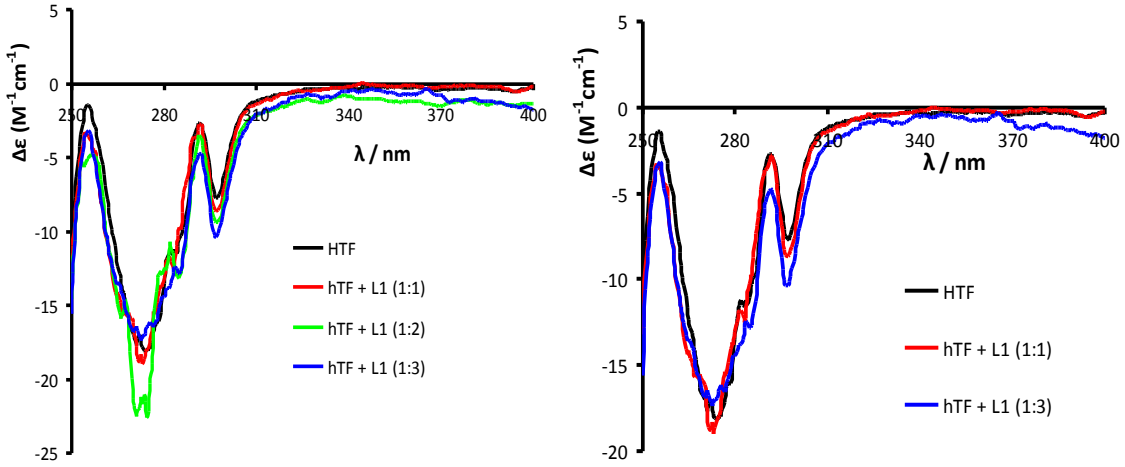



**Figure S5.** Circular dichroism spectra in the range 250-400 of solutions containing apo-HTF (~150 mM) and free ligand precursor L1 with different apo-HTF:ligand molar ratios.

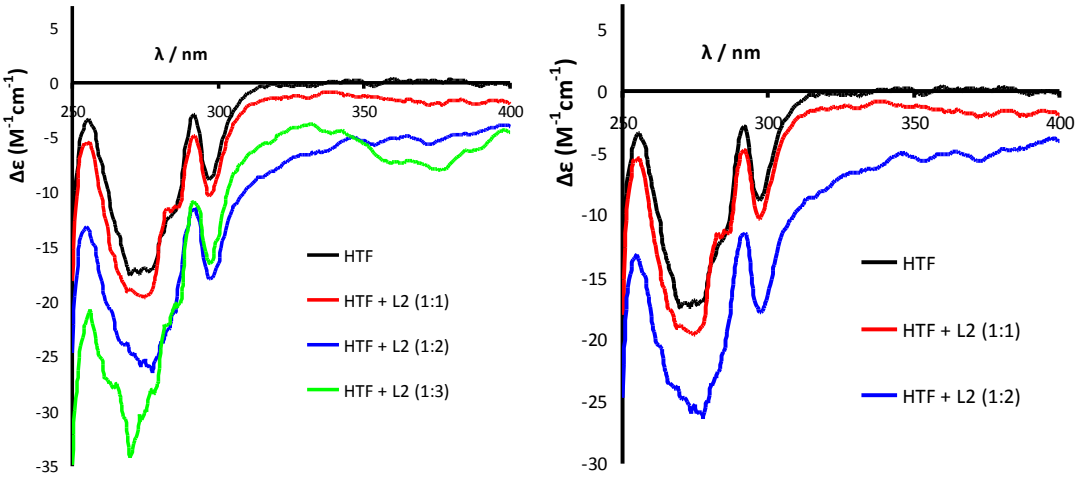



**Figure S6.** Circular dichroism spectra in the range 250-400 of solutions containing apo-HTF (~150 mM) and free ligand precursor L2 with different apoHTF:ligand molar ratios.

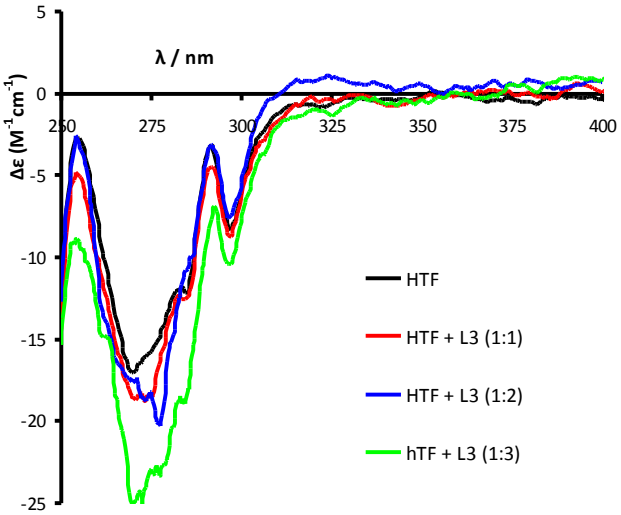



**Figure S7.** Circular dichroism spectra in the range 250-400 of solutions containing apo-HTF (~150 mM) and free ligand precursor L3 with different apo-HTF:ligand molar ratios.

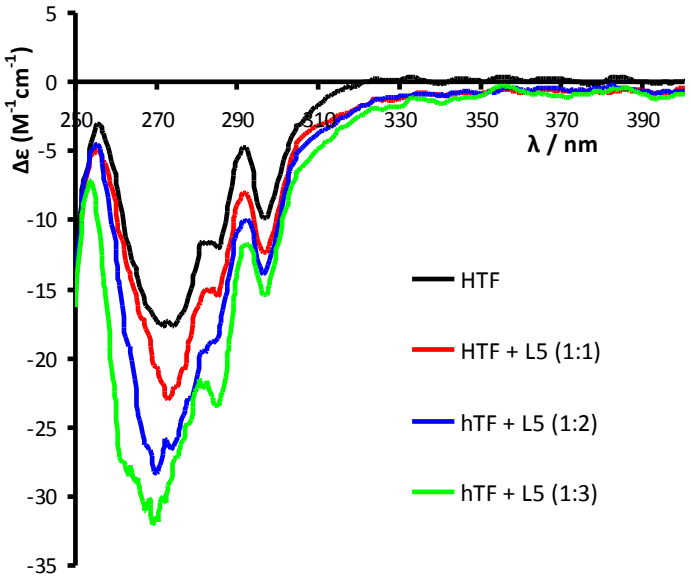



**Figure S8.** Circular dichroism spectra in the range 250-500 of solutions containing apo-HTF (~150 mM) and free ligand precursor L5 with different apo-HTF:ligand molar ratios.

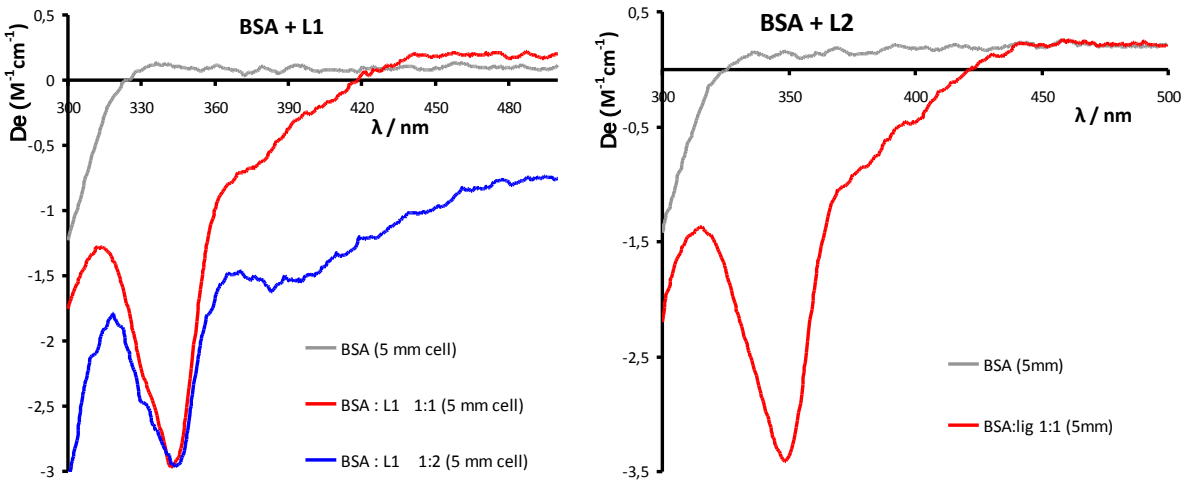



**Figure S9**. Circular dichroism spectra in the range of 300-500 of solutions containing BSA (~300 mM) and L1. The molar ratios are indicated. Quartz cell with optical path of 0.5 cm was used.

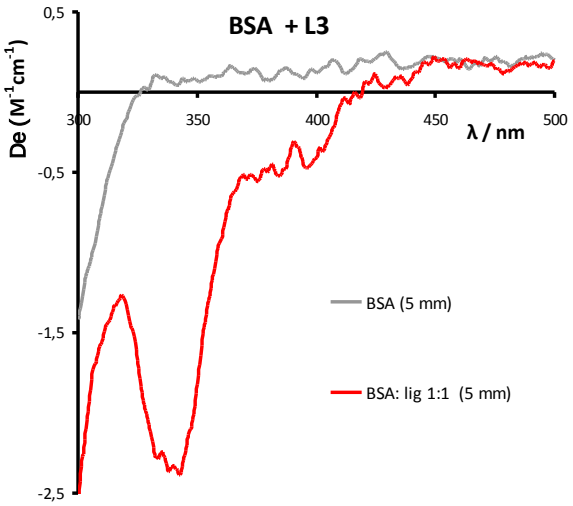



**Figure S10**. Circular dichroism spectra in the range of 300-500 of solutions containing BSA (~300 mM) and L3. The molar ratio is indicated. Quartz cell with optical path of 0.5 cm was used.

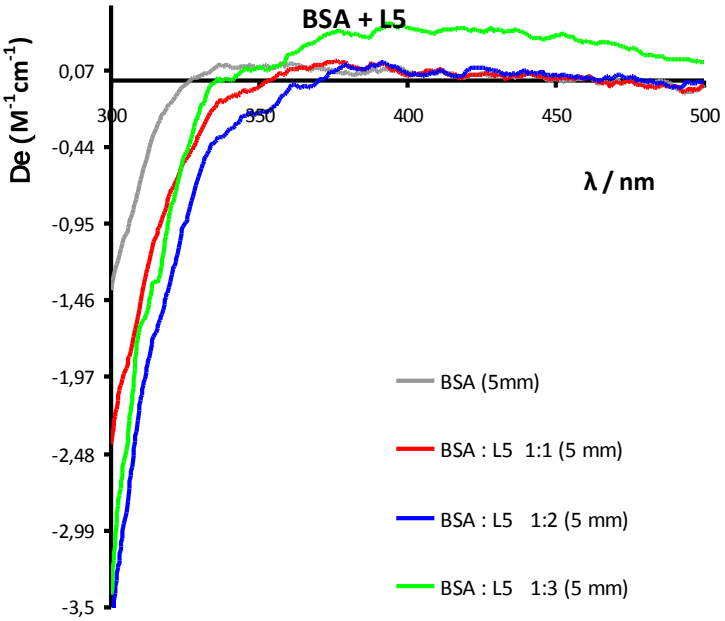



**Figure S11**. Circular dichroism spectra in the range of 300-500 of solutions containing BSA (~300 mM) and L5. The molar ratio is indicated. Quartz cell with optical path of 0.5 cm was used.

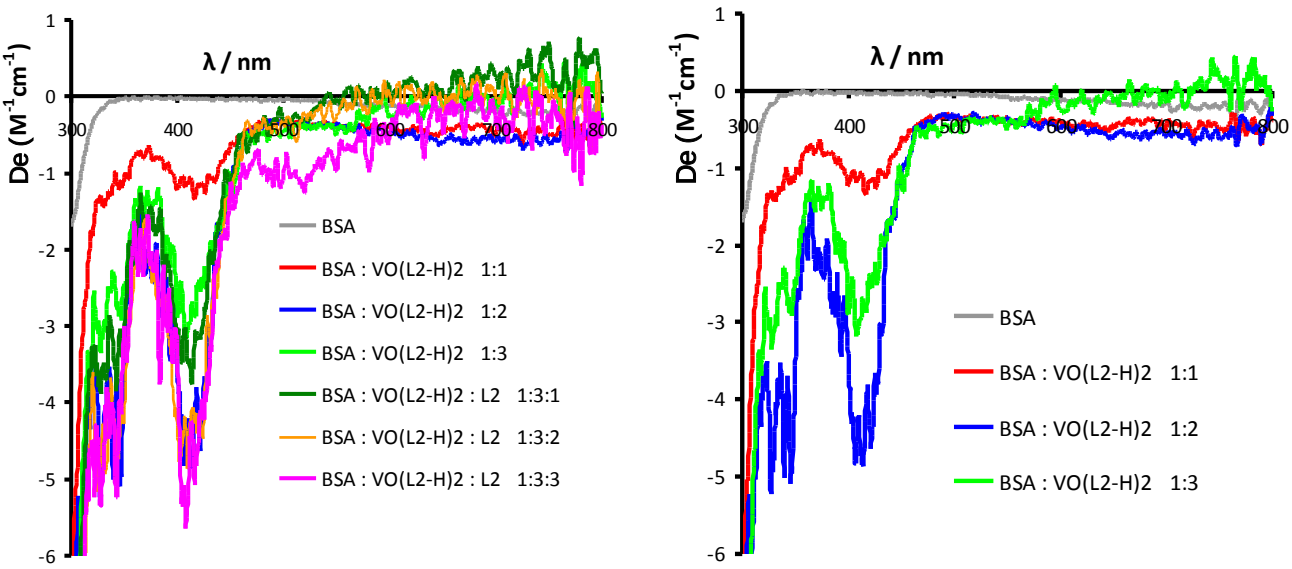



**Figure S12**. Circular dichroism spectra in the range of 300-800 nm of solutions containing BSA (~300 μM) and [$V^{IV}O(L2\text{-}H)_2$] complexes, followed by additions of L2. The molar ratios are indicated. Quartz cells with optical path of 0.5 and 1.0 cm was used.

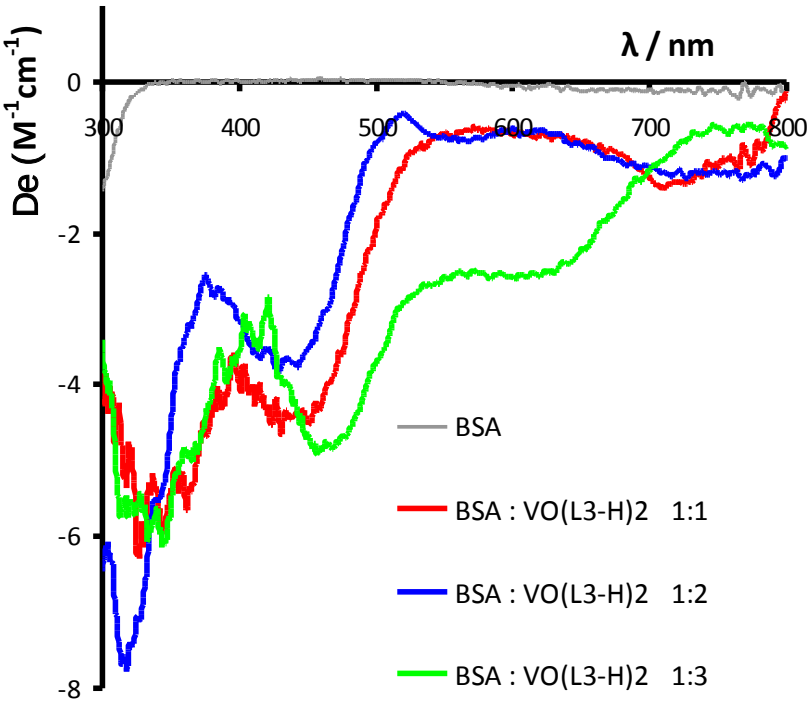



**Figure S13**. Circular dichroism spectra in the range of 300-800 nm of solutions containing BSA (~300 μM) and [$V^{IV}O(L3\text{-}H)_2$] complexes, followed by additions of L3. The molar ratios are indicated. Quartz cells with optical path of 0.5 and 1.0 cm was used. In this experiment there were some problems with precipitation of a solid inside the cells.

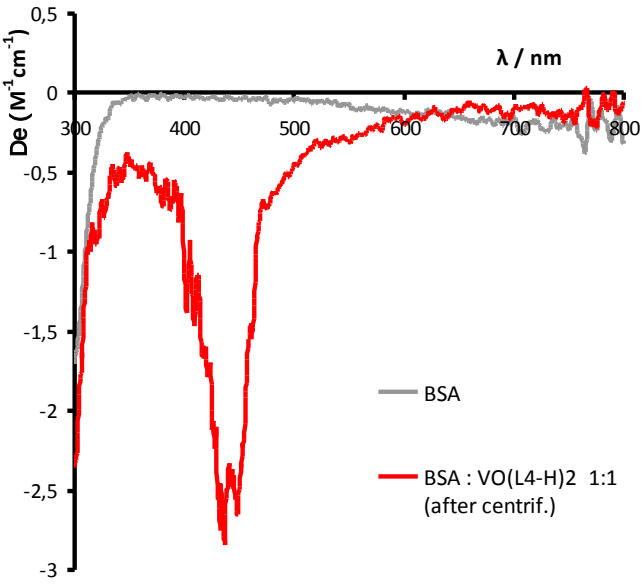



**Figure S14**. Circular dichroism spectra in the range of 300-800 nm of solutions containing BSA (~300 μM) and $[V^{IV}O(L4\text{-}H)_2]$ complexes. The molar ratio is indicated. Quartz cells with optical path of 0.5 and 1.0 cm was used. In this experiment there were some problems with precipitation of a solid inside the cell.

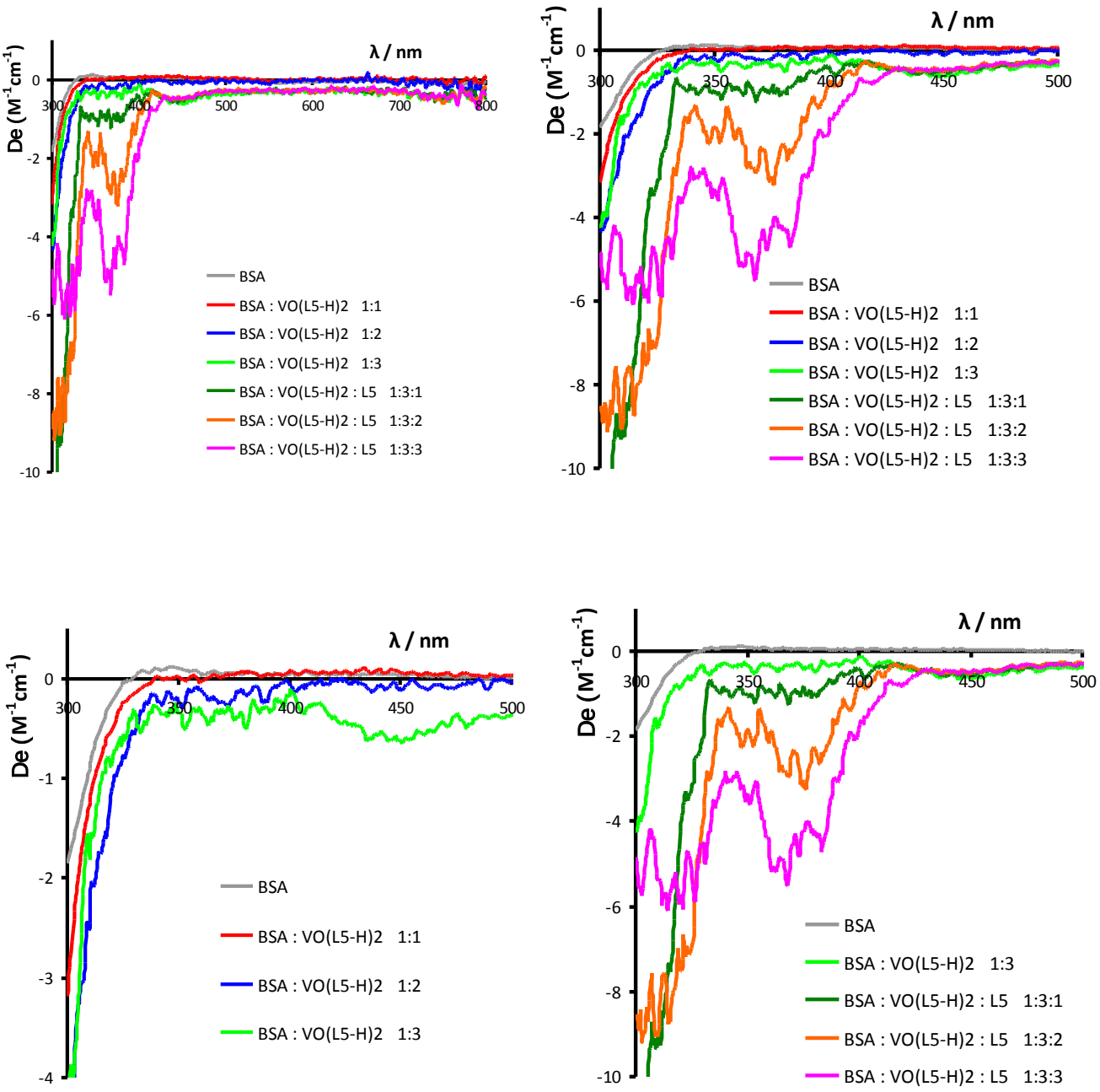



**Figure S15**. Circular dichroism spectra in the range of 300-800 nm of solutions containing BSA (~300 μM) and [$V^{IV}O(L5\text{-}H)_2$] complexes, followed by additions of L5. The molar ratio is indicated. Quartz cells with optical path of 0.5 and 1.0 cm was used.

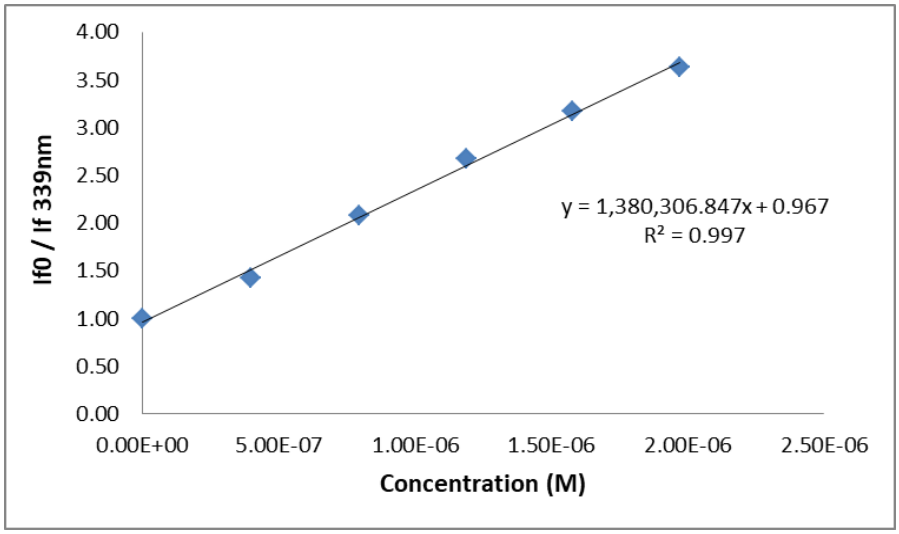



**Figure S16.** Stern-Volmer plot for L1

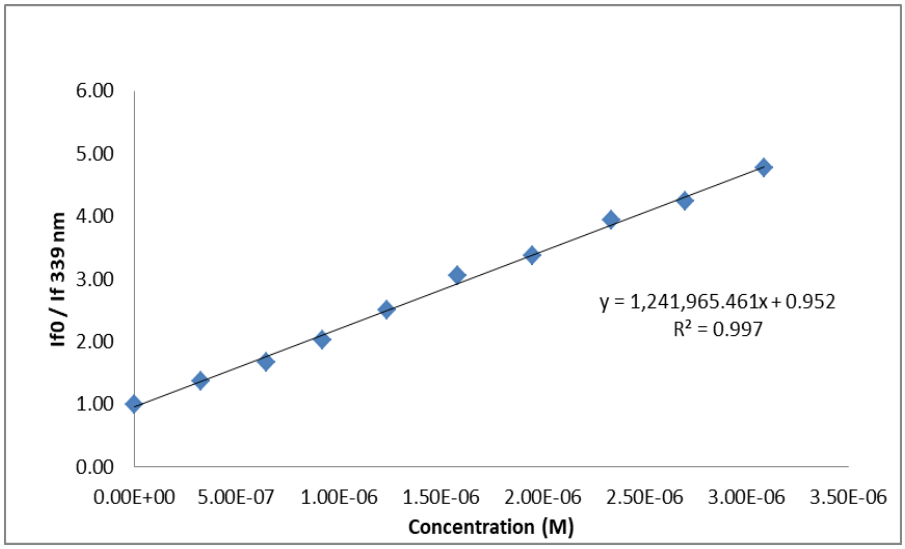



**Figure S17.** Stern-Volmer plot for L2

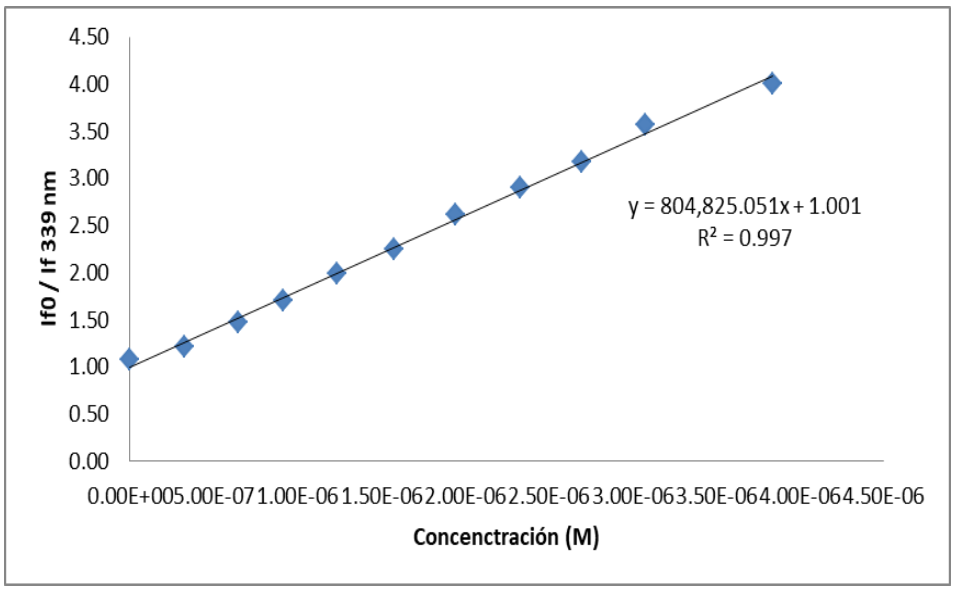



**Figure S18**. Stern-Volmer plot for $[V^{IV}O(L2\text{-}H)_2]$

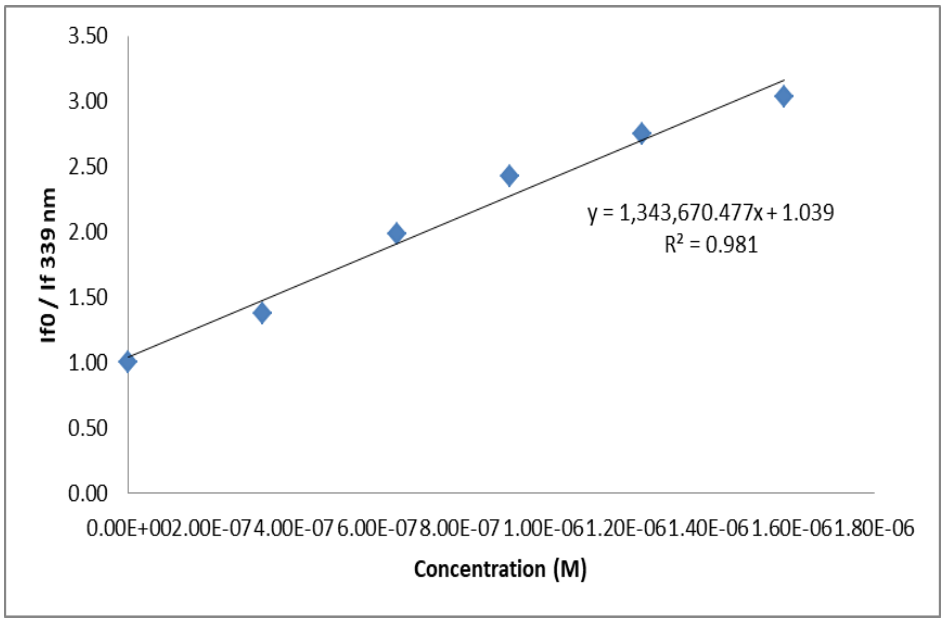



**Figure S19**. Stern-Volmer plot for L3

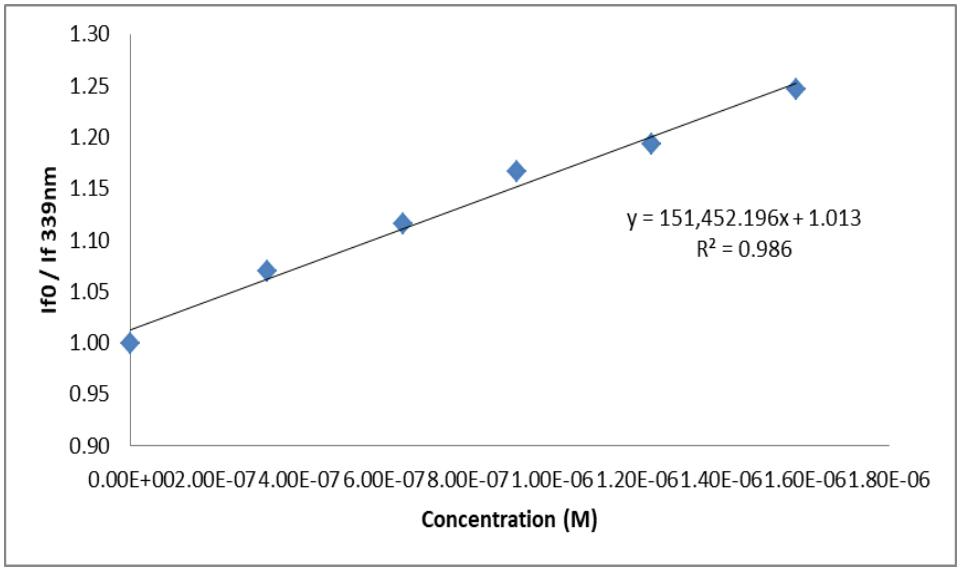



**Figure S20.** Stern-Volmer plot for $[V^{IV}O(L3\text{-}H)_2]$

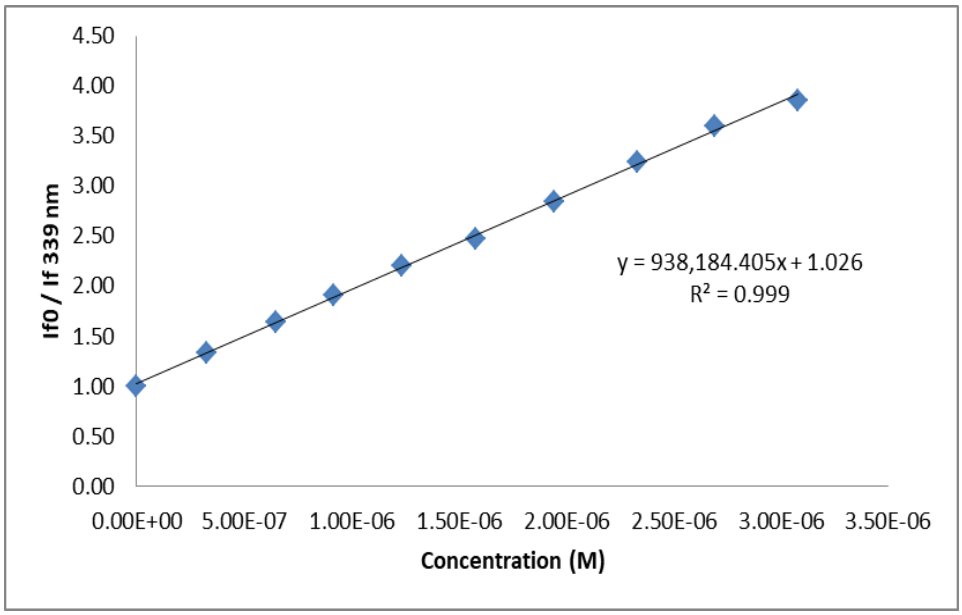



**Figure S21.** Stern-Volmer plot for L4

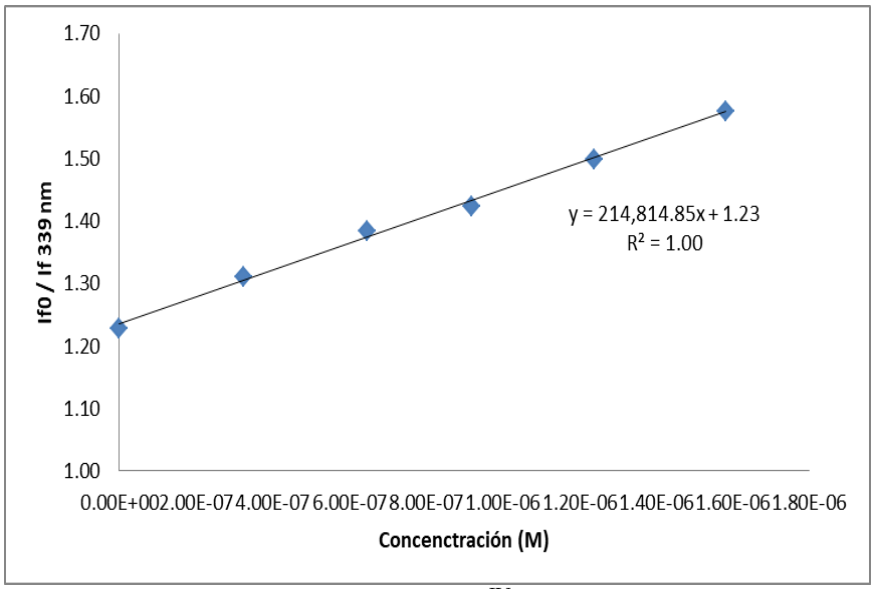



**Figure S22.** Stern-Volmer plot for $[V^{IV}O(L4\text{-}H)_2]$

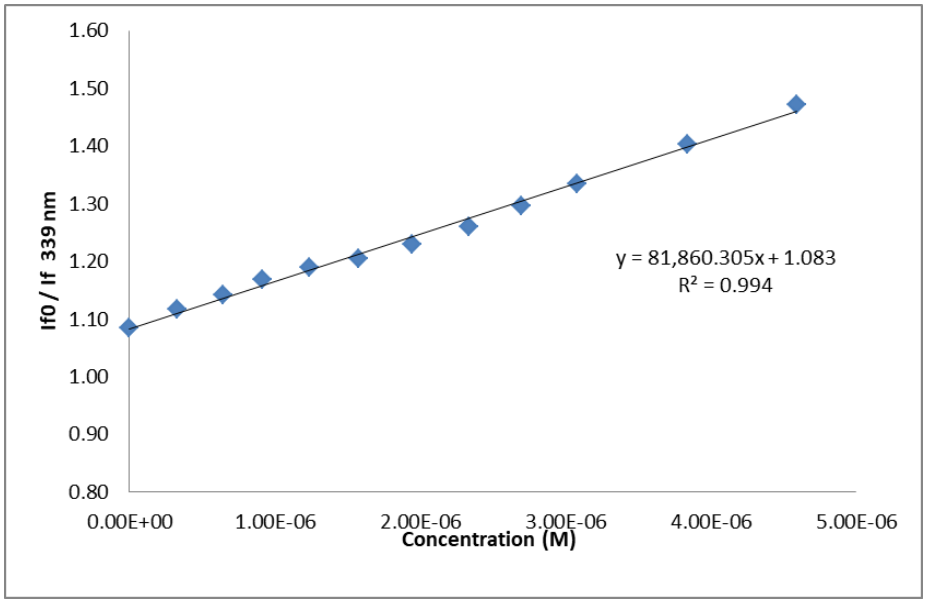



**Figure S23**,Stern-Volmer plot for L5

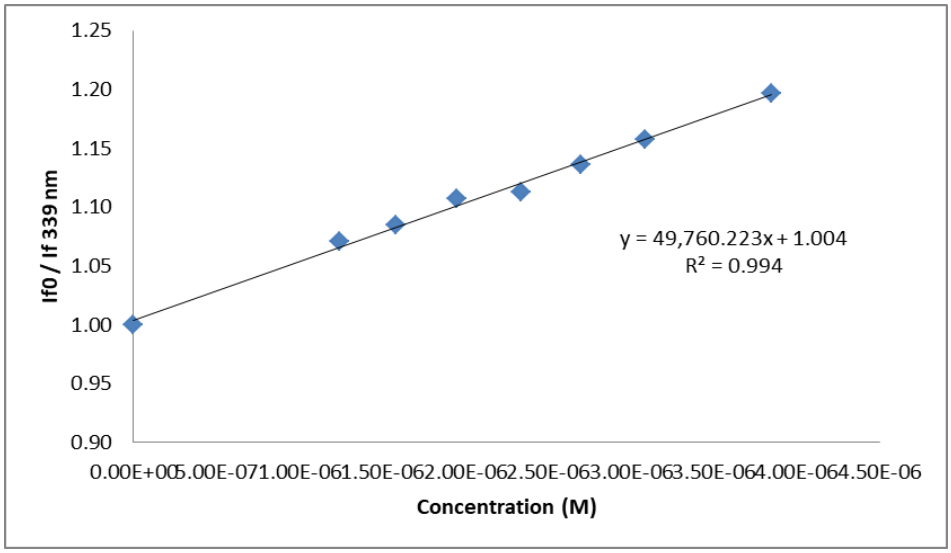



**Figure S24.** Stern-Volmer plot for $[V^{IV}O(L5\text{-}H)_2]$