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Supplementary Material

Kinetics and Mechanism of the Reaction of Dichlorotetraaquaruthenium(III) and Thiols

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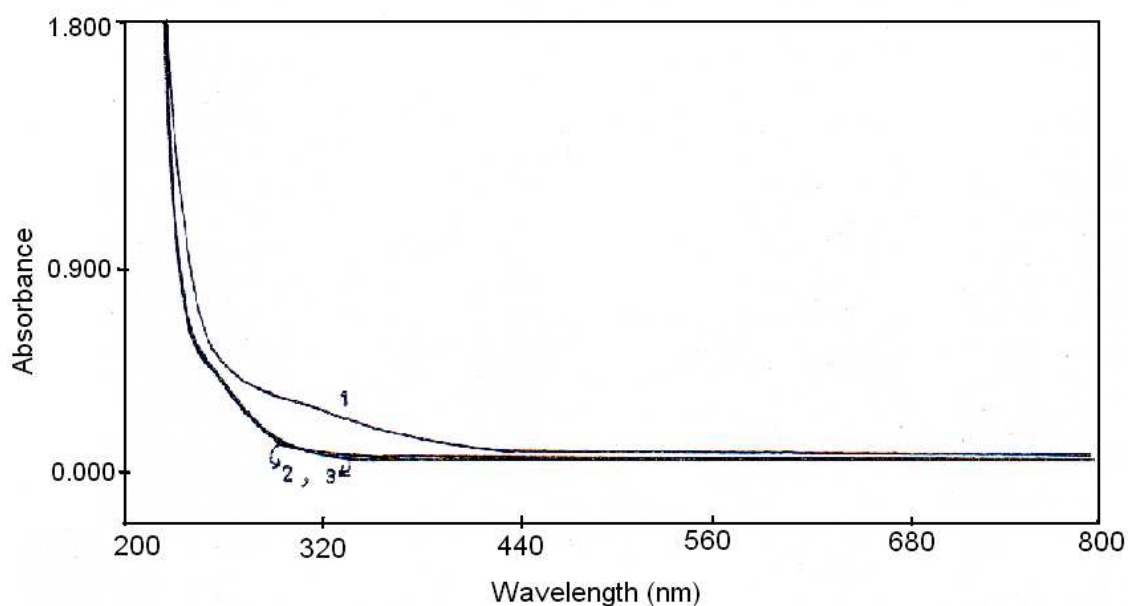


Fig.S1- Comparison of UV-Vis spectra of mixture of $[\text{Ru}^{\text{III}}(\text{H}_2\text{O})_4\text{Cl}_2]^+$ and glutathione reduced(GSH) with the glutathione oxidized (GSSG) at temperature $25 \pm 0.1^\circ\text{C}$, $I = 0.5 \text{ M}$: (1) Mixture of $[\text{Ru}^{\text{III}}] = 2.0 \times 10^{-4} \text{ M}$ and $[\text{GSH}] = 2.0 \times 10^{-4} \text{ M}$ at $\text{pH} \approx 2.0$ immediate after mixing, (2) only glutathione oxidized(GSSG) of same concentration (3) Mixture after 10 minutes.

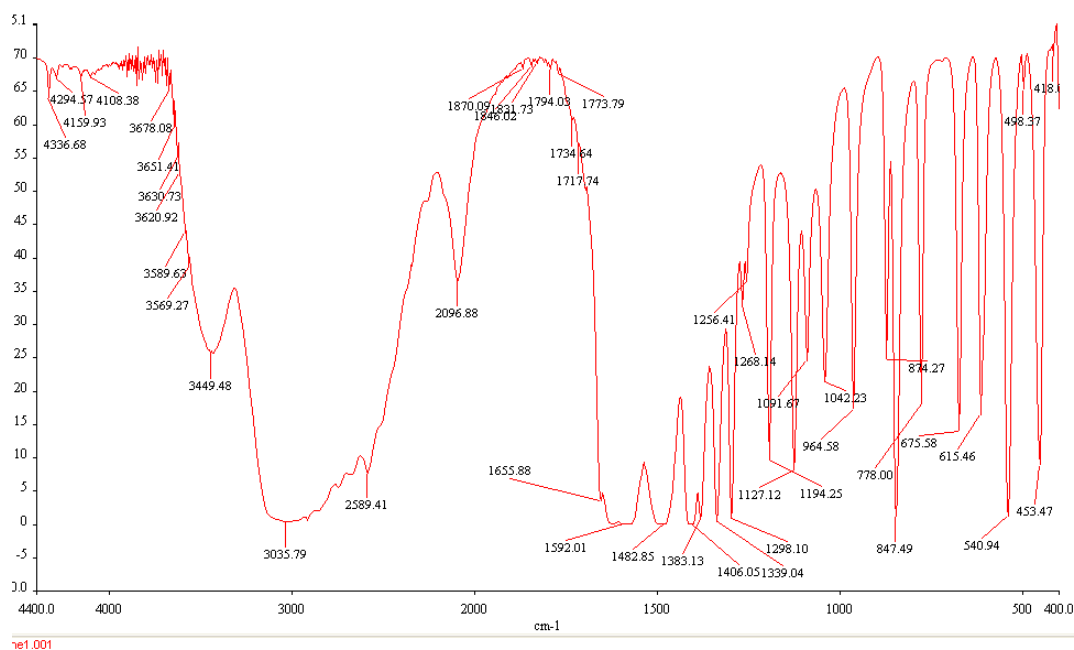


Fig.S2 - FTIR spectrum of the product isolated from the reaction of $[\text{Ru}^{\text{III}}\text{Cl}_2(\text{H}_2\text{O})_4]^+$ and L-cysteine(CySH)

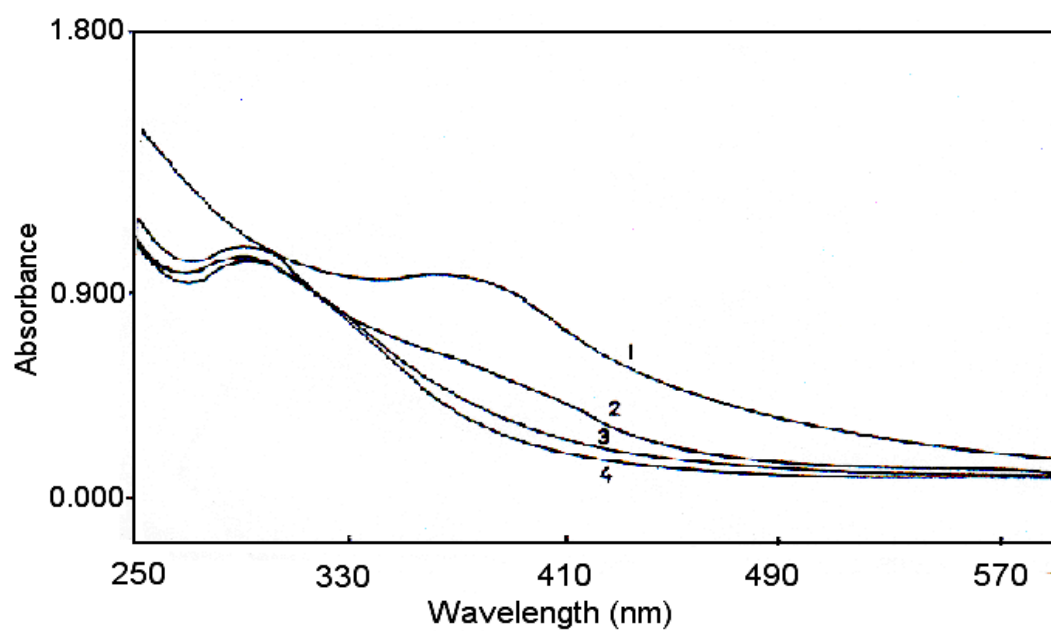


Fig.S3 - Repetitive spectral scan of mixture of $[\text{Ru}^{\text{III}}\text{Cl}_2(\text{H}_2\text{O})_4]^+$ and GSH at temperature $25 \pm 0.1^\circ\text{C}$, $I = 0.5 \text{ M}$ (NaClO_4): (1) after 30 sec (2) after 2 min (3) after 4 min (4) after 10 min of mixing.