

Figure S1. $^1\text{H NMR}$ (CD_3CN) and DPV of the photolysis mixture obtained after irradiating $[\text{Ru}(\text{bpy})(\text{CO})_2\text{Cl}_2]$ in MeCN for 1 h. Main fraction $[\text{Ru}(\text{bpy})(\text{MeCN})_3\text{Cl}]\text{Cl}$. Arrows point to the four (two partly hidden) aromatic resonances of $[\text{Ru}(\text{bpy})(\text{MeCN})_2\text{Cl}_2]$.

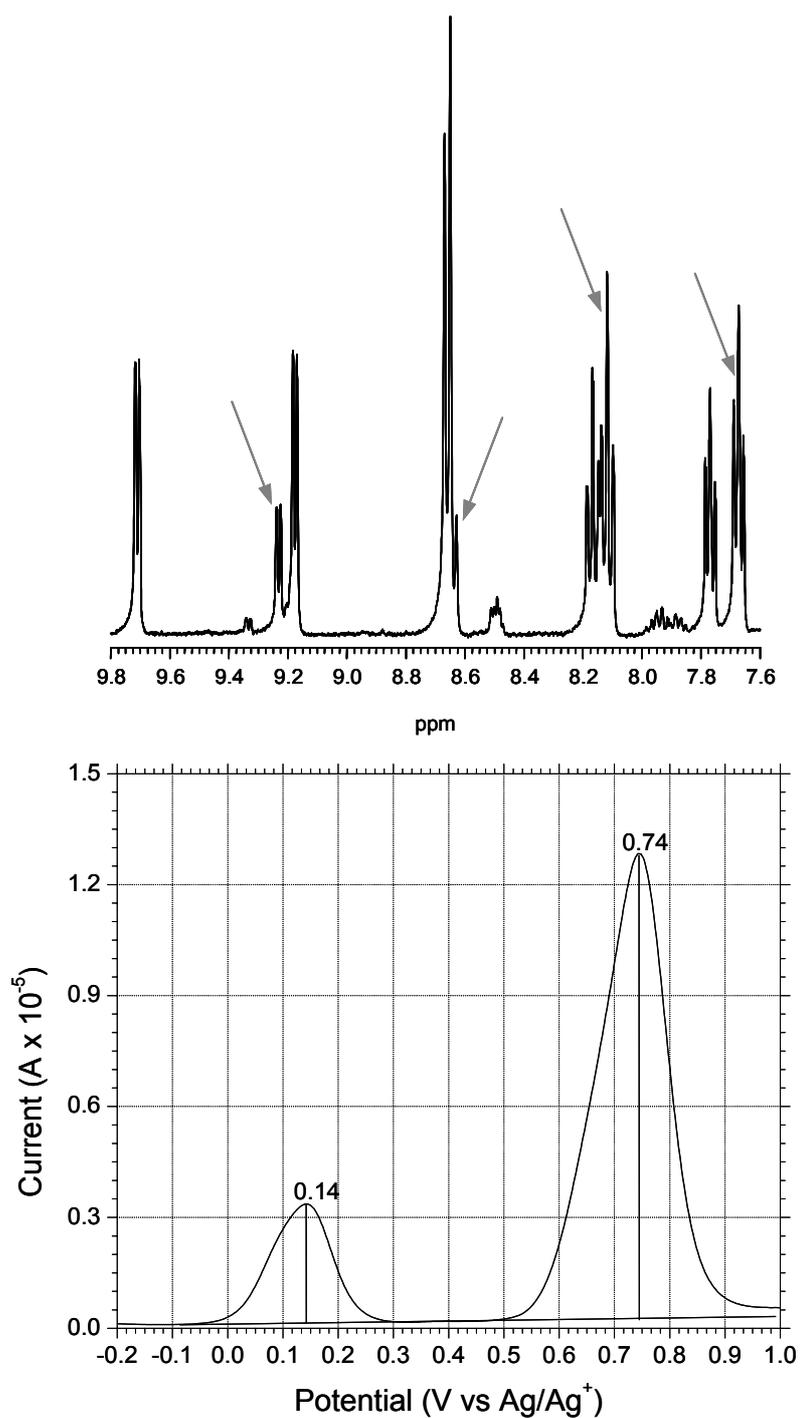
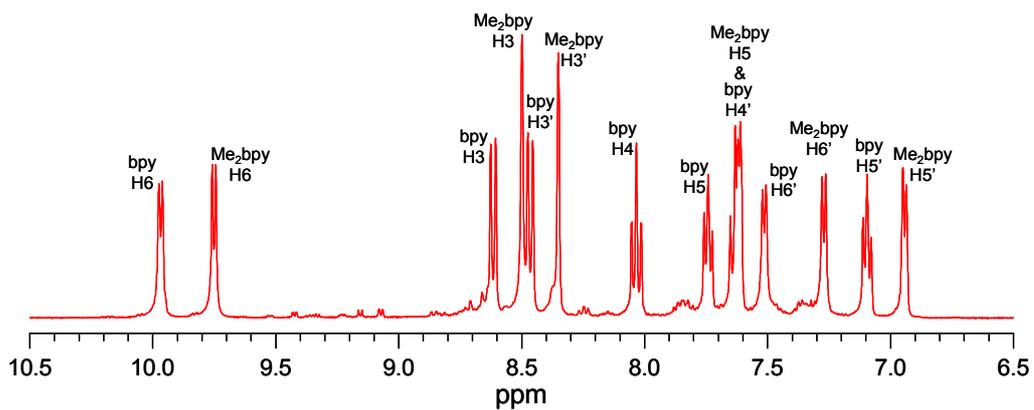


Figure S2. ^1H NMR of $[\text{Ru}(\text{bpy})(\text{Me}_2\text{bpy})\text{Cl}_2]$ in d_6 -DMSO with peak assignment peaks.



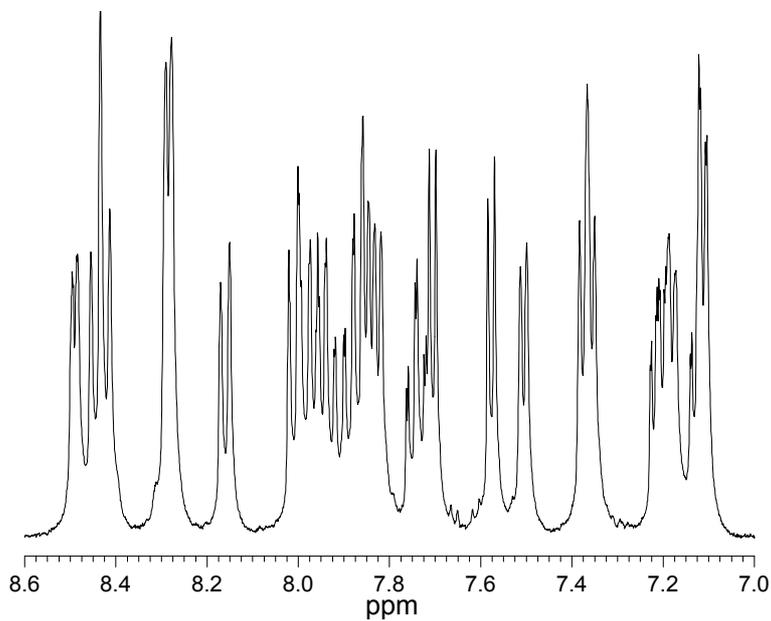


Figure S3. $^1\text{H NMR}$ of the aromatic region of the crystal sample of $[\text{Ru}(\text{bpy})(\text{Me}_2\text{bpy})(\text{bpt})]^+$ in $d_3\text{-MeCN}$.