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Supplementary Material

Luminescence Quenching in Supramolecular Systems: A Comparison of DNA- and SDS Micelle Mediated Photoinduced Electron Transfer between Metal Complexes

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Figure 1S. Ultraviolet-visible spectra of $\text{Rh}(\text{phi})_2\text{bpy}^{3+}$ (left) and $\text{Rh}(\text{phen})_2\text{phi}^{3+}$ (right) in water (—) and in SDS micelles (-----). 10 nm red-shifts in absorbance bands of the phi ligand are indicative of binding in a hydrophobic environment.

Figure 2S. Stern-Volmer plots showing the quenching of $\text{Ru}(\text{phen})_2\text{dppz}^{2+}$ by $\text{Rh}(\text{phi})_2\text{bpy}^{3+}$ and $\text{Rh}(\text{phen})_2\text{phi}^{3+}$ in basic solution. 40 μM $\text{Ru}(\text{phen})_2\text{dppz}^{2+}$, 13 mM SDS, 10 mM tris buffered to pH 8.5. Quenching by $\text{Rh}(\text{phi})_2\text{bpy}^{3+}$ of emission intensity (\blacklozenge) and lifetime (\blacktriangledown); quenching by $\text{Rh}(\text{phen})_2\text{phi}^{3+}$ of emission intensity (\bullet) and lifetimes (\blacktriangle). Above the pK_a of Rh(III) complexes, Stern-Volmer plots become upward-curving, and $\text{Rh}(\text{Hphi})_2\text{bpy}^+$ reacts more than $\text{Rh}(\text{phen})_2(\text{Hphi})^{2+}$.

J2274-2

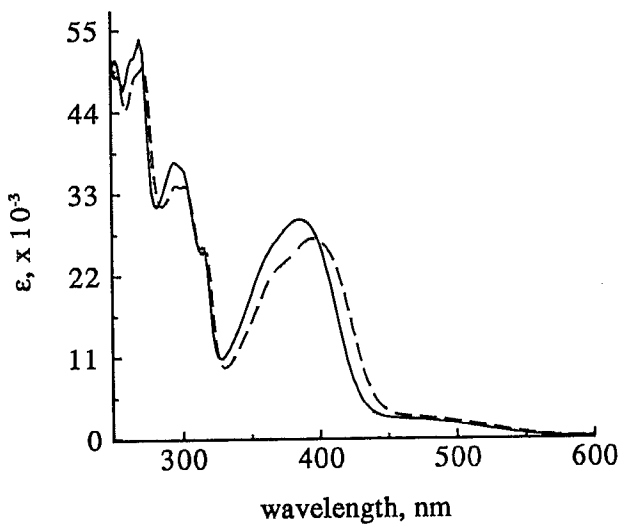
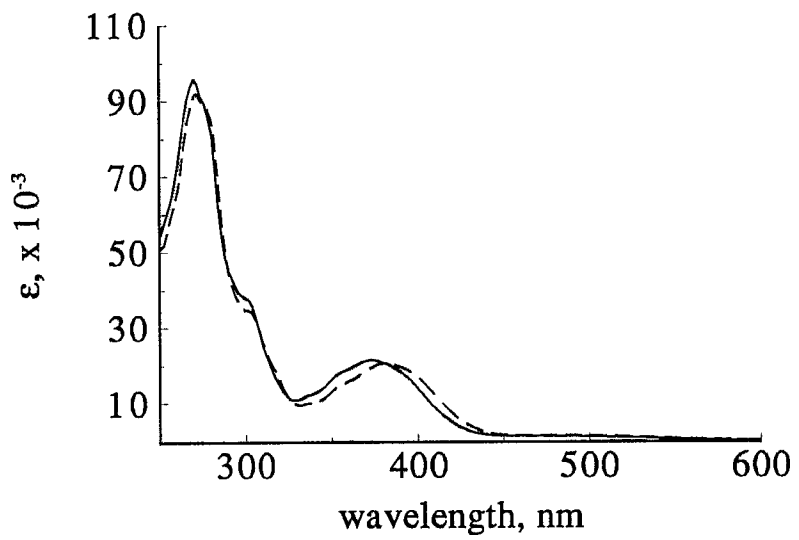


Figure 1S

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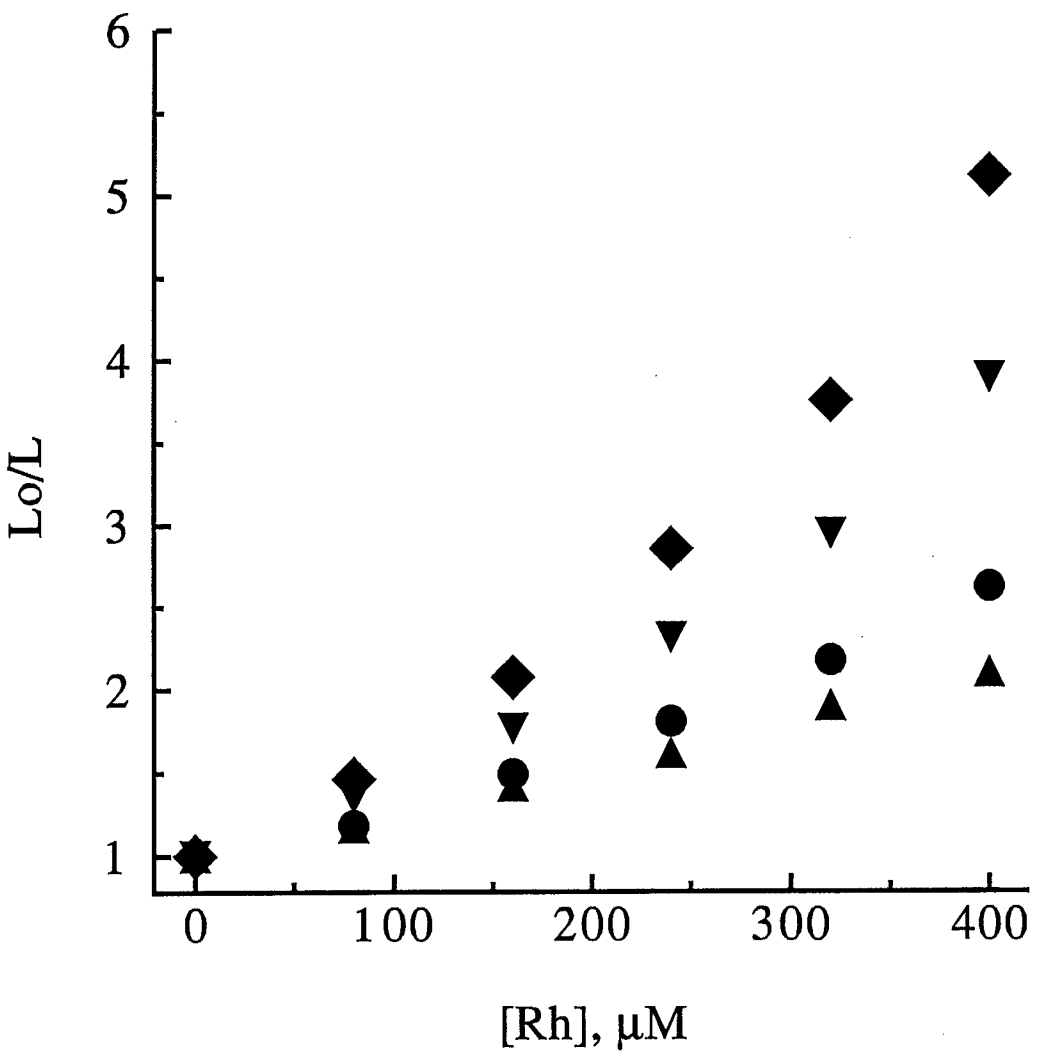


Figure 2S