

Supporting Information for

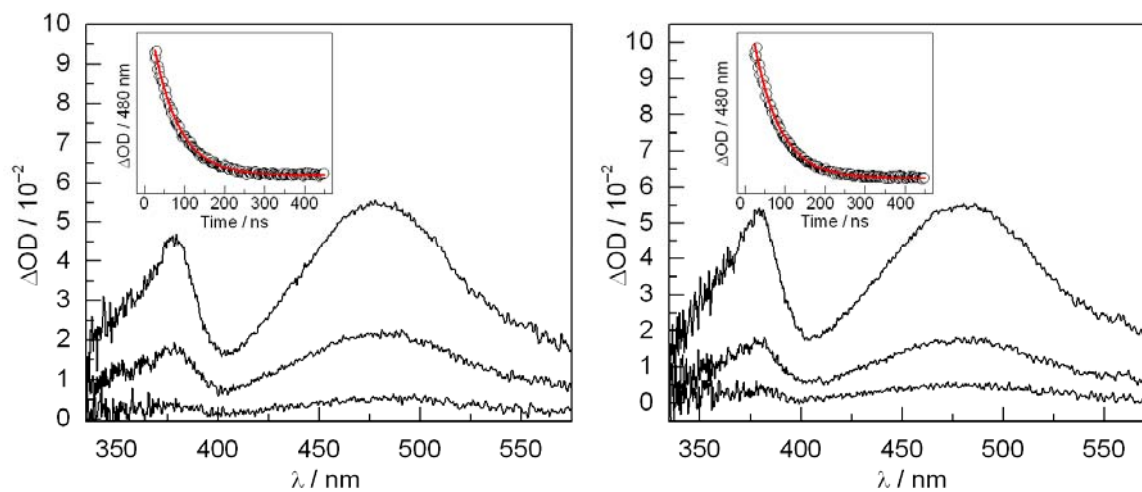
**Re(bpy)(CO)<sub>3</sub>CN as a Probe of Conformational Flexibility in a  
Photochemical Ribonucleotide Reductase**

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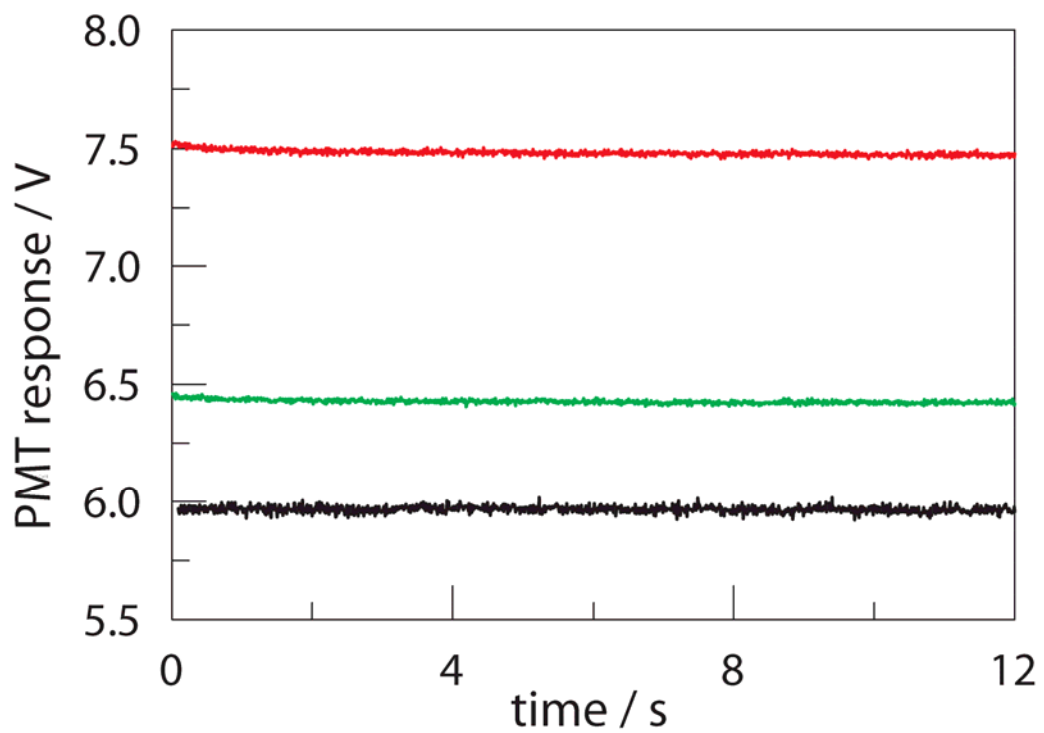
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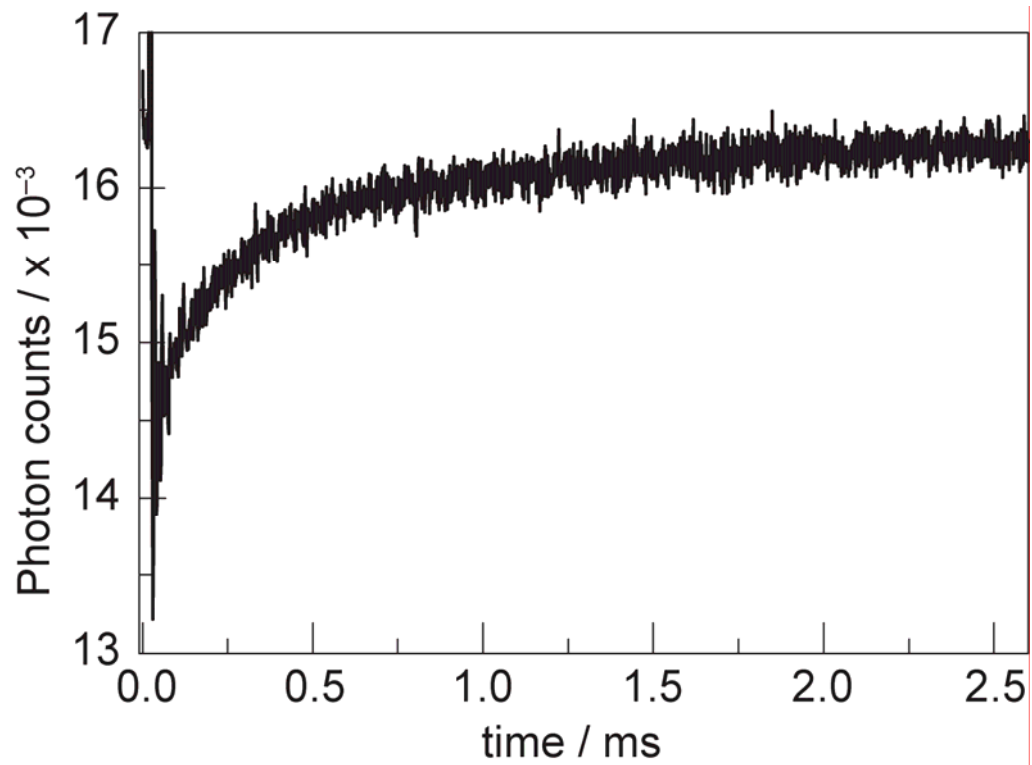
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**Figure S1.** TA spectra of 100  $\mu\text{M}$  solutions of [Re]-F-R2C19 (left) and [Re]-Y-R2C19 (right) in 50 mM Tris buffer (pH 7.6), 20% glycerol, 1 mM CDP, 3 mM ATP, and 15 mM  $\text{MgSO}_4$  recorded at 65, 115, and 215 ns following a 355 nm laser pulse. Insets: Single wavelength kinetics traces ( $\circ$ ) with single exponential fit ( $\text{—}$ ) recorded at 480 nm ( $\tau = 64 \pm 1$  ns for both samples).



**Figure S2.** Stopped-flow phosphorescence when (a) [Re]-F- $\beta$ C19 is mixed in equal volumes with assay buffer (—) (b)  $\alpha$ 2:[Re]-F- $\beta$ C19 is mixed in equal volumes with assay buffer (—) and (c)  $\alpha$ 2:[Re]-F- $\beta$ C19 is mixed in equal volumes with Ac-Y- $\beta$ C19 (—).



**Figure S3.** MP-FRAP trace of 3.65 mM [Re]-Y- $\beta$ C19 in 50 mM Tris, pH = 7.6.