SUPPORTING INFORMATION

Steady-State and Time-Resolved Spectroscopy of 2,2′-Bipyridine-3,3′-diol in Solvents and Cyclodextrins: Polarity and Nanoconfinement Effects on Tautomerization

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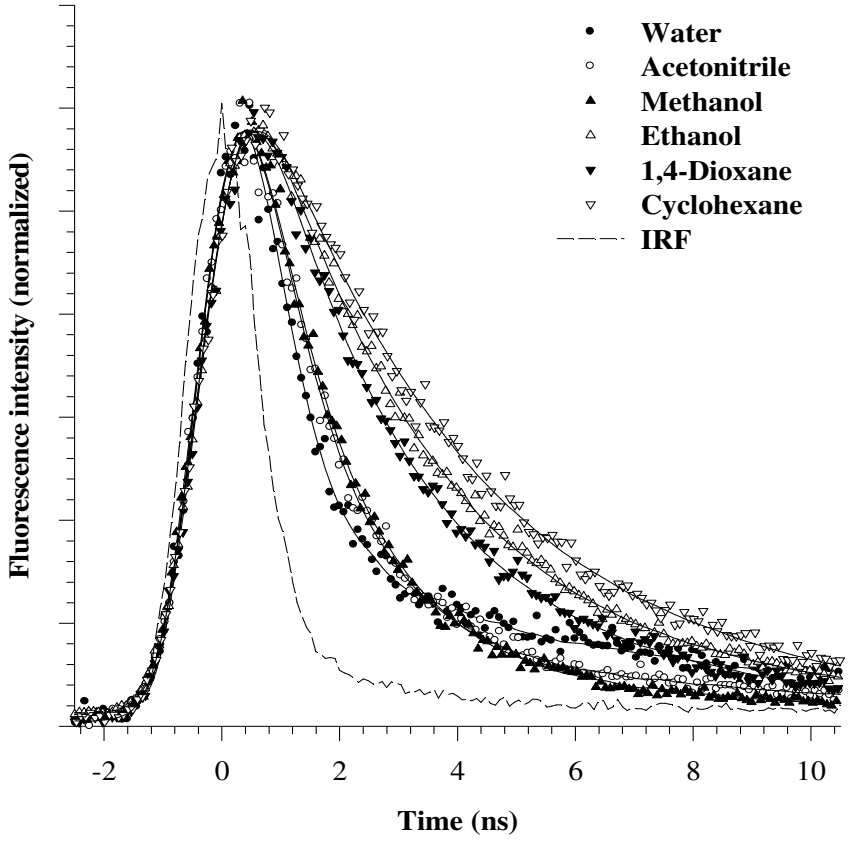

Figure S1. Fluorescence decay transients for $BP(OH)_2$ in different solvents as indicated in the figure. Concentration of $BP(OH)_2$ was 0.01 mM. Excitation was at 340 nm. Instrument response function (IRF) is shown by a dashed line. Solid lines represent the best fit to a single exponential function in all solvents except in water where the function was a double exponential. Lifetimes and their contributions are shown in Table 1 in the paper.

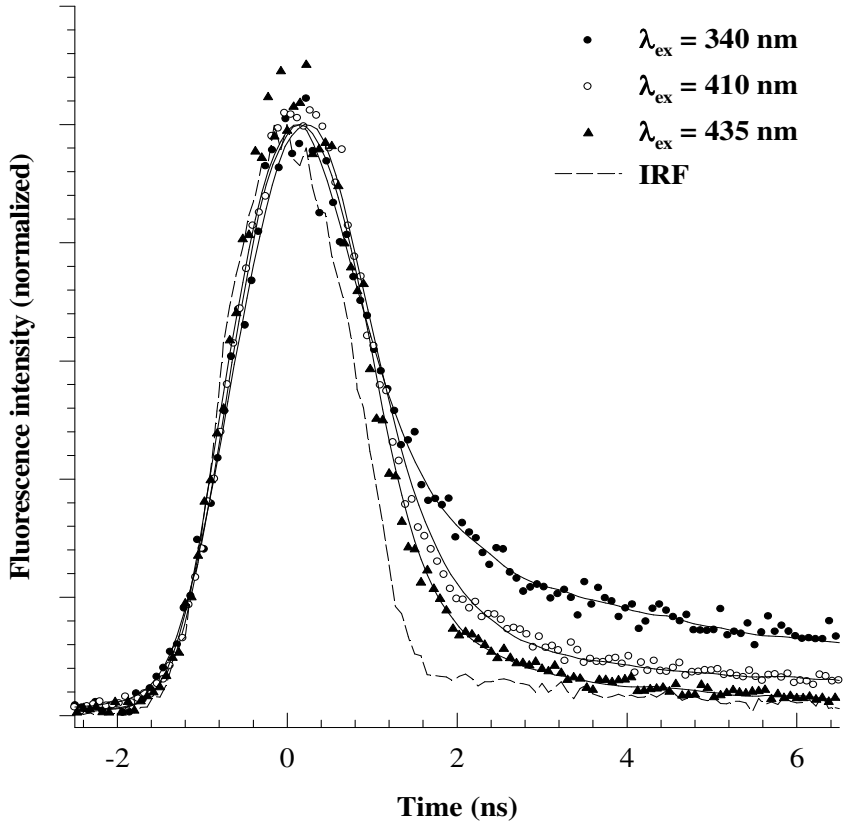

Figure S2. Fluorescence decay transients for $BP(OH)_2$ in water at different excitation wavelengths as indicated in the figure. Concentration of $BP(OH)_2$ was 0.01 mM. IRF is shown by a dashed line. Solid lines represent the best fit to a double exponential function for excitation at 340 and 410 nm, and to a single exponential function for excitation at 435 nm. Lifetimes and their contributions are shown in Table 1 in the paper.

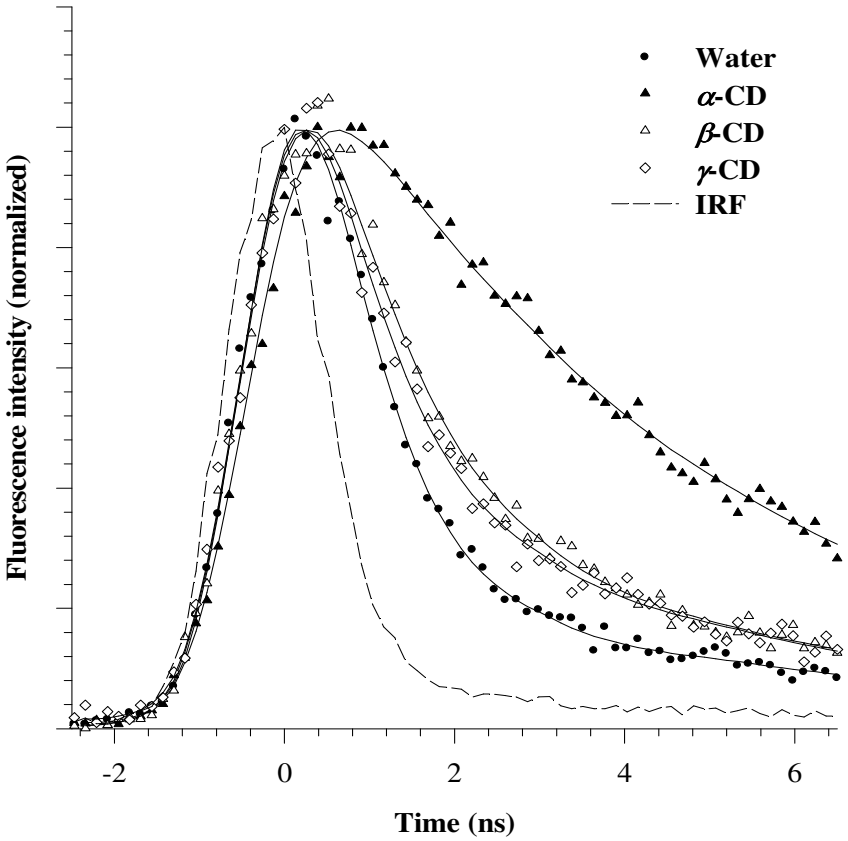

Figure S3. Fluorescence decay transients for $BP(OH)_2$ in aqueous CDs as indicated in the figure. Concentration of $BP(OH)_2$ was 0.01 mM. Concentrations of γ- and β-CDs were 10 mM, and that of α-CD was 80 mM. Excitation was at 340 nm. IRF is shown by a dashed line. Solid lines represent the best fit to a double exponential function for $BP(OH)_2$ in γ-CD and β-CD, whereas a single exponential function produced the best fit for $BP(OH)_2$ in α-CD. The transient for $BP(OH)_2$ in water is included for comparison. Lifetimes and their contributions are shown in Table 2 in the paper.

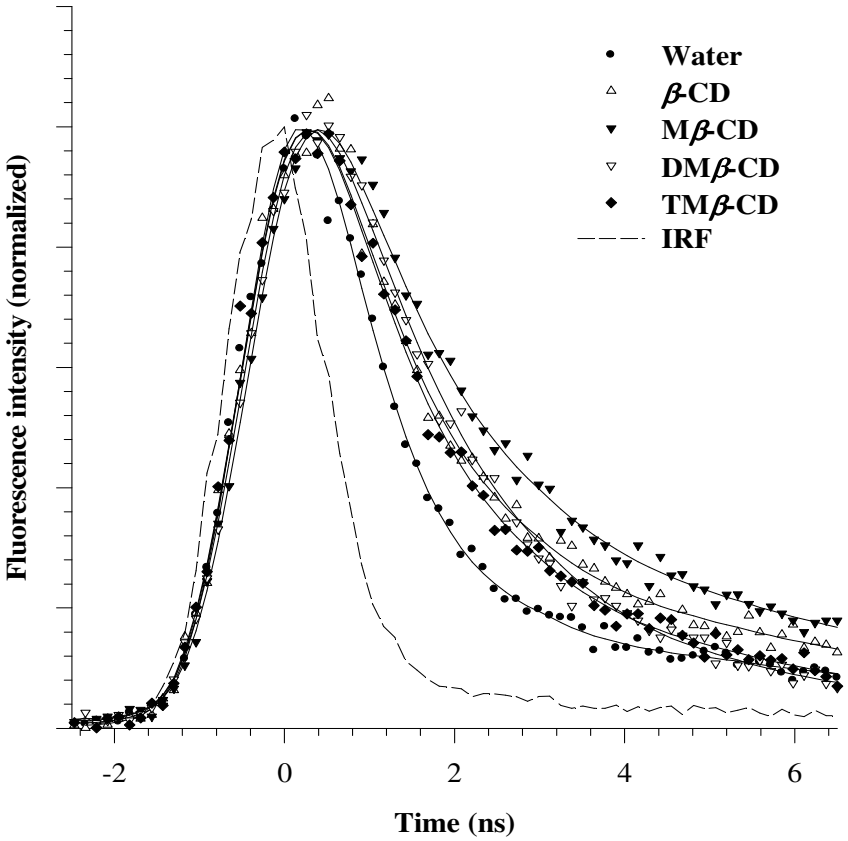

Figure S4. Fluorescence decay transients for $BP(OH)_2$ in aqueous β-CD and its derivatives as indicated in the figure. Concentration of $BP(OH)_2$ was 0.01 mM. Concentrations of all CDs were 10 mM. Excitation was at 340 nm. IRF is shown by a dashed line. Solid lines represent the best fit to a double exponential function for $BP(OH)_2$ in all CDs, except in 2,6-DMβ-CD where a single exponential function produced the best fit. The transient for $BP(OH)_2$ in water is included for comparison. Lifetimes and their contributions are shown in Table 2 in the paper.