Photochemical processes induced by the irradiation of 4-hydroxybenzophenone in different solvents

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Figure ESI1. Trend of the first-order decay constant of the absorbance at 520 nm, as a function of the concentration of dissolved oxygen in acetonitrile. 4BPOH 0.1 mM, laser excitation at 355 nm, 94 mJ/pulse.

Figure ESI2. Trend of the first-order decay constant of the absorbance at 350 nm, as a function of the percentage of water in binary mixtures H₂O/CH₃CN. 4BPOH 0.1 mM, laser excitation at 355 nm, 94 mJ/pulse.
Figure ESI3. Trend of the first-order decay constant of the absorbance at 350 nm (decimal logarithm), as a function of the pH of the aqueous solution, adjusted with HClO₄. 4BPOH 0.1 mM, laser excitation at 355 nm, 94 mJ/pulse.

Figure ESI4. Trend of the first-order decay constant of the absorbance at 520 nm, as a function of phenol concentration in acetonitrile. 4BPOH 0.1 mM, laser excitation at 355 nm, 94 mJ/pulse.
**Figure ESI5.** Trend of the Absorbance at 520 nm, as a function of the percentage of 2-propanol in binary mixtures 2-propanol/CH$_3$CN. 4BPOH 0.1 mM, laser excitation at 355 nm, 94 mJ/pulse.

**Figure ESI6.** Trend of the first-order decay constant of the absorbance at 520 nm, as a function of the percentage of 2-propanol in binary mixtures 2-propanol/CH$_3$CN. 4BPOH 0.1 mM, laser excitation at 355 nm, 94 mJ/pulse. The second-order reaction rate constant between $^3$4BPOH$^*$ and 2-propanol was derived taking into account the fact that 100% 2-propanol is 13.1 M.
Figure ES17. Time trend of the laser traces at 350 nm (355 nm laser irradiation, 94 mJ/pulse), in different mixtures of acetonitrile, 2-propanol and water (see the figure legends).