Electronic supplementary information for: How the methyl group position influences the ultrafast deactivation in aromatic radicals

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Figure 1: Photoelectron images of xylyl radicals in (4+1.6) eV experiments at three different pump-probe delays (scaled to maximum intensity; one-color signals were subtracted).



Figure 2: Photoelectron anisotropy β_2 at different pump-probe delays in (4+1.6) eV experiments.



Figure 3: Exemplary photoelectron spectra of m-xylyl at zero delay in a (4+1.6) eV experiment. The one-color signals were subtracted from the two-color ones to obtain the background-corrected spectra, which are discussed in the main text.



Figure 4: Decay of various PE energies in (4+1.6) eV experiments. Not all decay curves are plotted for reasons of clarity. Solid lines are fits to the experimental data according to equation 1.



Figure 5: 4+4 eV photoelectron spectra (unpolarized part) at zero pump-probe delay. The maximum PE energy for a 4+4 eV ionization process is indicated by vertical bars.



Figure 6: Temporal behaviour of ion masses in (4+1.6) eV experiments. Solid lines are fits to a biexponential decay convoluted with Gaussian response function (eq. 1).



Figure 7: Relative temporal behaviour of ion masses in (4+1.6) eV experiments (each point normalized to respective m/z = 105 intensity).