

Supplementary information to accompany:

**Comparing molecular photofragmentation dynamics in the gas and liquid phases**

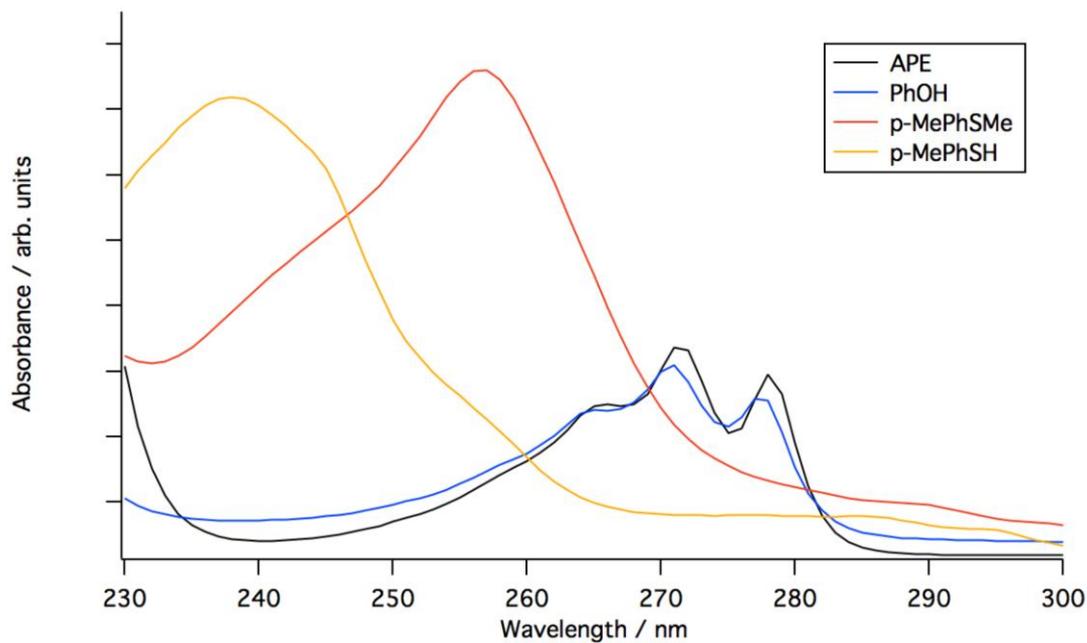
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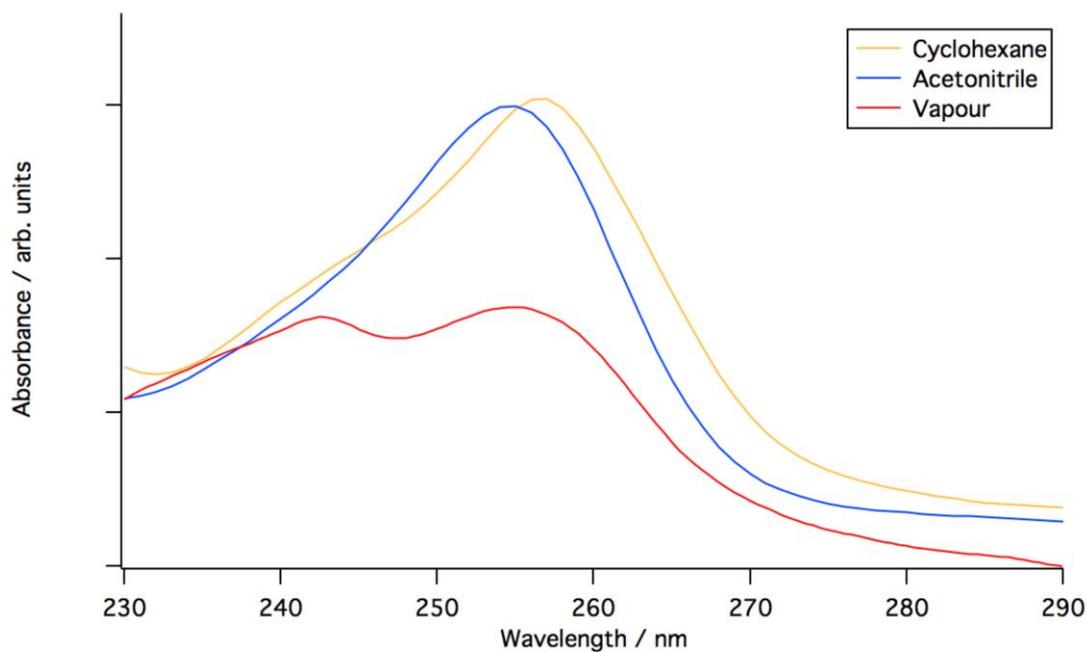
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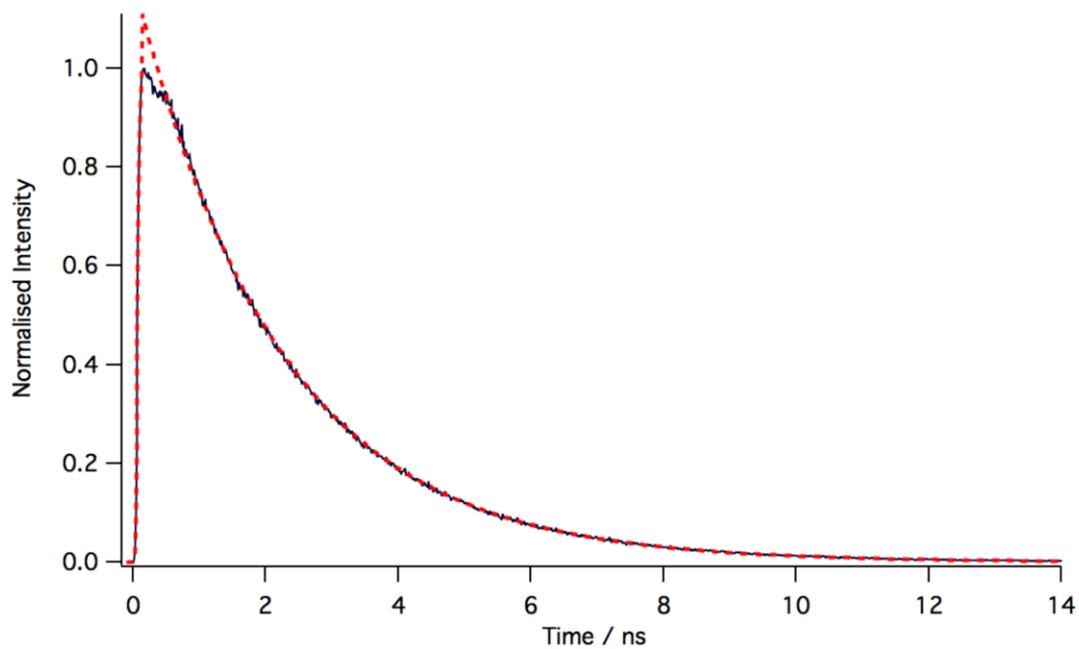
**Figure S1**

UV/visible absorption spectra of dilute solutions of allylphenylether (APE), phenol (PhOH), *p*-methylthioanisole (*p*-MePhSMe) and *p*-methylthiophenol (*p*-MePhSH) in cyclohexane.



**Figure S2**

UV/visible absorption spectra of *p*-MePhSMe in the vapour phase and in a dilute solution in cyclohexane and acetonitrile.



**Figure S3**

Plot showing the time resolved emission (centred at ~300 nm) following 267 nm photoexcitation of a 10 mM solution of phenol in cyclohexane obtained via time-correlated single photon counting. The red-trace is a best-fit convolution of the instrument response function and an exponential decay with time constant  $\tau = 2.16$  ns.