

## Supplementary information for “photoelectron spectroscopy of the deprotonated tryptophan anion: the contribution of deprotomers to its photodetachment channels”

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Table S1: The vertical excitation energies (VEE) and oscillator strength ( $f$ ) of Trp(I)<sup>-</sup> and Trp(II)<sup>-</sup> calculated at different levels of theory.

Method	Trp(I) <sup>-</sup> VEE ( $f$ )	Trp(II) <sup>-</sup> VEE/eV ( $f$ )
B3LYP/aug-cc-pVTZ	4.22 (0.0242)	4.18 (0.0139)
B3LYP/6-311G++	4.07 (0.0135)	3.96 (0.0213)
Cam-B3LYP/ aug-cc-pVTZ	4.48 (0.0325)	4.15 (0.0207)

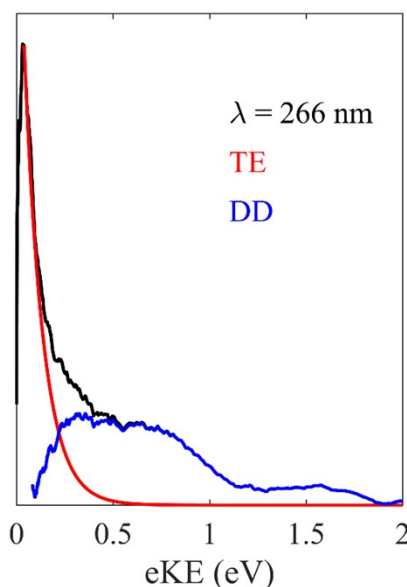


Figure S1: The contributions of direct detachment (blue) and thermionic emission (red) to the  $h\nu = 4.66$  eV photoelectron spectrum of tryptophan. The thermionic emission has been fit by an exponential function and the direct detachment is the difference between the data and the fit.