

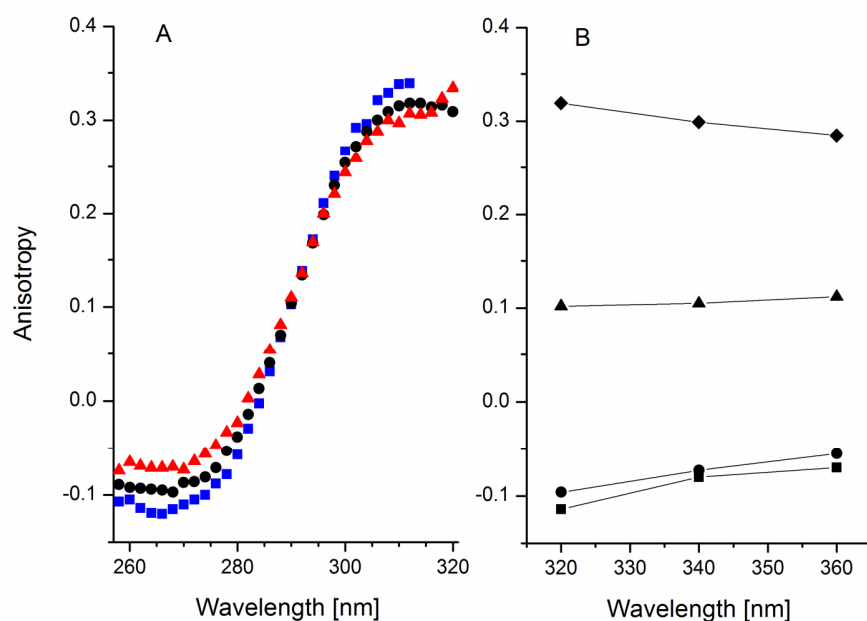
Supporting information for:

## The Emitting State of 5-Hydroxyindole, 5-Hydroxytryptophan and 5-Hydroxytryptophan Incorporated in Proteins

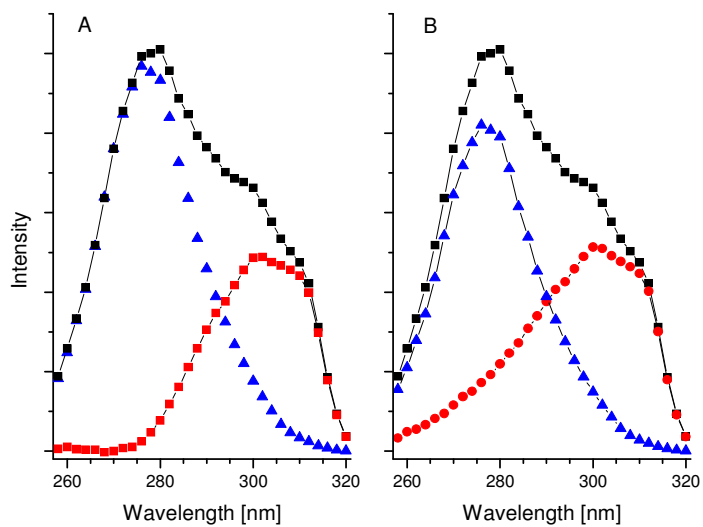
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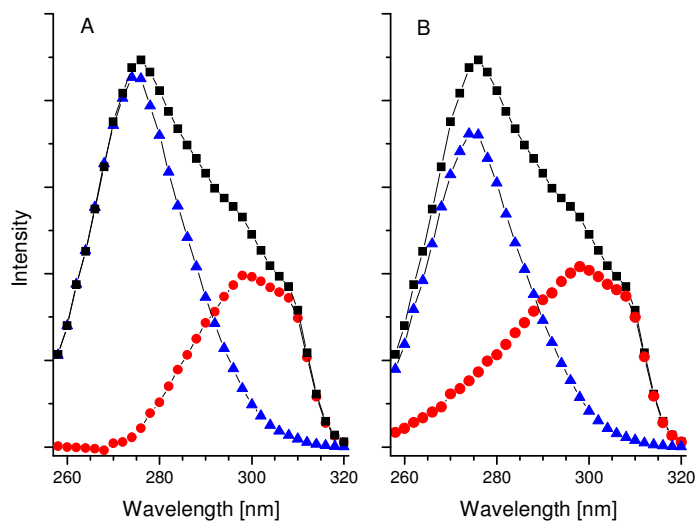
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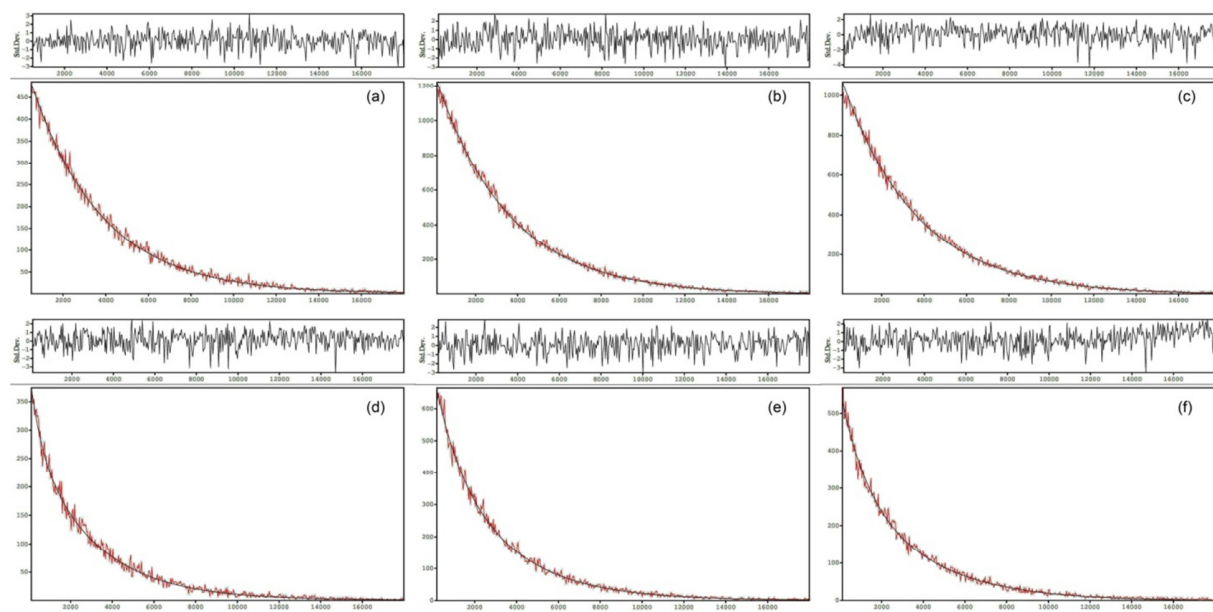
**Figure S1.** A: Anisotropy excitation spectra of free 5HI in a glycerol glass at -50 °C. Emission was recorded at 320 nm (■), 340 nm (●) and 360 nm (▲). B: Emission wavelength dependence of the anisotropy of free 5HI in a glycerol glass at -50 °C. Excitation wavelengths of 260 nm (■), 275 nm (●), 290 nm (▲), 305 nm (◆) were used.



**Figure S2.** Fluorescence excitation spectra (■) of 5HW in a glycerol glass at -50 °C and its resolved  $^1L_a$  (▲) and  $^1L_b$  (●) spectra for  $\beta= 67^\circ$  (A) and  $\beta= 90^\circ$ (B).



**Figure S3.** Fluorescence excitation spectra (■) of 5HI in a glycerol glass at -50 °C and its resolved  $^1L_a$  (▲) and  $^1L_b$  (●) spectra for  $\beta= 66^\circ$  (A) and  $\beta= 90^\circ$ (B).



**Figure S4.** Fluorescence decay kinetics of free 5HW at emission wavelengths 320 nm (a), 340 nm (b) and 360 nm (c). Fluorescence decay kinetics of 5HW containing W20 LysM tandem, emission wavelength 320 nm (d), 340 nm (e) and 360 nm (f).