

Electronic Supplementary Material (ESI)

Towards the photophysical studies of humin by-products

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1. Experimental Section

1.1 Materials

Fructose-derived humin by-products were provided by Avantium (Netherlands) and used as received. Acetonitrile (99.9%), and toluene (99.8%) and pentane ($\geq 99\%$) were purchased by PanReac and Sigma Aldrich, respectively, and employed without further purification.

1.2 Methods

Humins solutions in acetonitrile were prepared with a 0.1 g/mL ratio, whereas separations in the different fractions were performed by adding to the humins solution equal parts of water/organic solvent (i.e. toluene or pentane). UV-visible absorption spectra were measured on a Cary 100 Bio UV-visible spectrophotometer, by adjusting the concentration of the solution up to 0.5 a.u. of absorbance. Steady-state and time-resolved fluorescence measurements were performed on a FLS920 Fluorimeter (Edinburgh Instrument Ltd, Livingston, UK) with the same sample employed for the absorbance measurements.

Figure S1. Absorption spectra of the humins in the ACN solution (full green triangles), and in the organic phase (full blue circles) and in the aqueous phase (empty red squares) of the pentane/water mixture.

