Electronic Supplementary Information (ESI)

Photoinduced DNA Cleavage by Formation of ROS from Oxygen with a Neurotransmitter and Aromatic Amino Acids

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**Fig S1**  Agarose gel electrophoresis of cleaved supercoiled pBR322 DNA after 10 min photoirradiation with monochromatized light (λ = 300 nm) at 298 K. Lane 1, with 5-HT (0.50 mmol dm⁻³) in D₂O; lane 2, photoirradiation with 5-HT (0.50 mmol dm⁻³) in H₂O.
Fig S2  (a) Transient absorption spectra of Trp (1.9 × 10⁻⁴ mol dm⁻³) in a phosphate buffer solution (0.10 mol dm⁻³, pH 7.0) after laser excitation at 266 nm.  (b) Decay time profiles of ³Trp* (λ = 450 nm) in argon- and air-saturated buffer solutions.  The solid curves represent the best fit to the exponential decay. Inset: First order plots.
Fig S3  (a) Transient absorption spectra of Tyr (7.5 × 10⁻⁴ mol dm⁻³) in a phosphate buffer solution (0.10 mol dm⁻³, pH 7.0) after laser excitation at 266 nm. (b) Decay time profiles of ↑³Tyr* (λ = 500 nm) in argon- and air-saturated buffer solutions. The solid curves represent the best fit to the exponential decay. Inset: First order plots.