

Supplementary Information

Interaction of N-acyl derivative of 4-phenoxyaniline spin label with bovine serum albumin in water and in trehalose solution

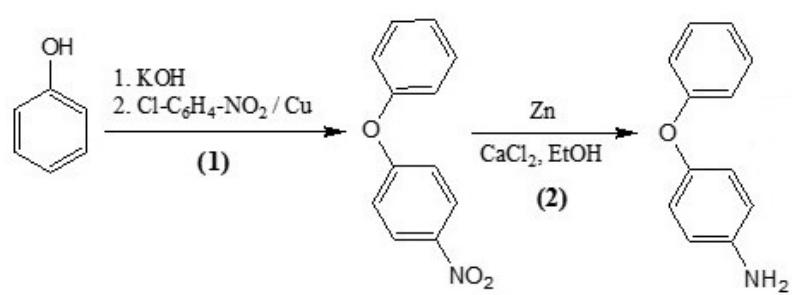
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Scheme S1 Synthesis route for 4-phenoxyaniline.

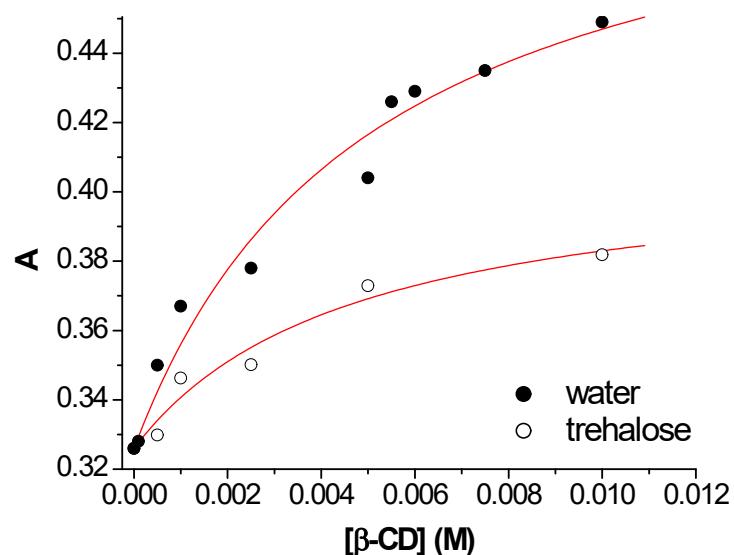


Fig. S1 Plots of the absorbance of SL-PA as a function of the β -CD concentration, in water and in trehalose 20% solution. The solid lines represent fits according to equation 2 for a 1:1 stoichiometry.

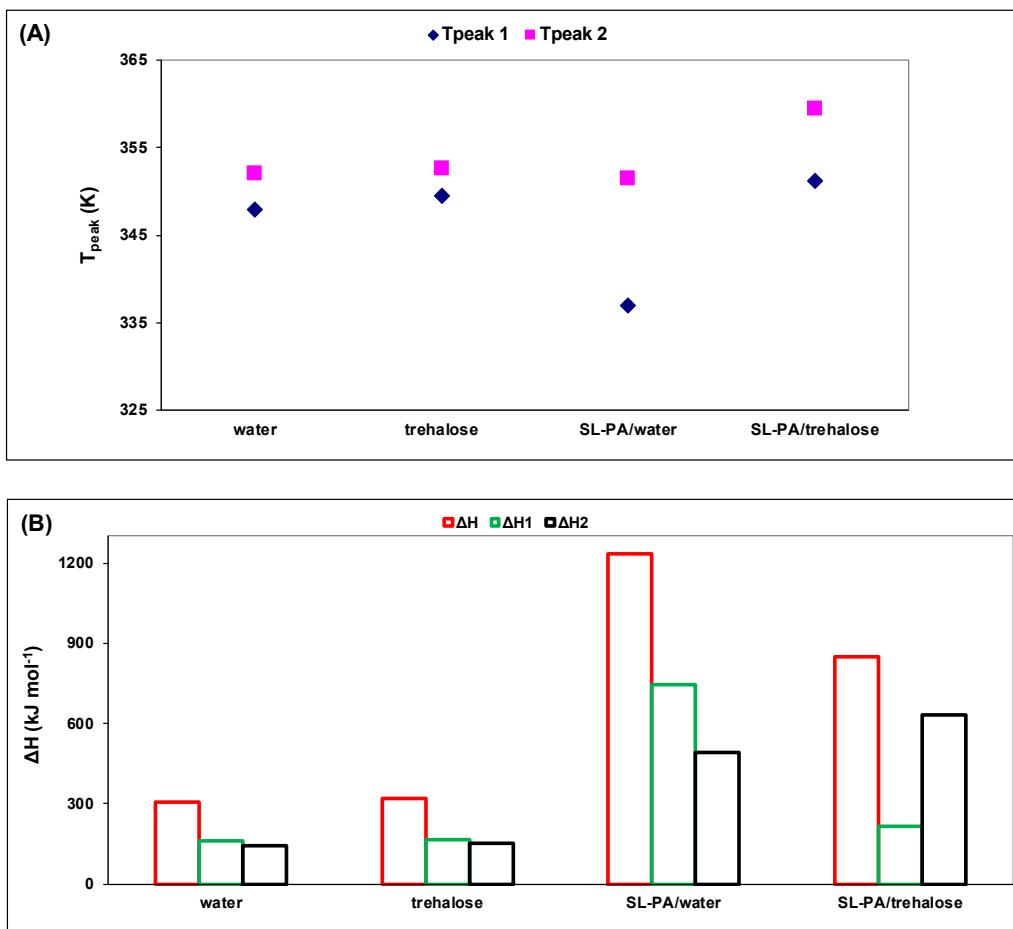


Fig. S2 Denaturation temperatures (A) and denaturation enthalpies (B) obtained from PeakFit decomposition of the μ DSC signals characterizing BSA unfolding in different systems.

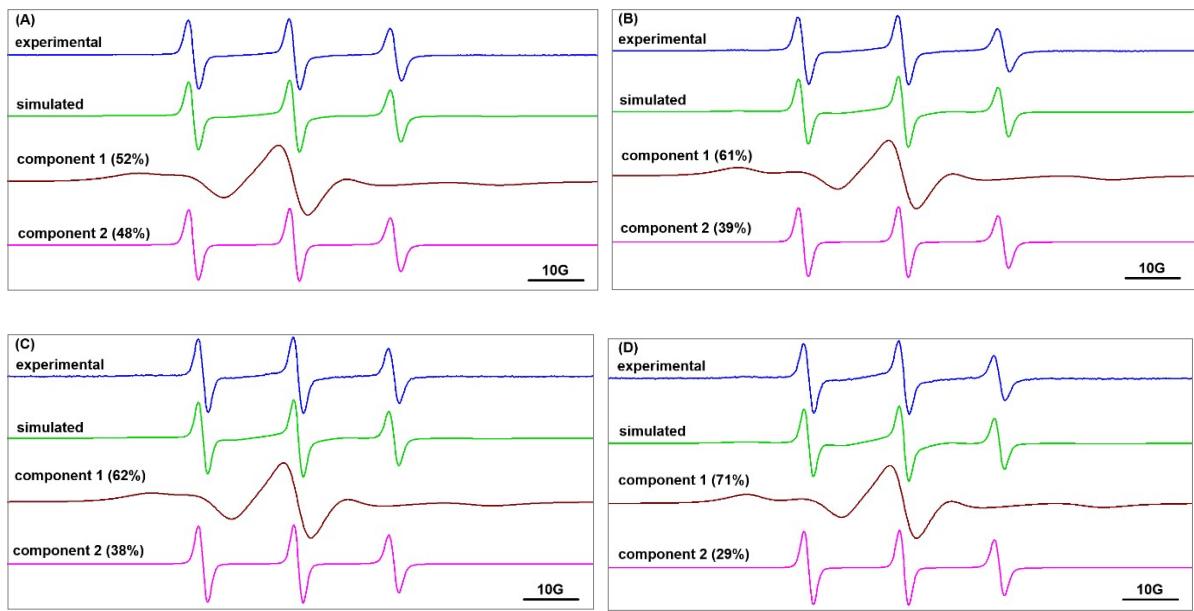


Fig. S3 Simulation of the EPR spectra of SL-PA in BSA 1.5×10^{-4} M solution in water (A) and in trehalose 20% (B), and of SL-PA in BSA 3×10^{-4} M solution in water (C) and in trehalose 20% (D), at 293 K.

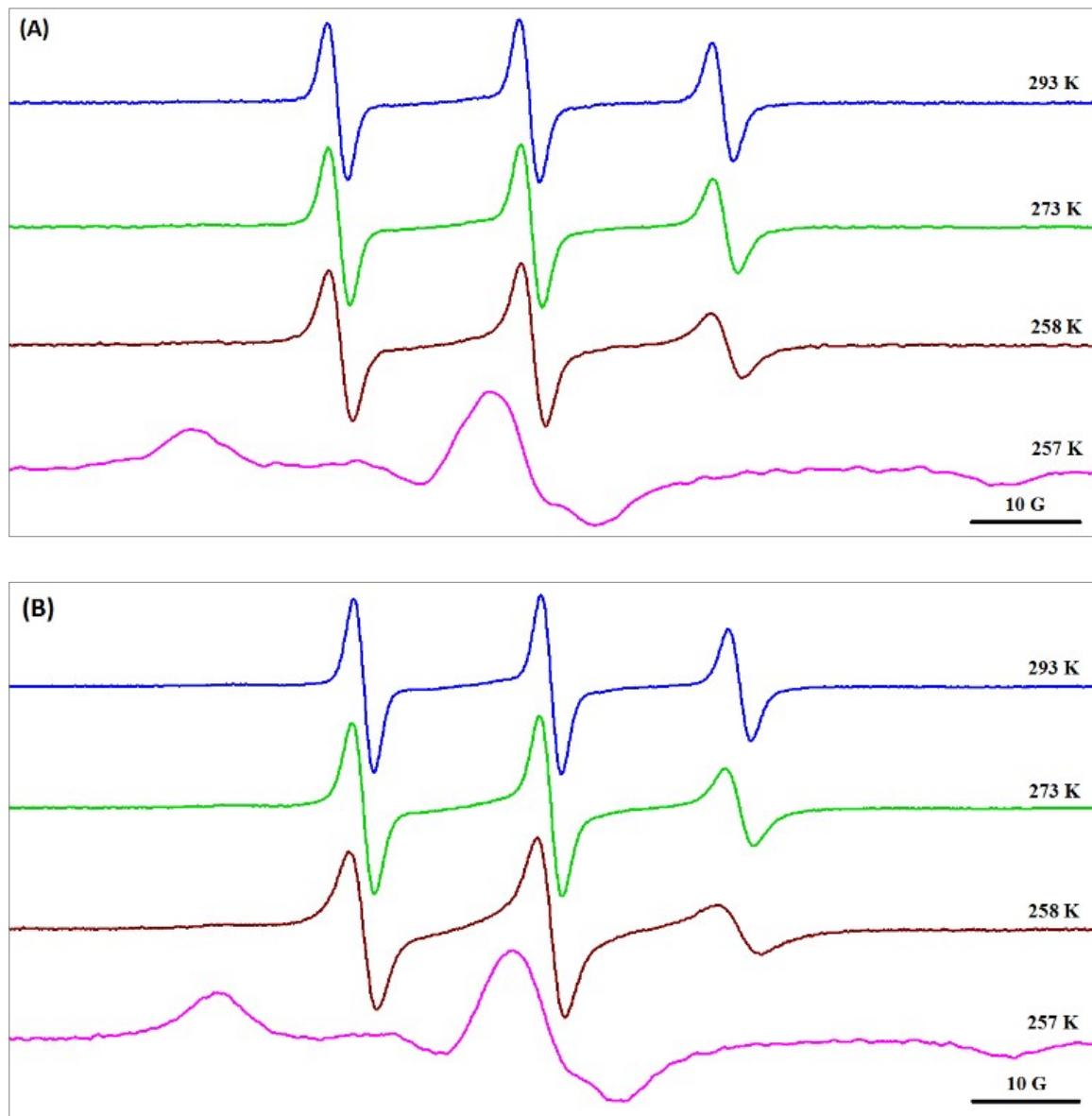


Fig. S4 The EPR spectra of the SL-PA spin probe in BSA/water (A) and in BSA/trehalose 20% (B) obtained upon cooling in the temperature range 293–257 K; $[BSA] = 1.5 \times 10^{-4}$ M.

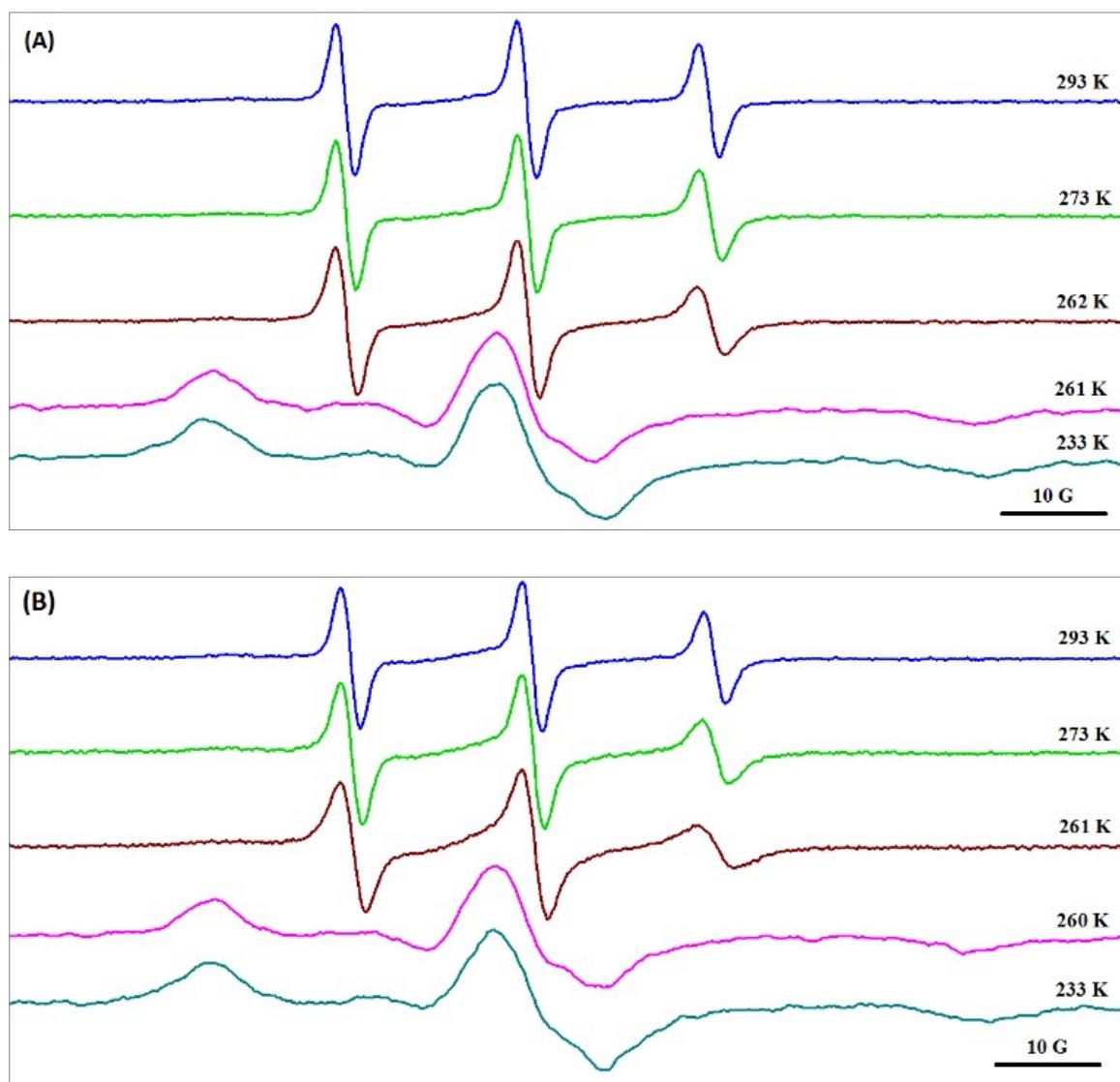


Fig. S5 The EPR spectra of the SL-PA spin probe in BSA/water (A) and in BSA/trehalose 20% (B) obtained upon cooling in the temperature range 293–233 K; $[BSA] = 3 \times 10^{-4}$ M.

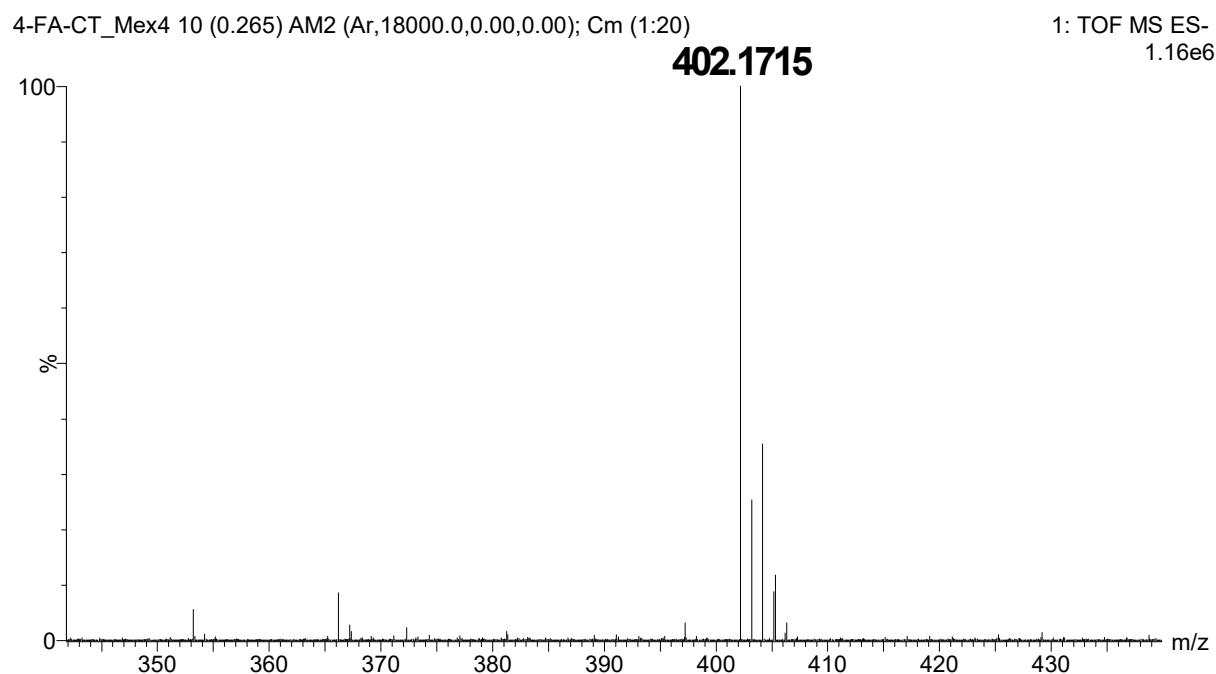


Fig. S6 HRMS (ESI negative mode) for the SL-PA spin probe; $[M+Cl]^- = 402.1715$ Da.