Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Electronic Supplementary Information

Investigating the Role of Human Serum Albumin Protein Pocket on the Excited State Dynamics of Indocyanine Green Using Shaped Femtosecond Laser Pulses

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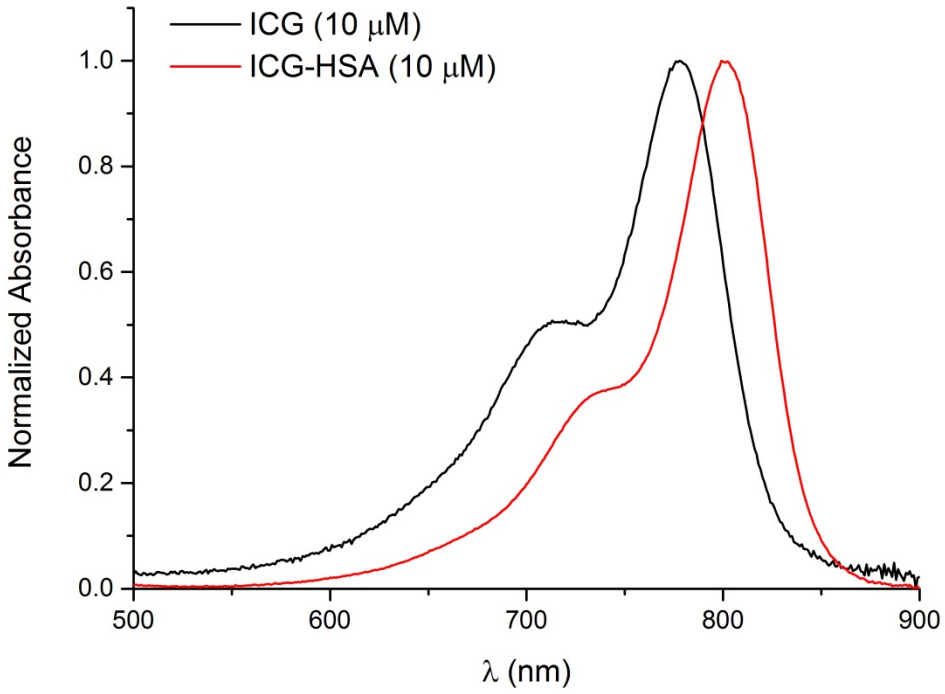

Fig. S1 Normalized ICG (black) and ICG-HSA (red) absorbance spectra showing ICG red shift after binding inside HSA site IIA pocket.

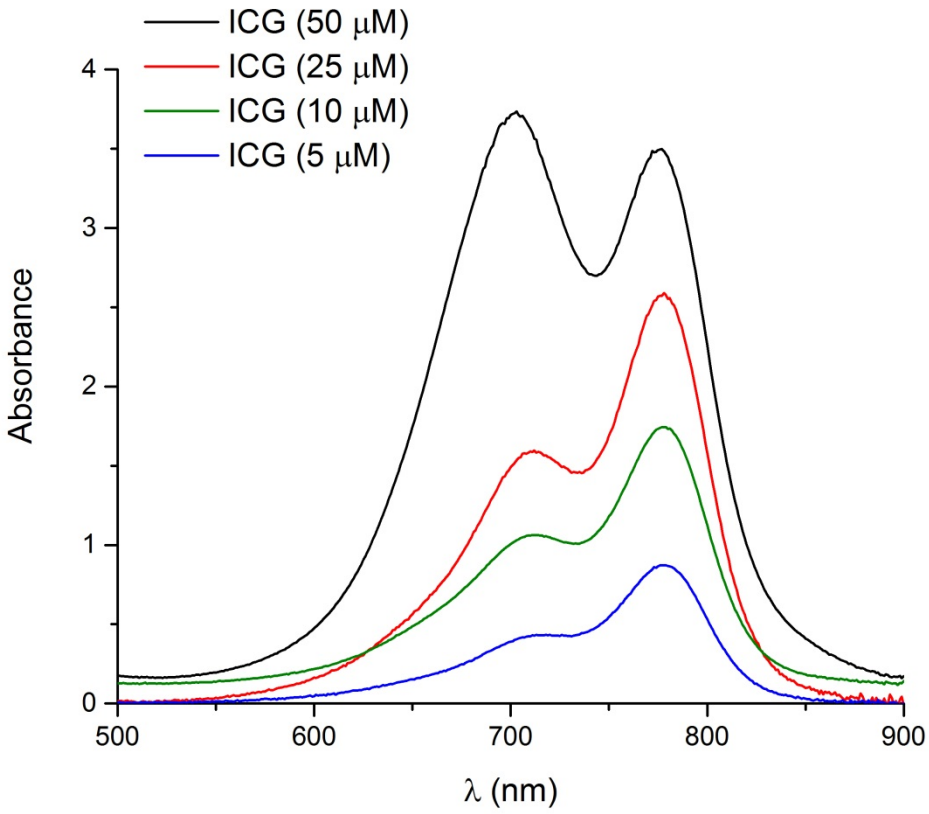

Fig. S2 Absorbance spectra for different ICG concentrations showing an increase in the J-aggregates absorbance band with concentrations higher than 10 μM.

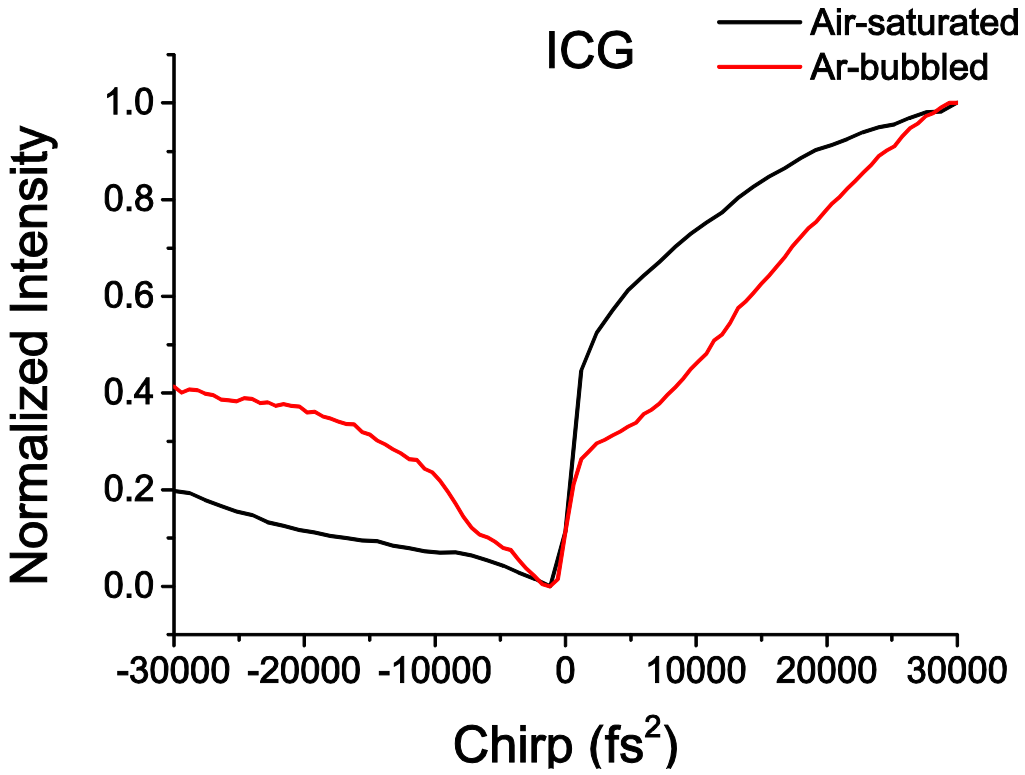

Fig. S3 Normalized integrated fluorescence intensity as a function of chirp for ICG solution in the presence and absence of O_2 at 1 kHz repetition rate.

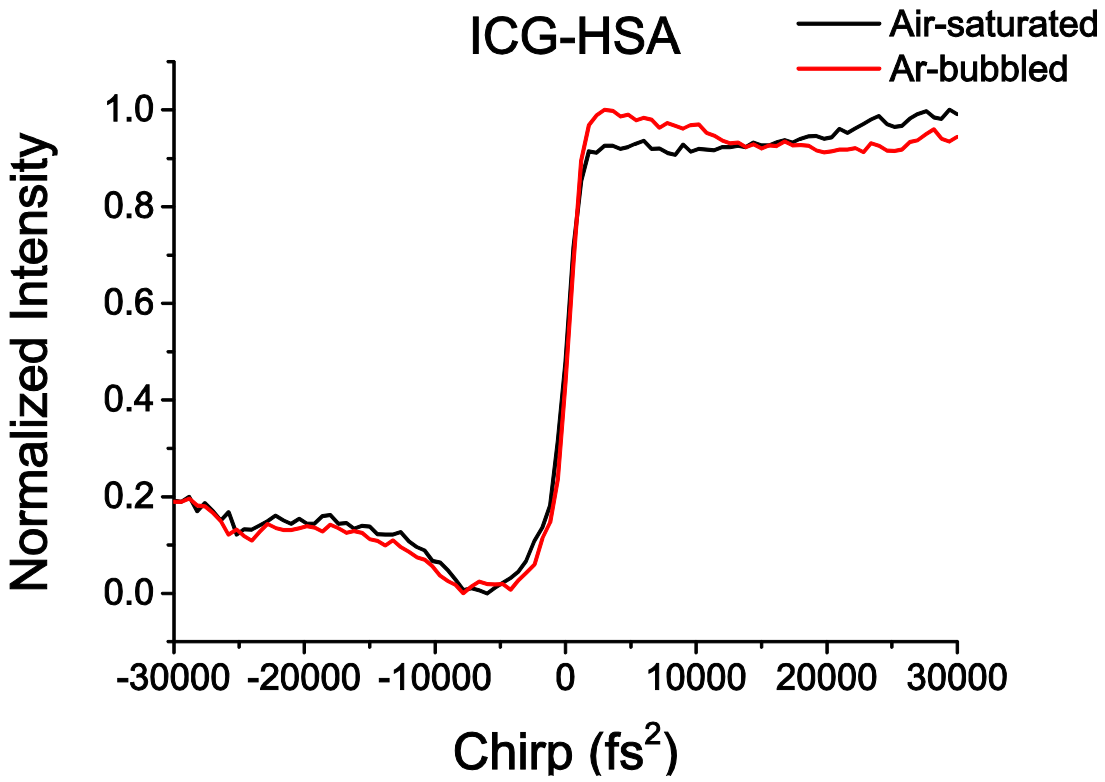

Fig. S4 Normalized integrated fluorescence intensity as a function of chirp for ICG-HSA solution in the presence and absence of O_2 at 1 kHz repetition rate.

The used fitting function for the oscillations in Fig. 6 is in the form

$$A + a\cos(2\pi\omega t + \phi) + bt$$

And the obtained parameters for the fit are in Table S1 (ω are in the units of PHz):

Table S1

Parameter	Negative delay time fit	Positive delay time fit
A	140896	150347
a	472.751	111.005
b	-1.5558	0.2727
ω	0.0035	0.0057
ϕ	2.1884	1.1564