

## **Supplementary information**

### **Ultrafast Dynamics of Hemin Aggregates**

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#### **Figure Captions**

Figure S1: Non-collinear second harmonic generation from spatially and temporally overlapped pump and probe beam.

Figure S2: Temporal profile of the incident femtosecond laser beam.

Figure S3: (Upper panel) OKE signals of hemin in alcohol at different concentrations fitted using Gaussian functions.

(Lower panel) OKE signals of hemin in water at different concentrations using Gaussian functions. Hemin concentration of 1mg/ml (Blue), 5mg/ml (Black) and 10mg/ml (Red).

The components of the fitted Gaussian functions are shown in Magenta and green.

Figure S4: Normalized OKE signal for hemin in water and alcohol.

Table S1: Results of the OKE signals of hemin in water and in alcohol.

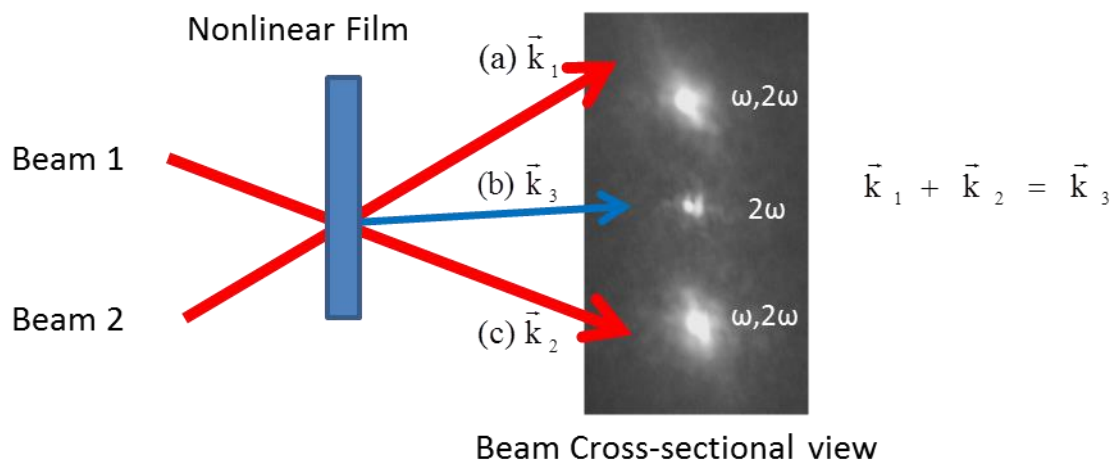


Figure S1: Non-collinear second harmonic generation from spatially and temporally overlapped pump and probe beam.

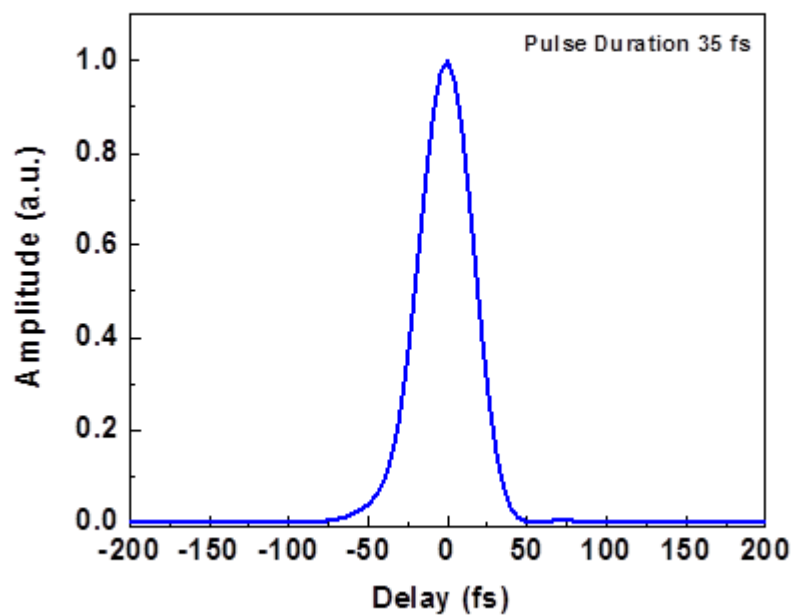


Figure S2: Temporal profile of the incident femtosecond laser beam.

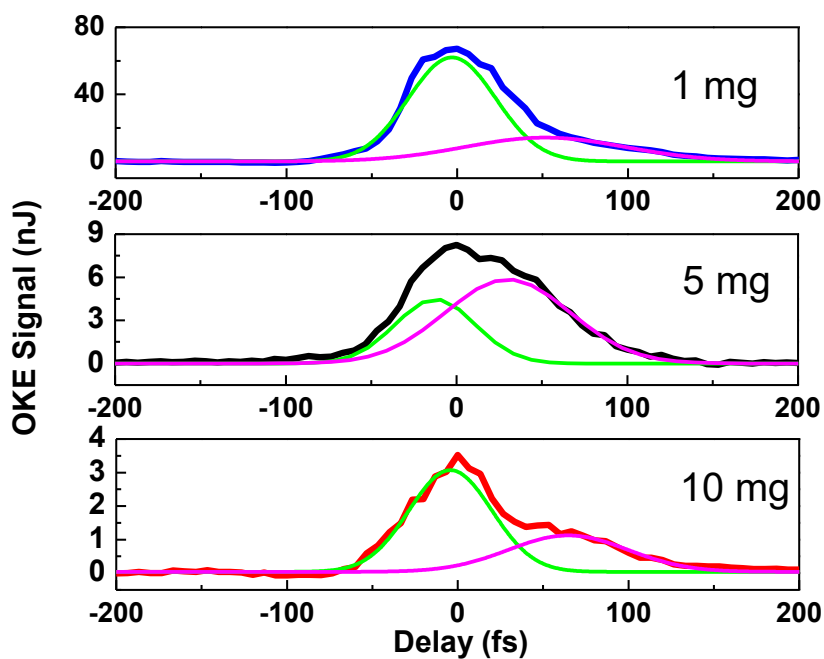
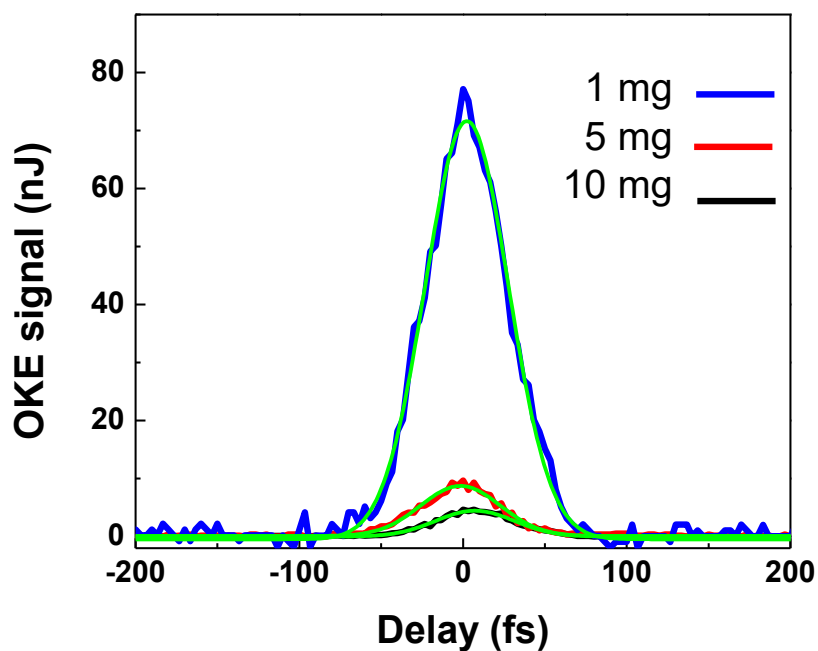


Figure S3: (upper panel) OKE signals of hemin in alcohol at different concentrations fitted using Gaussian functions.

(Lower panel) OKE signals of hemin in water at different concentrations using Gaussian functions. Hemin concentration of 1mg/ml (Blue), 5mg/ml (Black) and 10mg/ml (Red). The components of the fitted Gaussian functions are shown in Magenta and green.

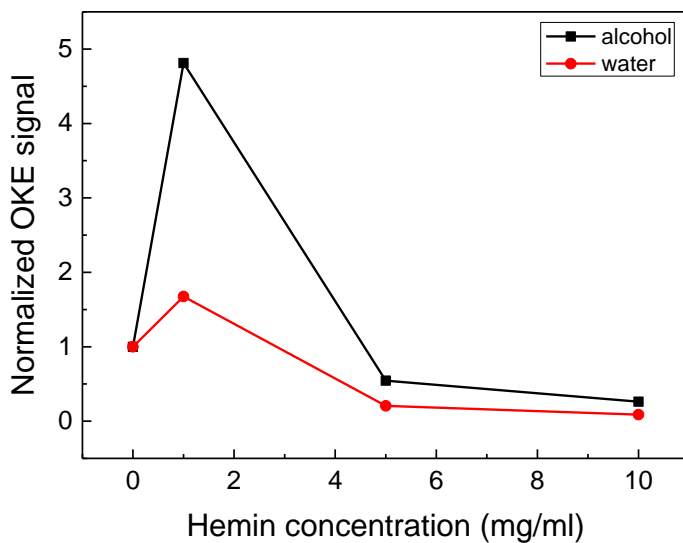


Figure S4: Normalized OKE signal for hemin in water and alcohol.

Table S1: Results of the OKE signals of hemin in water and in alcohol.

Sample	Solvent	FWHM for the first peak in the OKE signal (fs)	FWHM for the second peak in the OKE signal (fs)
Hemin 1mg/ml	Water	60.3	110.5
Hemin 1mg/ml	Alcohol	59.9	
Hemin 5 mg/ml	Water	47.0	75.0
Hemin 5 mg/ml	Alcohol	57.3	
Hemin 10mg/ml	Water	56.9	82.2
Hemin 10mg/ml	Alcohol	56.6	