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Suppl. Fig. 1 Whole blood samples incubated at 37°C under light exposure. Estimation of fluorescence intensity after different time points. Astonishingly, over the monitored period the FLU changed only minimal.

Suppl. Fig. 2 Estimation of fluorescence intensity of ICG solution (50 µg/ml) after different time points and under different storage temperatures.

Suppl. Fig. 3 1H NMR spectrum (500 MHz, 25 °C) of 1 in methanol-d4. Due to loss of symmetry, 4 distinct methyl groups are visible (intense signals around 2.1 ppm).

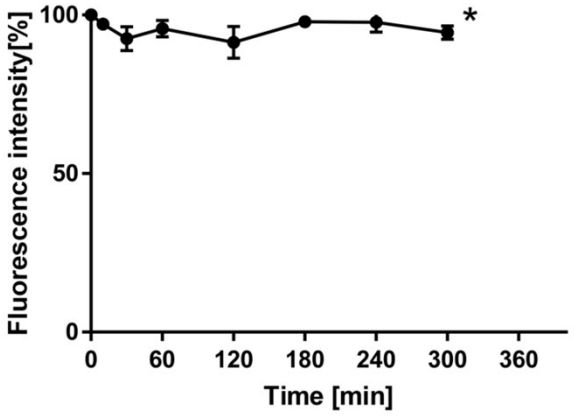
Suppl. Fig. 4 ^{1}H,^{13}C-HSQC spectrum (500 MHz, 25 °C) of **1** in methanol-d_4. Red and blue contour lines represent CH/CH_3 and CH_2 groups, respectively. The central cyanine CH groups are labelled with their position. No peak is visible for the substituted position 3.

Suppl. Fig. 5 ^{1}H,^{1}H-COSY spectrum (500 MHz, 25 °C) of **1** in methanol-d_4. Cross peaks between neighboring cyanine CH groups are labelled.

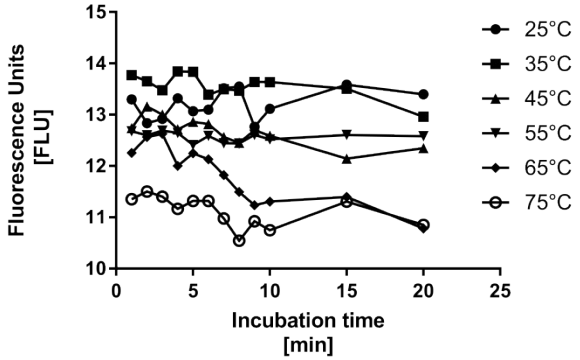
Suppl. Fig. 6 ^{1}H,^{13}C-HMBC spectrum (500 MHz, 25 °C) of **1** in methanol-d_4. Three-bond correlations ^{1}H > ^{13}C in the cyanine backbone are labelled with their position, and two-bond correlations are generally not visible. The appearance of the 2 > 3' correlation is therefore strong evidence for a symmetric linkage C3-C3'.

Suppl. Fig. 7 Overlay of ^{1}H-DOSY spectra (500 MHz, 25 °C) of **1** (blue) and icg-reference (black) in methanol-d_4. Diffusion coefficients: (3.3±0.1) × 10^{-10} m^2s^{-1} (**1**), (4.2±0.1) × 10^{-10} m^2s^{-1} (icg-reference), and (19.4±0.2) × 10^{-10} m^2s^{-1} (methanol).

Suppl. Fig. 1



Suppl. Fig. 2



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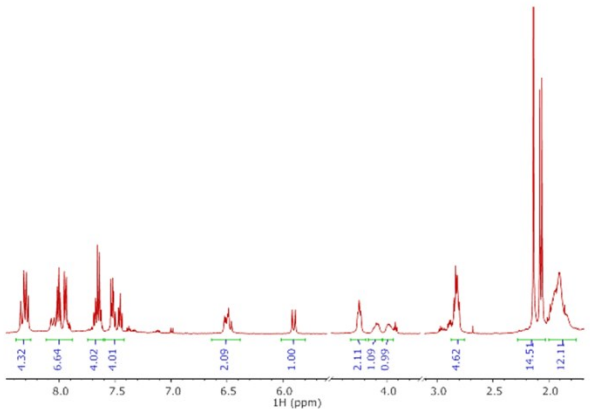

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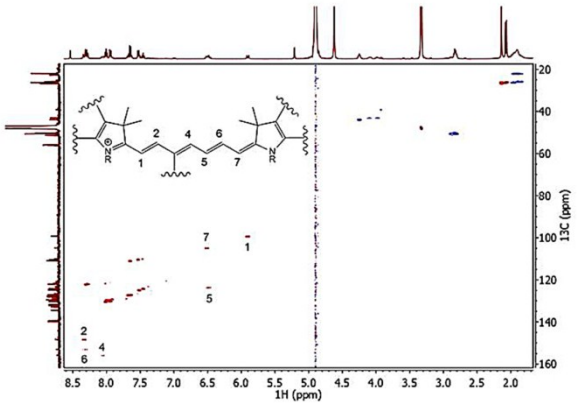

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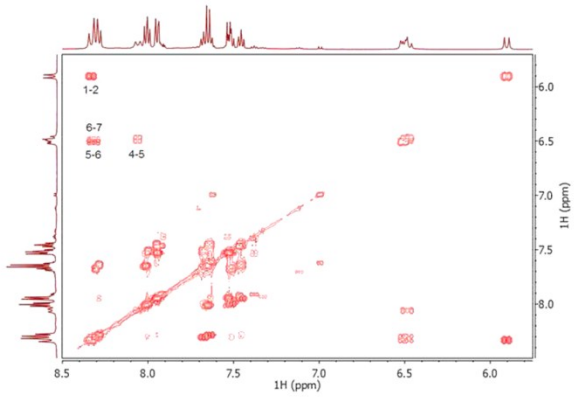

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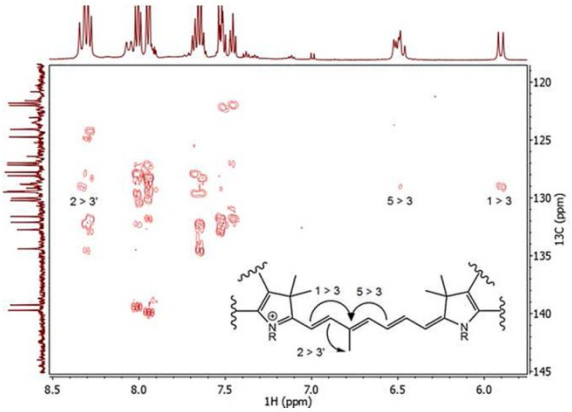
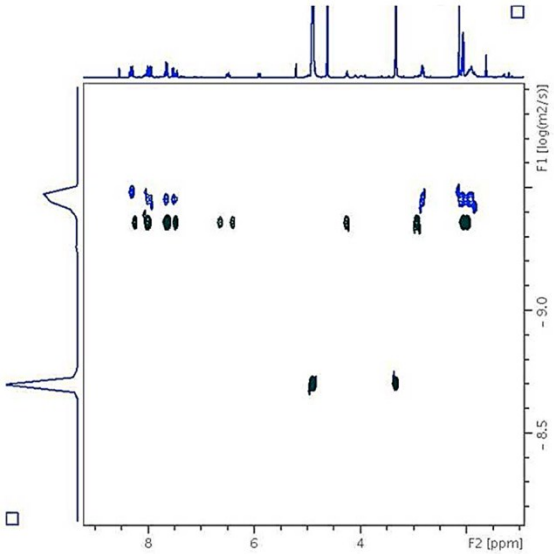
Suppl. Fig. 7