

# Light-Controlled Aggregation and Gelation of Viologen-based Coordination Polymers

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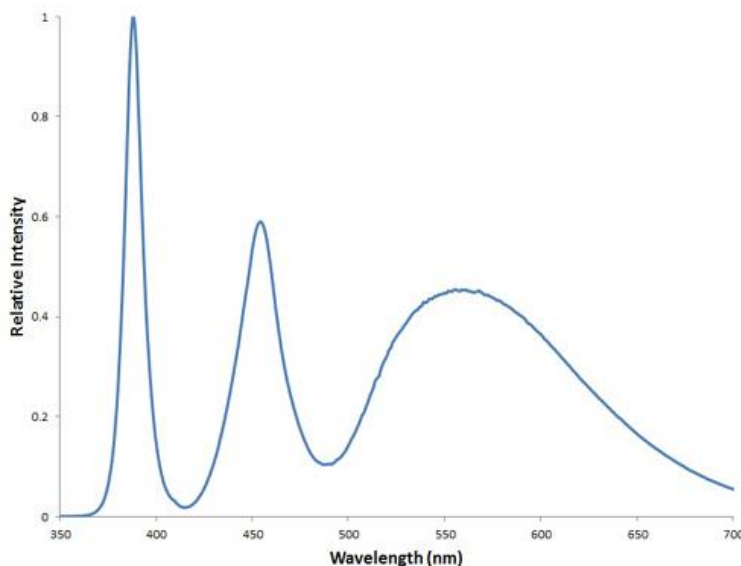
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## Supporting information

**Characteristics of the irradiation** – Light irradiations were conducted using an unfiltered X-Cite 120Led Boost from Excelitas (spectrum is depicted in Figure S1) through the 10x objective in the reflection mode of the microscope (Nikon Plan fluor, N.A.=0.3) during  $t_i$  at a power  $P$  (linearly modified from 0% to 100% of the LED maximum power using the SpeedDIAL Manual Controller).

Power received by the sample varies with the wavelength. Specifications provided by Excelitas give the power at the specimen plane (AxioObserver, 20x Objective) for various commercial fluorophores covering the LED spectrum:

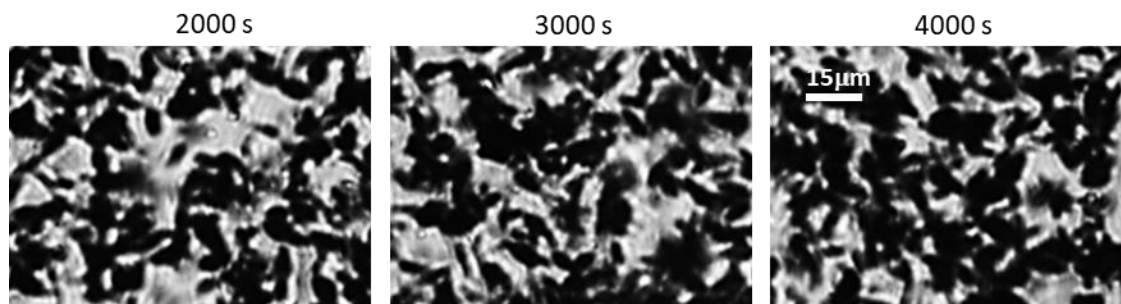


**Figure S1.** Spectrum of the X-Cite 120Led Boost from Excelitas used for the sample irradiations.

Fluorophore ( $\lambda_{\max}$ )	Power at Specimen Plane (mW)	Photon rate ( $s^{-1}$ )*
DAPI (350 nm)	139	2.45 e+17
CFP (435 nm)	101	2.21 e+17
FITC (490 nm)	102	2.52 e+17
TRITC (557 nm)	100	2.80 e+17
mCherry (587 nm)	181	5.35 e+17
Cy5 (649 nm)	87	2.84 e+17

\* Calculated by use of the equation for photon energy,  $E = hc/\lambda$  (where  $h$  is Planck's constant).

**Long time evolution of the aggregated state** – As shown qualitatively in Fig. S2, we observe very little evolution of the aggregated state 2000 s after the start of the aggregation. The size of the aggregates and their number might increase but no significant structural changes are observed.



**Figure S2.** Microscopy images of a sample exposed to an irradiation of duration 30 s at  $P=100\%$ . The images are taken 2000, 3000 and 4000 s after the start of the aggregation process. The scale bar is 15  $\mu m$ .