

Electronic Supplementary Information:

Fluorescence visualization of molecular assembly processes during solvent evaporation *via* aggregation-induced emission in a cyanostilbene derivative

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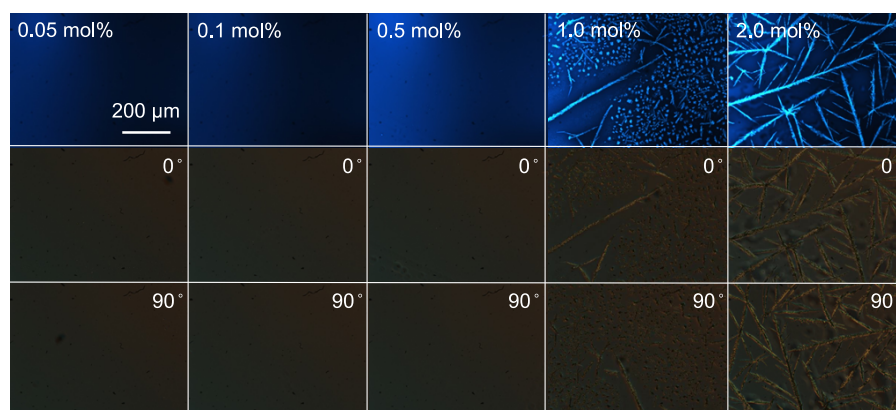


Fig. ESI 1. Fluorescence microscope image and polarization microscopy images under the crossed Nicol polarizers of CN-MBE in PMMA matrix as a function of concentration.

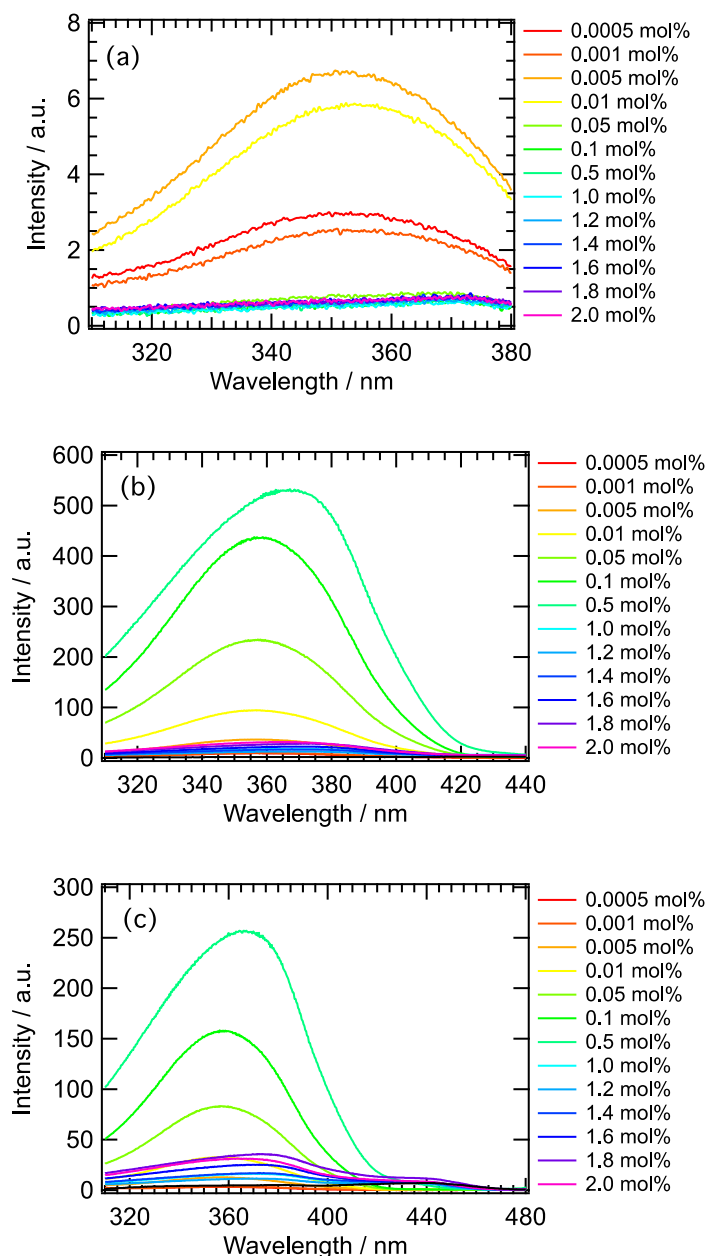


Fig. ESI 2. Fluorescence excitation spectra of CN-MBE in PMMA matrix monitored at (a) 400 nm, (b) 450 nm, and (c) 490 nm as a function of concentration.

Fig. ESI 2 shows the fluorescence excitation spectra of CN-MBE in PMMA matrix. Spectra for <0.1 mol% CN-MBE in PMMA monitored at 400 nm, 450 nm, and 490 nm exhibited peaks at 355 nm. For concentrations >0.5 mol%, the excitation peaks were observed at 370 nm, with shoulder at 350 nm. For emission monitored at 490 nm, an additional excitation peak was observed at 440 nm. Park *et al.* reported that the absorption bands at 342 nm, 366 nm, and 420 nm could be assigned to the twisted conformer, planar conformer, and J-aggregates of CN-MBE, respectively.¹⁴ The broad excitation spectra at 355 nm for concentrations <0.1 mol% is most likely a combination of the planar and twisted conformers that coexist in the films.

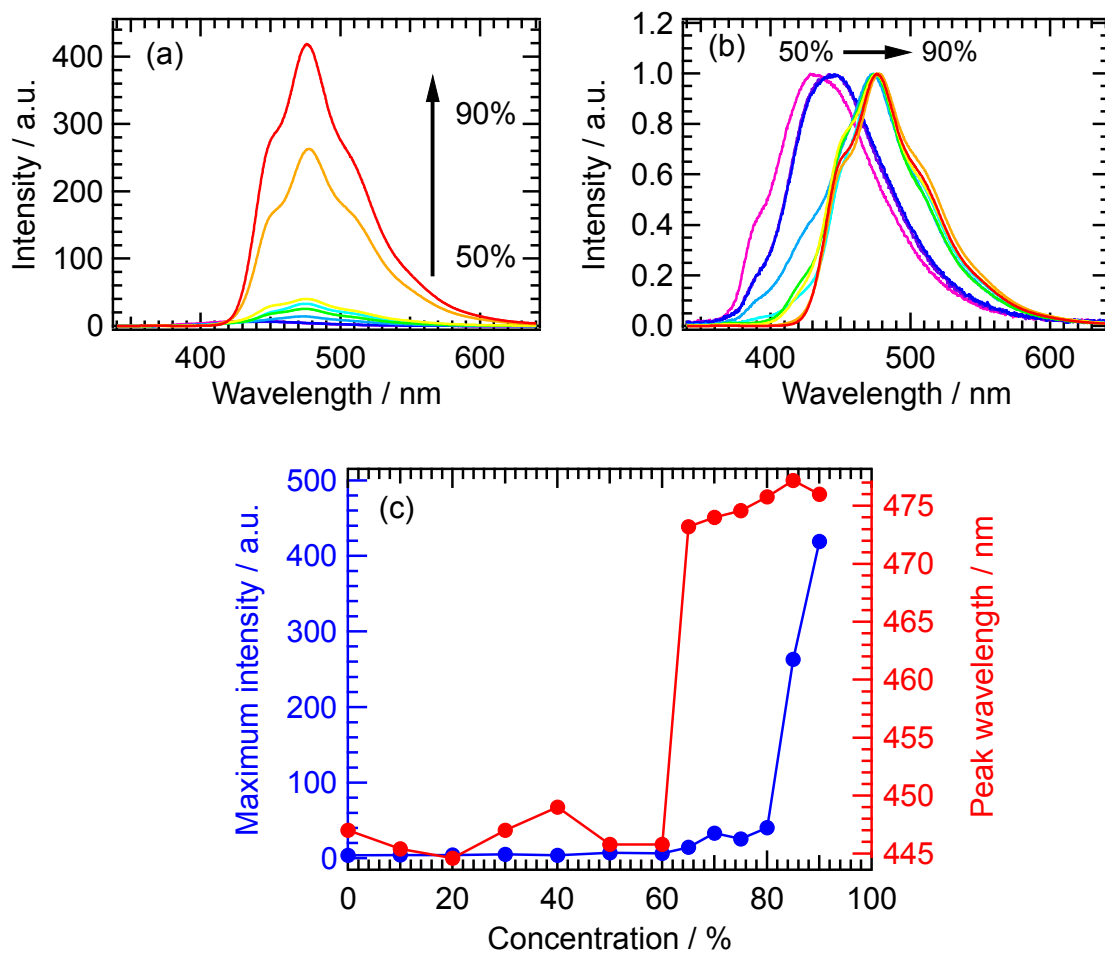


Fig. ESI 3. Fluorescence spectra of CN-MBE in THF/aqueous solution (a) and its normalized spectra at maximum intensity (b). (c) Water concentration dependence of maximum intensity and peak wavelength of the fluorescence from CN-MBE in THF/aqueous solution.

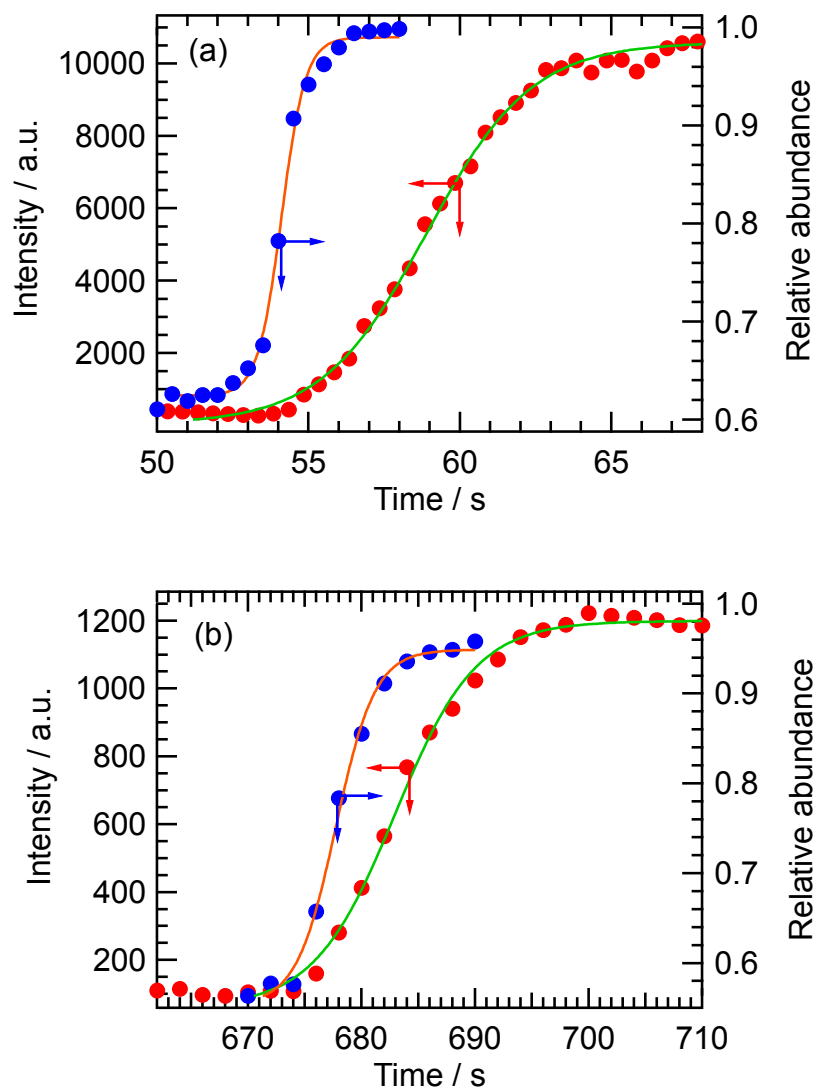


Fig. ESI 4. Change of fluorescence intensity (red circles) and relative abundance of J-aggregate (blue circles) of CN-MBE in dichloromethane (a) and chlorobenzene (b) as a function of time. The solid line is a curve fit based on the sigmoidal function.