Electronic Supporting Information

Functional Poly(dihalopentadiene)s: Stereoselective Synthesis, Aggregation-Enhanced Emission and Sensitive Detection of Explosives

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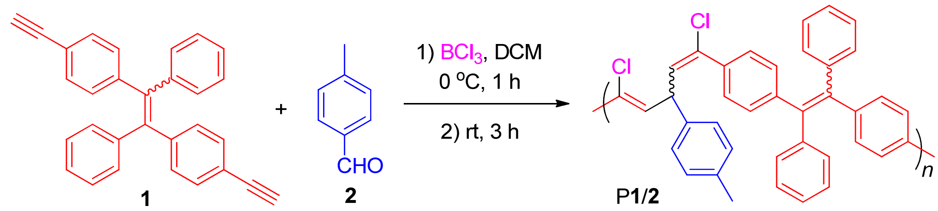

Scheme S1. Synthetic route of P**1**/**2**.

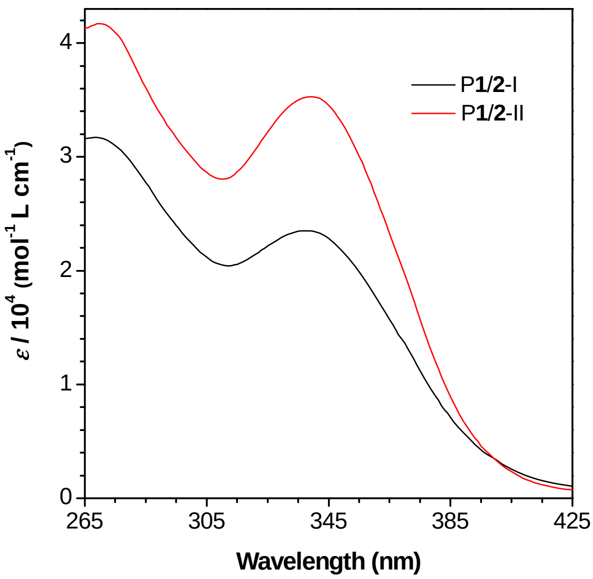

Figure S1. Absorption spectra of P**1**/**2**-I and P**1**/**2**-II in THF solutions. Solution concentration: 10 μM.

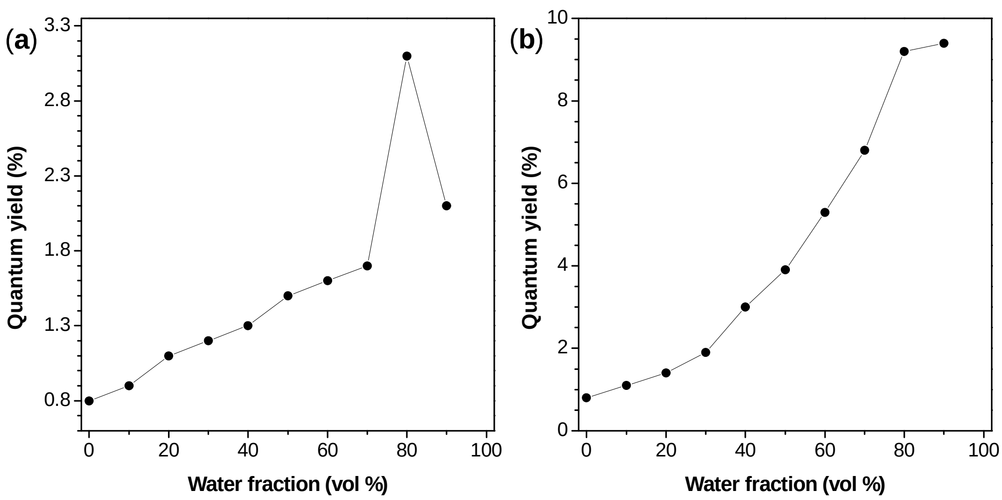

Figure S2. Plot of fluorescence quantum yield of (**a**) P**1**/**2**-I and (**b**) P**1**/**2**-II versus water fraction in THF/water mixtures. Solution concentration: 10 μM; excitation wavelength: 350 nm.

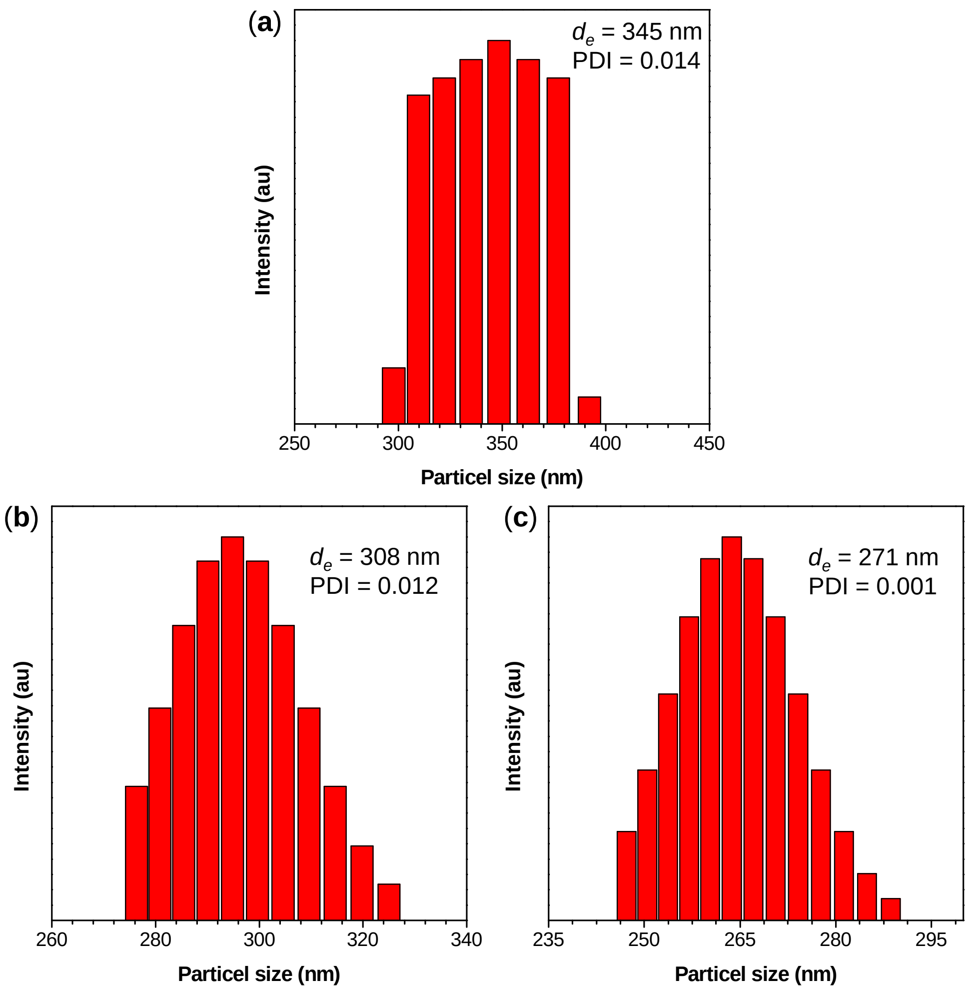

Figure S3. Particle size distributions of the nanoparticles of P**1**/**2**-I in THF/water mixtures with (**a**) 70%, (**b**) 80%, and (**c**) 90% water fraction measured by dynamic light scattering. Abbreviation: d_e = effective diameter, PDI = polydispersity index.

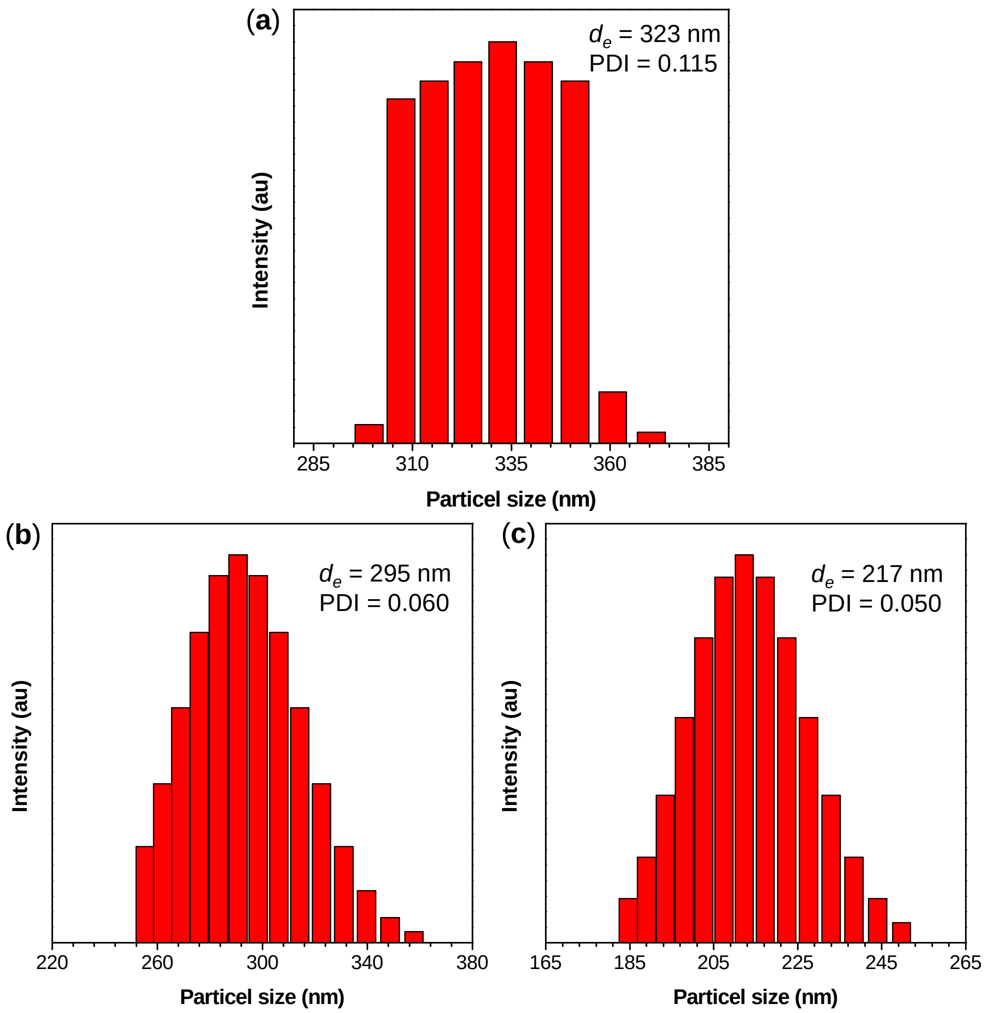

Figure S4. Particle size distributions of the nanoparticles of P**1**/**2**-II in THF/water mixtures with (**a**) 70%, (**b**) 80%, and (**c**) 90% water fraction measured by dynamic light scattering. Abbreviation: d_e = effective diameter, PDI = polydispersity index.

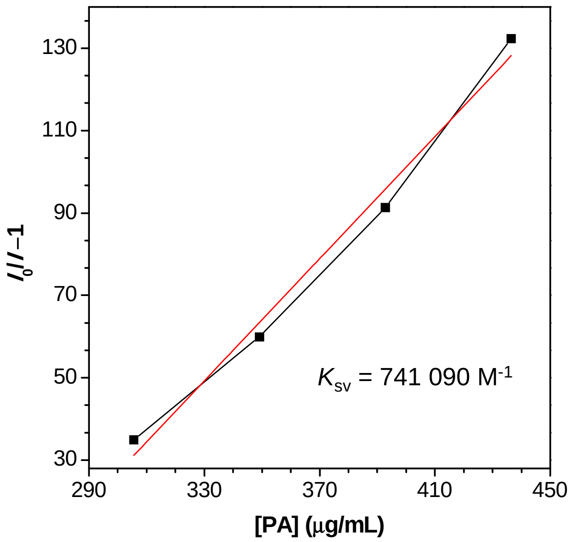

Figure S5. Fitting curve of P**1**/**2**-I for the calculation of the quenching constant.

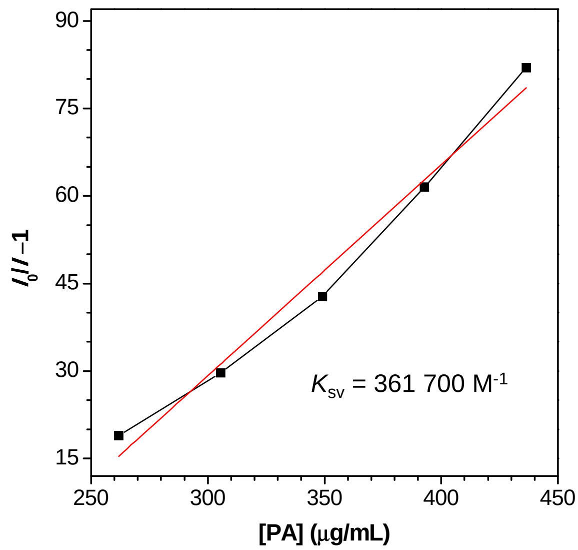

Figure S6. Fitting curve of P**1**/**2**-II for the calculation of the quenching constant.

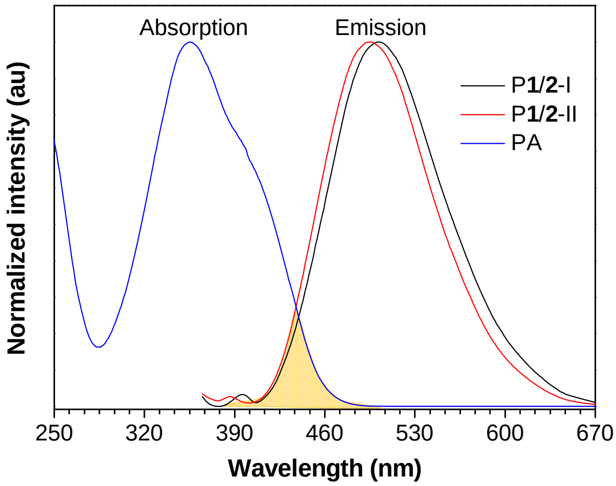

Figure S7. Normalized absorption spectrum of PA in water and PL spectra of P**1**/**2**-I and P**1**/**2**-II nanoaggregates in THF/water mixtures with 80% water fraction.

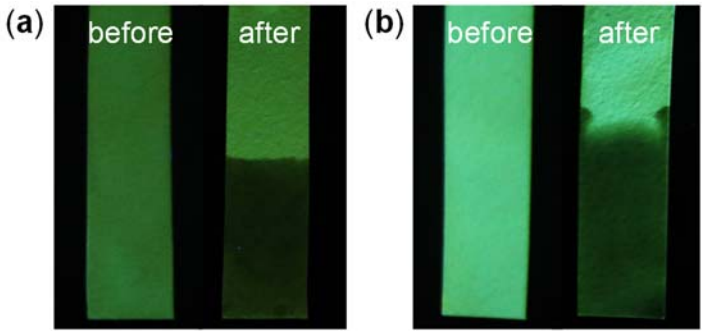

Figure S8. Fluorescence images of test strips coated with (**a**) P**1**/**2**-I and (**b**) P**1**/**2**-II before and after being partially dipped into an aqueous PA solution.