Supplementary Material

Fluorescent π-conjugated polymer nanoparticles: A new synthetic approach based on nano-agglomeration via polyion association

Chiaki Fukui and Hiroshi Yao*

Graduate School of Material Science, University of Hyogo, Hyogo 678-1297, Japan

MPS-PPV polymer nanoparticles prepared at *p/w* = 2 using the NAPA method.

We also synthesized MPS-PPV polymer nanoparticles under the condition of *p*/*w* = 2 using the NAPA method. The data for the synthesized polymer nanoparticle sample (STEM image, photo of the fluorescence, absorption, fluorescence and excitation spectra) are shown in Fig. S1.

According to the STEM image, the diameter of the polymer nanoparticles ranges between 20 and 40 nm. This still means that particle size can be tuned by controlling the *p*/*w* value.

The absorption peak was identical with that of the sample prepared at *p*/*w* = 1 or 4, but as expected, the fluorescence peak was dependent on the *p*/*w* value. The observed fluorescence peak position for this sample (~565 nm) was in between those of the nanoparticle samples prepared at *p*/*w* = 1 (~540 nm) and 4 (~575 nm). That is, the fluorescence properties are reasonably dependent on the size of the MPS-PPV polymer nanoparticles. The excitation spectra also showed a similar trend to that of other polymer nanoparticle samples.

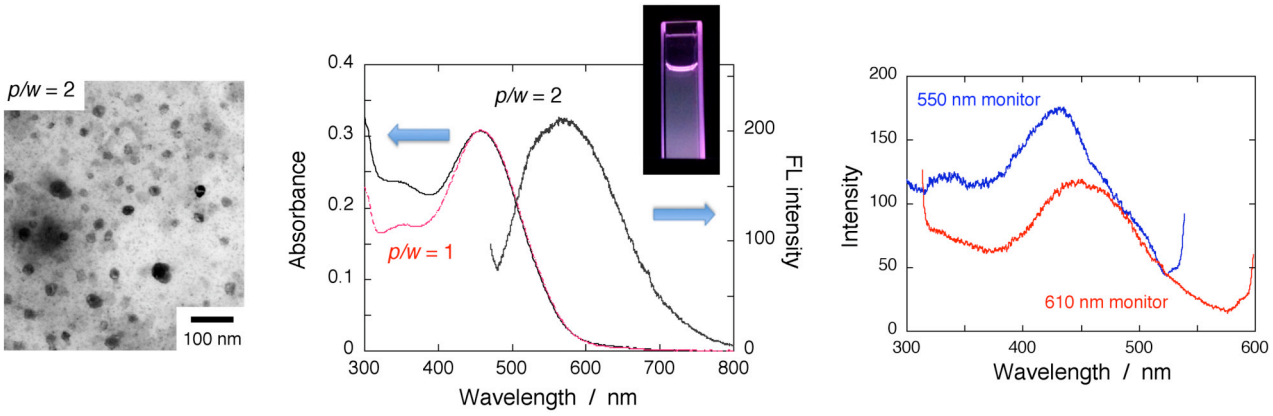

FIG. S1. (Left) Typical STEM image, (middle) absorption and fluorescence spectra, and (right) excitation spectra of the MPS-PPV polymer nanoparticles prepared under the condition of *p*/*w* = 2 using the NAPA approach.