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Supporting Information

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Supporting Information

Probing the initial stages of molecular organization of oligo(*p*-phenylene vinylene) assemblies with monolayer protected gold nanoparticles

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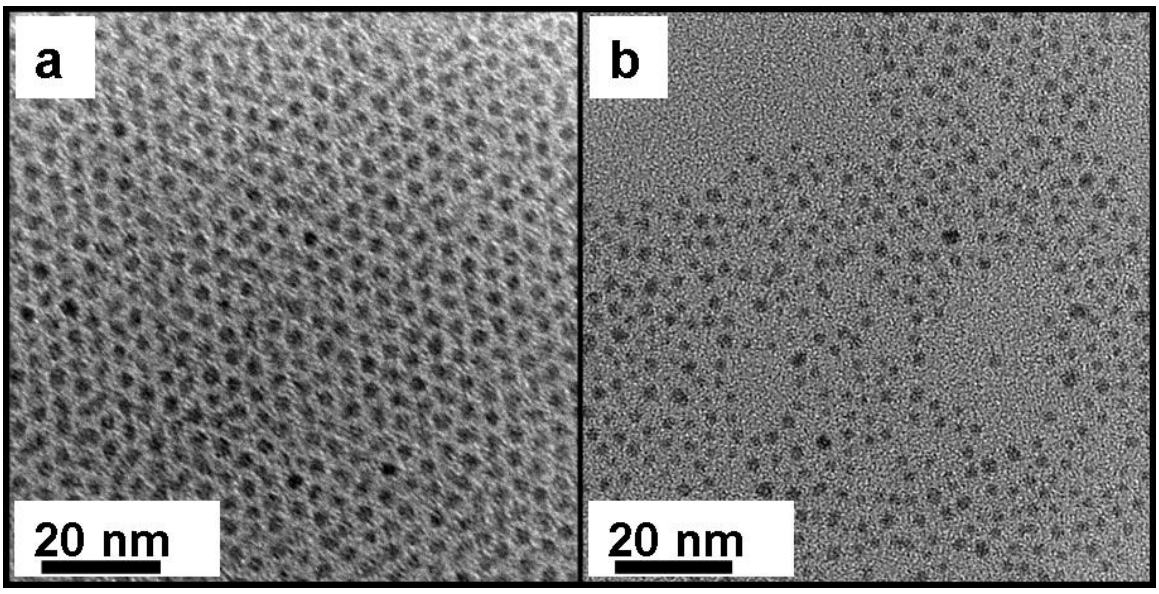

Figure S1. TEM images of (a) dodecane and (b) octadecane thiol protected GNPs.

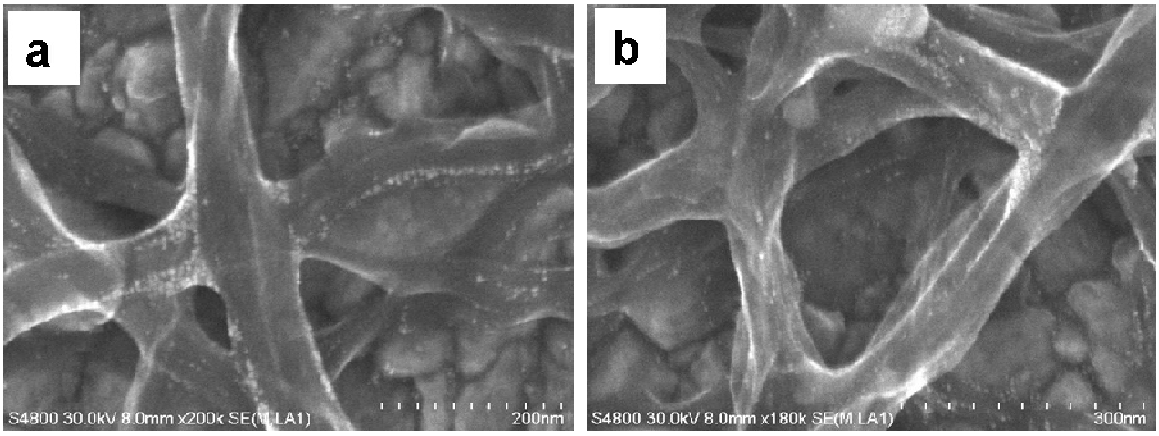

Figure S2. FESEM images of OPV fibers decorated with Au@C12. The GNP decoration at the edges is clear from the SEM images.

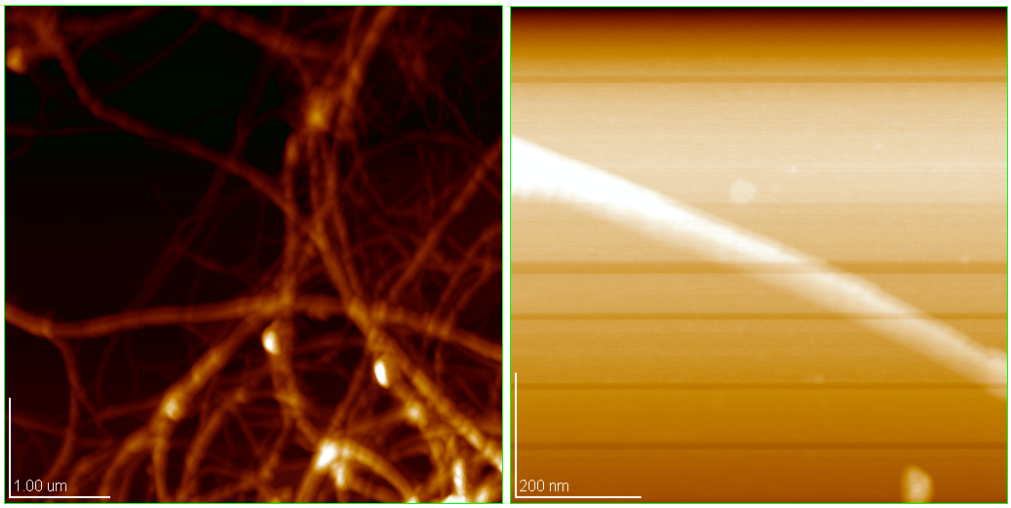

Figure S3. Atomic force microscopy images of OPV fibers.

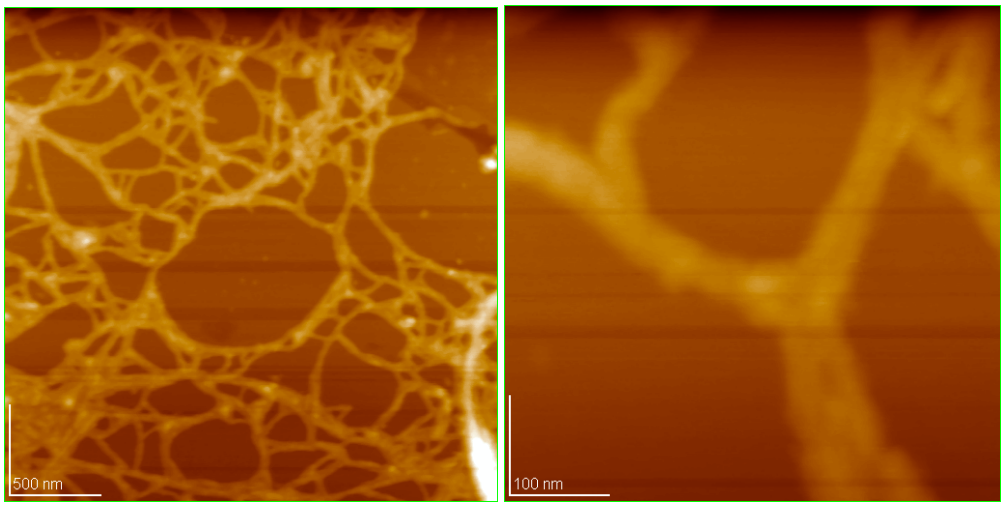

Figure S4. Atomic force microscopy images of Au@C12 decorated OPV fibers. The width of the structures in AFM images is similar to those found in SEM.

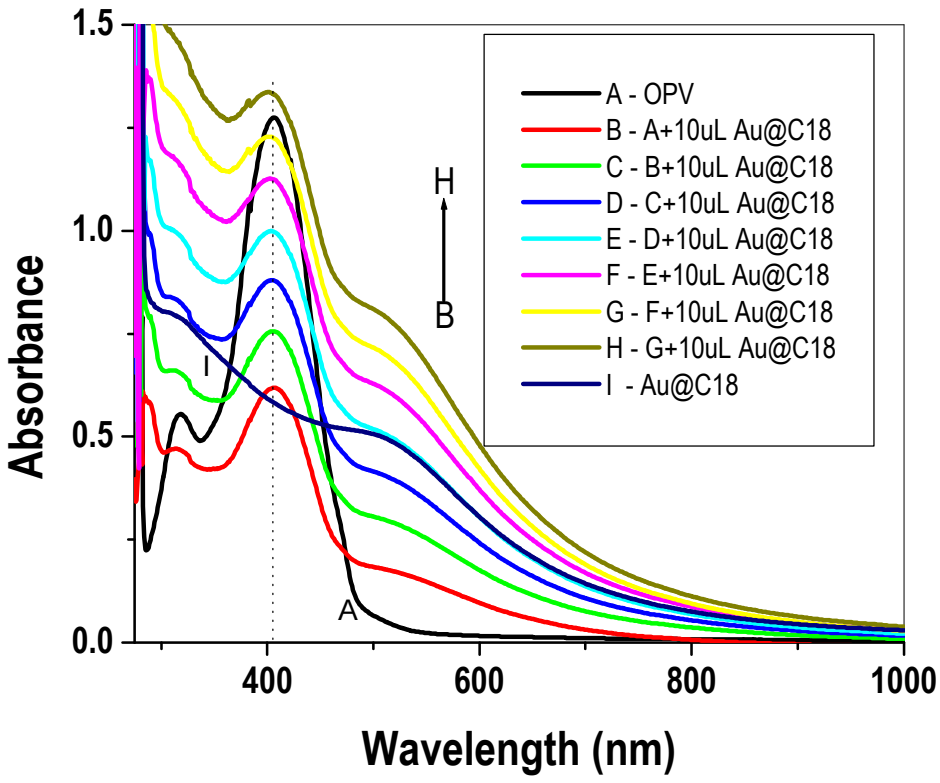

Figure S5. UV-vis spectrum of OPV with increasing amounts of GNPs (Au@C18). The peak maximum remained the same in all the cases indicating that nanoparticles did not modify the electronic structure of OPVs. The concentration of OPV solution was $1*10^{-4}$ M. The nanoparticle solution had 2 mg of Au@C18 per mL of toluene. The presence of supramolecular structures is evident from the slight increase in the baseline at 1000 nm. Nanoparticle aggregation causes much larger shift in baseline.

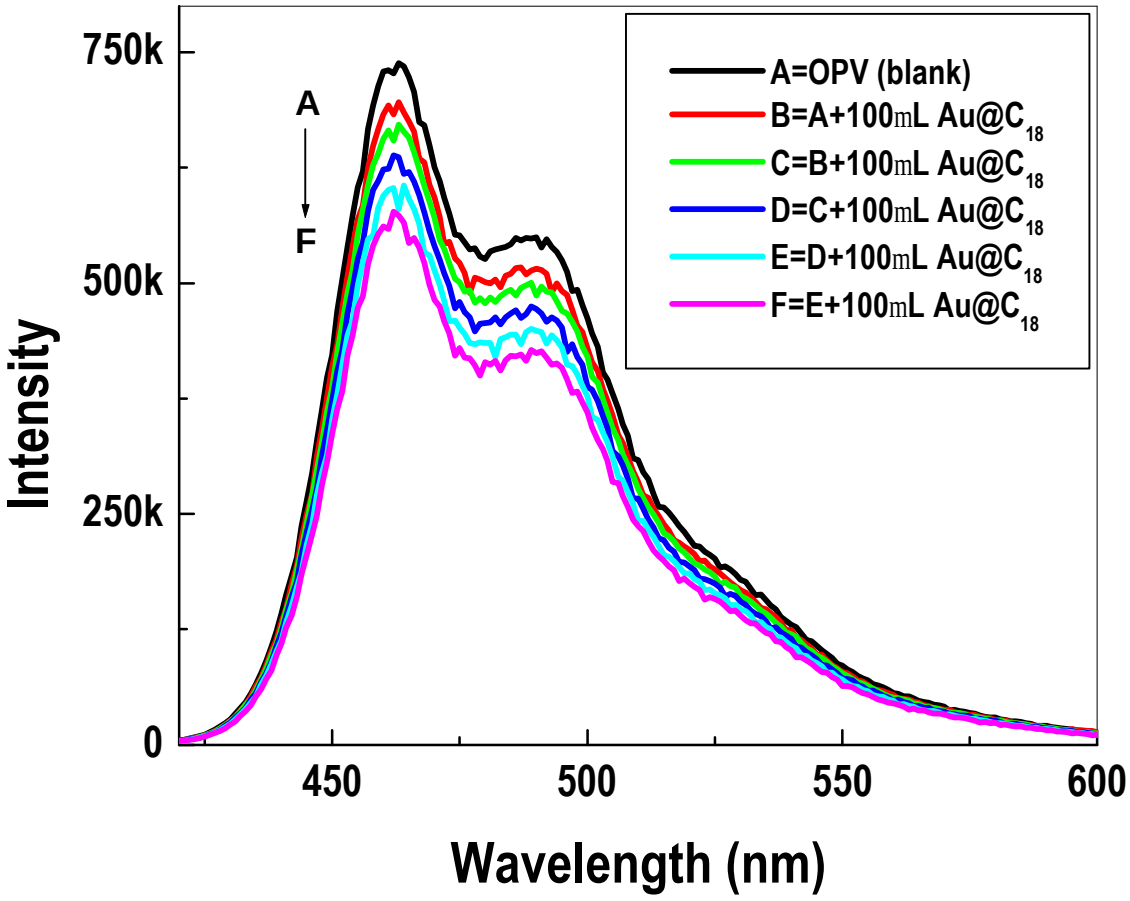

Figure S6. Fluorescence spectrum of OPV with increasing amounts of GNPs (Au@C18). The peak maximum remained same in all cases indicating that the interaction between the organic and inorganic component is weak. Concentration of the nanoparticle solution was 2 mg/mL of toluene. The decrease in the fluorescence intensity is evident from the fluorescence measurements as a function of nanoparticle concentration. The amount of gold nanoparticle added is small, as we do not want to cause any effect on the OPV self assembly. Hence the quenching is less.