Polar Head Modification of a Phospholipid for Ordered Assembly in Conjugated Polymer Nanoparticles and Enhanced Photoacoustic Property

In previous study, we found nanometer scale assembly could be formed when the alkyl tail length of the phospholipid is comparable to the alkyl side chain length of the conjugated polymer. Another important factor is polar head groups of the phospholipids. In this study, we made conjugated polymer nanoparticles (CPN) using phospholipids with the same alkyl tail length but different head types. We mainly focus on these CPNs absorbing NIR and having photoacoustic property.