

## Morphology and Property Control of Polythiophene Nanoparticles with Novel Polymeric Surfactant

조원석, 이승모<sup>1</sup>, 이선종<sup>2</sup>, 김중현<sup>1,\*</sup>  
연세대학교; <sup>1</sup>연세대학교 화공생명공학과; <sup>2</sup>동진세미켐  
(jayhkim@yonsei.ac.kr\*)

A novel polymeric surfactant was used to synthesis polythiophene nanoparticles via an oxidative polymerization. Morphology of polythiophene could be controlled by adjustment of molecular weight and composition of polymeric surfactants. The average particle size and particle size distribution were determined by dynamic laser scattering. Morphology of the particles was analyzed by scanning electron microscope. Optical and electrical properties were analyzed by photoluminescence spectroscopy and 4-point probe conductivity meter, respectively.