

## Synthesis and Characterization of Ferrocenyl Modified Thiophene Derivatives

김세환\*, 김유나, 김병관, 김은경  
연세대학교  
(lovinjay@naver.com\*)

Newly modified ferrocenyl-thiophene (FTh) was synthesized by Williamson etherification. It can be polymerized by chemical and electrochemical methods. The structure of the FTh polymer were confirmed by <sup>1</sup>H-NMR, FT-IR and optical properties were demonstrated from UV-Vis absorbance (ABS) and Photoluminescence (PL). The FTh derivatives show stable and reversible electrochemical redox state due to the ferrocenyl functional group which was determined by cyclic voltammogram. The application of highly conductive FTh polymer to organic electronics such as electrochromic devices and organic solarcells will be presented.