

**P3HT/POSS 합성 활성층을 이용한 OTFT 소자 제작 및 특성 연구**

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**Study on fabrication and characteristic of OTFT with a P3HT/POSS active layer**

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**Abstract :** To improved the conjugation between SiO<sub>2</sub> and P3HT active layer, P3HT/POSS conjugated polymers were synthesised and used as the active layers of organic TFT's. We achieved the field-effect mobilities in the saturation region  $\sim 1.19 \times 10^{-3}$  [cm<sup>2</sup>/v · sec] and on/off ratio  $\sim 2.51 \times 10^2$ . These values are higher than ones of the P3HT-based OTFTs. The results also demonstrated the off-current decrease.

**Key Words :** P3HT, POSS, OTFT, Off-current