

Plastic 기판 상의 투명성과 유연성을 지닌 Zinc Oxide 박막 트랜지스터

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Mechanically Flexible and Transparent Zinc Oxide Thin Film Transistor on Plastic Substrates

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Abstract : We have fabricated transparent and flexible thin film transistor(TFT) on polyethylene terephthalate(PET) substrate using Zinc Oxide (ZnO) and Indium Tin Oxide (ITO) film as active layer and electrode. The transfer printing method was used for printing the device layer on target plastic substrate at room temperature. This approach have an advantage to separate the high temperature annealing process to improve the electrical properties of ZnO TFT from the device process on plastic substrate. The resulting devices on plastic substrate presented mechanical and electrical properties similar with those on rigid substrate.

Key Words : Zinc Oxide (ZnO), flexible TFT, PET, transfer printing method