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Optimization of electron transport layer in polymer solar cell

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Organic solar cells (OSC) will soon be commercialized because of their benefits such as low cost, light-weight, flexibility, and the ability to process for very wide area applications. Polymer semiconductors may have the potential to replace silicon in next-generation solar cells. Despite these benefits, there is still some room for improvement in polymer solar cells power-conversion efficiency (PCE), which is crucial for their commercialization. High device efficiency and stability depend on the interlayers between the photoactive film and the electrodes. Therefore, in this study we compared the stability and performance of indium tin oxide (ITO) substrate with that of membrane substrate. The structure, morphology and electro-optical characteristics of the ITO substrate and membrane substrate samples have been analyzed by different characterization techniques such as X-ray diffraction (XRD), scanning electron microscope (SEM) and ultraviolet visible spectroscopy (UV-vis).

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

MSc

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