Characterization of photoelectric conversion to organic photovoltaic apply molybdenum oxide on hole transfer layer

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The Organic Photovoltaic (OPV) applied Molybdenum Oxides (MoO_x) Nanostructure for material of hole transfer layer. The OPV using MoOx for hole transfer material reported long time stability. In addition according length of nanostructure, changing photoelectron property reported photon absorption rate increase in certain wavelength. The MoOx nanostructure prepared applying hydrothermal synthesis method, and the effect analysis to morphology using as scanning electron microscope (SEM), X-Ray Diffraction (XRD) of the prepared OPV device. The device structure is FTO/nanostructured MoO_x/P3HT:PCBM/ZnO/Ag, and analysis photoelectron property using solar simulator. A change in the optical electric properties in accordance with the nanostructure growth characteristics due to changes in temperature was observed.