

Characteristics of the inverted solar cells according to the perovskite location change in the active layer

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To confirm the photoelectric conversion efficiency of perovskite layer location as active layer(AL) for inverted organic solar cells, the AL materials were deposited to three types as (a) perovskite/P3HT:PCBM, (b) P3HT:PCBM/perovskite, (c) peroveskite/P3HT. Structure of the device was ITO/ZnO/AL/PEDOT:PSS/Anode. Branches structure as the perovskite was confirmed by SEM. As result of 2 theta value of XRD, crystal planes of the tetragonal perovskite structure was confirmed at 13.98, 28.32 degrees. The JV curve was measured to determine the photoelectric conversion efficiency, the (c)structure was optimized to improve photo electric performance.