

Performance of bulk heterojunction photovoltaic device prepared by screen printing technique

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Screen printing technique was applied to fabricate bulk heterojunction solar cells. Blends of poly (3-hexylthiophene) (P3HT) and [6,6]-phenyl C61-butyrac acid methyl ester (PCBM) are used as active layer between a transparent Indium Tin Oxide (ITO) electrode and an Al layer cathode with the structure of glass/ITO/PEDOT:PPS/P3HT:PCBM/Al. The working device was fabricated from a variety of solvents. Furthermore the performance of printed solar cell was compared with spin-coated. A maximum power conversion efficiency of 2.70% was achieved under AM1.5 illumination at 1000W/m².