Heterostructures based on small molecules organic compounds

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Résumé en anglais	Heterostructures with layers from small molecules organic compounds were deposited on ITO/glass substrate by thermal vacuum evaporation (TVE) technique. Structural, optical and morphological investigations were carried out on the realisedlayers (zinc phthalocyanine - ZnPc, fullerene - C60 and 1,4,5,8-naphthalene - tetracarboxylic dianhydride - NTCDA). The films are polycrystalline keeping the morphological features characteristic to these materials. The prepared hetero structures reveal a large absorption domain in the visible domain. The current-voltage (I-V) characteristics of the investigated structures, recorded in dark, present an improvement in the current value (~one order of magnitude) for the standard structure (ITO/PEDOT:PSS/ZnPc/C60/NTCDA/Al) with a supplimentary layer of poly(3,4 ethylenedioxythiophene)-poly(styrenesulfonate) (PEDOT:PSS). For the inverted structure (Al/NTCD/C60/ZnPc/ITO) was also noticed an increased curent value in comparasion with that observed for the standard structure.
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