



## Organic heterostructures deposited by MAPLE on AZO substrate

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Résumé en anglais	<p>Organic heterostructures based on poly(3-hexylthiophene) (P3HT) and fullerene (C60) as blends or multilayer were deposited on Al:ZnO (AZO) by Matrix-Assisted Pulsed Laser Evaporation (MAPLE) technique. The AZO layers were obtained by Pulsed Laser Deposition (PLD) on glass substrate, the high quality of the films being reflected by the calculated figure of merit. The organic heterostructures were investigated from morphological, optical and electrical point of view by atomic force microscopy (AFM), UV-vis spectroscopy, photoluminescence (PL) and current-voltage (I-V) measurements, respectively. The increase of the C60 content in the blend heterostructure has as result a high roughness. Compared with the multilayer heterostructure, those based on blends present an improvement in the electrical properties. Under illumination, the highest current value was recorded for the heterostructure based on the blend with the higher C60 amount. The obtained results showed that MAPLE is a useful technique for the deposition of the organic heterostructures on AZO as transparent conductor electrode.</p>
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## Liens

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