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**A Critical Review of Photovoltaic Cells Based on Organic Monomeric and Polymeric
Thin Film Heterojunctions**

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Abstract

We review the present state of the art on organic photovoltaic cells based on both small molecule and polymeric absorbers. In the case of small molecules, different configurations with one, two and three active layers have been synthesized and characterized. In the case of structures based on single layer polymeric absorbers, bilayer and blend configurations have also been investigated. The properties of each category of solar cells, based on small molecules and polymers, are discussed. Transport mechanisms and stability studies have been carried out on the organic materials and the photovoltaic structures

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