



Toward sustainable organic semiconductors from a broad palette of green reactions

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New conjugated materials, based on the triphenylamine-thiophene moiety and integrating azomethine bonds with a dibenzofuran unit or a cyanovinyl bond with a phenylthiophene or bithiophene unit, have been synthesized by using a wide range of green reactions such as direct heteroarylation coupling reactions, Knoevenagel and Schiff-base condensations and Stille cross-coupling reactions using ionic-liquid-supported thiophenylstannane. The electronic properties of the new molecules were analyzed by UV/Vis spectroscopy and cyclic voltammetry. The potential use of the molecules as donor materials for photovoltaic conversion were evaluated in simple bilayer solar cells using C60 as the acceptor material.

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