



## ADDA and ADADA systems based on triphenylamine as molecular donors for organic photovoltaics

Submitted by Jean Roncali on Fri, 05/22/2015 - 15:04

Titre	ADDA and ADADA systems based on triphenylamine as molecular donors for organic photovoltaics
Type de publication	Article de revue
Auteur	Diac, Andreea [1], Demeter, Dora [2], Jungsuttiwong, Siriporn [3], Grosu, Ion [4], Roncali, Jean [5]
Pays	Pays-Bas
Editeur	Elsevier
Ville	Amsterdam
Type	Article scientifique dans une revue à comité de lecture
Année	2015
Langue	Anglais
Date	29/07/2015
Numéro	4607-4612
Pagination	4607-4612
Titre de la revue	Tetrahedron Letters
ISSN	0040-4039
Mots-clés	electron-donor [6], Organic solar cells [7], Triphenylamine [8]
Résumé en anglais	Three molecular donor (D) acceptor (A) systems of structure A-D-A-D-A as well as an A-D-D-A compound have been synthesized by spatial extension of reference D-A system containing a triphenylamine donor block (5). UV-Vis absorption spectroscopy, cyclic voltammetry and theoretical calculations show that the presence of a median acceptor group has limited effect on the internal charge transfer while direct dimerization leads to an increase of the effective conjugation length. A cursory evaluation of the new compounds as donor material in bilayer solar cells using fullerene C60 as the acceptor material shows that the presence of a median acceptor has deleterious effect on conversion efficiency while the simple dimerization of the molecule leads to a substantial improvement of the short-circuit current density and efficiency.
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua11792">http://okina.univ-angers.fr/publications/ua11792</a> [9]
DOI	10.1016/j.tetlet.2015.05.103 [10]
Lien vers le document	<a href="http://dx.doi.org/10.1016/j.tetlet.2015.05.103">http://dx.doi.org/10.1016/j.tetlet.2015.05.103</a> [10]

### Liens

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