



# Nonlinear refraction and absorption activity of dimethylaminostyryl substituted BODIPY dyes

Submitted by Régis Barille on Fri, 03/10/2017 - 10:03

Titre	Nonlinear refraction and absorption activity of dimethylaminostyryl substituted BODIPY dyes
Type de publication	Article de revue
Auteur	Kulyk, Bohdan [1], Taboukhat, Said [2], Akdas-Kilig, Huriye [3], Fillaut, Jean-Luc [4], Boughaleb, Yahia [5], Sahraoui, Bouchta [6]
Pays	Royaume-Uni
Editeur	RSC Publishing
Ville	Cambridge
Type	Article scientifique dans une revue à comité de lecture
Année	2016
Langue	Anglais
Date	1er Sept. 2016
Numéro	88
Pagination	84854-84859
Volume	6
Titre de la revue	RSC Advances
Résumé en anglais	<p>Optical and nonlinear optical properties of difluoroboradiazaindacene (BODIPY) models with attached dimethylaminostyryl substituents were studied. The optical absorption and fluorescence emission of BODIPY compounds were found to be dependent on the number of dimethylaminostyryl substituents. In order to investigate the nonlinear refraction and absorption activity, the Z-scan technique was used employing a laser generating a wavelength at 532 nm with 30 ps pulse duration. The studied dimethylaminostyryl containing BODIPY compounds showed considerable nonlinear refraction and reverse saturable absorption. The BODIPY containing a pair of dimethylaminostyryl substituents demonstrated an increased third order nonlinear optical response mostly due to the extension of its conjugated length.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua15717">http://okina.univ-angers.fr/publications/ua15717</a> [7]
DOI	10.1039/C6RA19023E [8]
Lien vers le document	<a href="http://pubs.rsc.org/en/Content/ArticleLanding/2016/RA/C6RA19023E#!divAbs...">http://pubs.rsc.org/en/Content/ArticleLanding/2016/RA/C6RA19023E#!divAbs...</a> [9]
Titre abrégé	RSC Adv.

---

## Liens

[1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=26477>

[2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=26478>

- [3] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=26479>
- [4] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=2765>
- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=20811>
- [6] <http://okina.univ-angers.fr/bouchta.sahraoui/publications>
- [7] <http://okina.univ-angers.fr/publications/ua15717>
- [8] <http://dx.doi.org/10.1039/C6RA19023E>
- [9] <http://pubs.rsc.org/en/Content/ArticleLanding/2016/RA/C6RA19023E#!divAbstract>

Publié sur *Okina* (<http://okina.univ-angers.fr>)