

Second and third-order nonlinear optical behavior of natural pigment: chlorophyll and crocin

Submitted by R gis Barille on Fri, 03/10/2017 - 10:11

Titre	Second and third-order nonlinear optical behavior of natural pigment: chlorophyll and crocin
Type de publication	Article de revue
Auteur	Karakas, Asli [1], Karakaya, M. [2], Taser, M. [3], Ceylan, Y. [4], Arof, A.K. [5], El Kouari, Y. [6], Sahraoui, Bouchta [7]
Editeur	Springer Verlag
Type	Article scientifique dans une revue � comit� de lecture
Ann�e	2017
Langue	Anglais
Date	F�vrier 2017
Num�ro	2
Pagination	343-346
Volume	23
Titre de la revue	Ionics
ISSN	0947-7047
Mots-cl�s	Electric dipole moment [8], First hyperpolarizability [9], nonlinear optical properties [10], Second hyperpolarizability [11], time-dependent Hartree-Fock [12]
R�sum� en anglais	To provide an insight into the microscopic second and third-order nonlinear optical (NLO) behavior of chlorophyll a and crocin, we have computed the electric dipole moments (μ), dispersion-free first hyperpolarizabilities (β), frequency-dependent first and second (γ) hyperpolarizabilities at 1064 nm wavelength area using time-dependent Hartree-Fock (TDHF) method. According to ab-initio calculation results, the examined compounds exhibit first and second hyperpolarizabilities with non-zero values, implying second and third-order NLO phenomena.
URL de la notice	http://okina.univ-angers.fr/publications/ua15725 [13]
DOI	10.1007/s11581-016-1847-2 [14]
Lien vers le document	http://link.springer.com/article/10.1007%2Fs11581-016-1847-2 [15]
Titre abr�g�	Ionics

Liens

- [1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=20813>
- [2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=4157>
- [3] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=20818>
- [4] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=20798>
- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=26454>

- [6] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=20861>
- [7] <http://okina.univ-angers.fr/bouchta.sahraoui/publications>
- [8] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=22531>
- [9] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=22520>
- [10] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=5104>
- [11] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=22532>
- [12] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=22523>
- [13] <http://okina.univ-angers.fr/publications/ua15725>
- [14] <http://dx.doi.org/10.1007/s11581-016-1847-2>
- [15] <http://link.springer.com/article/10.1007%2Fs11581-016-1847-2>

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