

Author's Accepted Manuscript

Linear Photophysics, Two-Photon Absorption and Femtosecond Transient Absorption Spectroscopy of Styryl Dye Bases

Ye. O. Shaydyuk, S.M. Levchenko, S.A. Kurhuzenkau, D. Anderson, A.E. Masunov, O.D. Kachkovsky, Yu. L. Slominsky, J.L. Bricks, K.D. Belfield, M.V. Bondar



PII: S0022-2313(16)30657-3
DOI: <http://dx.doi.org/10.1016/j.jlumin.2016.11.073>
Reference: LUMIN14411

To appear in: *Journal of Luminescence*

Cite this article as: Ye. O. Shaydyuk, S.M. Levchenko, S.A. Kurhuzenkau, D. Anderson, A.E. Masunov, O.D. Kachkovsky, Yu. L. Slominsky, J.L. Bricks, K.D. Belfield and M.V. Bondar, Linear Photophysics, Two-Photon Absorption and Femtosecond Transient Absorption Spectroscopy of Styryl Dye Bases *Journal of Luminescence*, <http://dx.doi.org/10.1016/j.jlumin.2016.11.073>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Linear Photophysics, Two-Photon Absorption and Femtosecond Transient Absorption Spectroscopy of Styryl Dye Bases

Ye. O. Shaydyuk¹, S. M. Levchenko², S. A. Kurhuzenkau³, D. Anderson^{4,5}, A. E. Masunov^{4,5,6,7,8}, O. D. Kachkovsky⁹, Yu. L. Slominsky⁹, J. L. Bricks⁹, K. D. Belfield^{10,11}, M. V. Bondar^{1*}

¹Institute of Physics, Prospect Nauki, 46, Kyiv-28, 03028, Ukraine

²Institute of Molecular Biology and Genetics, 150, Akademika Zabolotnoho Str., Kyiv, 036803, Ukraine

³Department of Chemistry, University of Parma, Parco Area delle Scienze 17/A, Parma, 43124, Italy

⁴NanoScience Technology Center, University of Central Florida, 12424 Research Parkway, PAV400, Orlando, Florida, 32826, USA

⁵Department of Chemistry, University of Central Florida, 4111 Libra Drive PSB225, Orlando, FL 32816, USA

⁶Department of Physics, University of Central Florida, 4111 Libra Drive PSB430, Orlando, FL 32816, USA

⁷Department of Condensed Matter Physics, National Research Nuclear University MEPhI, Kashirskoye shosse 31, Moscow, 115409, Russia

⁸Photochemistry Center RAS, ul. Novatorov 7a, Moscow, 119421, Russia

⁹Institute of Organic Chemistry, Murmanskaya Street, 5, Kyiv, 03094, Ukraine

¹⁰College of Science and Liberal Arts, New Jersey Institute of Technology, University Heights, Newark, NJ 07102

¹¹School of Chemistry and Chemical Engineering, Shaanxi Normal University, Xi'an, 710062, P.R. China

***Corresponding author.** Tel.: +38 044 525 9968 M. V. mbondar@mail.ucf.edu

Abstract

The steady-state and time-resolved linear spectral properties, two-photon absorption spectra and fast relaxation processes in the excited states of styryl base-type derivatives were investigated. The nature of linear absorption, fluorescence and excitation anisotropy spectra were analyzed in solvents

Download English Version:

<https://daneshyari.com/en/article/5397694>

Download Persian Version:

<https://daneshyari.com/article/5397694>

[Daneshyari.com](https://daneshyari.com)