

Author's Accepted Manuscript

Synthesis, structural characterization, and investigation on photophysical and photochemical features of new metallophthalocyanines

Beytullah Ertem, Halise Yalazan, Ömer Güngör, Gülbınar Sarkı, Mahmut Durmuş, Ece Tuğba Saka, Halit Kantekin



PII: S0022-2313(18)30497-6
DOI: <https://doi.org/10.1016/j.jlumin.2018.08.043>
Reference: LUMIN15841

To appear in: *Journal of Luminescence*

Received date: 18 March 2018
Revised date: 1 July 2018
Accepted date: 9 August 2018

Cite this article as: Beytullah Ertem, Halise Yalazan, Ömer Güngör, Gülbınar Sarkı, Mahmut Durmuş, Ece Tuğba Saka and Halit Kantekin, Synthesis, structural characterization, and investigation on photophysical and photochemical features of new metallophthalocyanines, *Journal of Luminescence*, <https://doi.org/10.1016/j.jlumin.2018.08.043>

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.

Synthesis, structural characterization, and investigation on photophysical and photochemical features of new metallophthalocyanines

Beytullah Ertem^{1*}, Halise Yalazan², Ömer Güngör³, Gülbınar Sarkı², Mahmut Durmuş⁴, Ece Tuğba Saka², Halit Kantekin²

¹Vocational School of Health Services, Karadeniz Technical University, 61080, Trabzon, Turkey

²Department of Chemistry, Karadeniz Technical University, 61080, Trabzon, Turkey

³Department of Chemistry Technology, Kocaeli University, Advance Vocational School of Hereke Omer Ismet Uzunyol, Kocaeli, Turkey

⁴Department of Chemistry, Gebze Technical University, Gebze, Kocaeli, Turkey.

*Author for correspondence: Beytullah Ertem

Vocational School of Health Services, Karadeniz Technical University, 61080, Trabzon, Turkey

Tel.: +90 462 377 57 03, Fax: +90 462 325 29 33, e-mail: bertem@ktu.edu.tr

ABSTRACT

In this report, the 3,7,11-trimethyl-2,6,10-dodecatrien-1-ol group was substituted to the peripheral positions of the phthalocyanine macrocycle for obtaining copper (II) **4**, cobalt (II) **5** and zinc (II) **6** phthalocyanine derivatives starting from the phthalonitrile derivative **3**. This group was also axially substituted to the silicon (IV) phthalocyanine for the synthesis of silicon(IV) phthalocyanine **8** starting from silicon(IV) phthalocyanine dichloride **7** (SiPcCl₂). The newly synthesized phthalocyanines **4–6** and **8** exhibited good solubility in tetrahydrofuran, ethyl acetate, CH₂Cl₂, N,N-dimethylformamide, diethyl ether, CHCl₃, ethyl

Download English Version:

<https://daneshyari.com/en/article/11006535>

Download Persian Version:

<https://daneshyari.com/article/11006535>

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