

2019 Publications

1. Mafukidze, D.M. and Nyokong, T.

A comparative study of the singlet oxygen generation capability of a zinc phthalocyanine linked to graphene quantum dots through π - π stacking and covalent conjugation when embedded in asymmetric polymer membranes

Journal of Molecular Structure (2019), 1180, 307-317

DOI:10.1016/j.molstruc.2018.11.096

<https://doi.org/10.1016/j.molstruc.2018.11.096>

2. Ngoy, B.P., May, A.K., Mack, J. and Nyokong, T.

Effect of bromination on the optical limiting properties at 532 nm of BODIPY dyes with p-benzyloxystyryl groups at the 3,5-positions

Journal of Molecular Structure (2019), 1175, 745-753

DOI:10.1016/j.molstruc.2018.08.012

<https://doi.org/10.1016/j.molstruc.2018.08.012>

3. Dube, E. and Nyokong, T.

Effect of gold nanoparticle shape on the photophysicochemical properties of sulphur containing metallophthalocyanines

Journal of Molecular Structure (2019), 1181, 312-320

DOI:10.1016/j.molstruc.2018.12.091

<https://doi.org/10.1016/j.molstruc.2018.12.091>

4. Dube, E. and Nyokong, T.

Effect of gold nanoparticles shape and size on the photophysicochemical behaviour of symmetric and asymmetric zinc phthalocyanines

Journal of Luminescence (2019), 205, 532-539

DOI:10.1016/j.jlumin.2018.09.063

<https://doi.org/10.1016/j.jlumin.2018.09.063>

5. Matlou, G.G., Oluwole, D.O. and Nyokong, T.

Evaluation of the photosensitizing properties of zinc and indium tetra cinnamic acid phthalocyanines linked to magnetic nanoparticles on human breast adenocarcinoma cells

Journal of Luminescence (2019), 205, 385-392

DOI:10.1016/j.jlumin.2018.09.054

<https://doi.org/10.1016/j.jlumin.2018.09.054>

6. Mgidlana, S., Oluwole, D.O. and Nyokong, T.

Fabrication of efficient nonlinear optical absorber using Zn phthalocyanine-semiconductor quantum dots conjugates

Polyhedron (2019), 159, 102-115

DOI:10.1016/j.poly.2018.11.024

<https://doi.org/10.1016/j.poly.2018.11.024>

7. Nnaji N., Nwaji N., Mack J. and Nyokong, T.

Corrosion Resistance of Aluminum against Acid Activation: Impact of Benzothiazole-Substituted Gallium Phthalocyanine

Molecules (2019), 24(1), 207/1-207/22

DOI: 10.3390/molecules24010207

<https://www.mdpi.com/1420-3049/24/1/207>

8. Achadu, O.J. and Nyokong, T.

Fluorescence "turn-ON" nanosensor for cyanide ion using supramolecular hybrid of graphene quantum dots and cobalt pyrene-derivatized phthalocyanine

Dyes and Pigments (2019), 160, 328-335

DOI:10.1016/j.dyepig.2018.08.038

<https://doi.org/10.1016/j.dyepig.2018.08.038>

9. Makinde, Z.O., Louzada, M.S., Britton, J., Nyokong, T. and Khene, S.
Spectroscopic and nonlinear optical properties of alkyl thio substituted binuclear phthalocyanines

Dyes and Pigments (2019), 162, 249-256

DOI:10.1016/j.dyepig.2018.10.022

<https://doi.org/10.1016/j.dyepig.2018.10.022>

10. Ndebele, N., Mack, J. and Nyokong, T.

A 3,5-DistyrylBODIPY Dye Functionalized with Boronic Acid Groups for Direct Electrochemical Glucose Sensing

Electroanalysis (2018), 31,137-145

DOI:10.1002/elan.201800651

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11. Babu, B., Amuhaya, E., Oluwole, D., Prinsloo, E., Mack, J. and Nyokong, T.

Preparation of NIR absorbing axial substituted tin(IV) porphyrins and their photocytotoxic properties

MedChemComm (2019), 10(1), 41-48

DOI: 10.1039/c8md00373d

<https://pubs.rsc.org/en/content/articlehtml/2019/md/c8md00373d>

12. Dube E., Oluwole D.O., Njemuwa N., Prinsloo E. and Nyokong T.

Photophysical and photodynamic therapy properties of metallophthalocyanines linked to gold speckled silica nanoparticles

Photodiagnosis and photodynamic therapy (2019), 25, 325-333

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13. Sindelo, A., Kobayashi, N., Kimura, M. and Nyokong, T.

Physicochemical and photodynamic antimicrobial chemotherapy activity of morpholine-substituted phthalocyanines: Effect of point of substitution and central metal

Journal of Photochemistry and Photobiology, A: Chemistry (2019), 374, 58-67

DOI:10.1016/j.jphotochem.2019.01.025

<https://doi.org/10.1016/j.jphotochem.2019.01.025>

14. Matlou, G.G., Managa, M. and Nyokong, T.

Effect of symmetry and metal nanoparticles on the photophysical and photodynamic therapy properties of cinnamic acid zinc phthalocyanine

Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2019), 214, 49-57.

DOI:10.1016/j.saa.2019.02.005

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The photo-physicochemical properties and in vitro photodynamic therapy activity of differently substituted- zinc (II)-phthalocyanines and graphene quantum dots conjugates on MCF7 breast cancer cell line

Inorganica Chimica Acta (2019), 488, 304-311

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16. Magadla, A., Oluwole, D.O., Managa, M. and Nyokong, T.
Physicochemical and antimicrobial photodynamic chemotherapy (against *E. coli*) by indium phthalocyanines in the presence of silver-iron bimetallic nanoparticles

Polyhedron (2019), 162, 30-38

DOI:10.1016/j.poly.2019.01.032

<https://doi.org/10.1016/j.poly.2019.01.032>

17. M. Managa, B. P. Ngoy and T. Nyokong

Photophysical properties and photodynamic therapy activity of a meso-tetra(4-carboxyphenyl) porphyrin tetramethyl ester–graphene quantum dot conjugate

New Journal Chemistry (2019) 43, 4518-4524

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18. R Soy, B Babu, D Oluwole, N Nwaji, J Oyim, E Amuhaya, E Prinsloo, J Mack and T Nyokong

Photophysicochemical properties and photodynamic therapy activity of chloroindium(III) tetraarylporphyrins and their gold nanoparticle conjugates

Journal of Porphyrins and Phthalocyanines (2019) 23, 34-45

DOI: 10.1142/S1088424618501146

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19. Pinar Sen, Muthumuni Managa and Tebello Nyokong

New Type of metal-free and Zinc(II), In(III), Ga(III) phthalocyanines carrying biologically active substituents: Synthesis and photophysicochemical properties and photodynamic therapy activity

Inorganica Chimica Acta (2019), 491, 1-8

DOI: 10.1016/j.ica.2019.03.010

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20. Matshitse, Refilwe; Ngoy, Bokolombe P.; Managa, Muthumuni; Mack, John; Nyokong, Tebello

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Photodiagnosis and Photodynamic Therapy (2019), 26, 101-110

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Dyes and Pigments (2019), 165, 488-498

DOI:10.1016/j.dyepig.2019.03.002

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22. Harris, Jessica; May, Aviwe K.; Ngoy, Bokolombe P.; Mack, John; Nyokong, Tebello

An analysis of the photophysical and optical limiting properties of a novel 1,3,5-tristyrylBODIPY dye

Journal of Porphyrins and Phthalocyanines (2019), 23(1/2), 63-75

This paper is part of the 2019 Women in Porphyrin Science special issue.

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23. Mapukata, Sivuyisiwe; Kobayashi, Nagao; Kimura, Mutsumi; Nyokong, Tebello

Asymmetrical and symmetrical zinc phthalocyanine-cobalt ferrite conjugates embedded in electrospun fibers for dual photocatalytic degradation of azo dyes: Methyl Orange and Orange G

Journal of Photochemistry and Photobiology, A: Chemistry (2019), 379, 112-122

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24. Mafukidze, Donovan M.; Sindelo, Azole; Nyokong, Tebello
Spectroscopic characterization and photodynamic antimicrobial chemotherapy of phthalocyanine-silver triangular nanoprism conjugates when supported on asymmetric polymer membranes

Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2019), 219, 333-345

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ACS Omega (2019), 4(4), 7265-7284

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26. Mpeta, Lekhethe S.; Nyokong, Tebello

Electrocatalytic activity of ethynylbenzyl phthalocyanines when linked to quantum dots via click chemistry: Towards efficient oxygen reduction reaction and H₂O₂ oxidation

Journal of Electroanalytical Chemistry (2019), 840, 218-229

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Photophysical and nonlinear optical characteristics of pyridyl substituted phthalocyanine - Detonation nanodiamond conjugated systems in solution

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Electrocatalytic Activity of Asymmetrical Cobalt Phthalocyanines in the Presence of N Doped Graphene Quantum Dots: The Push-pull Effects of Substituents

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Nonlinear optical properties of metal free and nickel binuclear phthalocyanines

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Nonlinear optical behavior of n-tuple deckerphthalocyanines at the nanosecond regime: investigation of change in mechanisms

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32. Shumba, Munyaradzi; Nyoni, Stephen; Britton, Jonathan; Nyokong, Tebello

Characterization of electrodes modified with nanocomposites of cobalt tetraaminophenoxypthalocyanine, reduced graphene and multi-walled carbon nanotubes

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Inhibition of Aluminium Corrosion Using Benzothiazole and Its Phthalocyanine Derivative

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Enhanced electrocatalytic activity of cobalt phthalocyanines when "clicked" to graphene oxide nanosheets

Journal of Porphyrins and Phthalocyanines (2019), 23(7/8), 828-840

DOI:10.1142/S1088424619500688

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35. Ndebele, Nobuhle; Hlatshwayo, Zweli; Ngoy, Bokolombe P.; Kubheka, Gugu; Mack, John; Nyokong, Tebello

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Journal of Porphyrins and Phthalocyanines (2019), 23(7/8), 701-717

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Design of Phthalocyanine-Nanoparticle Hybrids for Photodynamic Therapy Applications in Oxygen-Deficient Tumour Environment

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A novel axially palladium(II)-Schiff base complex substituted silicon(IV) phthalocyanine:

Synthesis, characterization, photophysicochemical properties and photodynamic antimicrobial chemotherapy activity against *Staphylococcus aureus*

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