

2018 Publications

1. Matlou, G., Kobayashi, N., Kimura, M. and Nyokong, T.
Physicochemical properties of water soluble unsymmetrical phthalocyanine-folic acid conjugates

Dyes and Pigments (2018), 149, 393-398

ISSN: 0143-7208

DOI: 10.1016/j.dyepig.2017.10.030

Publisher: Elsevier

<http://dx.doi.org/10.1016/j.dyepig.2017.10.030>

2. Kubheka, G., Sanusi, K., Mack, J. and Nyokong, T

Optical limiting properties of 3,5-dipyrenylvinyleneBODIPY dyes at 532nm

Spectrochimica Acta. Part A, Molecular and Biomolecular Spectroscopy (2018), 191, 357-364

ISSN: 1386-1425

DOI: 10.1016/j.saa.2017.10.021

Publisher: Elsevier

<https://doi.org/10.1016/j.saa.2017.10.021>

3. Managa, M., Ngoy, B.P., Mafukidze, D. and Nyokong, T.

Incorporation of metal free and Ga 5,10,15,20-tetrakis(4-bromophenyl) porphyrin into Pluronic F127-folic acid micelles

Journal of Luminescence (2018), 194 739–746

ISSN: 0022-2313

DOI:10.1016/j.jlumin.2017.09.045

Publisher: Elsevier

<http://dx.doi.org/10.1016/j.jlumin.2017.09.045>

4. Managa, M., Achadu, O.J. and Nyokong, T

Photophysical studies of graphene quantum dots - pyrene-derivatized porphyrins conjugates when encapsulated within Pluronic F127 micelles

Dyes and Pigments 148 (2018) 405-416

ISSN: 0143-7208

DOI:10.1016/j.dyepig.2017.09.031

Publisher: Elsevier

<https://doi.org/10.1016/j.dyepig.2017.09.031>

5. Fomo, F., Achadu, O.J. and Nyokong, T.

One-pot synthesis of graphene quantum dots– phthalocyanines supramolecular hybrid and the investigation of their photophysical properties

Journal of Materials Science (2018) 53, 538-548

ISSN: 0022-2461

DOI:10.1007/s10853-017-1539-y

Publisher: Springer

<https://link.springer.com/article/10.1007/s10853-017-1539-y>

6. Nwaji, N., Mack, J. and Nyokong, T.
Photophysical and strong optical limiting properties of ball-type phthalocyanines dimers and their monomeric analogues
Journal of Photochemistry and Photobiology, A: Chemistry (2018) 352, 73-85
ISSN: 1010-6030
DOI:10.1016/j.jphotochem.2017.10.045
Publisher: Elsevier
<https://doi.org/10.1016/j.jphotochem.2017.10.045>
7. Oluwole, D.O. and Nyokong, T.
Optical nonlinearity of pentadecylphenoxy substituted sandwich-type metallophthalocyanines in the presence of Ag-CdSeTe/ZnTeSe nanocrystals: Effects of conjugation and central metals
Dyes and Pigments (2018), 151, 254-262
ISSN: 0143-7208
DOI:10.1016/j.dyepig.2018.01.009
Publisher: Elsevier
<https://doi.org/10.1016/j.dyepig.2018.01.009>
8. Idowu, M.A., Xego, S., Arslanoglu, Y., Mack, J., Antunes, E. and Nyokong, T.
Photophysicochemical behaviour and antimicrobial properties of monocarboxy Mg (II) and Al (III) phthalocyanine-magnetite conjugates
Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2018), 193, 407-414
ISSN: 1386-1425
DOI:10.1016/j.saa.2017.12.052
Publisher: Elsevier
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9. Oluwole, D.O., Manoto, S.L., Malabi, R., Maphanga, C., Ombinda-Lemboumba, S., Mthunzi-Kufa, P. and Nyokong, T.
Evaluation of the photophysicochemical properties and photodynamic therapy activity of nanoconjugates of zinc phthalocyanine linked to glutathione capped Au and Au₃Ag₁ nanoparticles
Dyes and Pigments (2018), 150, 139-150
ISSN: 0143-7208
DOI:10.1016/j.dyepig.2017.11.019
Publisher: Elsevier
<https://doi.org/10.1016/j.dyepig.2017.11.019>
10. Fomo, G., Nwaji, N. and Nyokong, T.
Low symmetric metallophthalocyanine modified electrode via click chemistry for simultaneous detection of heavy metals
Journal of Electroanalytical Chemistry (2018), 813, 58-66
ISSN: 1572-6657
Publisher: Elsevier
DOI: 10.1016/j.jelechem.2018.02.016
<https://doi.org/10.1016/j.jelechem.2018.02.016>

11. Ngoy, Bokolombe P.; Hlatshwayo, Zweli; Nwaji, Njemuwa; Fomo, Gertrude; Mack, John; Nyokong, Tebello

Photophysical and optical limiting properties at 532 nm of BODIPY dyes with p-benzyloxystyryl groups at the 3,5-positions

Journal of Porphyrins and Phthalocyanines (2018), 22(5), 413-422.

ISSN: 1088-4246

Publisher: World Scientific Publishing Company

DOI:10.1142/S1088424617500857

<https://doi.org/10.1142/S1088424617500857>

12. Nwahara, Nnamdi; Achadu, Ojodomo J.; Nyokong, Tebello

In-situ synthesis of gold nanoparticles on graphene quantum dots-phthalocyanine nanoplatfoms: First description of the photophysical and surface enhanced Raman scattering behaviour

Publisher: Elsevier

Journal of Photochemistry and Photobiology, A: Chemistry (2018), 359, 131-144.

ISSN: 1010-6030

DOI:10.1016/j.jphotochem.2018.04.011

<https://doi.org/10.1016/j.jphotochem.2018.04.011>

13. Stone, Justin; Mack, John; Nyokong, Tebello; Kimura, Mitsumi; Kobayashi, Nagao Photophysical properties of a novel styryl-BODIPY with a fused crown ether moiety

Journal of Porphyrins and Phthalocyanines (2018), 22(1/3), 1-9

ISSN: 1088-4246

Publisher: World Scientific Publishing Company

DOI:10.1142/S1088424617500699

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14. Managa, M., Khene, S., Britton, J., Martynov, A.G., Gorbunova, Y.G., Tsivadze, A.Y. and Nyokong, T.

Photophysics and NLO properties of Ga(III) and In(III) phthalocyaninates bearing diethyleneglycol chains

Journal of Porphyrins and Phthalocyanines (2018), 22(1/3), 137-148

ISSN: 1088-4246

Publisher: World Scientific Publishing Company

DOI:10.1142/S1088424618500128

<https://doi.org/10.1142/S1088424618500128>

15. Abdurrahmanoglu, Saziye; Canlica, Mevlude; Mack, John; Nyokong, Tebello

Pyridone substituted phthalocyanines: Photophysico-chemical properties and TD-DFT calculations

Journal of Porphyrins and Phthalocyanines (2018), 22(1/3), 25-31

ISSN: 1088-4246

Publisher: World Scientific Publishing Company

DOI:10.1142/S1088424617500730

<https://doi.org/10.1142/S1088424617500730>

16. Liang, Xu; Qin, Mingfeng; Zhou, Lin; Liu, Tingting; Li, Minzhi; Mack, John;

Ndebele, Nobuhle; Nyokong, Tebello; Zhu, Weihua
Porphyrin dimers with a bridging chiral amide-bonded benzo-moiety: Influence of positional isomerism on the molecular chirality

Dyes and Pigments (2018), 154, 229-233

ISSN: 0143-7208

Publisher: Elsevier

DOI:10.1016/j.dyepig.2018.02.043

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17. Nwahara, Nnamdi; Nkhahle, Reitumetse; Ngoy, Bokolombe P.; Mack, John; Nyokong, Tebello

Synthesis and photophysical properties of BODIPY-decorated graphene quantum dot-phthalocyanine conjugates

New Journal of Chemistry (2018), 42(8), 6051-6061

ISSN 1144-0546

Publisher: Royal Society of Chemistry

DOI:10.1039/C8NJ00758F

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18. Sindelo, Azole; Osifeko, Olawale L.; Nyokong, Tebello

Synthesis, photophysicochemical and photodynamic antimicrobial chemotherapy studies of indium pyridyl phthalocyanines: Charge versus bridging atom

Inorganica Chimica Acta (2018), 476, 68-76

ISSN: 0020-1693

Publisher: Elsevier

DOI:10.1016/j.ica.2018.02.020

<https://doi.org/10.1016/j.ica.2018.02.020>

19. Nwaji, Njemuwa; Achadu, Ojodomo J.; Nyokong, Tebello

Photo-induced resonance energy transfer and nonlinear optical response in ball-type phthalocyanine conjugated to semiconductor and graphene quantum dots

New Journal of Chemistry (2018), 42(8), 6040-6050

ISSN 1144-0546

Publisher: Royal Society of Chemistry

DOI:10.1039/C7NJ05196D

<http://pubs.rsc.org/en/content/articlehtml/2018/nj/c7nj05196d>

20. Oluwole, David O.; Sari, Fatma Aslihan; Prinsloo, Earl; Dube, Edith; Yuzer, Abdulcelil; Nyokong, Tebello; Ince, Mine

Photophysicochemical properties and photodynamic therapy activity of highly water-soluble Zn(II) phthalocyanines

Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2018), 203, 236-243

DOI:10.1016/j.saa.2018.05.090

ISSN: 1386-1425

Publisher: Elsevier

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21. Dube, Edith; Oluwole, David O.; Nwaji, Njemuwa; Nyokong, Tebello

Glycosylated zinc phthalocyanine-gold nanoparticle conjugates for photodynamic

therapy: Effect of nanoparticle shape

Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2018), 203, 85-95

DOI:10.1016/j.saa.2018.05.081

ISSN: 1386-1425

Publisher: Elsevier

<https://doi.org/10.1016/j.saa.2018.05.081>

22. Nwaji, Njemuwa; Mack, John; Nyokong, Tebello

Enhanced nonlinear optical response of benzothiazole substituted ball-type phthalocyanines in the presence of metallic nanoparticles

Optical Materials (2018), 82, 93-103

DOI:10.1016/j.optmat.2018.05.052

ISSN: 0925-3467

Publisher: Elsevier

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23. Yuan, Xuemei; Li, Minzhi; Meng, Ting; Mack, John; Soy, Rodah; Nyokong, Tebello; Zhu, Weihua; Xu, Haijun; Liang, Xu

Core-modified rubyrins with phenanthrene-fused pyrrole rings: Highly selective and tunable response to Hg²⁺ ions

Dyes and Pigments (2018), 158, 188-194

DOI:10.1016/j.dyepig.2018.05.045

ISSN: 0143-7208

Publisher: Elsevier

<https://doi.org/10.1016/j.dyepig.2018.05.045>

24. Centane, Sixolile; Sekhosana, Edward Kutloano; Matshitse, Refilwe; Nyokong, Tebello

Electrocatalytic activity of a push-pull phthalocyanine in the presence of reduced and amino functionalized graphene quantum dots towards the electrooxidation of hydrazine

Journal of Electroanalytical Chemistry (2018), 820, 146-160

DOI:10.1016/j.jelechem.2018.05.005

ISSN: 1572-6657

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<https://doi.org/10.1016/j.jelechem.2018.05.005>

25. Dube, Edith; Oluwole, David O.; Nyokong, Tebello

Improved Photophysical and Photochemical Properties of Thiopheneethoxy Substituted Metallophthalocyanines on Immobilization onto Gold-speckled Silica Nanoparticles

Photochemistry and Photobiology (2018), 94(3), 521-531

DOI:10.1111/php.12879

ISSN:1751-1097

Publisher: Wiley

<https://doi.org/10.1111/php.12879>

26. Dube, Edith; Oluwole, David O.; Prinsloo, Earl; Nyokong, Tebello

A gold-chitosan composite with low symmetry zinc phthalocyanine for enhanced

singlet oxygen generation and improved photodynamic therapy activity

New Journal of Chemistry (2018), 42(12), 10214-10225

DOI:10.1039/c8nj00801a

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Publisher: Royal Society of Chemistry

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27. Oluwole, David O.; Nwaji, Njemuwa; Nene, Lindokhuhle C.; Mokone, Lesedi; Dube, Edith; Nyokong, Tebello

Novel nano-dyad of homoleptic sandwich-type phthalocyanines with nitrogen doped graphene quantum dots for nonlinear optics

New Journal of Chemistry (2018), 42(12), 10124-10133

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The effect of the cobalt and manganese central metal ions on the nonlinear optical properties of tetra(4-propargyloxyphenoxy)phthalocyanines

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Heritage Science (2018), 6:37, 1-12 (NOT ON SCIFINDER)

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ISSN: 2050-7445

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<https://doi.org/10.1186/s40494-018-0202-5>

30. Sekhosana, K.E., Nkhahle, R. and Nyokong, T.

The primary demonstration of exciton coupling effects on optical limiting properties of blue double-decker lanthanide phthalocyanine salts

ChemistrySelect (2018), 3, 6671–6682

DOI: 10.1002/slct.201800597

ISSN: 2365-6549

Publisher: Wiley

<https://doi.org/10.1002/slct.201800597>

31. Matlou, Gauta Gold; Oluwole, David O.; Prinsloo, Earl; Nyokong, Tebello
Photodynamic therapy activity of zinc phthalocyanine linked to folic acid and magnetic nanoparticles

Journal of Photochemistry and Photobiology, B: Biology (2018), 186, 216-224.

DOI:10.1016/j.jphotobiol.2018.07.025

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Publisher: Elsevier

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32. Matshitse, Refilwe; Nyokong, Tebello

Singlet Oxygen Generating Properties of Different Sizes of Charged Graphene Quantum Dot Nanoconjugates with a Positively Charged Phthalocyanine

Journal of Fluorescence (2018), 28(3), 827-838

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33. Magadla, Aviwe; Oluwole, David O.; Britton, Jonathan; Nyokong, Tebello
Effect of nature of nanoparticles on the photophysicochemical properties of asymmetrically substituted Zn phthalocyanines

Inorganica Chimica Acta (2018), 482, 438-446

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34. Nwaji, Njemuwa; Dingiswayo, Somila; Mack, John; Nyokong, Tebello

Photophysical and enhanced nonlinear optical response in asymmetric benzothiazole substituted phthalocyanine covalently linked to semiconductor quantum dots

Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2018), 204, 629-639. DOI:10.1016/j.saa.2018.06.098

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35. Peteni, Siwaphiwe; Nyokong, Tebello

Effect of doping vs covalent linking of a low symmetry zinc phthalocyanine to silica nanoparticles on singlet oxygen production

Inorganica Chimica Acta (2018), 482, 431-437.

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Electrospun 3,5-dithienylvinyleneBODIPY embedded polystyrene nanofibers for the photocatalytic degradation of azo dyes in industrial wastewaters

Journal of Porphyrins and Phthalocyanines (2018), 22(6), 501-508.

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37. Managa, Muthumuni; Britton, Jonathan; Prinsloo, Earl; Nyokong, Tebello
Effects of Pluronic F127 micelles as delivering agents on the *vitro* dark toxicity and photodynamic therapy activity of carboxy and pyrene substituted porphyrins
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An optical limiting study in aminophenoxy substituted phthalocyanine in the presence of semiconductor quantum dots

Journal of Luminescence (2018), 203, 247-256

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The photophysicochemical behavior of symmetric and asymmetric zinc phthalocyanines, surface assembled onto gold nanotriangles

New Journal of Chemistry (2018), 42(17), 14290-14299

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Publisher: Royal Society of Chemistry

<http://pubs.rsc.org/en/content/articlehtml/2018/nj/c8nj02746c>

40. Mpeta, Lekhetho S.; Fomo, Gertrude; Nyokong, Tebello
Click chemistry electrode modification using 4-ethynylbenzyl substituted cobalt phthalocyanine for applications in electrocatalysis

Journal of Coordination Chemistry (2018), 71(10), 1623-1638

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Effect of number of positive charges on the photophysical and photodynamic therapy activities of quarternary benzothiazole substituted zinc phthalocyanine

ISSN: 1010-6030

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Journal of Photochemistry and Photobiology A: Chemistry (2018), 367, 253-260

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42. Francis Chindeka, Philani Mashazi, Jonathan Britton, Gertrude Fomo, David O.

Oluwole,
Azole Sindelo, Tebello Nyokong
Optimizing phthalocyanine based dye-sensitized solar cells: The role of reduced graphene oxide
Synthetic Metals **246** (2018) 236–245
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43. George R. C., Nyoni S., Shumba M., Nyokong T.
Porphyrin nanorods modified glassy carbon electrode surface for oxygen reduction reaction catalysis
J. Chem Soc. Nigeria, Vol. 43, No. 1, pp 147 - 157 [2018]
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 π -Extended BODIPY Analogues: Synthesis, Electronic Structure, Potential Utility for *in vivo* Imaging Applications and Cytotoxicity
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Photophysical and *in vitro* Antibacterial Studies of 2,6-Dibromo-BODIPY Dye Substituted with Dithienylenevinylene at 3,5-Positions
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The investigation of *in vitro* dark cytotoxicity and photodynamic therapy effect of a 2,6-dibromo-3,5-distyryl BODIPY dye encapsulated in Pluronic® F-127 micelles
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Publisher: Taylor and Francis Group
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Effects of the carboxylic acid substituents on the photophysical and nonlinear optical properties of asymmetrical Zn(II) phthalocyanines–quantum dots conjugates
Inorganic and Nano-Metal Chemistry, **2018**, **48(6)**, 296–307
DOI: 10.1080/24701556.2018.1503684
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