

2012 Publications

1. M. Canlica, T. Nyokong
The synthesis and photophysical properties of 4,4'-isopropylidendioxydiphenyl substituted ball-type dinuclear Mg(II) and Zn(II) phthalocyanines
Polyhedron, 31 (1) (2012) 704-709
DOI: 10.1016/j.poly.2011.10.024
Webpage: <http://dx.doi.org/10.1016/j.poly.2011.10.024>
2. N. Sekkat, H. Van Den Bergh, T. Nyokong, N. Lange
Like a bolt from the blue: phthalocyanines in biomedical optics
Molecules 17 (2012) 98-144
Webpage: <http://www.mdpi.com/1420-3049/17/1/98>
3. R. Zugle, E. Antunes, S. Khene T. Nyokong
Photooxidation of 4-chlorophenol sensitized by lutetium tetraphenoxy phthalocyanine anchored on electrospun polystyrene polymer fiber
Polyhedron 33(1) (2012) 74-81
Webpage: <http://dx.doi.org/10.1016/j.poly.2011.11.005>
4. N. Nombona, K. Maduray, E. Antunes, A. Karsten, T. Nyokong
Synthesis of phthalocyanine conjugated with gold nanoparticles and liposomes for photodynamic therapy.
J. Photochem. Photobiol. B: Biol. 107 (2012) 35-44
Webpage: <http://dx.doi.org/10.1016/j.jphotobiol.2011.11.007>
5. N. Nombona, W. Chidawanyika, T. Nyokong
Spectroscopic and physicochemical behaviour of magnesium phthalocyanine derivatives mono-substituted with a carboxylic acid group
J. Mol. Stru. 1012 (2012) 31-36
Webpage: <http://dx.doi.org/10.1016/j.molstruc.2011.12.051>
6. S. Forteath, E. Antunes, W Chidawanyika, T. Nyokong
Unquenched fluorescence lifetime for β -phenylthio substituted zinc phthalocyanine upon conjugation to gold nanoparticles
Polyhedron 34(1) (2012) 114-120
Webpage: <https://www.researchgate.net/publication/257114810>
7. F. Bedioui, T. Nyokong, J.H. Zagal
Surface electrochemistry: structured electrode, synthesis, and characterization
Inter. J. Electrochem., Volume 2012, Article ID 405825, 1-2 (2 pages)
Webpage: <http://www.hindawi.com/journals/ijelc/2012/405825/>
8. K. Maduray, B. Odhav, T. Nyokong,
In vitro photodynamic effect of aluminum tetrasulfophthalocyanines on melanoma skin cancer and healthy normal skin cells.
Photodiagnosis and Photodynamic Therapy 9(1) (2012) 32-39.
Webpage: <http://dx.doi.org/10.1016/j.pdpdt.2011.07.001>
9. R. S. Walmsley, A. S. Ogunlaja, M. J. Coombes, W. Chidawanyika, C. Litwinski, N. Torto, T. Nyokong, Z. R. Tshentu
Imidazole-functionalized polymer microspheres and fibers – useful materials for immobilization of oxovanadium(IV) catalysts

J. Mat. Chem. 22(12) (2012), 5792-5800

Webpage: <http://pubs.rsc.org/en/content/articlehtml/2012/jm/c2jm15485d>

10. O. Adegoke, E. Hosten, C. McClelland, T. Nyokong
CdTe quantum dots functionalized with 4-amino-2,2,6,6-tetramethylpiperidine-N-oxide as luminescent nanoprobe for the sensitive recognition of bromide ion
Anal. Chim. Acta, 721 (2012) 154-161

Webpage: <http://dx.doi.org/10.1016/j.aca.2012.01.040>

11. N. Nombona, E. Antunes, W. Chidawanyika, P. Kleyi, Z. Tshentu, T. Nyokong
Synthesis, photophysics and photochemistry of phthalocyanine-?-polylysine conjugates in the presence of metal nanoparticles against Staphylococcus aureus
J. Photochem. Photobiol. A: Chem. 233 (2012) 24-33

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12. Z. Iqbal, N. Masilela, T. Nyokong, A. Lyubimtsev, M. Hanack, T. Ziegler
Spectral, photophysical and photochemical properties of tetra- and octaglycosylated zinc phthalocyanines

Photochem. Photobiol. Scie 11 (4) (2012) 679 – 686

Webpage: <http://pubs.rsc.org/en/content/articlehtml/2012/pp/c2pp05348a>

13. T. Mugadza, Y. Arslano?lu and T. Nyokong
Characterization of 2,(3)-tetra-(4-oxo-benzamide) phthalocyaninato cobalt (II) with single walled carbon nanotube conjugate platforms and their use in electrocatalysis of amitrole
Electrochim. Acta 68 (2012) 44– 51

Webpage: <http://dx.doi.org/10.1016/j.electacta.2012.02.041>

14. R. Zügler and T. Nyokong

Electrospun polyacrylic acid polymer fibers functionalized with metallophthalocyanines for photosensitizing and gas sensing applications

J. Macro. Mol. Scie. A 49 (4) (2012) 279-287

Webpage: <http://dx.doi.org/10.1080/10601325.2012.662006>

15. M. Coates, H. Elamari, C. Girard; S. Griveau; T. Nyokong, F. Bedioui
4-Azidoaniline-based electropolymer as a building block for functionalisation of conductive surfaces

J. Electroanal. Chem 670 (2012) 79–84

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16. O. Adegoke, W. Chidawanyika, T. Nyokong

Interaction of CdTe quantum dots with 2,2-diphenyl-1-picrylhydrazyl free radical: a spectroscopic, fluorimetric and kinetic study.

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17. R. Zügler, T. Nyokong

Physico-chemical properties of lutetium phthalocyanine complexes in solution and in solid polystyrene polymer fibers and their application in photoconversion of 4-nitrophenol

J. Mol. Cat. A: Chem. 358 (2012) 49-57

Webpage: <http://dx.doi.org/10.1016/j.molcata.2012.02.010>

18. T. P. Mthethwa, Y. Arslano?lu , E. Antunes, T. Nyokong

Photophysical behaviour of cationic 2-(dimethylamino) ethanethio tetrasubstituted phthalocyanine complexes in the presence of gold nanoparticles
Polyhedron, 38(1) (2012) 169-177
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19. S. Khene, T. Nyokong
Single walled carbon nanotubes functionalized with nickel phthalocyanines: effects of point of substitution and nature of functionalization on the electro-oxidation of 4-chlorophenol.
J. Porphyrins Phthalocyanines 16(1) (2012) 130-139
Webpage: <http://dx.doi.org/10.1142/S1088424611004439>

20. A. Tuhl, W. Chidawanayika, H. M. Ibrahim, N. Al-Awadi, C. Litwinski, T. Nyokong, H. Behbehani, H. Manaa and S. Makhseed
Tetra and octa(2,6-di-iso-propylphenoxy)-substituted phthalocyanines: a comparative study among their photophysicochemical properties
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Webpage: <http://dx.doi.org/10.1142/S1088424612004495>

21. S. Forteach, E. Antunes, W. Chidawanyika, T. Nyokong
Synthesis and photophysical behavior of a novel zinc phthalocyanine containing a single carboxylic acid and three phenylthio substituents
J. Luminescence 132(9) (2012) 2318-2324
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Photophysical behavior of fluorescent nanocomposites of phthalocyanine linked to quantum dots and magnetic nanoparticles
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24. J.F. Zhao, J. Wang, J-Y. Chen, W. Chidawanykia, T. Nyokong, K Ishii, N. Kobayashi
Gallium phthalocyanine photosensitizers: carboxylation enhances the cellular uptake and improves the photodynamic therapy of cancers
Anti-Cancer Agents in Medicinal Chemistry 12 (6) (2012) 604-610
Webpage: <https://doi.org/10.2174/187152012800617740>

25. F. Matemadombo, C. Apetrei, T. Nyokong, M.L. Rodríguez-Méndez, J. Antonio de Saja
Comparison of carbon screen-printed and disk electrodes in the detection of antioxidants using CoPc derivatives
Sensors and Actuators B: Chemical 166-167 (2012) 457-466
Webpage: <http://dx.doi.org/10.1016/j.snb.2012.02.088>

26. R-M. Ion, T. Nyokong, G. Gyulkhandanyan, D. Wrobel
Photomedicine and photo nanosystems,
International Journal of Photoenergy, vol. 2012, Article ID 127309, 1 pages, 2012.
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27. S. Adewuyi, D. A. Ondigo, R. Zugle, Z. Tshentu, T. Nyokong and N. Torto
A highly selective and sensitive pyridylazo-2-naphthol-poly(acrylic acid)
functionalized electrospun nanofiber fluorescence "turn-off" chemosensory
system for Ni²⁺
Analytical Methods, 4(6) (2012), 1729 – 1735
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Photophysics and photochemistry of octaglycosylated zinc phthalocyanine derivatives
J. Porphyrins Phthalocyanines 16(4) (2012) 413-422
Webpage: <http://dx.doi.org/10.1142/S1088424612500630>
29. S. Tombe, W. Chidawanyika, E. Antunes, G. Priniotakis, P. Westbroek, T. Nyokong
Physicochemical behavior of zinc tetrakis (benzylmercapto) phthalocyanine when used to
functionalize gold nanoparticles and in electrospun fibers
J. PhotoChem. Photobiol. A: Chem. 240 (2012) 50-58
Webpage: <http://dx.doi.org/10.1016/j.jphotochem.2012.05.011>
30. Y. Arslanoğlu, M. Idowu, T. Nyokong
Synthesis and photophysical properties of peripherally and non-peripherally mercaptopyrindine
substituted metal free, Mg(II) and Al(III) phthalocyanines
Spectrochim Acta Part A: Molecular and Biomolecular Spectroscopy 95 (2012) 407-413
Webpage: <http://www.sciencedirect.com/science/article/pii/S1386142512003563>
31. N. Malinga, O. Dolotova, R. Bulgakov, E. Antunes, T. Nyokong
Synthesis and physicochemical behaviour of aluminium trikis and tetrakis (diaquaplatinum)
octacarboxyphthalocyanine
Dyes Pigm. 95(3) (2012) 572-579
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32. M. Canlica, A. Altındal, T. Nyokong
The synthesis, photophysical and dielectric properties of ball-type dinuclear zinc phthalocyanine
J. Porphyrins Phthalocyanines, 16(7-8) (2012) 826-832
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J. Porphyrins Phthalocyanines 16(7-8) (2012) 833-844
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Photophysical and photochemical properties of novel phthalocyanines bearing non-peripherally
substituted mercaptoquinoline moiety
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35. M. Canlica, M. Coşkun, A. Altındal, T. Nyokong
Schottky barrier diode parameters of Ag/MgPc/p-Si structure
J. Porphyrins Phthalocyanines, 16(7-8) (2012) 855-860
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36. S. Vilakazi, T. Nyokong, T. Fukuda, N. Kobayashi
Electrocatalytic behavior of cobalt phthalocyanine complexes immobilized on glassy carbon
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Molecular catalysis of oxygen reduction reaction by iron porphyrin catalysts tethered into Nafion layers: an electrochemistry study in solution and a membrane-electrode-assembly study in fuel cells

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38. Q. He, T. Mugadza, G. Hwang, T. Nyokong
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Int. J. Electrochem. Sci., 7(8) (2012) 7045 – 7064

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39. N. Nombona, T. Nyokong

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Inorg. Chim Acta, 392 (2012) 380-387

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40. A. Schwarz, J. Hakuzimana, P. Westbroek, G. De Mey, G. Priniotakis, T. Nyokong and L. Van Langenhove

A study on the morphology of thin copper films on para-aramid yarns and their influence on the yarn's electro-conductive and mechanical properties

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41. M. Coates, S. Griveau, F. Bedioui, T. Nyokong

Layer by layer electrode surface functionalisation using carbon nanotubes, electrochemical grafting of azide-alkyne functions and click chemistry

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The photophysical and energy transfer behaviour of low symmetry phthalocyanine complexes conjugated to coreshell quantum dots; an energy transfer study

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Facile deposition of gold nanoparticle thin films on semi-permeable cellulose substrate.

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44. A.S. Ogunlaja, W. Chidawanyika, E Antunes, M.A. Fernandes, T. Nyokong, N. Torto and Z.R. Tshentu

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51. R.A. Bulgakov, N.A. Kuznetsova, O.V. Dolotova, E.N. Shevchenko, A.D. Plyutinskaya, O.L. Kaliya, T. Nyokong
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