

# 2009 Publications

## 1. N. Nombona and T. Nyokong

Synthesis, cyclic voltammetry and spectroelectrochemical studies of Co (II) phthalocyanines tetra-substituted at the  $\alpha$  and  $\beta$  positions with phenylthio groups.

Dyes and Pigments 80 (2009) 130-135.

## 2. N. Masilela, M. Idowu and T. Nyokong

Photophysical, photochemical and electrochemical properties of water soluble silicon, titanium and tin Metallophthalocyanines.

J. Photochem. Photobiol. A: Chem., 201 (2009) 91-97.

## 3. S. Moeno, and T.Nyokong

Opposing Responses elicited by Positively Charged Phthalocyanines in the presence of CdTe Quantum Dots.

J. Photochem. Photobiol. A:Chem. 201 (2009) 228-236.

## 4. M. Idowu and T. Nyokong

Synthesis, photophysical and photochemical studies of water soluble cationic zinc phthalocyanine derivatives.

Polyhedron 28 (2009) 416-424.

## 5. M. Idowu and T. Nyokong

Interaction of water soluble CdTe quantum dots with octacarboxy metallophthalocyanines: A photophysical and photochemical study.

J. Luminescence, 129 (2009) 356-362

## 6. O. Köysal, M. Okutan, S. Eren San, T. Nyokong and M. Durmu?

Diffraction efficiency and I-V characteristics of metal-free phthalocyanine doped nematic liquid crystals.

Material Chemistry and Physics 114 (2009) 815-829

## 7. D. K. Modibane and T. Nyokong

Synthesis, photophysical and photochemical properties of octa-substituted antimony phthalocyanines.

Polyhedron, 28 (2009) 479-484

## 8. W. Chidawanyika and T Nyokong

Spectroscopic and photophysicsochemical behaviour of novel cadmium phthalocyanine derivatives tetra-substituted at the alpha and beta positions.

J. Photochem. PhotoBiol. A: Chem, 202 (2009) 99-106.

## 9. J.H. Zagal, S. Griveau, K.I. Ozoemena, T. Nyokong, and F. Bediou

Carbon nanotubes, phthalocyanines and porphyrins: attractive hybrid materials for electrocatalysis and electroanalysis.

Journal for nanoscience and nanotechnology 9 (2009) 2201-2214

## 10. E. Antunes, T. Nyokong

Synthesis and photophysical behaviour of axially substituted phthalocyanine, tetrabenzotriazaporphyrin and triazatetrabenzcorrole phosphorous complexes.

J. Porphyrins Phthalocyanines, 13 (2009) 153-160

## 11. M. Idowu and T. Nyokong

Study of the photophysical behaviour of tetrasulfonated metallophthalocyanines in the presence of CdTe quantum dots.  
Polyhedron, 28 (2009) 891-896

12. M. Durmu?, A. Erdo?mu?, A. Ogunsipe, and T. Nyokong  
The synthesis, photophysicochemical behaviour of new water-soluble cationic indium (III) phthalocyanine.  
Dyes and pigments. 89 (2009) 244-250. Hot paper status
13. S. Moeno and T. Nyokong  
Solvent and central metal effects on the photophysical and photochemical properties of peripherally tetra mercaptopyridine substituted metallophthalocyanines.  
J. Photochem. Photobiol. A: Chem. 203 (2009) 204-210
14. M. Idowu and T. Nyokong  
Photophysicochemical and fluorescence quenching studies of tetra- and octa-carboxy substituted silicon and germanium phthalocyanines.  
J. Photochem. Photobiol. A: Chem 204 (2009) 63-68
15. N. Nombona, D.A. Geraldo, J. Hakuzimana, P. Westbroek and T. Nyokong  
Comparative electrocatalytic behavior of self-assembled monolayer of thiol derivatised Co (II) phthalocyanines on gold disk, ultramicro cylinder and fiber electrodes.  
J. Appl. Electrochem. 39(5) (2009) 727-737
16. T.B. Ogunbayo, A. Ogunsipe and T. Nyokong  
Syntheses, characterization and fluorescence spectra of Novel octakis(alkylthiophthalocyanato) nickel(II) and palladium(II) complexes.  
Dyes and Pigments 82 (2009) 422-426.
17. D. K. Modibane and T. Nyokong  
Synthesis, photophysical and nonlinear optical properties of 4-tetra and octa-substituted lead phthalocyanines.  
Polyhedron, 28 (2009) 1475-1480.
18. A. Erdo?mu?, A. Ogunsipe and T. Nyokong  
Synthesis, Photophysics and Photochemistry of Novel Tetra(quinoxalinyl)phthalocyaninato zinc(II) Complexes.  
J. Photochem. Photobiol. A: Chem. 205 (2009) 12-18
19. F. Matemadombo, M. Durmu?, C. Togo, J. Limson and T. Nyokong  
Characterization of manganese tetraalkylthiosubstituted phthalocyanines self assembled monolayers.  
Electrochim. Acta, 54 (2009) 5557-5565
20. K.I. Ozoemena, R-I Stefan-van Staden and T. Nyokong  
Metallophthalocyanine Based Carbon Paste Electrodes for the Determination of 2',3'-Dideoxyinosine.  
Electroanalysis 21(14) (2009), 21, 1651 – 1654
21. K.I. Ozoemena, S.A. Mamuru, T. Fukuda, N. Kobayashi and T. Nyokong  
Metal (Co, Fe) Tribenzotetraazachlorin –Fullerene Conjugates: Impact of direct  $\pi$ -bonding on the redox behaviour and oxygen reduction reaction.  
Electrochim. Comm. 11(6) (2009) 1221-1225.

22. G. Mbambisa, N. Nombona and T. Nyokong  
The formation of self-assembled monolayers of thiophthalocyanine complexes of titanium , vanadium and manganese and their use in L-cysteine electrocatalysis.  
Microchem. J. 93 (2009) 60–66.
23. W. Chidawanyika, and T. Nyokong  
The synthesis and spectroscopic study of low-symmetry phthalocyanine analogues and their photophysicochemical properties.  
J. PhotoChem. PhotoBiol. A Chem: 206 (2009) 169-176.
24. N. Saydan, M. Durmu?, M. G. Dizge, H. Yaman, A.G. Gürek, E. Antunes, V. Ahsen and T. Nyokong  
Water soluble phthalocyanines mediated photodynamic effect on mesothelioma cells.  
J. Porphyrins Phthalocyanines 13 (2009) 681-690
25. T. Mugadza and T. Nyokong,  
Synthesis and characterization of electrocatalytic conjugates of tetraamino cobalt (II) phthalocyanine and single wall carbon nanotubes.  
Electrochim Acta, 54 (2009) 6347-6353
26. T.B. Ogunbayo and T. Nyokong  
Synthesis and Pd(II) binding studies of octasubstituted alkyl thio derivatised phthalocyanines.  
Polyhedron, 28 (13) (2009) 2710-2718
27. A. Erdo?mu? and T. Nyokong  
New soluble methylenedioxy-phenoxy-substituted zinc phthalocyanine derivatives: synthesis, photophysical and photochemical studies. HOT PAPER Status  
Polyhedron, 28 (2009) 2855-2862
28. I.A. Akinbulu and T. Nyokong  
Synthesis, spectroscopic and electrochemical properties of manganese, nickel and iron octakis-(2-diethylaminoethanethiol)-phthalocyanine.  
Polyhedron, 28 (2009) 2831-2838
29. J. Britton, E. Antunes and T. Nyokong  
Fluorescence studies of quantum dots and zinc tetraamino phthalocyanine conjugates.  
Inorg. Chem. Commun 12 (2009) 828-831
30. F. Matemadombo, M. Durmu?, V. Escriou, S. Griveau, F. Bedioui and T. Nyokong  
Manganese phthalocyanines as superoxide dismutase mimics.  
Current Analytical Chemistry 5 (2009) 330-338.
31. I.A. Akinbulu and T. Nyokong  
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32. R .C. George, M. Durmus, G.O. Egharevba and T. Nyokong  
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Polyhedron 28 (2009) 3621-3627.

33. A. Erdo?mu?, and T. Nyokong  
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34. S. Khene, K. Lobb and T. Nyokong  
Characterization of nickel tetrahydroxy phthalocyanine complexes and the electrocatalytic oxidation of 4-chlorophenol: Correlation of theory with experiments.  
*Inorg. Chim. Acta*, 362 (2009) 5055-5063.
35. F. Matemadombo, N. Sehloho and T. Nyokong  
Effect of number of ring substituents of cobalt carboxyphthalocyanines on the electrocatalytic detection of nitrite, cysteine and melatonin.  
*J. Porphyrins Phthalocyanines*, 13 (2009) 986-997
36. W. Chidawanyika, J. Mack, S. Shimizu, N. Kobayashi and T. Nyokong  
Effect of peripheral fused ring substitution on the optical spectroscopy and electronic structure of metal phthalocyanine complexes.  
*J. Porphyrins Phthalocyanines* 13 (2009) 1053–1062
37. G. Ochoa, D. Geraldo, C. Linares, T. Nyokong, F. Bedioui and J. H. Zagal  
Tuning the Formal Potential of Metallomacrocyclics for Maximum Catalytic Activity For the Oxidation of Thiols and Hydrazine  
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