

2024 Publications

1. Azole Sindelo, Tebello Nyokong

Photoinactivation of microorganisms and photodegradation of pollutants using phthalocyanines supported on nanofibers and glass wool

Journal of Photochemistry & Photobiology, A: Chemistry 447 (2024) 115236 (1-12)

DOI: 10.1016/j.jphotochem.2023.115236

<https://doi.org/10.1016/j.jphotochem.2023.115236>

2. Siphumelele Thandokwazi Mkhondwane , Sithi Mgidlana , Tebello Nyokong

Asymmetric phthalocyanine-graphitic carbon nitride nanosheets conjugate on zinc oxide fibers for combined ultrasound and visible light driven degradation of Rhodamine 6G

Journal of Photochemistry & Photobiology, A: Chemistry 447 (2024) 115245 (1-12)

DOI: 10.1016/j.jphotochem.2023.115245

<https://doi.org/10.1016/j.jphotochem.2023.115245>

3. Mbulelo Jokazi and Tebello Nyokong

Electrochemical Sensing and Photoelectrodegradation of Pentachlorophenol using Co-, Mn- and Zn-Porphyrins

ChemElectroChem 11 (2024) e202300364 (1-16)

DOI: doi.org/10.1002/celc.202300364

<https://doi.org/10.1002/celc.202300364>

4. Gugu Kubheka, John Mack and Tebello Nyokong

Effect of π -extension and halogenation on the optical limiting properties of meso-pyrenylBODIPY dyes

Journal of Porphyrins and Phthalocyanines; 28 (2024): 61–71

DOI: 10.1142/S1088424623501274

<https://doi.org/10.1142/S1088424623501274>

5. Aviwe K. May, Bokolombe P. Ngoy, John Mack and Tebello Nyokong

Photodynamic antimicrobial activities of a series of meso-substituted 2,6-dibrominated 1,3,5,7-tetramethylBODIPY dyes

Journal of Porphyrins and Phthalocyanines (28) 2024 88-96

DOI: 10.1142/S1088424623501316

<https://doi.org/10.1142/S1088424623501316>

6. James Oyim, Mbulelo Jokazi, John Mack, Edith Amuhaya and Tebello Nyokong

Indium porphyrin - colloidal activated carbon composites for photocatalytic activity against an organic pollutant and bacteria

Polyhedron 253 (2024) 116918 (1-12)

DOI: 10.1016/j.poly.2024.116918

<https://doi.org/10.1016/j.poly.2024.116918>

7. N. Bridged Magaela, Muthumuni Managa, Tebello Nyokong

The synthesis of 5,10,15,20-tetra pentafluorophenyl porphyrin loaded onto spermine modified carbon nanospheres for enhanced cancer selectivity in photodynamic therapy

Journal of Molecular Structure 1306 (2024) 137898 (1-10)

DOI: 10.1016/j.molstruc.2024.137898

<https://doi.org/10.1016/j.molstruc.2024.137898>

8. Siphumelele Thandokwazi Mkhondwane, Sithi Mgidlana, Yolande Openda, Nnamdi Nwahara, Tebello Nyokong
Phthalocyanine conjugated manganese ferrite nanoparticles embedded in TiO₂ fibers for photo-, sono- and photosono-catalytic degradation of Rhodamine 6G

Catalysis Today 432 (2024) 114644

DOI: 10.1016/j.cattod.2024.114644

<https://doi.org/10.1016/j.cattod.2024.114644>

9. Athi Welsh, Refilwe Matshitse, Saif F. Khan, Tebello Nyokong, Sharon Prince, Gregory S. Smith

Trinuclear ruthenium(II) polypyridyl complexes: Evaluation as photosensitizers for enhanced cervical cancer treatment

Journal of Inorganic Biochemistry 256 (2024) 112545 (1-10)

DOI: 10.1016/j.jinorgbio.2024.112545

<https://doi.org/10.1016/j.jinorgbio.2024.112545>

10. Shahid U. Khan, Refilwe Matshitse, Rituraj Borah, Manjunatha Nemakal, Ekaterina O. Moiseeva, Tatiana V. Dubinina, Tebello Nyokong, Sammy W. Verbruggen and Karolien De Wael

Coupling of phthalocyanines with plasmonic gold nanoparticles by click chemistry for an enhanced singlet oxygen based photoelectrochemical sensing

ChemElectroChem 2024, e202300677 (1 of 10)

doi.org/10.1002/celc.202300677

<https://doi.org/10.1002/celc.202300677>

11. T Nyokong, S Greed

The power of putting education first

Nature Reviews Chemistry 8 (2024) 295–296

DOI: 10.1038/s41570-024-00604-3

<https://pubmed.ncbi.nlm.nih.gov/38684919/>

12. N. Bridged Magaela, Mahlatse M. Ledwaba, Nonkululeko Malomane, John Mack, Tebello Nyokong and Muthumuni Managa

Photodynamic inactivation of Staphylococcus aureus and Escherichia coli with free-base and indium(III) 5,10,15,20-tetrakis(4-pyridyl) porphyrin adsorbed onto single-walled carbon nanotubes

Journal of Porphyrins and Phthalocyanines 28 (2024) 260–271

DOI: 10.1142/S1088424624500202

<https://doi.org/10.1142/S1088424624500202>

13. Siphumelele Mkhondwane, Godfred Sebiawu, Sithi Mgidlana, Yolande Openda, Nnamdi Nwahara, John Mack, Tebello Nyokong

Photosono activation of peroxymonosulfate using A₃B phthalocyanines supported on titanium dioxide nanofibers for degradation of Rhodamine 6G

Synthetic Metals 307 (2024) 117699 (1-16)

DOI: 10.1016/j.synthmet.2024.117699

<https://doi.org/10.1016/j.synthmet.2024.117699>

14. T. Nagarajan, M. P. Gayathri, John Mack, Tebello Nyokong, Sutharsan Govindarajan and Balaji Babu

Blue-Light-Activated Water-Soluble Sn(IV)-Porphyrins for Antibacterial Photodynamic Therapy (aPDT) against Drug-Resistant Bacterial Pathogens

Molecular Pharmaceutics 2024, 21, 2365–2374

DOI: 10.1021/acs.molpharmaceut.3c01162

<https://doi.org/10.1021/acs.molpharmaceut.3c01162>

15. Rodah C. Soy, Donovan Mafukidze, John Mack and Tebello Nyokong

The Photodynamic Antibacterial Activity Properties of a Series of Indium(III) Porphyrins and their Gold and Silver Nanoparticle Conjugates

European Journal of Inorganic Chemistry (2024), 27, e202400072 (1 of 14)

DOI: doi.org/10.1002/ejic.202400072

<https://doi.org/10.1002/ejic.202400072>

16. Giday G. Welegergs, Abera D. Ambaye, Mbulelo Jokazi, Nnamdi Nwahara and Tebello Nyokong

Bioengineering of one dimensional hierarchical Cu₇S₄ hollow nanotubes for non-enzymatic glucose sensing applications

RSC Advances (2024), 14, 27122–27131

DOI: 10.1039/d4ra05199h

<https://doi.org/10.1039/d4ra05199h>

17. Rodah C. Soy, Pertunia R. Macigane, John Mack and Tebello Nyokong

Photodynamic antibacterial chemotherapy activities of P(V) and Ga(III) triarylcorroles and their silver nanoparticle conjugates

Journal of Porphyrins and Phthalocyanines 28 (2024), 469–486

DOI: 10.1142/S1088424624500408

<https://doi.org/10.1142/S1088424624500408>

18. Rodah C. Soy, Balaji Babua, John Mack, and Tebello Nyokong

Photodynamic anticancer and antibacterial properties of a series of Sn(IV) tetraarylporphyrins

Journal of Porphyrins and Phthalocyanines 28 (2024) 601–617

DOI: 10.1142/S1088424624500275

<https://doi.org/10.1142/S1088424624500275>