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-pyrenylBODIPYdyes
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 TiO_2 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 Nyokonga 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 A_3B 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 Cu_7S_4 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 Babu, 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

19. John Mack, Gugu Kubheka, Aviwe May, Bokolombe P. Ngoy and Tebello Nyokong
BODIPY dyes for optical limiting applications on the nanosecond timescale
Dalton Transactions, 2024, 53, 17766–17771
DOI: 10.1039/D4DT02505A
https://doi.org/10.1039/D4DT02505A

20. Akwesi Ndundu, Nthabeleng R. Molupe, Azole Sindelo, Lohohola Osomba, Malongwe K'Ekuboni, Bokolombe P. Ngoy, John Mack and Tebello Nyokong
Antimicrobial Photodynamic Therapy Activity Properties of 2,6-Brominated and -Iodinated BODIPY Core Dyes and their π-Extended 3,5-Distyryl Analogues
Macroheterocycles 17(4) (2024) 306-314
DOI: 10.6060/mhc245998n
https://doi.org/10.6060/mhc245998n

21. Zipho Samuel, Mbulelo Jokazi, Nnamdi Nwahara and Tebello Nyokong
Nitrite electrochemical sensing using Cu centred porphyrin functionalized TiO_2 nanoparticles modifed glassy carbon electrode
Journal of Applied Electrochemistry (2024) 1-16
DOI: 10.1007/s10800-024-02232-7
https://doi.org/10.1007/s10800-024-02232-7