

2025 Publications

1. James Oyim, Aviwe Magadla, John Mack, Edith Amuhaya, Tebello Nyokong
Expanding the horizons of photodynamic therapy: Indium metalated pyridinyl-based *trans*-A₂B₂ porphyrin as novel anti-biofilm agents
Dyes and Pigments 232 (2025) 112448 (1-13)
DOI: 10.1016/j.dyepig.2024.112448
<https://doi.org/10.1016/j.dyepig.2024.112448>
2. Mbulelo Jokazi , Sixolile Centane , Philani Mashazi , Tebello Nyokong
Photoelectrodegradation and sensing of pentachlorophenol using In and Mn metalated porphyrins in the presence of TiO₂ nanoparticles
Journal of Photochemistry & Photobiology, A: Chemistry 460 (2025) 116118 (1-13)
DOI: 10.1016/j.jphotochem.2024.116118
<https://doi.org/10.1016/j.jphotochem.2024.116118>
3. Vuyokazi Nobatana, James Oyim, Nnamdi Nwahara, Earl Prinsloo, Tebello Nyokong
The potential of photodynamic therapy combined with hyperthermia using porphyrin-nanomaterial hybrids against the triple-negative breast cancer cell line
Polyhedron 267 (2025) 117341 (1-12)
DOI: 10.1016/j.poly.2024.117341
<https://doi.org/10.1016/j.poly.2024.117341>
4. N. Bridged Magaela, Muthumuni Managa and Tebello Nyokong
Gold-silver bimetallic nanoparticles conjugated to asymmetric porphyrin for photodynamic therapy against triple negative breast cancer
Journal of Luminescence 280 (2025) 121065 (1-12)
DOI: 10.1016/j.jlumin.2025.121065
<https://doi.org/10.1016/j.jlumin.2025.121065>
5. Mbulelo Jokazi, Mope Edwin Malefane, Tracy Giota Tebogo Moraba, Thabo Thokozani Innocent Nkambule, Alex Tawanda Kuvarega, Tebello Nyokong, Muthumuni Managa
Photocatalytic activity of MnCl and Cu 5,10,15,20-Tetrakis(4-aminophenyl) porphyrins conjugated to graphene quantum dots against Rhodamine B dye using visible light
Journal of Water Process Engineering 71 (2025) 107188
DOI: 10.1016/j.jwpe.2025.107188
<https://doi.org/10.1016/j.jwpe.2025.107188>
6. Vuyokazi Nobatana, James Oyim, Nnamdi Nwahara, Azole Sindelo, Tebello Nyokong
The photodynamic anti-cancer and anti-bacterial behaviour of meso-substituted *trans*-A₂B₂ porphyrin conjugated silica-gold nanoparticles
Inorganica Chimica Acta 579 (2025) 122584 (1-13)
DOI: 10.1016/j.ica.2025.122584
<https://doi.org/10.1016/j.ica.2025.122584>
7. Siphumelele Thandokwazi Mkhondwane , Tebello Nyokong
The use of phthalocyanines@g-C₃N₄ nanosheets conjugates supported on TiO₂ fibers for photosono-catalytic degradation of rhodamine 6G
Diamond & Related Materials 153 (2025) 112067

DOI: 10.1016/j.diamond.2025.112067
<https://doi.org/10.1016/j.diamond.2025.112067>

8. Isaac Mulaudzi, Lekhetho Mpetla, Refilwe Matshitse, Francis Chindeka and Tebello Nyokong

The effect of reduced graphene oxide and exfoliated graphite on dye sensitized solar cells containing octa carboxylic acid Cu phthalocyanine

Journal of Coordination Chemistry 78, No. 4 (2025) 386–397

DOI: 10.1080/00958972.2024.2442078

<https://doi.org/10.1080/00958972.2024.2442078>

9. Lunathi Ncwane, Philani Mashazi, Tebello Nyokong

Phthalocyanine based metal organic frameworks for electrochemical detection of human epidermal growth factor receptor 2

Bioelectrochemistry 265 (2025), 108966 (1-9)

DOI: 10.1016/j.bioelechem.2025.108966

<https://doi.org/10.1016/j.bioelechem.2025.108966>

10. Le Mi, Tao Xu, Ying-Yuan Peng, Marina G. Strakhovskaya, Yi-Jing Zhang, Gennady A. Meerovich, Tebello Nyokong, Yi-Jia Yan, Zhi-Long Chen

Tetracationic tetraaryltetranaphtho[2,3]porphyrins for photodynamic inactivation against *Staphylococcus aureus* biofilm

European Journal of Medicinal Chemistry 290 (2025) 11755 (1-10)

DOI: 10.1016/j.ejmech.2025.117558

<https://doi.org/10.1016/j.ejmech.2025.117558>

11. Gugu Kubheka, Temlandvo M. Magwaza, John Mack, Tebello Nyokong and Zhen Shen

Optical limiting properties of a 1,3,5,7-tetraaryl-azaBODIPY dye and its silver nanoparticle conjugate

Journal of Porphyrins and Phthalocyanines 29 (2025) 71–83

DOI: 10.1142/S1088424624500718

<https://doi.org/10.1142/S1088424624500718>

12. John Mack, Zine Gwaji, Liyema Makeleni, Nagao Kobayashi and Tebello Nyokong

Application of Michl's 4N+2 perimeter model: Effect of N- and neo-confusion, and reduced pyrrole and direct pyrrole-pyrrole bonds on the optical spectra of free base porphyrinoids

Journal of Porphyrins and Phthalocyanines 29 (2025) 134–145

DOI: 10.1142/S108842462550004X

<https://doi.org/10.1142/S108842462550004X>

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

Bismuth doped carbon nanospheres conjugated to boronated porphyrins for photodynamic therapy

Photodiagnosis and Photodynamic Therapy 53 (2025) 104567 (1-13)

DOI: 10.1016/j.pdpdt.2025.104567

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