

RHODES UNIVERSITY, MAKHANDA, SOUTH AFRICA

STUDENT INFORMATION



MR SHAKHOLA EMMANUEL SEKELEME (MASTERS STUDENT STUDENT) STUDENT NO: 19S8442 SUPERVISOR: PROFESSOR JOHN MACK/DISTINGUISHED PROFESSOR TEBELLO NYOKONG

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EDUCATION DETAILS:

BSc Honours (Chemistry) currently – Rhodes University, Makhanda, Grahamstown BSc (Chemistry and Geology) 2022 – Rhodes University, Makhanda, Grahamstown

RESEARCH TITLE/PROJECT:

Evaluation of photodynamic activity of meso-aryl (4-bromo-thien-2ryl) - substituted photosensitizer dyes and their gold nanoparticle conjugates in dual modalits of photodynamic therapy (PDT) and PACT

PUBLICATIONS:

 Yong Liu, Yue Wang, Ning Feng, Minzhi Li, Shakhola E. Sekeleme, John Mack, Tebello Nyokong, Xifeng Zhang, Weihua Zhu, Xu Liang Microenvironment modulation of amide-bonded Metalloporphyrins functionalized gold electrodes for accelerating Electrocatalyzed hydrogen evolutions Molecular Catalysis 582 (2025) 115173 (1-12) DOI: 10.1016/j.mcat.2025.115173 https://doi.org/10.1016/j.mcat.2025.115173

CONFERENCES/WORKSHOPS:

DSI/Mintek Nanotechnology Innovation Centre (NIC) Annual Workshop South African Medical Research Council (MRC), 11-12 October 2023 Poster Presentation Shakhola E. Sekeleme, Pertunia R. Macigane, John Mack, Tebello Nyokong

4-Bromo-thien-2-yl-substituted porphyrin, chlorin and bacteriochlorin photosensitizer dyes and their gold nanoparticle conjugates for photodynamic antimicrobial chemotherapy