

RHODES UNIVERSITY, GRAHAMSTOWN, SOUTH AFRICA

STUDENT INFORMATION



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CONTACT DETAILS:

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EDUCATION DETAILS:

PhD (Chemistry) currently - Rhodes University, Makhanda, South Africa MSc (Chemistry) 2020 – University of Zululand, South Africa BScH (Chemistry) 2017 – University of Zululand, South Africa BSc (Chemistry and Biochemistry) 2016 – University of Zululand, South Africa

PUBLICATIONS:

1. S.T. Mkhondwane, V.S.R. Rajasekhar Pullabhotla, Highly selective pH-dependent ozonation of cyclohexane over Mn/2-Al2O3 catalysts at ambient reaction conditions, Catalysts, 9 (2019) 958.

- 2. S.T. Mkhondwane, V.S.R. Rajasekhar Pullabhotla, Ozone initiated pH dependent oxidation of cyclohexane over Fe supported SiO2 and 🛽-Al2O3 catalysts, Catalysis Today, Submitted.
- 3. Siphumelele Thandokwazi Mkhondwane, Refilwe Matshitse and Tebello Nyokong Porphyrin-graphitic carbon nitride quantum dots decorated on titanium dioxide electrospun nanofibers for photocatalytic degradation of organic pollutants

Journal Of Coordination Chemistry (2022) 75 (15–16), 2150–2169

DOI: 10.1080/00958972.2022.2132153

https://doi.org/10.1080/00958972.2022.2132153

4. Siphumelele Thandokwazi Mkhondwane, Sithi Mgidlana, Yolande Ikala Openda, Lindokuhle Nene, Tebello Nyokong

Photosono catalytic behaviour of phthalocyanine when supported on electrospun nanofibers: The effect of radical initiators

Synthetic Metals 299 (2023) 117484 (1-12)

DOI: 10.1016/j.synthmet.2023.117484

https://doi.org/10.1016/j.synthmet.2023.117484

5. 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

CONFERENCES/WORKSHOPS:

- 1. Oral presentation, **Faculty of Science and Agriculture symposium**, 2018, University of Zululand Science Centre.
- 2. Oral presentation, **CGPMB international conference on genometrics and proteometrics**, 2019, KZN,

UMfolozi Casino.

- 3. Poster presentation, Catalysis Society of South Africa (CATSA), 2019, Cape Town, Langebaan, Club Mykonois.
- 4. 12th International Conference on Porphyrins & Phthalocyanines (ICPP-12) Madrid, Spain 10-15 July 2022

Oral Presentation:

Siphumelele Mkhondwane, Refilwe Martshitse and Tebello Nyokong

TiO2 electrospun nanofibers decorated with conjugates of porphyrin with graphitic carbon nitride quantum dots for photodegradation of organic pollutants.

5. 11th Nanosciences Young Researchers' Symposium (NYRS – 2023)

Nelson Mandela University, 7 Sept 2023

Poster Presentation

S Mkhondwane, S Mgidlana, T Nyokong

Zinc oxide nanofibers decorated with graphitic carbon nitride nanosheets-phthalocyanine conjugate for combined ultrasound and visible light degradation of organic pollutants.

(3rd place – PhD Poster Presentation)