

**CURRICULUM VITAE
OF
Kwanele Winterose Kunene**

Personal Details

Surname: Kunene
Names: Kwanele Winterose
Well known as: Kwanele
Nationality: South African
Marital status: Single

Education Background

- PhD in Chemistry (2018-2021), Durban University of Technology, South Africa.
- M.Sc (2015-2018), Durban University of Technology, South Africa.
- B.Sc Chemistry (2014-2014), Durban University of Technology, South Africa.
- ND: Analytical Chemistry (2010-2013), Durban University of Technology, South Africa.

Conference Presentations

- **K. Kunene, M. Sabela, S. Kanchi, M. Bechelany and K. Bisetty (2019).** Green Synthesis of Silver Nanoparticles Using Amadumbe Extract: Programme provisional Workshop Or en Occitanie, Montpellier, **France, December 4-5, 2019.**
- **K. Kunene, R. Viter, D. Jevdokimov and D. Erts (2017).** Photoelectrochemical Detection of Bisphenol Using ZnO nanorods, Atomic Layer Deposition (ALD) nanotechnology: advances, prospects and applications COST action, workshop, **Riga, Latvia, May 22-23, 2017.**
- **K. Kunene, R. Viter, D. Jevdokimov and D. Erts (2017).** Development of Novel Nanostructured Photoelectrochemical Platform for Chemical Sensing, International conference Functional Materials and Nanotechnologies, **Tartu, Estonia in April, 24 – 27, 2017.**
- **K. Kunene, M. Sabela, S. Kanchi, R. Viter, D. Erts and K. Bisetty (2018).** Hydrothermal Synthesis and Characterization of Zinc Oxide Nanorods 7th International Conference on Nanoscience and Nanotechnology, Nano Africa **Durban, South Africa, April 22-25, 2018**, second prize winner.

Published Manuscript

- **Kwanele Kunene, Syreina Sayegh, Mathieu Weber, Myalowenkosi Sabela, Damien Voiry, Igor Iatsunskyi, Emerson Coy, Suvadhan Kanchi, Krishna Bisetty, Mikhael Bechelany, Smart Electrochemical Immunosensor of Aflatoxin B1 Based on Palladium Nanoparticles-Boron Nitride-Coated Carbon Felt Electrode for the Wine Industry: Talanta.** <https://doi.org/10.1016/j.talanta.2022.124000>
- **Kwanele Kunene, Myalowenkosi Sabela, Suvadhan Kanchi, Mikhael Bechelany, Krishna Bisetty, Functionalized Electrochemical Aptasensor for Sensing of Ochratoxin A in Cereals Supported by *in Silico* Adsorption Studies: ACS Food Science & Technology.**

<https://doi.org/10.1021/acsfoodscitech.1c00226>

- **Kwanele Kunene**, Mathieu Weber, Myalowenkosi Sabela, Damien Voiry, Suvadhan Kanchi, Krishna Bisetty, Mikhael Bechelany, Highly-efficient electrochemical label-free immunosensor for the detection of ochratoxin A in coffee samples: Sensors and Actuators B:Chemical. <https://doi.org/10.1016/j.snb.2019.127438>
- Roman Viter, **Kwanele Kunene**, Povilas Genys, Daniels Jevdokimovs, Donats Erts, Andris Sutka, Krishna Bisetty, Arturs Viksna, Almira Ramanaviciene, Arunas Ramanavicius, Photoelectrochemical Bisphenol S Sensor Based on ZnO-Nanorods Modified by Molecularly Imprinted Polypyrrole:Macromolecular Chemistry and Physics. <https://doi.org/10.1002/macp.201900232>
- Myalowenkosi I. Sabela, **Kwanele Kunene**, Suvadhan Kanchi, Phumlane Mdluli, Deepali Sharma, Nokukhanya Xhakaza, Krishna Bisetty, Removal of copper(II) from waste water using green vegetable waste derived activated carbon: An approach to equilibrium and kinetic study, Arabian Journal of Chemistry. <https://doi.org/10.1016/j.arabjc.2016.06.001>
- **Kwanele Kunene**, Myalowenkosi Sabela, Suvadhan Kanchi, Krishna Bisetty, High Performance Electrochemical Biosensor for Bisphenol A using Screen Printed Electrodes modified with Multi-walled Carbon Nanotube fictionalized with Silver-doped Zinc Oxide, Waste and Biomass Valorization. <https://doi.org/10.1007/s12649-018-0505-5>

Prizes, and fellowships

2022 Swiss Government Excellence Scholarships, **2020** One of the 100 shining stars in South Africa, **2018** SHERO Awards, for women in science, **2018** French Embassy Scholarship to do PhD in Montpellier, France, **2017** Best Masters student in Department of Chemistry, Durban University of Technology, **2015** AESOP Scholarship to do masters in Riga, Latvia.

Academic Links

- LinkedIn: www.linkedin.com/in/dr-kwanele-kunene-phd-64aba67a
- Research gate: <https://www.researchgate.net/profile/Kwanele-Kunene-2>
- GoogleScholar:<https://scholar.google.com/citations?hl=en&user=zunFd8gAAA>
[AJ](#)

Employment History

Chalmers Tekniska Högskola, Kemiinstitutionen

Job title: Postdoctoral Researcher
Duration: 1 February 2024 - present
Responsibilities:

- Development of a chemical recycling process for metals recovery from the waste.
- Purify and recover metals from solar cell and industrial waste by electrolysis.
- Attends meetings, workshops and conferences.
- Perform the research, analyze the samples, write reports and papers.
- Support and train PhD students and MSc in the electrochemistry field.

EMPA: Swiss Federal Laboratories for Materials Science and Technology

Job title: Postdoctoral Researcher Fellowship

Duration: 5 September 2022 - 30 August 2023

Responsibilities:

- Synthesis and characterization of metal oxide.
- Synthesize ammonia using electrochemical methods.
- Scientifically independent.

Berea Technical College

Job title: Practical Co-coordinator

Reason for leaving: Postdoctoral Fellowship in Switzerland

Duration: 1 June 2021 – 19 August 2022

Responsibilities:

- Overseeing practical for the technical college.
- Supervise daily practice operations of the laboratory.
- Monitoring the laboratory, doing the inventory and ordering of chemicals.
- Coordinate regular staff meetings and performance reviews.
- Developing and updating practical manuals.

Durban University of Technology

Job title: Lecturer assistance

Reason for leaving: Studying at France for PhD

Duration: 9 July- 30 August 2018

Responsibilities:

- Undertake lecturing duties.
- Participating in the administration of the department's programme of study and other activities as requested.
- Assisting in the development of learning materials, preparing schemes of work and maintaining records to monitor student progress, achievement and attendance
- Participating in the development, administration and marking of exams and other assessments.

Tongaat Hulett's Sugar

Job title: Laboratory technician

Reason for leaving : Fixed Term Contract

Duration: 9 January-31 December 2013

Responsibilities:

- Sampling and analysis of raw materials.
- Analysis of in process samples and final products.
- Maintenance and Calibration of laboratory instruments.
- Entering Data on Laboratory Information Management System (LIMS).

Durban University of Technology

Job Title: Tutorship
Reason for leaving: Fixed term contract
Duration: 1 May – 31 December 2017

Responsibilities:

- Tutoring Chemistry I, Physical Chemistry II and Inorganic Chemistry II.
- Conducting practical (Laboratory demonstration).

References

- 1) **Dr Artur Braun** (Research Group Leader) **Swiss Federal Laboratories for Materials Science and Technology** (Dübendorf, Switzerland) +41(0) 587654850/
Artur.Braun@empa.ch
- 2) **Dr Myalowenkosi Sabela** (Chemistry Senior Lecturer and Research Supervisor) **Durban University of Technology** (Durban, South Africa) +27(0) 31373 2308/
myalos@dut.ac.za
- 3) **Prof Mikhael Bechelany** (Postdoctoral and Research Supervisor) **Montpellier University** (Montpellier, France) +33 (0)4 67 14 91 67/
mikhael.bechelany@umontpellier.fr
- 4) **Dr Roman Viter** (Postdoctoral and Research Supervisor) **University of Latvia** (Latvia, Riga) +371 20058754/roman.viter@lu.lv