

CURRICULUM VITAE

NAME: Luke Chimuka

DATE OF BIRTH: 7th July 1966

SA STATUS: SA Permanent Residence. I.D no. 660707 6407 184

SEX: Male

PRESENT POSITION:

Professor and group leader of Environmental and Analytical Chemistry, School of Chemistry, and University of the Witwatersrand, P/bag 3, WITS 2050, and South Africa

POSTAL ADDRESS: School of Chemistry, University of the Witwatersrand, P/bag 3, WITS 2050, South Africa.

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EDUCATION QUALIFICATIONS

1987 – 1990: BSc Degree with honours (Chemistry Major with Education), University of Zambia, Second upper class.

1994 –1996: MSc degree, University of Botswana, Botswana + University of Bayreuth, Germany (Sandwich MSc sponsored by DAAD) under Prof Hartmut Frank

1997 – 2001: Doctor of Philosophy, Department of Analytical Chemistry, Lund University, Sweden under Professor Jan Ake Jönsson.

RATING RELATED INDICES

NRF rating: C1

h-index 38 (Web of Science)

h-index 49 (Google scholar)

h-index 41 (Scopus)

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JOB POSITIONS

2001-2002 Postdoctoral position, School of Chemistry- Wits

2002-2003 Senior Lecturer, School of Public Health, Sefako Makatho Health Science University (formerly MEDUNSA)

2003-2006 HOD, Department of Ecology and Resource management, School of Environmental Sciences, University of Venda

2006-2009-Senior Lecturer, School of Chemistry, University of the Witwatersrand, Johannesburg, SÁ

2009-2013-Associate professor, School of Chemistry, University of the Witwatersrand, Johannesburg, SÁ

2013-Full Professor, School of Chemistry, University of the Witwatersrand, Johannesburg, RSA

PATENTS

- National patent on the development of a novel membrane assisted passive sampler (MAPS) for ionisable organic compounds in water bodies. Patent number 2006/05505. Inventors: L. Chimuka and E. Cukrowska.
- International patent for development of novel selective extraction technique based on combination of liquid membrane and molecularly imprinted polymers. Patent number: PCT/IB2008/003265.
- Regional patent on the use of pressurised hotwater (subcritical water) to extract nutrients and essential compounds from indigenous plants especially Moringa for value additions in the food industry (2013). - No. PCT/IB2013/058765

AWARDS

Academic related award

- 1989, won the Kenneth Kaunda floating trophy as best third year BSc student in the School of Natural Sciences at the University of Zambia, Zambia
- March 1994 - February 1996, I was awarded a DAAD (Deutsche Akademischer Austauschdienst) scholarship for a MSc degree in Analytical Chemistry at the University of

Botswana, with two years stay at University of Bayreuth, Germany with Professor Hartmut Frank

- February 1996 - December 1997, I was awarded a guest scholarship by the Swedish institute to do research at the Department of Analytical Chemistry, Lund University under Professor Jan Åke Jönsson.
- Chromatographer of the year for 2011. Awarded by the Chromatographic Society of South Africa for research contribution into developing sample preparation techniques.
- Voted as one of the top 60 Power list of analytical scientist in the world by The Analytical Scientist in 2020. <https://theanalyticalscientist.com/power-list/2020/africa/luke-chimuka>

Innovation and commercialisation related awards

- GAP biosciences first prize winner organised by Innovation Hub for 2015 for innovation on the extraction of Moringa using green approach for the commercialisation of Moringa liquid concentrate with prize money of R500 000.00.
- 2017 university award for outstanding commitment to driving innovation outcomes from research.
- National Science Technology Forum (NSTF) South 32 awards finalist in 2020 in the Innovation Award-Corporate organisations category
- 3rd Price team winner of the GAP green innovation competition for 2020 organised by the Innovation Hub for a novel design and upscaling of passive remediation for value recovery of semi-precious and precious metals from acid mine drainage based on polymer inclusion membrane (P-AMD) with prize money of R120 000.00. Students involved spined out a company called PIMECO Pty Ltd

ACADEMIC CITIZENSHIP WITHIN THE UNIVERSITY

- Involved with Wits University innovation committee designing the wits university innovation strategy.
- Member of Wits university financial aid, scholarships, and merits award committee
- Former School rep on Faculty research committee
- Former School rep on Faculty postgraduate committee
- Member of the School executive
- School coordinator for analytical chemistry

ACADEMIC CITIZENSHIP OUTSIDE THE UNIVERSITY

- Previous Chief Editor of the South African Journal of Chemistry
- Editor of the South African Journal of Chemistry
- Editor of Toxicological and Environmental Chemistry
- Editor of Advances in sample preparation
- Former National Committee member for ChromSA
- Founder Member and National treasurer of Moringa Development Association of South Africa (www.mdasa.co.za) from 2013-2020. Started organisation from nothing and now has funds in excess of R300 000.00
- Organising committee for 2019 2nd international Moringa conference (<http://www.ism2019.co.za>) and keynote speaker
- National Technology transfer platform coordinator in nutraceutical research and innovation funded by the Department of Science and Innovation.
- Organising committee member for 2014 Analitika conference and keynote speaker with title “Novel developments in sample preparation with special focus on bioavailability and new sorbents”.
- NRF National Equipment panel member 2020 – 2024
- Attended a ten-month course on Commercialisation and Innovation given the South African Design Institute of South African Bureau of Standard presented by the founder and former CEO of Verimark Holdings Pty Ltd and owner of Inventec Pty Ltd (<https://www.inventec.co.za>)

- Helped two startups companies Phedisanang Technology Pty Ltd and Dikotla Minerals Pty Ltd take their herbal beverages to the market as their mentor.

INVITED KEYNOTE LECTURES

- Keynote speaker at ExTech 2016, Torun, Poland with title "Coming back of Soxhlet extraction: a novel three-way extraction based on combination of Soxhlet, membrane and molecularly imprinted polymers in a single format".
- Invited Workshop presenter on modern sample preparation for the 6th SEANAC conference, 2016, Botswana.
- Invited keynote lecture, Euroanalysis 2017, Stockholm, Sweden with title "Novel two- and three-ways extraction techniques based on combination of membrane assisted solvent extraction and molecularly imprinted polymers in single format for bioavailable and total concentration of chemicals in complex samples".
- Keynote lecture for 2018 Analytica conference with title "Technical development and optimisation of passive samplers for metal ions in polluted water bodies".
- Keynote lecture for the 2018 Coschem conference organised by the Cosmetic Society of South Africa with a title "Indigenous seed oils of Southern Africa and their potential use in cosmetic industry.
- Invited guest speaker during the 2019 Central University of Technology Research and Innovation Day.
- Invited guest speaker at UNISA young staff members at their Research and Innovation guest day in 2017.
- Invited speaker and chair of the session at 13th International Passive Sampling Workshop and Symposium held 18th -20th September 2022 in Utrecht, Netherlands
- Keynote speaker and chair of session at SACI conference held at Stellenbosch in January 2023
- Invited keynote speaker at the 34th international symposium on polymer analysis and characterisation held at Stellenbosch in April 24-26 April 2023

IMPACT ON PG TRAINING

- **Trained 20 PhD students and 55 MSc students.**
- All the trained students are employed in both academia and industry.
- Those within academia have contributed to the teaching and research development in Environmental Analytical chemistry in the country and are making their mark.
- Some PhD graduates have also been employed outside the country like UK and the USA.

PEER REVIEWED SCIENTIFIC PUBLICATIONS: 194 Scientific papers

<https://www.scopus.com/authid/detail.uri?authorId=55963380900>
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