CURRICULUM VITAE

OF

JULIA PUSELETSO MOFOKENG



CURRICULUM VITAE OF DR JULIA PUSELETSO MOFOKENG

A. PROFILE

I am Julia Puseletso Mofokeng (PhD); Associate Professor in the Department of Chemistry (Polymer Science), at the University of the Free State (QwaQwa Campus). I graduated with a Doctor of Philosophy (PhD) in Polymer Science in May 2015. I teach three Polymers Science Honours degree modules (Physical Polymer Science (CMPP6814), Polymer Testing and Characterization II (CMPC6824), and Honours Research project module (CMPR6808). I supervise Masters (PLYS8900), and Doctoral (PLYS9100) degrees research students. I am the National Research Foundation (NRF) Rated Researcher in the Emerging Researchers (Y2) category for the period 2020-2025, and I received the Best Emerging Researcher award in the Natural and Agricultural Sciences (QwaQwa Campus) in 2016. I was awarded the 10 years (2012), and 20 years (2023) of service certificates at the University of the Free State, issued by the Council of the University of the Free State.

B. PERSONAL DETAILS

SURNAME: Mofokeng

FIRST NAMES: Julia Puseletso

PLACE OF BIRTH: Bethlehem, South Africa

HOME ADDRESS: 21 Biddulph Street

Harrismith,

9880,

South Africa.

PERSONAL E-MAIL ADDRESS: jpnmofokeng@icloud.com

WORK ADDRESS: University of the Free State (QwaQwa Campus),

Faculty of Natural and Agricultural Sciences (NAS),

Department of Chemistry,

Private Bag X 13,

Phuthaditjhaba, 9866

South Africa.

WORK TELEPNONE: 058 718 5351(Work: Office)

0587185267 (Work: Research laboratory)

WORK E-MAIL: mofokengjp@ufs.ac.za,

WORK FAX NUMBER: 058 718 5444
DRIVERS LICENCE: Code 10/C1

WEBSITE: <u>Julia Puseletso Mofokeng – UFS Staff Profile</u>

WEB OF SCIENCE: <u>Document Search - Web of Science Core Collection</u>

GOOGLE SCHOLAR: <u>Julia Puseletso Mofokeng - Google Scholar</u>

RESEARCHGATE: <u>Julia Puseletso Mofokeng - Researchgate.net</u>

ORCID: https://orcid.org/0000-0001-5321-1512

SCOPUS: Mofokeng, Julia P. - Author details - Scopus

LINKEDIN: Julia Puseletso Mofokeng - LinkedIn

NRF RATING: Y2 Emerging Researcher (2021-2025)

C. ACADEMIC QUALIFICATIONS

INSTITUTION ATTENDED: University of the Free State (QwaQwa Campus)

DEGREE ACHIEVED: Doctor of Philosophy (Ph.D.)

YEAR OBTAINED: 09 May 2015

FIELD OF STUDY: Polymer Science

TITLE OF STUDY: Preparation and characterization of completely

biodegradable polymer-Titania nanocomposites. Ph.D.

thesis

SUPERVISOR OF STUDY: Professor Adriaan Stephanus Luyt

INSTITUTION ATTENDED: University of the Free State (QwaQwa Campus)

DEGREE ACHIEVED: Master of Science (M.Sc.)

YEAR OBTAINED: 07 May 2011

FIELD OF STUDY: Polymer Science

TITLE OF STUDY: Comparison of injection moulded, natural fibre reinforced

composites with PP and PLA as matrices. M.Sc.

dissertation.

SUPERVISOR OF STUDY: Professor Adriaan Stephanus Luyt

INSTITUTION ATTENDED: University of the Free State (QwaQwa Campus)

DEGREE ACHIEVED: Bachelor of Science Honours (B.Sc. Hons)

YEAR OBTAINED: 16 MY 2009

FIELD OF STUDY: Polymer Science

INSTITUTION ATTENDED: University of the Free State (QwaQwa Campus)

LEVEL ACHIEVED: Bachelor of Science (Chemistry) (B.Sc.)

YEAR OBTAINED: 17 May 2008

MAJOR SUBJECTS: Chemistry and Information Technology

INSTITUTION ATTENDED: Tshibollo Senior Secondary School

LEVEL ACHIEVED: Senior Certificate
YEAR OBTAINED: December 1997

D. WORKING EXPERIENCE

POSITION 1: ASSOCIATE PROFESSOR

EMPLOYER: University of the Free State, Chemistry Department.

DUTIES: Manage research laboratory facilities, and postgraduate students.

Lecture Polymer Science modules at Honours degree level.

Supervise post-graduate research students,

Perform analysis on different research instruments.

Conduct research and produce high-level research outputs.

Source external funds to support research interest.

Contribute to curriculum development within the department.

Perform administrative duties and participate in the development of

Honours modules.

MODULES: THEORY AND PRACTICAL: Physical Polymer Science (CMPP 6814),

Polymer Testing and Characterization II (CMPC 8614), and Polymer

Science Research project (CMPR 6808).

PRACTICALS: Polymers and Polymerization (CMPO 6814), Polymer Testing and Characterization I (CMPA 6814), Applied Polymer Science (CMPA 6824), Polymers and Polymer Reactions (CMPR 6814), Polymer Blends, Composites and Nanocomposites (CMPB 6824).

RESEARCH: Master of Science in Polymer Science (PLYS8900) research module (Dissertation), Doctor of Philosophy in Polymer Science (PLYS9100) research module (Thesis).

PERIOD: 01 January 2025- Present

SUBJECT HEAD: Dr P. P. Mokolokolo

POSITION 2: SENIOR LECTURER / RESEARCHER

EMPLOYER: University of the Free State, Chemistry Department.

DUTIES: Manage research laboratory facilities, and postgraduate students.

Lecture Polymer Science modules at Honours degree level.

Supervise post-graduate research students,

Perform analysis on different research instruments.

Conduct research and produce high-level research outputs.

Source external funds to support research interest.

Contribute to curriculum development within the department.

Perform administrative duties and participate in the development of

Honours modules.

MODULES: THEORY AND PRACTICAL: Physical Polymer Science (CMPP 6814),

Polymer Testing and Characterization II (CMPC 8614), and Polymer

Science Research project (CMPR 6808).

PRACTICALS: Polymers and Polymerization (CMPO 6814), Polymer Testing and Characterization I (CMPA 6814), Applied Polymer Science (CMPA 6824), Polymers and Polymer Reactions (CMPR 6814), Polymer Blends, Composites and Nanocomposites (CMPB 6824).

RESEARCH: Master of Science in Polymer Science (PLYS8900) research module (Dissertation), Doctor of Philosophy in Polymer

Science (PLYS9100) research module (Thesis).

PERIOD: 01 January 2019- 31 December 2024

SUBJECT HEAD: Dr P. P. Mokolokolo

POSITION 3: LECTURER/RESEARCHER

EMPLOYER: University of the Free State, Chemistry Department.

DUTIES: Manage research laboratory facilities.

Teach Polymer Science modules at the Honours level.

Supervise postgraduate students.

Conduct research and produce high-level research outputs.

Source external funds to support research interest.

Contribute to curriculum development within the department.

Perform administrative duties and participate in the development of

Honours modules.

MODULES: THEORY AND PRACTICAL: Physical Polymer Science (CMPP 6814),

Polymer Testing and Characterization II (CMPC 8614), and Polymer

Science Research Project (CMPR 6808).

PRACTICALS: Polymers and Polymerization (CMPO 6814), Polymer Testing and Characterization I (CMPA 6814), Applied Polymer Science (CMPA 6824), Polymers and Polymer Reactions (CMPR 6814), Polymer Blends, and Composites and Nanocomposites (CMPB 6824).

RESEARCH: Master of Science in Polymer Science (PLYS8900)

research module (Dissertation).

PERIOD: 01 September 2017- 31 December 2018

SUBJECT HEADS: Dr M. E. Mngomezulu and Mr R. G. Moji

POSITION 4: OFFICER: PROFESSIONAL SERVICES.

EMPLOYER: University of the Free State, Chemistry Department.

DUTIES: Managing the Polymer Science research laboratory, providing training

for staff and postgraduate students on the operation of the research equipment, assisting in the execution of their research experiments, and writing scientific reports. Characterizing the research samples and making the research laboratory ready for use. Analysing the results and

helping in the writing of publications.

PERIOD: 01 May 2011 - 31 August 2017

SUBJECT HEADS: Prof A. S. Luyt and Mr R. G. Moji

POSITION 5: TEMPORARY LECTURER

EMPLOYER: University of the Free State, Chemistry Department.

DUTIES: Lecturing Polymer Testing and Characterization II (CMPC 8614), B.Sc.

honours degree module, covering the thermal analysis, testing of

mechanical, electrical, and optical properties, environmental stability, chemical resistance, particle size, adhesion, permeability, and diffusion. After successful completion of the module, the student should understand and be able to explain the principles behind most of the techniques used in polymer analysis and characterization, as well as the instrumental setups and experimental designs of these techniques. Be able to interpret and explain typical results obtained from the different techniques.

PERIOD: July - December 2015

SUBJECT HEAD: Mr RG Moji

POSITION 6: RESEARCH ASSISTANT

EMPLOYER: University of the Free State, Chemistry Department.

DUTIES: Assisting staff and postgraduate students with the operation of research

equipment and with their research experiments. Characterizing the research samples and making the research laboratory ready for use.

PERIOD: 01 January 2003 - 31 April 2011.

SUBJECT HEAD: Mr T. A. Tsotetsi

POSITION 7: RESEARCH ASSISTANT

EMPLOYER: University of the North (QwaQwa campus) Chemistry Department.

DUTIES: Preparation and characterization of the research samples and reporting

the results. Maintaining the research equipment and keeping the

research laboratory clean.

PERIOD: 01 January 2002 - 31 December 2002

HEAD OF DEPARTMENT: Prof AS Luyt

POSITION 8: RESEARCH ASSISTANT

EMPLOYER: University of the North (QwaQwa campus) Chemistry Department.

DUTIES: Preparation and characterization of the research samples and reporting

the results. Maintaining the research equipment and keeping the

research laboratory clean.

PERIOD: 19 May 1999 - 31 December 2001

HEAD OF DEPARTMENT: Prof J Bariyanga

E. ACQUIRED SKILLS

I have gained experience in the operation and maintenance of the following research equipment: The Brabender-Plastograph plastic mixer and extrusion, Rheometer, Hot melt presser, Melt flow tester for preparation of polymer materials and their viscosities, Differential scanning calorimetry (DSC) for testing of thermal properties, Thermogravimetric analyser (TGA) for testing of thermal degradation and stability of materials, Fourier transform infrared spectroscopy (FTIR) for identification of chemical bonds, TGA-FTIR for thermal degradation volatilization of materials, Dynamic mechanical analyser (DMA) for thermomechanical testing, Impactor and Tensile for mechanical properties tests, Polarized optical microscope, Sonicators, contact angle and surface energy measurement system for the test of the morphology of materials.

I have also attained some knowledge in analysing the results of all the above techniques including Scanning electron microscopy (SEM), Transmission electron microscopy (TEM), and Scanning transmission electron microscopy (STEM).

I have acquired some knowledge in methods for preparation of different chemicals for synthesizing polymers, composites, nanocomposites and blends, and also have gained an ability to work as a team as well as an individual.

F. INTERNATIONAL RESEARCH VISITS

- 1. I had a research visit to Hungary at the Budapest University of Engineering and Economics for a period of two weeks (29 June 2009 to 11 July 2009), To start my M.Sc. research experimental, where at the end of the project one research article was published with Hungarian collaborators in 2011, listed under publications [15], currently seating on 370 Google Scholar citations.
- 2. I had a research visit to Italy at the University of Modena and Reggio Emilia for one month (21 November 2008 to 23 December 2008), where at the end of the research project, one research article was published with Italian research collaborators in 2011 listed under publications [14] seating at 42 Google Scholar citations.

G. PUBLICATIONS

DISSERTATIONS/THESES

I have managed two projects: (1). Master of Science (M.Sc.) degree in Polymer Science project in collaboration with Budapest University of Engineering and Economics in Hungary, and (2). Doctor of Philosophy (Ph.D.) degree In Polymer Science project that was fully based at the University of the Free State in South Africa. In these projects, I have authored and published a dissertation and thesis, as well as five peer-reviewed articles listed under publications below [9-12, 15]:

- Comparison of injection moulded, natural fibre reinforced composites with PP and PLA as matrices. M.Sc. dissertation submitted December 2010.
 - Supervisor: Prof A.S. Luyt, UFS (QwaQwa campus).
- 2. Preparation and characterization of completely biodegradable polymer-Titania nanocomposites. Ph.D. thesis submitted January 2015.

Supervisor: Prof A.S. Luyt, UFS (QwaQwa campus).

PUBLICATIONS IN SPECIALIZED PEER-REVIEWED JOURNALS

I have managed several projects, where I have successfully planned, executed experimental, discussed results, authored, and co-authored a total of 17 articles published in peer-reviewed specialised Journals:

- L. S Mokoena, <u>J. P. Mofokeng</u>. Morphology and thermal properties of poly(lactic acid)(PLA)/poly(3-hydroxybutyrate-co-3-hydroxyvalerate)(PHBV)/graphene oxide (GO) polymeric composites. Polymer Engineering & Science 2024, 64(11):5329-5350 DOI: 10.1002/PEN.26919.
- L.S. Mokoena, <u>J. P. Mofokeng</u>. Preparation of poly(lactic acid) (PLA) / poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV) / graphene oxide (GO) polymeric composites for the selective removal of lead ions (Pb(II)) in water. Polymer Composites 2024; 45:8527–8542.

DOI: 10.1002/pc.28358

L.S. Mokoena, <u>J.P. Mofokeng.</u> Synthesis and characterization of graphene Oxide (GO) for the removal of lead ions in water. Carbon Trends 2024; 15:100339-100352
 DOI: 10.1016/j.cartre.2024.100339

4. M. J. Phiri, <u>J. P. Mofokeng</u>, M. M. Phiri, M. Mngomezulu, Z. Tywabi-Ngeva. Chemical, thermal and morphological properties of polybutylene succinate-waste pineapple leaf fibres composites. Heliyon 2023; 9: 21238-21247

DOI: 10.1016/j.heliyon.2023.e21238

L.S. Mokoena, <u>J.P. Mofokeng</u>. A review on graphene (GN) and graphene oxide (GO) based biodegradable polymer composites, and their usage as selective adsorbents for heavy metals in water. Materials 2023; 16(6):2527-2557.

DOI: 10.3390/ma16062527

 S.C. Mojaki, S. Bhardwaj Mishra, A.K. Mishra, <u>J.P. Mofokeng.</u> Influence of polysiloxane as nanofiller on the surface, optical and thermal properties of guar gum grafted polyaniline matrix. International Journal of Biological Macromolecules 2018; 114:441-452.

DOI: 10.1016/j.ijbiomac.2018.03.049

7. T.B. Motloung, D. Dudic, <u>J.P. Mofokeng</u>, A.S. Luyt. Properties and thermo-switch behaviour of LDPE mixed with carbon black, zinc metal and paraffin wax. Journal of Polymer Research 2017; 23:43-54.

DOI:10.1007/s10965-017-1205-8

8. **J.P. Mofokeng**, I. Kelnar, A.S. Luyt. Effect of layered silicates on the thermal stability of PCL/PLA microfibrillar composites. Polymer Testing 2016; 50:9-14.

DOI: 10.1016/j.polymertesting.2015.12.004

9. **J.P. Mofokeng**, A.S. Luyt. Morphology and thermal degradation studies of melt-mixed poly(hydroxybutyrate-co-valerate) (PHBV)/poly(ε-caprolactone) (PCL) biodegradable polymer blend nanocomposites with TiO₂ as filler. Journal of Materials Science 2015; 50: 3812-3824.

DOI: 10.1016/j.polymertesting.2015.05.007

10. <u>J.P. Mofokeng</u>, A.S. Luyt. Morphology and thermal degradation studies of melt-mixed PLA/PHBV biodegradable polymer blend nanocomposites with TiO₂ as filler. Journal of Applied Polymer Science 2015; 132:42138.

DOI: 10.1002/app.42138

11. **J.P. Mofokeng**, A.S. Luyt. Morphology and thermal degradation studies of melt-mixed poly(lactic acid) (PLA)/poly(ε-caprolactone) (PCL) biodegradable polymer blend nanocomposites with TiO₂ as filler. Polymer Testing 2015; 45: 93-100.

DOI: 10.1016/i.polymertesting.2015.05.007

12. <u>J.P. Mofokeng</u>, A.S. Luyt. Dynamic mechanical properties of PLA/PHBV, PLA/PCL, PHBV/PCL blends and their nanocomposites with TiO₂ as nanofiller. Thermochimica Acta 2015; 613:41–53.

DOI: 10.1016/j.tca.2015.05.019

13. Stephen S. Ochigbo, Adriaan S. Luyt, <u>Julia P. Mofokeng</u>, Željka Antić, Miroslav D. Dramićanin, Vladimir Djoković. Dynamic mechanical and thermal properties of the composites of thermoplastic starch and lanthanum hydroxide nanoparticles. Journal of Applied Polymer Science 2013; 127(1):699-709.

DOI: 10.1002/app.37859

14.A.S. Luyt, M. Messori, P. Fabbri, <u>J. P. Mofokeng</u>, R. Taurino, T. Zanasi, F. Pilati, Polycarbonate reinforced with silica nanoparticles. Springer Polymer Bulletin 2011; 66:991–1004.

DOI: 10.1007/s00289-010-0408-5

15. **J.P. Mofokeng**, A.S. Luyt, T. Tábi, J. Kovacs. Comparison of injection moulded, natural fibre reinforced composites with PP and PLA as matrices. Journal of Thermoplastic Composite Materials 2011; 25(8):927-948.

DOI: 10.1177/0892705711423291.

16. W. Mhike, W.W. Focke, <u>J.P. Mofokeng</u>, A.S. Luyt. Thermally conductive phase-change materials for energy storage based on low-density polyethylene, soft Fischer–Tropsch wax and graphite. Thermochimica Acta 2011; 527:75-82.

DOI: 10.1016/j.tca.2011.10.008

17.A.S. Luyt, I. Krupa, H.J. Assumption, E.E.M. Ahmad, <u>J.P. Mofokeng.</u> Blends of polyamide 12 and maleic anhydride grafted paraffin wax as potential phase change materials. Polymer Testing 2010; 29:100-106.

DOI: 10.1016/j.polymertesting.2009.09.010

CONFERENCE PAPERS

<u>J.P. Mofokeng</u>, A.S. Luyt. Morphology, thermal degradation, and mechanical properties of biodegradable polyester blends and nanocomposites. Conference: 20th International Conference on Composite Materials (ICCM20), 19-24 July 2015, At: Copenhagen, Denmark. <u>THIS IS THE COMPTEST CONFERENCE IN LAUSANNE (researchgate.net)</u>

LOCAL AND INTERNATIONAL CONFERENCE/WORKSHOPS/TRAININGS

My research work has been presented in 19 local, and international conferences:

1. T.E. Mokoena, L.S. Mokoena, <u>J.P. Mofokeng</u>. Effect of functionalised titanium dioxide (TiO₂) and microcrystalline cellulose (MCC) on the properties of PLA/PCL blends for

- potential applications in personal hygiene. Sasol Virtual Postgraduate Seminar, 13-14 November 2024. South Africa.
- 2. M.D. Maphakisa, O.J. Botlhoko, <u>J.P. Mofokeng.</u> Design and tailored biodegradable composites for 3D printing of medical devices applications. Sasol Virtual Post Graduate Seminar, 13-14 November 2024, South Africa.
- 3. L. Seromo, <u>J P. Mofokeng</u>. Synthesis, morphology, and structural properties of graphene oxide (GO) and its composites with transition metal phosphates for applications in water purification. Sasol Virtual Postgraduate Seminar, 13-14 November 2024, South Africa.
- L.S. Mokoena, <u>J.P. Mofokeng</u>. Preparation of PLA/ PHBV/graphene oxide polymeric composites for selective removal of lead ions in water. 5th International Conference on Bio-based Polymers and Composites BiPoCo 2024, held at Grand Hotel, Esztergom, 1 5 September 2024, Hungary.
- L.S. Mokoena, <u>J.P. Mofokeng</u>. Morphology and thermal properties of PLA/ PHBV/GO polymeric composites for possible application in water purification. The 5th International Conference on Bio-based Polymers and Composites BiPoCo 2024, held at Grand Hotel, Esztergom, 1 5 September 2024, Hungary.
- 6. Curriculum Renewal Programme (CRP) Qwaqwa Cohort organised by UFS Centre for Teaching and Learning (CTL), held at Golden Gate Hotel (5 9 February 2024), and I have also received the Curriculum Renewal Innovation in Higher Education Certificate at the completion of the course.
- 7. African Research Universities Alliance (ARUA) Capacity Building workshop, under the theme: "Building capacity for sustainable development in Materials, energy and nanotechnology" hosted at WITS University 31 July 2023 to 03 August 2023
- 8. L.S. Mokoena, <u>J.P. Mofokeng</u>. The effective removal of lead ions from solution using synthesized graphene oxide and prepared biodegradable polymer/graphene oxide composites. Sasol Postgraduate Research Seminar, Virtual, 2nd 3rd November 2022, South Africa.
- 9. L. Seromo, <u>J.P. Mofokeng</u>. Effect of SiO₂ nanoparticles on the morphology, thermal and thermomechanical properties of biodegradable polymer blends. Sasol Postgraduate Research Seminar, Virtual, 2nd 3rd November 2022, South Africa.
- 10.L. Seromo, <u>J.P. Mofokeng</u>. Effect of SiO₂ nanoparticles on the morphology, thermal and thermomechanical properties of biodegradable polymer blends. 2022 QwaQwa Campus Research Conference, 29th and 30th September 2022, at Harrismith Inn Hotel, in Harrismith, South Africa.

- 11. T.A. Tsotetsi, **J.P. Mofokeng**. Preparation and characterization of flame retarded natural fibre reinforced biopolymer blends. The 4th International Conference on Bio-based Polymers and Composites (BiPoCo 2018), was held at Balatonfüred, Hungary in Europe (01-07 September 2018).
- 12.M. Makhalema, <u>J.P. Mofokeng</u>. Structure and properties of DAP flame retarded PLA/PCL/Natural fibre blend composites. The 6th International Conference on Bio-based Polymers (ICBP2017) conference, held at Yuan Ze University, in Taiwan (14-17 May 2017).
- 13.L.T. Mukwada, <u>J.P. Mofokeng</u>. Structure and properties of PLA/PCL blend nanocomposites with Mg(OH)₂ and APTMS-TiO₂. UNESCO/IUPAC workshop & conference on macromolecules & materials, Stellenbosch, South Africa (10-13 April 2017).
- 14. T.A. Tsotetsi, <u>J.P. Mofokeng</u>. Preparation and characterization of flame retarded natural fibre reinforced biopolymer blends. UNESCO/IUPAC workshop & conference on macromolecules & materials, Stellenbosch, South Africa (10-13 April 2017).
- 15. <u>J.P. Mofokeng</u>, A.S. Luyt. Morphology, thermal degradation and mechanical properties of biodegradable polyester blends and nanocomposites. 20th International Conference on Composite Materials (ICCM20), Copenhagen, Denmark (19-24 July 2015).
- 16. **J.P. Mofokeng.** A.S. Luyt, 'Preparation and characterization of biodegradable PLA/PHBV, PLA/PCL and PHBV/PCL polymer blends and their nanocomposites with TiO₂ as filler. BiPoCo 2014, 2nd international conference on Bio-based polymers and composites, held at Visegrád, in Hungary, Europe (24-28 August 2014).
- J.P. Mofokeng, A.S. Luyt. Preparation and characterization of completely biodegradable polymer-titania nanocomposites. Keynote lecture presented at EUROFILLERS 2013, Bratislava, Slovakia (25-29 August 2013).
- 18. J. P. Mofokeng, A. S. Luyt. Preparation, and characterisation of biodegradable PLA/PHBV, PLA/PCL, and PHBV/PCL polymer blends and their nanocomposites with TiO₂ as filler. 12th Annual UNESCO/IUPAC Workshop (24 March 2013) and Conference on Macromolecules & Materials, Stellenbosch, South Africa (25 28 March 2013).
- 19. **J.P. Mofokeng**, A.S. Luyt, J. Kovacs. Comparison of injection moulded natural fibre reinforced composites with PP and PLA as matrices. The 11th international conference on frontiers of polymers and advanced materials, Pretoria, South Africa (22-27 May 2011).
- 20. J.P. Mofokeng, A.S. Luyt, J. Kovacs. Comparison of injection moulded natural fibre reinforced composites with PP and PLA as matrices. 11th Annual UNESCO/IUPAC

- Workshop and Conference on Functional Polymeric Materials & Composites, Stellenbosch, South Africa (26-29 April 2011).
- 21. <u>J.P. Mofokeng</u>, A.S. Luyt, J. Kovacs. Comparison of injection moulded, natural fibre reinforced composites with PP and PLA as matrices. POLYCHAR 19 World Forum on Advanced Materials, Kathmandu, Nepal (20-24 March 2011).
- 22.S.S. Ochigbo, A.S. Luyt, <u>J.P. Mofokeng</u>, Ţ. Antić, M.D. Dramićanin, V. Djoković. Thermoplastic starch- La(OH)₃ nanocomposites: Preparation and properties. Invited lecture at the 11th Annual UNESCO/IUPAC Workshop and Conference on Functional Polymeric Materials & Composites, Stellenbosch, South Africa (26-29 April 2011).
- 23.S.S. Ochigbo, A.S. Luyt, <u>J.P. Mofokeng</u>, Ţ. Antić, M.D. Dramićanin, V. Djoković. Thermoplastic starch- La(OH)₃ nanocomposites: Preparation and properties. Invited lecture at the 11th International Conference on Frontiers of Polymers and Advanced Materials, Pretoria, South Africa (22-26 May 2011).
- 24.S.S. Ochigbo, A.S. Luyt, <u>J.P. Mofokeng</u>, Ţ. Antić, M.D. Dramićanin, V. Djoković. Thermoplastic starch- La(OH)₃ nanocomposites: Preparation and properties. Frontiers in Polymer Science, Lyon, France (29-31 May 2011).

H. POST-GRADUATE STUDENTS' SUPERVISION RECORD

CURRENT SUPERVISION AND CO-SUPERVISION WITH RESEARCH TITLES

- Supervisor for M. D. Maphakisa (M.Sc. in Polymer Science), Project title "Design and Tailored Biodegradable Composites for 3D Printing of Medical Device Applications" 2024-2025.
- 2. Supervisor for M. T. Mokoena (Ph.D. in Polymer Science), Project title "Studies on morphology, thermal, thermomechanical and mechanical properties of PLA/PCL/inorganic nanofiller for possible use in personal hygiene applications." 2024-2026.
- 3. **Supervisor** for Mr L. Seromo (**Ph.D**. in Polymer Science), Project title "Preparation and characterization of graphene oxide/zirconium phosphate (GO/ZrP) and graphene oxide/titanium phosphates (GO/TiP) comparative study for applications in water bodies treatment." 2023-2025.
- 4. **Co-supervisor** for N.P. Dlamini (**Ph.D.** in Zoology), Project title "Ecotoxicological Effects of Biodegradable PLA, PCL and PHBV Polymer Blends Nanocomposites Filled with TiO₂ Nanoparticles." 2022-2025.

COMPLETED HONOURS, MASTERS, AND DOCTORAL STUDENTS UNDER MY SUPERVISION AND CO-SUPERVISION WITH RESEARCH PROJECTS' TITLES.

Completed supervised and co-supervised doctoral degree students.

Supervisor for Mr L.S. Mokoena (**Ph.D.** in Polymer Science), **Project title** "Preparation and characterization of graphene oxide (GO) and poly(lactic acid)(PLA)/poly(3- hydroxybutyrate-co-3-hydroxyvalerate)(PHBV)/graphene oxide (GO) polymer composites for water purification." 2021-2023.

Completed supervised and co-supervised master's degree students.

- 1. **Supervisor** for Mr Z.S. Zikode (**M.Sc.** in Polymer Science), **Project title** "Structure and properties of bio-based polymer blends filled with inorganic nanofillers" 2019-2023.
- 2. **Supervisor** for Mr L. Seromo (**M.Sc.** in Polymer Science), Project title "Effect of SiO₂ and functionalized TiO₂ nanofillers on the thermal and thermomechanical properties of biodegradable polymer blends" 2019-2022.
- 3. **Supervisor** for Mr LS Mokoena (**M.Sc.** in Polymer Science). Project title "Preparation and characterization of poly(lactic acid)/polyethylene vinyl acetate/graphene oxide composites for water purification studies" 2018-2020.
- 4. **Co-supervisor** for Mr RG Moji (**M.Sc.** Material Science). Project title "Thermal, structural and optical properties of SiO₂ doped with Tb3 dispersed in PLA" 2016-2020.
- 5. **Supervisor** for Miss LT Mukwada (**M.Sc.** in Polymer science). Project title "Preparation and characterization of biodegradable polymers nanocomposites with Mg(OH)₂ and functionalized TiO₂ nanoparticles as fillers" 2016-2018.
- 6. **Supervisor** for Mr T.A. Tsotetsi (**M.Sc.** in Polymers science). Project title "Preparation and characterization of flame retarded natural fibre biopolymer blends" 2016-2017.
- 7. **Co-supervisor** for T.B. Motloung (**M.Sc.** in Polymer Science). Project title "The improvement of thermo-switch properties in polyolefins/carbon black composites by the addition of wax and atactic polypropylene" 2014-2016.

Completed supervised honours degree students.

TABLE 1: LIST OF ALL HONOURS STUDENTS GRADUATED

	STUDENT NAME	GENDER	DEGREE	STATUS	ROLE				
	BACHELOR OF SCIENCE HONOURS (B.Sc. Hons) DEGREES IN POLYMER SCIENCE								
1.	Ms. M. D. Maphakisa (2023)	Female	Honours	Completed	Supervisor				
2.	Ms. F. Kumalo (2022)	Female	Honours	Completed	Supervisor				
3.	Ms. J. Mokheseng (2021)	Female	Honours	Completed	Supervisor				
4.	Ms. N. Lekena (2020)	Female	Honours	Completed	Supervisor				
5.	Ms. S. Gawe (2020)	Female	Honours	Completed	Supervisor				
6.	Mr. L. Seromo (2018)	Male	Honours	Completed	Supervisor				
7.	Ms. S. Khambule (2018)	Female	Honours	Completed	Supervisor				
8.	Mr. L. Tsotetsi (2018)	Male	Honours	Completed	Co-supervisor				
9.	Ms. M. Makhalema (2016)	Female	Honours	Completed	Supervisor				

- Supervisor for T. Moeleso (BSc. Hons. In Polymer Science), Project title "Graphene-based polymer nanocomposites with excellent morphology and dielectric properties for electromagnetic interference (EMI) shielding applications." 2024.
- Supervisor for Miss MD Maphakisa (BSc. Hons. In Polymer Science), Project Title "Preparation and characterisation of PLA/PC-enc-MWCNTs nanocomposite for possible application in electronics" 2023.
- Supervisor for Miss F.I. Kumalo (B.Sc. Hons. In Polymer Science), Project title "Structure and thermomechanical properties of melt-mixed PLA/PCL/DAP biodegradable polymer blend composites" 2022.
- 4. **Supervisor** for Miss D.J. Mokheseng (**B.Sc. Hons** in Polymer Science), Project title "Structure and thermal degradation studies of melt mixed PLA/PCL/SiO₂ blends nanocomposites" 2021.
- 5. **Supervisor** for Miss S. Gawe (**B.Sc. Hons** in Polymer Science), Mini project title "Structure and properties of melt mixed biodegradable PLA/PBS polymer blends nanocomposites with TiO₂ as a filler" 2019.
- 6. **Supervisor** for Miss N. Lekena (**B.Sc. Hons** in polymer Science), Mini project title "Preparation and characterization of PHBV/PBS/TiO₂ blends nanocomposites" 2019
- 7. **Supervisor** for Mr. L Seromo (**B.Sc. Hons** in Polymer Science), Mini project title "Preparation and characterization of biodegradable polymer blends nanocomposites with APTMS functionalized TiO₂ as a filler" 2018.
- 8. **Supervisor** for Miss S Khambule (**B.Sc. Hons** in Polymer Science), Mini project title "Preparation and characterization of PCL/PBS and PCL/PBS/PC ternary blends" 2018.

9. **Supervisor** for Miss M.A. Makhalema (**B.Sc. Hons** in Polymer Science), Mini project title "Structure and properties of DAP flame retarded PLA/PCL/Natural fibre blend composites" 2016.

TABLE 2: LIST OF ALL GRADUATED AND CURRENTLY ENROLLED MASTERS STUDENTS

MASTER OF SCIENCE (M.Sc) DEGREES MAJORING IN POLYMER SCIENCE								
1.	Ms. MD Mapakisa	Female	Master by research	Active	Supervisor			
2.	Mr. ZS Zikode (2018-2023)	Male	Master by research	Completed	Supervisor			
3.	Mr. L Seromo (2019-2022)	Male	Master by research	Completed	Supervisor			
4.	Mr. LS Mokoena (2018-2020)	Male	Master by research	Completed	Supervisor			
5.	Mr. RG Moji (2016-2019)	Male	Master by research	Completed	Co-Supervisor			
6.	Ms. LT Mukwada (2016-2018)	Female	Master by research	Completed	Supervisor			
7.	Mr. TA Tsotetsi (2016-2018)	Male	Master by research	Completed	Supervisor			

TABLE 3: LIST OF ALL GRADUATED AND CURRENTLY ENROLLED DOCTORAL STUDENTS

DOCTOR OF PHILOSOPHY (Ph.D.) DEGREES MAJORING IN POLYMER SCIENCE								
8. Mr. T Mokoena (2024-2026)	Male	Doctor of Philosophy	Active	Supervisor				
9. Mr. L Seromo (2023-2025)	Male	Doctor of Philosophy	Active	Supervisor				
10. Ms. N Dlamini (2022-2024)	Female	Doctor of Philosophy	Active	Co-Supervisor				
11. Dr LS Mokoena (2021-2023)	Male	Doctor of Philosophy	Completed	Supervisor				

I. PROFESSIONAL DEVELOPMENT (Training and Workshops attended)

CAPACITY BUILDING WORKSHOPS AND TRAINING ATTENDED

- 25. University of the Free State Teaching Portfolio in UFS (QwaQwa Camps) (09 & 10 May 2024).
- 26. University of the Free State Teaching Portfolio in Clarens (24-25 May 2023)
- 27. University of the Free State Academic Leadership Programme Workshop, help as UFS Sasol Library (24-26 August 2017)

FUTURE PROFESSORIATE PROGRAMME OF THE UNIVERSITY OF THE FREE STATE UNDER THE EMERGING SCHOLAR ACCELERATOR PROGRAMME (ESAP) (2023-2025)

I was invited and joined the Future Professoriate Programme of the University of the Free State (UFS), under the Emerging Scholar Accelerator Programme (ESAP) 2023 to 2025, Managed by Dr Henriette Van Den Burg and her team:

In this programme, I was assigned a Career Mentor (Research Professor, Nosipho Moloto, from the University of the Witwatersrand at Johannesburg in Gauteng). I have also attended and participated in several different career development workshops and research articles writing retreats, of which helped me a lot in the writing of research articles and supervising of Masters and Doctoral students, and those are as follows:

Training / Workshops /writing retreats attended under the programme since (2023-2024)

- 3. Mentorship and Future Professoriate Programme of the University of the Free State (UFS) weekend retreat and mini conference in Golden Gate (15 to 17 March 2024)
- 4. Writing retreat for 10 colleagues (any discipline), facilitated by Prof Anthony Essien, Mathematics Education, from Wits University, at Protea Hotel Clarens (15 to 17 November 2023).
- 5. Science communication workshop at the Free State University (Bloemfontein Campus)
 Presented by Prof. Marina Joubert (30 & 31 October 2023)
- 6. Grant Formulation and Writing by the Transformation of the Professoriate Mentoring Programme 2023, Facilitated by: Dr Charmaine Williamson (21 & 22 August 2023).
- Researcher development in departments and opportunities for collaboration with European institutions, workshop facilitator: Prof Catherine Comiskey Trinity College, Dublin Academic Director of CHARM EU, at Centre for Financial Planning Law in UFS Bloemfontein Campus (30 June 2023).
- Writing retreat using quantitative or mixed methods research designs workshop at Centre for Financial Planning Law in UFS Bloemfontein Campus, workshop facilitator: Prof Catherine Comiskey Trinity College, Dublin Academic Director of CHARM EU (26 – 29 June 2023)
- 9. Writing retreat programme for Chemistry Department (QwaQwa Campus) on the 2nd to the 4Th October 2023 in Clarens.

- 10. ACADEMIC LEADERSHIP workshop on presented at Bloemfontein campus on 26 May, 9.15 to 15.30 by Prof Eugene Cloete, former DVC Research and Innovation at Stellenbosch University.
- 11. Grant Writing workshop Transformation of Professoriate Programme, workshop facilitator, Dr. Charmaine Williamson, online (16-17 May 2023)
- 12. Future Professoriate Programme Weekend retreat at Golden Gate Hotel (3-5 March 2023)
- 13. Woman in Academic Leadership First Meeting-Online (23 February 2023)
- 14. An online workshop on Grant formulation and writing facilitated by Dr Charmaine Williamson (21-22 February 2023).

Achieved Milestones in 2023

- Submission of Master of Science dissertation (MSc), and Doctor of Philosophy (PhD) thesis majoring in Polymer Science of my students, completed and graduated in April 2024.
- 2. Three research articles were published in high impact factor (Q1 and Q2) Journals [2,3,5].
- 3. One manuscript accepted for publication, in high impact factor (Q2) Journals [1], is currently published online.

J. LEADING AND TAKING PART IN ORGANISATION OF CONFERENCES

- I was a panel member in the Panel discussion Wednesday 4th September 2024, on the topic "New materials and biocomposites" from 09:30-10:15, at the 5th International Conference on Bio-based Polymers and Composites (BiPoCo 2024), that was held at Grand Hotel, Esztergom, 1 5 September 2024, in Hungary.
- 2. I was Chair of the session on Monday the 1st of September 2024, from 10:30-12:00, at the 5th International Conference on Bio-based Polymers and Composites (BiPoCo 2024), that was held at Grand Hotel, Esztergom, 1 5 September 2024, in Hungary.
- 2. I was part of the Organising Committee for the Indigenous Knowledge Systems (IKS) seminar that was a resounding success, organised by UFS QwaQwa Campus Research Office in partnership with the Office of International Affairs, under the theme "Navigating Decoloniality and Indigenous Knowledge for Sustainable Development in Africa". Prof Josephine Ahikire from Makerere University in Uganda and Dr Lwazi Lushaba from the

- University of Cape Town delivered their Keynote address, on the 26th of October 2023 at Protea Hotel. Clarens Town.
- 3. Chairperson of the organising committee of the UFS (QwaQwa Campus) Research Conference 2022, organised by the Natural and Agricultural Sciences Faculty (NAS) and Qwaqwa Research Management and Funding Committee UFS (QRMFC) that was held on 28 and 29 September 2024, at Harrismith Inn Hotel in Harrismith Town.
- 4. Member of the organising committee in the Science Innovation Exchange (SIX) Global Events in partnership with the University of the Free State (2024)

K. COLLABORATIONS

- 1. A Research collaboration was established between Dr. Julia Puseletso Mofokeng at the Department of Chemistry in the Faculty of Natural and Agricultural Sciences, and Dr Khangelani Moyo at the Department of Social Sciences in the Faculty of Humanities, both from the University of the Free State (QwaQwa Campus), under Research Project title: "Community-centred solutions to the plastic waste problems in quasi-rural settings: the case of Phuthaditjhaba, Free State" Starting from May 2024.
- 2. A research collaboration established between Dr. Julia Puseletso Mofokeng at the University of the Free State and Assistant Professor Blanke Škipina, PhD, at the University of Banja Luka, Faculty of Technology, in Serbia, Europe, under the Research Project title "Dielectric properties polymer nanocomposites" starting from 17 January 2024.
- 3. A research collaboration was established between the Libyan Advanced Center for Chemical Analysis in Libya (Dr. Nagi Greesh), and the Department of Chemistry, Faculty of Natural and Agricultural Sciences, University of the Free State in South Africa (Dr. Julia Puseletso Mofokeng) for five years, starting from 29 November 2023.
- 4. I have independently established a research collaboration with Professors AJ Mishra, and S Bhardwaj Mishra, with their PhD student Mrs SC Mojaki from the Nanotechnology and Water Sustainability Research Unit, University of South Africa (Florida Campus), Johannesburg in 2017, and one article was submitted and published online on the **24th of March 2018, publication [6]**.

.. RESEARCH ARTICLES REVIEW AND DISSERTATIONS EXAMINATION

INTERNAL DISSERTATIONS EXAMINATION

- M.Sc. Dissertation, Title "Preparation and characterization of poly (lactic acid)/ethylene vinyl acetate/banana fiber (PLA/EVA/BF) bio-composites for water purification" by Lebohang Adam Tsotetsi from The University of the Free State (Qwaqwa campus) (2024).
- 2. M.Sc. Dissertation, Title "Preparation and characterisation of high-density polyethylene, paraffin wax and graphene nanoplatelets (HDPE/M3 WAX/GnP) nanocomposite formstable phase change materials" by **Thabo Gift Samkele Mdletshe** from The University of the Free State (Qwaqwa campus) (2021).

EXTERNAL DISSERTATIONS EXAMINATION

- M.Sc. Dissertation, Title "Fabrication of NH2-ZIF-8@sugarcane bagasse/Cellulose acetate mem-brane for desalination of brackish water in Nwadzekudzeku village, Limpopo province." By Tsakane Patience Maluleke form the University of Johannesburg (UJ), May 2024.
- M.Sc. Dissertation, Title "Enhancement of carbon black recovered from waste tyres for industrial rubber applications." By Jacob Siphosethu from Nelson Mandela University (NMU), May 2024.
- M.Sc. Dissertation, Title "Incorporation of extraction from Pelargonium Alchemilloides (L), L'Herit into polyvinylpyrrolidone/ cellulose acetate blend via electrospinning technique and their antibacterial activity." By Kiaka Jonathan Pukuta from Vaal University of Technology (VUT) 2022.
- 4. **M.Sc. Dissertation**, Title "The development of active packaging material using hybrid biopolymer nanocomposites." By **Tshiamo Malebogo Selelo** from the University of Johannesburg (UJ) 2021.

RESEARCH ARTICLES REVIEWS IN SPECIALISED JOURNALS

- 1. The Volunteer Reviewer at Materials, Nanomaterials, Polymers of Multidisciplinary Digital Publishing Institute (MDPI) Journals in 2023.
- 2. Invited Reviewer of the research articles for the Journal of Casting & Materials Engineering from 2022-present
- 3. Invited Reviewer of the research articles for the Journal of Applied Polymer Science since the year 2020-present.

- 4. Invited Reviewer of the research articles for the Journal of Thermoplastic Composite Materials in 2013.
- 5. Invited Reviewer of the research article for Materials Sciences and Applications (MSA) journal from 2022.

L. LEADERSHIP AND SERVING IN UNIVERSITY'S PROFESSIONAL BOARDS

AT THE DEPARTMENTAL LEVEL:

I am appointed as the coordinator of the Postgraduate (BSc Hons, MSc, and PhD) two weekly presentations, and responsible for **Scheduling and Coordination:** Responsible for coordinating the schedule of postgraduate presentations in consultation with faculty and students, ensuring that dates and times are suitable and accommodating for all parties involved.

Logistical Arrangements: Oversee the logistical arrangements for each presentation, including room reservations, equipment setup, and ensuring that all necessary resources are available for presenters.

Communication and Documentation: Serving as the primary point of contact, you will communicate details about presentations to faculty, students, and staff. This includes distributing schedules, guidelines, and any updates or changes related to the presentations.

Support for Presenters: Provide support and guidance to postgraduate students preparing for their presentations, ensuring they understand the expectations and requirements for their presentations.

Evaluation and Feedback: Facilitating feedback sessions and evaluations following presentations to provide constructive feedback to students and help them improve their presentation skills. January 2023- Current).

AT FACULTY LEVEL:

Natural and Agricultural Sciences (NAS) representative in QwaQwa Research Management and Funding Committee UFS (QRMFC) (2020-Current).

AT CAMPUS LEVEL:

(a) I am appointed as the Deputy Chairperson of the QwaQwa Research Management and Funding Committee UFS (QRMFC), Office of the Vice Principal: Academic and Research, Prof Pearl Sithole (April 2024-April 2026).

(b) Chairperson of the organising committee of the UFS (QwaQwa Campus) Research Conference 2022, organised by the Natural and Agricultural Sciences Faculty (NAS) and QwaQwa Research Management and Funding Committee UFS (QRMFC) that was held on 28 and 29 September 2024, at Harrismith Inn Hotel in Harrismith Town.

AT INSTITUTIONAL LEVEL:

- (a) I am appointed as the representative for the University of the Free State (UFS) (QwaQwa Campus) Academic Sector in the UFS Institutional Multi-stakeholder Group. This is a group that is linked to the University's Institutional Transformation Plan (2021-Current).
- (b) Member of the Local Organising Committee in the Science Innovation Exchange (SIX) Global Events in partnership with the UFS, which will be held from 27 September to 02 October 2024, on all three campuses of the university.
- (c) I served on the panel in the evaluation of the projects funding proposals for UFS's Central Research Funds/Grands' yearly awards for interdisciplinary research projects for 2021 and 2023, The office of the Deputy Vice-Chancellors (DVC): Research.
- (d) Served as the panellist in the Committee deciding on UFS-National Research Foundation (NRF)-Thuthuka Grants for 2022, and 2024.
- (e) Currently invited to serve on the panel, which will determine the successful NAS CRF grants (02 August 2024).

M. AWARDS AND GRANTS

- Prof Patricks Voua Otomo* (Ecotoxicology Department), Prof Puseletso Julia Mofokeng, Dr Marieka Gryzenhout, Dr Michel Kamdem, Dr Bienvenu Fouda Mbanga, Dr Lesia Mokoena (Chemistry Department), Ms Sanele Mnkanda Applied for UFS NAS Complex System Hub – Two-Tier Fungal and Polymer-Based Water Filtration System for Environmental Water Reclamation: R2 500 000.00 for three years, November 2024 (AWAITING FEEDBACK)
- Prof. Richard O. Ocaya (Chair designate) NAS, Prof. Puseletso Julia Mofokeng (Co-Chair designate) – NAS, Dr Tatenda Marange – EMS, Dr Khangelani Moyo – HUM, Prof. Patricks Voua Otomo – NAS, Prof. Prince Ngobeni – Campus Principal & Scientific Advisor Applied Dr for Vision 130-aligned UFS Scientific Research Chair: Sustainable

- Energy and Environment: R5 000 000.00 for five years July 2024, interviewed on the 18th November 2024, (AWAITING FEEDBACK)
- 3. Prof Julia P Mofokeng in collaboration with Dr Khangelani Moyo, from the Department of Social Sciences, at the Humanities Faculty applied for UFS's Central Research Funds / Grands' yearly awards for interdisciplinary research projects (R150 000.00), the office of the Deputy Vice-Chancellors (DVC): Research and Internationalisation, April 2024, (NOT SUCCESSFUL).
- 4. Prof Julia P Mofokeng and Prof Ernie H. G. Langner, from UFS Bloemfontein Campus, and two colleagues from Central University of Technology (CUT), Dr J.G. Van der Walt, and Dr Maina Maringa, submitted the CUT & UFS Joint Research Programme Research Grant. 9th Call applications in April 2024 (R400 000.00), (NOT SUCCESSFUL).
- 5. Curriculum Renewal Innovation in Higher Education Certificate, issued by the Centre for Teaching and Learning at the University of the Free State (April 2024)
- 6. Certificate of Reviewing, for the Journal of Applied Polymer Science 2023
- 7. Certificate of Reviewing, for the Journal of Applied Polymer Science 2024
- 8. The National Research Foundation (NRF) Rated Researcher in the category: Emerging Researcher (Y2) for 2020-2025.
- 9. Awarded a certificate of 20 years of service in the Department of Chemistry at the University of the Free State, issued by the Council of the University of the Free State on 29 September 2024.
- 10. Applied and Awarded 2016-2018 NRF Thuthuka (Post PhD Track) funding R350 000.00.
- 11. Awarded the Best Emerging Researcher in the Natural and Agricultural Sciences (NAS) faculty, at The University of the Free State (UFS) for 2016.
- 12. Applied and Granted the National Research Foundation (NRF)-Thuthuka 2014-2016 (PhD Track) UID 87867 funding.
- 13. Awarded a Certificate after attending an Information Technology course, Professional Collages of Southern Africa for one year (2001).
- 14. Obtained certificate in Skills and Competency for lifelong learning in 2003 awarded by the University of the Free State.
- 15. Awarded the Best Role Model for Hector Peterson Residence, in The University of the Free State (UFS) QwaQwa campus for the year 2009.
- 16. Awarded a certificate of 10 years of service in the Department of Chemistry at the University of the Free State, which was issued by the Council of the University of the Free State in 2012.

17.1 was awarded the National Research Foundation Innovation bursary from my B.Sc.

(Hons.) until my first year of PhD when I was employed as a permanent staff member by

the University of the Free State in 2011.

18. In 2013 I was selected as a reviewer for the Journal of Thermoplastic and Composite

Materials, and I have already reviewed several papers, in the area of my specialisation

(Polymer blends, natural fibre, polymer/blends composites, and nanocomposites,

biopolymers).

N. NATIONAL RESEARCH FOUNDATION (NRF) RATING

National Research Foundation (NRF) Rated Researcher in the category: Emerging

Researcher (Y2) for the period: 2020-2025.

O. GOOGLE SCHOLAR AND SCOPUS CITATION AND H-INDICES DETAILS

GOOGLE SCHOLAR: Dr Julia Puseletso Mofokeng - Google Scholar

1. Citations: 998

2. H-index: 10

3. i10-index: 11

SCOPUS: <u>Dr Julia Puseletso Mofokeng-SCOPUS</u>

1. Citations: 774

2. Cited by: 712 documents.

3. Documents: 17

4. H-index: 10

P. COMMUNITY OUTREACH

1. I have been helping a learner (Miss Karabo Motloung) of the New Horizon College in

Harrismith with her Science Expo project since April, analysing waste samples, that she envisaged to use as potholes closures material, while providing a safe and clean

environment in SA (April-July 2024).

2. LRP Weddings & Functions invited me as the Guest of Honour to speak, motivate and

encourage women, under the theme: SELF LOVE HIGH TEA, the event was held at

Charles Mopeli Stadium, Mangaung in QwaQwa (23 March 2024)

25

- 3. I have been providing information and career guidance to the youth and matriculates at The Old Apostolic Church in QwaQwa annually.
- 4. Invited as a Guest Speaker to motivate youth on Youth Day (16th June) at Makong Baptist Church 2015.
- 5. Joined the Department of Chemistry (QwaQwa Campus) on the schools' visits (Moteka S.S. School, and Kgola-Thuto S.S. School) around QwaQwa in 2023.

Q. REFERENCES

1. NAME: Dr A. J. Molefi

RELATIONSHIP: Fellow research team member and Mentor

COMPANY: Sadara Chemical

POSITION: Reactive Chemical Advisor

E-MAIL ADDRESS: moleja00@sadara.com

CONTACT NUMBER: +966545022155 (Office)

2. NAME: Prof A. S. Luyt

RELATIONSHIP: Previous Lecturer, Line Manager, and Study Supervisor from

B.Sc. Honours to Doctor of Philosophy (Ph.D.), at the University

of the Free State (UFS)

SKYPE CONTACT: riaan.luyt

E-MAIL ADDRESS: <u>riaanluyt2@gmail.com</u>
CELL NUMBER: 083 631 4242 (Cell)

3. NAME: Prof S. P. Hlangothi

RELATIONSHIP: Previous line manager and undergraduate studies lecturer at the

University of the Free State

E-MAIL ADDRESS: Percy.Hlangothi@mandela.ac.za

CONTACT NUMBER: 0829082960 (Cell)

4. NAME: Prof J. Bariyanga

RELATIONSHIP: Previous line manager at the University of the North (Qwaqwa

campus).

E-MAIL ADDRESS: <u>bariyang@hawaii.edu</u>

PROFESSOR BARIYANGA'S RECOMMENDATION LETTER FROM 2018 ATTACHED BELOW:



Dear Members of Selection Committee,

This letter has been written following a request from Dr. Julia Mofokeng. Effectively, I have known Dr. Mofokeng since 1999, as my research assistant at the University of the North-Qwaqwa. That time she was freshly graduated from high school and it was an opportunity for her to acquire skills in a research environment by helping out in various activities for a young research group made of four Honours and one masters students.

As she started her job, I soon realized her ability not only to execute tasks such as cleaning vessels, managing the store-room, and taking care of orders of supplies and chemicals; but she was capable of assisting students in their research endeavors. I was Deputy-Dean for the Division of Natural and Mathematical Sciences and Head of the School of Chemical Sciences and my time in the lab was limited. So, Dr. Mofokeng assisted me in my personal research by monitoring reactions, and isolating, and purifying products. She didn't know the chemistry behind the processes, but she was willing to learn when given explanations.

I worked with Dr. Mofokeng for two years, but I noticed her personality was characterized by hard-work qualities, team-work spirit, resiliency, and high level of generosity. I remember one case where my biology colleague hired an inexperienced worker for his group that involved animal research. The new hire had tough times to execute simple tasks. Dr. Mofokeng volunteered (during lunch time) to teach her the necessary skills for a competent research assistant.

After I left South Africa for USA in 2001, Dr. Mofokeng was so immersed in chemistry that she began her chemistry studies and subsequently graduated with a Ph.D. in Polymer Science at the University of Free State in 2015.

Just to have a perspective of the quality of her assistance, in two years, the work from my group produced 8 publications in peer-reviewed international journals, bearing in mind that we only had limited equipment made of: GPC (gel permeation chromatographer), DSC (differential scanning calorimeter), TGA (thermal gravimetric analyzer), and FTIR (Fourier, Transform infrared spectrophotometer). We lacked the most important pieces of equipment for a synthetic research group (our research focus was on the synthesis of anticancer biopolymers): NMR (nuclear magnetic resonance spectrometer), mass spectrometer, and X-ray diffractometer. Therefore, we had to work in darkness before we could access these above-mentioned missing instruments; meaning that every step in synthesis relied on perfecting crystallization and re-crystallization together with immaculate dialysis.

In summary, I would describe Dr. Julia Mofokeng as one- of- the-kind personality with no shade of weakness. I therefore strongly recommend her application for employment with great pleasure as I truly believe she represents a great asset for any institution and/or organization.

Sincerely,



Joseph
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