THE TECHNICAL UNIVERSITY OF KENYA

Haile Selassie Avenue, P.O. Box 52428, Nairobi, 00200, Tel +254(020) 343672, 2249974, 2251300, 341639

Fax 2219689, Email: vc@tukenya.ac.ke, Website: www.tukenya.ac.ke

NAME: PROF WILSON MUGERA GITARI



Current Designation:	Professor, DEPARTMENT OF CHEMISTRY AND MATERIALS SCIENCE
Office Telephone:	+254714585364
Official Email:	mugera.gitari@tukenya.ac.ke
Consultation Hours:	8AM-5PM MON - FRI

EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Doctor of Philosophy (PhD)	CHEMISTRY	UNIVERSITY OF THE WESTERN CAPE(South Africa)	2006
Masters of Science (M.Sc.)	CHEMISTRY	UNIVERSITY OF NAIROBI(Kenya)	2000
Bachelor of Education (B.Ed)	SCIENCE	KENYATTA UNIVERSITY(Kenya)	1994
A Level/Equivalent	KENYA ADVANCED CERTIFICATE OF EDUCATION	KIANYAGA HIGH SCHOOL(Kenya)	1989
O level/Equivalent	KENYA CERTIFICATE OF EDUCATION	KIANYAGA HIGH SCHOOL(Kenya)	1987
KCPE/Equivalent	CERTIFICATE OF PRIMARY EDUCATION	KARAINI PRIMARY SCHOOL(Kenya)	1983

WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
01/10/2021 - Permanent position	The Technical University of Kenya	Professor of Chemistry
01/04/2013 - 31/12/2016	University of Venda	Ass Prof of Environmental Chemistry
20/09/2006 - 31/12/2009	University of the Western Cape	Post-Doctoral Researcher
1994 - 31/10/1996	Wangai Secondary School	Graduate Teacher
01/01/2017 - 31/08/2021	University of Venda	Professor of Environmental Chemistry
29/01/2010 - 31/03/2013	University of Venda	Senior Lecturer (Environmental Chemistry)
2000 - 23/03/2003	Kabete Technical Training Institute	Lecturer (Chemistry)

GENERAL STATEMENT ON RESEARCH AREAS

Prof Mugera Gitari has supervised to completion 13 PhDs, 28 MSc and 5 Postdoctoral fellows. He is currently supervising 3 PhDs, 3 MSc and 1 Postdoctoral fellow

My research focuses on development of Environmental inspired Technologies in combination with Inorganic-Analytical Chemistry tools for Natural Resources Management. Leading and an established expert in the field of Environmental remediation Chemistry, Water treatment technologies and Industrial, Nanomaterials, Agricultural waste management through beneficiation.

Prof Mugera Gitari publications include 133 journal publications, 49 peer reviewed conference proceedings, 85 abstracts and invited talks, 9 book chapters, 18 technical reports to industries, 3 granted patents and 1 pending patent registration in USA and Canada. Google Scholar index h-index 30, Scopus h-index 27, South Africa C2 NRF Rating researcher

SELECTED PUBLICATIONS

TITLE	LINK TO PUBLICATION	YEAR
Munzhelele, E.P.; Ayinde, W.B.; Mudzielwana, R.; Gitari, W.M. Synthesis of Fe Doped Poly p-Phenylenediamine Composite: Co-Adsorption Application on Toxic Metal Ions (F− and As3+) and Microbial Disinfection in Aqueous Solution. Toxics 2021, 9, 74	View online	2021
SA Akinyemi,..Wilson M Gitari et al.. 2021. Geochemistry, mineralogy and thermal analyses of Cretaceous coals from the Benue Trough basin Nigeria: Reconnaissance assessments. Journal of African Earth Sciences, Volume 178, June 2021, 104167	View online	2021
Pindihama G, Gitari M and Madala N. Effect of linear alkylbenzene sulfonate on the uptake of microcystins by Brassica oleracea and Solanum tuberosum [version 2; peer review: 2 approved]. F1000Research 2024, 11:1166	View online	2024
Munzhelele, E. P., Mudzielwana, R., Ayinde, W. B., & Gitari, W. M. (2024). Pharmaceutical Contaminants in Wastewater and Receiving Water Bodies of South Africa: A Review of Sources, Pathways, Occurrence, Effects, and Geographical Distribution. Water, 16(6), 796	View online	2024
Glynn K Pindihama and Mugera W Gitari. The effect of the linear alkylbenzene sulfonate, sodium-dodecyl-sulfonate (SDS),on the bioaccumulation of Al, Sr and Mn by Brassica oleracea and Solanum tuberosum. Water SA 49(3) 282–290 / Jul 2023	View online	2023
G.K. Pindihama, W.M. Gitari, S. Mukangaya. Application of solid phase adsorption toxin tracking technology (SPATT) for monitoring microcystins in farm dams in Levubu farming area, South Africa. Physics and Chemistry of the Earth 132 (2023) 103500	View online	2023
T.J. Mabidi, O.U. Izevbekhai, W.M. Gitari, R. Mudzielwana, W.B. Ayinde. Preparation and characterization of acid-leached diatomaceous earth for application in the treatment of oily wastewater. Physics and Chemistry of the Earth 132 (2023) 103497.	View online	2023
Pindihama GK, Gitari MW, Mudzielwana R, Madala NE. Development of a chitosan-multi-walled carbon nanotubes composite for application in solid-phase adsorption toxin tracking of microcystins. S Afr J Sci. 2023;119(9/10), Art. #14786.	View online	2023
E. P. Munzhelele, M. W. Gitari, W. B. Ayinde and R. Mudzielwana. Synthesis of Fe3+/Ce3+-doped poly(paraphenylenediamine) adsorbents and their application in the removal of fluorides, arsenites and pathogens from water. Environ. Sci.: Water Res. Technol., 2023, 9, 542–557	View online	2023
Wilson Mugera Gitari, Olumuyiwa Adewale Obijole, Rabelani Mudzielwana. (2022). Synthesis of porous hydroxysodalite from aluminosilicate rich clay soils: application towards fluoride and pathogen removal. Environmental Science and Pollution Research	View online	2022
E.P. Munzhelele, W.M Gitari, W.B. Ayinde, R. Mudzielwana. Synthesis, characterization of Ce3+ doped poly (para-phenylenediamine) composite for fluoride, arsenite and pathogens removal in aqueous solutions. Reactive and Functional Polymers 176 (2022) 105297	View online	2022
Nsovo Mhlarhi, Wilson Mugera Gitari, Wasiu Babatunde Ayinde, Nikita Tawanda Tavengwa, Rabelani Mudzielwana & Oisaemi Uduagele Izevbekhai (2023): Biosorption of toxic metal ions (Cr+6, Cd2+) and nutrients (PO43-) from aqueous solution by diatom biomass, Journal of Environmental Science and Health, Part A	View online	2023
Nekhavhambe, H.H.; Mudzielwana, R.; Gitari, M.W.; Ayinde,W.B.; Izevbekhai, O.U. Fluoride Bio-Sorption Efficiency and Antimicrobial Potency of Macadamia Nut Shells. Materials 2022, 15, 1065.	View online	2022
Ayinde,W.B.; Gitari, M.W.; Smith, J.A.; Samie, A. Sorption of Fluoride and Bacterial Disinfection Property of Biosynthesized Nanofibrous Cellulose Decorated Ag–MgO–Nanohydroxyapatite Composite for Household Water Treatment. Polymers 2022, 14, 890	View online	2022
Segun A. Akinyemi, James C. Hower, Henry Y. Madukwe, Bemgba B. Nyakuma, Mohammed B. Nasirudeen, Timileyin A. Olanipekun, Rabelani Mudzielwana, Mugera W. Gitari, Luis F.O. Silva. Geochemical, mineralogical, and petrological characteristics of the Cretaceous coal from the middle Benue Trough Basin, Nigeria: Implication for coal depositional environments. Energy Geoscience 3 (2022) 300-313	View online	2022
Tebogo Mphatlalala Mokgehle, Ntakadzeni Madala, Wilson Mugera Gitari, Nikita Tawanda Tavengwa. Advances in the development of biopolymeric adsorbents for the extraction of metabolites from nutraceuticals with emphasis on Solanaceae and subsequent pharmacological applications. Carbohydrate Polymers 264 (2021) 118049. https://doi.org/10.1016/j.carbpol.2021.118049	View online	2021
Rabelani Mudzielwana and Mugera Wilson Gitari. Removal of fluoride from groundwater using MnO2 bentonite-smectite rich clay soils composite. Groundwater for Sustainable Development 14 (2021) 100623	View online	2021
Segun A. Akinyemi, Olajide F. Adebayo, Henry Y. Madukwe, Ayobami T. Kayode, Adeyinka O. Aturamu, Olusola A. OlaOlorun, Bemgba B. Nyakuma, Aliyu Jauro, Wilson M. Gitari, Rabelani Mudzielwana, James C. Hower. Elemental geochemistry and organic facies of selected cretaceous coals from the Benue Trough basin in Nigeria: Implication for paleodepositional environments. Marine and Petroleum Geology 137 (2022) 105490	View online	2022
Arinao Murei, Karen Pillay, Patrick Govender, Ntevheleni Thovhogi, Wilson M. Gitari and Amidou Samie. Synthesis, Characterization and In Vitro Antibacterial Evaluation of Pyrenacantha grandiflora Conjugated Silver Nanoparticles. Nanomaterials 2021, 11, 1568	View online	2021
Segun A. Akinyemi, Bemgba B. Nyakuma, Aliyu Jauro, Timileyin A. Olanipekun, Rabelani Mudzielwana, Mugera W. Gitari, Binoy K. Saikia, Guilherme L. Dotto, James C. Hower, Luis F.O. Silva. Rare earth elements study of Cretaceous coals from Benue Trough basin, Nigeria: Modes of occurrence for greater sustainability of mining. Fuel 304 (2021) 121468	View online	2021
Tebogo Mphatlalala Mokgehle, Ntakadzeni Edwin Madala, Wilson Mugera Gitari and Nikita Tawanda Tavengwa. 2021. Hyphenation of aqueous two-phase and microwave extraction of solasonine and solamargine from leaves of Solanum mauritianum characterized by UHPLC-qTOF-MS. Biomass Conversion and Biorefinery	View online	2021
O.U. Izevbekhai, W.M. Gitari and N.T. Tavengwa. Optimization of Silica Extraction from Diatomaceous Earth using the Central Composite Design of Response Surface Methodology. S. Afr. J. Chem., 2021, 75, 80–90	View online	2021
Akintola GO, Amponsah-Dacosta F, Rupprecht S, Palaniyandy N, Mhlongo SE, Gitari WM, Edokpayi JN. Methanogenesis Potentials: Insights from Mineralogical Diagenesis, SEM and FTIR Features of the Permian Mikambeni Shale of the Tuli Basin, Limpopo Province of South Africa. Minerals 2021, 11, 651	View online	2021
Tebogo Mokgehle, Ntakadzeni Madala, Wilson Gitari and Nikita Tavengwa. Deciphering the efects of kosmotrope and chaotrope salts during aqueous two phase extraction (ATPE) of polyphenolic compounds and glycoalkaloids from the leaves of a nutraceutical plant, Solanum retrofexum, with the aid of UPLC-QTOF-MS. Appl Biol Chem (2021) 64:28	View online	2021
Olumuyiwa A. Obijole, Gitari Wilson Mugera, Rabelani Mudzielwana, PatrickG. Ndungu, Amidou Samie, AyindeW. Babatunde. Hydrothermally treated aluminosilicate clay (HTAC) for remediation of fluoride and pathogens from water: Adsorbent characterization and adsorption modelling. Water Resources and Industry. Volume 25, June 2021, 100144	View online	2021
Tebogo Mphatlalala Mokgehle, Ntakadzeni Madala, Wilson Mugera Gitari and Nikita Tawanda Tavengwa. Application of TLC and UHPLC–QTOF–MS for the identification of aqueous two phase extracted UV–fuorescent metabolites from Solanum retrofexum. JPC – Journal of Planar Chromatography – Modern TLC https://doi.org/10.1007/s00764-021-00123-7. Received: 29 June 2021 / Accepted: 10 September 2021.	View online	2021
Oisaemi Uduagele Izevbekhai, Wilson Mugera Gitari, Nikita Tawanda Tavengwa, Wasiu Babatunde Ayinde and Rabelani Mudzielwana. Synthesis and evaluation of the oil removal potential of 3-bromo-benzimidazolone polymer grafted silica gel. RSC Adv., 2021, 11, 11356–11363	View online	2021
Segun A. Akinyemi , Bemgba B. Nyakuma, Aliyu Jauro, Olajide F. Adebayo, Olusola A. OlaOlorun, Adebanji K. Adegoke, Adeyinka O. Aturamu, Ademuyiwa Adetunji, Wilson M. Gitari, Rabelani Mudzielwana. Mineralogy, physicochemical and oxidative thermal analyses of Cretaceous coals from the Benue Trough, Nigeria. Energy Geoscience 2 (2021) 129-135. https://doi.org/10.1016/j.engeos.2020.07.001	View online	2021