

Data on all Publications by staff and by students
List of Publications by Staff

1. School of MEWES

1.1 PUBLICATION RECORD FOR KAROLI N.NJAU

Journal Papers

1. Julius P.Mairi, Thomas J. Lyimo and Karoli N. Njau, Performance of Subsurface Flow Constructed Wetland for Domestic Wastewater Treatment, Tanzania Journal of Science Vol. No. 38(2) (2012).
2. Jamidu H.Y. Katima, Leonard Gastory and Karoli N. Njau. "Treatment of acid mine drainage using constructed wetland in tropical environment - a Tanzanian case report" *Accepted for publication in J. Agricultural Science and Technology, USA*
3. A. K. Kondo, A. Nyomora and K.N. Njau, "Pollutants Removal Efficiency of two Mangroves Species (*Avicennia marina* and *Rhizophora mucronata*) treating domestic sewage" *Accepted for publication in Huria Journal Vol 14*
4. W. S. Lohay, T. J. Lyimo and K. N. Njau "Influence of flow velocity on the removal of faecal coliforms in horizontal subsurface flow constructed wetland" J. Water Science & Technology 2012, Vol. 66 No.12 pp 2828-2813
5. A.M.S. Nyomora, K.N. Njau and L. Mligo. "Establishment and growth of vetiver grass exposed to landfill leachate" J. Solid Waste Technology and Management 2012. Vol. 38 No. 2. pp 82-92
6. K. M. Bwire, K. N. Njau and R. J. A. Minja "Use of vetiver grass constructed wetland for treatment of leachate". Water Sci Technol. 2011;63(5):924-30.
7. K. N. Njau, L. Gastory, B. Eshton, J. H. Y. Katima, R. J. A. Minja, R. Kimwaga and M. Shaaban "Effect of diffusional mass transfer on the performance of horizontal subsurface flow constructed wetlands in tropical climate conditions". Water Science & Technology 2011 Vol 63 No (12) pp 3039–3050
8. Annelies Balkema, Karoli N. Njau, Henny Romijn, Ralph de Ruijter "Socio-economic analysis of constructed wetlands systems for hygienic sanitation in Tanzania" Water Practice & Technology Vol 5 No 1 (2010)
9. M. Renalda, K. N. Njau "Performance of horizontal subsurface flow constructed wetland (HSSFCW) in the removal of tannins" Can. J. Civ. Eng. 37(3): 496–501 (2010).
10. K.N. Njau, J.H.Y. Katima, R. Minja, "Pumice Soils: A Potential Substrate in Constructed Wetland Treatment System". J. Water Sci. & Tech. 48 No.5 (2003) pp 85-92
11. K.N. Njau, M.vd. Woude, G.J. Visser and L.J.J.Janssen " Electrochemical removal of nickel ions from industrial wastewater" Chemical Engineering Journal 79 (2000) 187-195
12. K.N. Njau, L.J.J.Janssen " Electrochemical reduction of chromate ions from dilute artificial solution in a GBC reactor", accepted for publication, Journal of Applied Electrochemistry (1998)
13. K.N. Njau, Y. M. Hosseini and L.J.J. Janssen, "Electrochemical reduction of nickel ions from dilute solutions in a GBC reactor", Journal of Applied Electrochemistry 28 (1998)
14. K. N. Njau, W. -J. van der Knaap and L. J. J. Janssen, Reduction of ferric ions in dilute solution in a semi-technical scale GBC reactor", Journal of Applied Electrochemistry 28 (1998) 343
15. L.J.J.Janssen, M.E. van der Woude, K.N. Njau and K. Rutgers-vd. Steen," Regeeratie Van Metaalionen Bevattende Voeistoffen Gebruik Makend van Waterstof Gas" Research Document, Technical University Eindhoven, December (1997)
16. P.A.G.M. Scheren, J. C. Bosboom and K. N. Njau "Assessment of water Pollution in the catchment Area of Lake Victoria, Tanzania, Journal of Eastern African Research and Development , Vol. 25(1995)
17. J.H.Y. Katima and K.N. Njau "Fluoride Removal from Common Salt by using Solar Salt works", The Tanzania Engineer, Vol. 4 No. 4 (1995), pp4-14
18. K.N. Njau, L.J.J.Janssen " Electrochemical reduction of nickel ions in dilute solution", Journal of Applied Electrochemistry 25 (1995)
19. K.N. Njau, " Absorption of Carbon Dioxide by aqueous amines" The Tanzania Engineer vol. 3 No. 3 (1990)

Conference Proceedings

1. A.T. Haule, H.B. Pratap, J.H.Y. Katima, T.S.A Mbwette, and K.N. Njau, " Removal From Domestic Wastewater in Subsurface Flow Constructed Wetland by Indigenous Macrophytes in Tropics. A comparative study of Six Potential Macrophytes in Tanzania. Proc. of 8th IWA International Conference on Wetland Systems for Water Pollution Control, Arusha Tanzania, September 2002, pp 938-951
2. W. Mwegoha, J.H.Y. Katima, TSA Mbwette, KN Njau, SE Jorgensen and SN Nielsen: Modelling the Effect of Suspended Solids Accumulation on Hydraulic Conductivity of Gravel Packed Horizontal Sub-Surface Flow Constructed Wetland. Proc. Of 8th IWA International Conference on Wetland Systems for Water Pollution Control, Arusha, Tanzania, September 2002, pp. 799-812
3. K. N Njau, JHY Katima and R Minja: Pumice Soils: A Potential Substrate in Constructed Wetland Treatment Systems. Proc. of 8th IWA International Conference on Wetland Systems for Water Pollution Control, Arusha, Tanzania, September 2002, pp. 290-303.

Books/Manuals

1. Bioenergy for Sustainable Development and International Competitiveness: Role of Sugarcane. Edited by Francis X Johnson and Vikram Seebaluck, 1st edition 2012, Routledge 2 Park Square, Milton Park Oxon OX14 4RN UK; ISBN: 978-1-84971-103-6 (Contributed to Chapter 7).
2. K.N. Njau, W. Mwegoha and Anesi Mahenge "Operations and Maintenance Manual for Horizontal Subsurface Flow Constructed Wetlands", 1st Ed. Dar es Salaam University Press, June 2010. ISBN 978- 9976-60-508- 2.
3. K.N. Njau and L.G. Lugali "Design Manual for Constructed Wetlands", 1st Ed. Dar es Salaam University Press, June 2010. ISBN: 978-9976-60-511-2. (Currently in Print)
4. K.N. Njau, N.Chacha, S. Pamba " Construction Instruction Manual for Constructed Wetlands" 1st Ed. Dar es Salaam University Press
5. [J. H. Y. Katima](#), [K. N. Njau](#) "Labour-Based Technology: A Review of Current Practice" [International Labour Organisation, Tanzania](#), ISBN-10: 9221149927, ISBN-13: 9789221149927 (January 2004)

PATENTS

1. K.N. Njau, J.H. Y Katima, R.J.A. Minja and H. Hirji, "Modification of Pure Plant Oil (PPO) using GBM and a natural adsorbent to make it suitable for use in low- and medium speed engines" Patent Claim has been submitted to the UDSM IPR Office for further processing.
2. K.N. Njau, J.H. Y Katima, R.J.A. Minja and H. Hirji, "Modification of Pure Plant Oil (PPO) using DBM and a natural adsorbent material to make it suitable for use in low- and medium speed engines" Patent Claim has been submitted to the UDSM IPR Office for further processing.

1.2 PUBLICATION RECORD FOR ALFRED N. N. MUZUKA

Journal Papers

1. Helena Öberg, Elin Norström, Maria Malmström Ryner, Karin Holmgren, Lars-Ove Westerberg, Jan Risberg, Sigrún Dögg Eddudóttir, Alfred Muzuka (in press). Environmental variability in northern Tanzania from c. AD 1000 to 1800, as inferred from diatoms and pollen in Lake Duluti. *Palaeogeography Palaeoclimatology Palaeoecology*.
2. Muzuka, A. N.N., Dubi A. M., Muhando C. A., Shaghude, Y. W., 2010. Impact of hydrographic parameters and seasonal variation in sediment fluxes on coral status at Chumbe and Bawe reefs, Zanzibar, Tanzania. *Estuarine Coastal and Shelf Science* 89, 137-144.
3. Muzuka, A. N. N., 2007. Distribution of heavy metals in the coastal surficial sediments in the Msasani Bay-Dar es salaam harbour area. *Western Indian Ocean Journal of Marine Science* 6, 73-83.
4. Shaghude Y. W., Nyandwi N., Muzuka, A. N. N., Dubi, A. M. and Mwaipopo O. U., 2006. Sediment characteristics and hydrodynamic setting of reef platform sediments of Kunduchi, north of Dar es Salaam harbour. *Tanzania Journal of Science* 32 (1), 37-52.
5. Muzuka, A. N. N., 2006. Stable isotope compositions of organic carbon and contents of organic carbon and nitrogen of lacustrine sediments from sub-arid Northern Tanzania. *Tanzania Journal of Science* 32 (1) 61-74.
6. Muzuka, A. N. N. 2006. Early diagenetic alteration of recently deposited organic matter in coastal marine sediments west of Unguja Island, Zanzibar. *Western Indian Ocean Journal of Marine Science* 5, 79-88.
7. Ryner, M. A., Bonnefille, R., Holmgren, K. and Muzuka A. 2006. Vegetation changes in Empakai Crater, northern Tanzania, at 14600-9500 cal yr BP. *Review of Paleobotany and Palynology* 140, 163-174.
8. Muzuka A. N. N., Shaghude Y. W., Wannäs K. O. and Nyandwi N. (2005) Sediment sources and their distribution in Chwaka Bay. *Western Indian Ocean Journal of Marine Science* 4 (2), 185-197.
9. Muzuka, A. N. N., and Shunula, J. P., 2006. Stable isotope compositions of carbon and nitrogen of mangrove stands along the Tanzanian coastal zone. *Estuarine Coastal and Shelf Science* 66, 447-458
10. Muzuka A. N. N., Ryner M. and Holmgren K. 2005. A 12000-year preliminary results of stable nitrogen and carbon isotope record from the Empakai Crater lake sediments, Northern Tanzania *Journal of African Earth Sciences* 40, 293-303.
11. Muzuka, A. N. N., Machiwa, J. F. and Lugomela, C. 2005. Recent trends in accumulation rate, elemental and isotopic composition of organic matter in the Magu Bay, Lake Victoria. *Tanzania Journal of Science* 31 (1), 23-34.
12. Machiwa, J. F., Lugomela, C., Muzuka, A. N. N. 2004. Phytoplankton and nutrients studies in Magu Bay Speke Gulf, Lake Victoria (Tanzania) following the 2001 principal rain season. *Tanzania Journal of Science* 30 (1), 33-42.
13. Muzuka, A. N. N., 2004. Elemental and isotopic compositions of organic carbon and nitrogen for recently deposited organic matter in Empakai crater, northern Tanzania, and its implication for climatic changes. *Tanzania Journal of Science* 30 (2), 87-96
14. Muzuka, A. N. N., Nyandwi, N. and Shaghude, Y. W. 2004 Preliminary investigation on the Pleistocene/Holocene Sea-Level Changes along the Coastline of Tanzania, with reference to Unguja and Pemba Islands. *Boletim Geológico* 43, 8-13
15. Muzuka, A. N. N. and Nyandwi, N., 2002 Lake Tanganyika Holocene record on variability in precipitation in the Malagarasi catchment basin. *Advances in Global Change Research Vol. 12 (The East African Great Lakes: Limnology, Palaeolimnology and Biodiversity)* p. 415-428.
16. Muzuka, A. N. N. 2001 Sources and diagenetic alteration of organic matter in coastal waters in vicinity of Dar es salaam, Tanzania. *Tanzania Journal of Science* 27, 39-55.

17. Muzuka, A. N. N., 2000. 350 ka organic $\delta^{13}\text{C}$ record of the monsoon variability on the Oman continental Margin, Arabian Sea. *Indian Academy of Science (Earth and Planetary Sciences Section)* 109, 481-489.
18. Muzuka, A. N. N., and Shaghude, Y. W., 2000. Grain size distribution along the Msasani beach north of the Dar es salaam harbour. *Journal of African Earth Sciences* 30, 417-426.
19. Muzuka, A. N. N. 1999. Stable isotope compositions of sedimentary organic matter off Zanzibar Town. *Tanzania Journal of Science* 25, 55-70.
20. Muzuka, A. N. N., and Hillaire-Marcel, C., 1999. Burial rates of organic matter along the eastern Canadian margin and stable isotope constraints on its origin and diagenetic evolution. *Marine Geology* 160, 251-270.
21. Muzuka, A. N. N., 1999. Isotopic compositions of tropical East African flora and their potential as source indicators of organic matter in coastal marine sediments. *Journal of African Earth Sciences* 28, 757-766.
22. Muzuka, A. N. N., 1997. Can stable isotopic compositions of tropical East African flora be used as source indicators in coastal marine sediments? *Tanzania Geological Society* 1, 1-5.
23. Muzuka, A. N. N., 1995. Burial rate and diagenetic changes of nitrogen bearing organic matter in the subarctic northwest Atlantic. PhD. Thesis, Université du Québec à Montréal, 262pp.
24. Muzuka, A. N. N., and Macko, S. A., 1995. Late Pliocene to early Pleistocene productivity in the Arabian Sea. *Journal of African Earth Sciences* 20, 245-252.
25. Fay, M., Masalu, D. C. P., and Muzuka, A. N. N., 1992. Siliciclastic-carbonate transitions in surface sediments of a back-reef lagoon north of Dar-es-Salaam (Tanzania). *Sedimentary Geology* 78, 49-57.
26. Muzuka, A. N. N., 1990. Late Pliocene-Quaternary history of the Northwestern Indian Ocean: An organic Geochemistry Perspective. M. Sc. Thesis, Memorial University, 164p.

CHAPTERS IN A BOOK, CONFERENCE PROCEEDINGS AND RESEARCH REPORTS

1. Shaghude, Y.W., Mahongo S., Muzuka A. N.N., and Nyandwi, N, 2012. Physical and geological processes in Chwaka Bay. In. de la Torre-Castro, M., and Lyimo, T. J. (Eds.) *People, Nature and Research in Chwaka Bay, Zanzibar*, p. 41-55. ISBN: 978-9987-9559-1-6, Zanzibar Town: WIOMSA
2. Alfred N.N. Muzuka, Kahitira M. Bwire, Mwanahija Shalli, Margareth Kyewalyanga, Gay M. Jacob, and Lilian Ibengwe, 2011. Enhancement of Adaptation Strategies of Coastal Communities Dependent on Coastal Panaeid Shrimps Fisheries to Impacts of Climate Change and Variability in Coast Region, Tanzania. Report of the UNESCO-IOC Chair of Marine Technology at the Institute of Marine Sciences, UDSM.
3. Shaghude, Y.W., Muzuka, A.N.N., and Nyandwi N. 2009. Quaternary sedimentary record of monsoon winds variability and associated carbon and nitrogen burial rates on the east African continental margin. Funded by START.
4. Mgyaya, Y. D., Machiwa, J. F., Lugomela, C., Lyimo, T., Joseph, C., Muzuka, A., Shaghude, Y., Mvungi, A., Mapunda, B. and Mwanuzi, F. L. 2004. Environmental studies of Mtoni mangrove ecosystem, Dar es Salaam.
5. Machiwa, J. F., Muzuka, A. N. N., Dubi, A. M., Ndarro, S. G. M., and Lugomela, C., 2003. Sedimentation studies at the Simiyu River mouth (Magu Bay, Speke Gulf) Lake Victoria, Tanzania. Unpublished report, Lake Victoria Environmental Management Project, Vice President Office, United Republic of Tanzania, p.97.
6. Muzuka, A. N.N. 2003. Heavy minerals distribution on the west coast of Unguja and Pemba Islands. Unpublished MARG-1 Final Report, Research Report No: IMS/2003/01, p. 49.
7. Muzuka, A. N. N., Kangwe, J. M., Nyandwi, N., Wannäs, K., Mtolera, M. S. P., and Björk, M., 2001. Preliminary results on the sediment sources, grain size distribution and percentage cover of sand-producing Halimeda species and associated flora in Chwaka Bay. In: Richmond, M. D., and Francis, J. (Eds.) *Marine Science Development in Tanzania and Eastern Africa. Proceedings of the 20th Anniversary Conference on Advances in Marine Science in Tanzania. 28 June- 1 July 1999, Zanzibar, Tanzania. IMS/WIOMSA*, p. 51-59.

8. Muzuka, A. N. N., 2001. Sources of organic matter in the Msasani Bay and Dar es salaam harbour. In: Richmond, M. D., and Francis, J. (Eds.) Marine Science Development in Tanzania and Eastern Africa. Proceedings of the 20th Anniversary Conference on Advances in Marine Science in Tanzania. 28 June- 1 July 1999, Zanzibar, Tanzania. IMS/WIOMSA, p. 61-76.
9. Muzuka, A. N. N., and Shunula, J. P., 2000. Stable isotope compositions of carbon and nitrogen of mangrove stands along the Tanzanian coastal zone. Unpublished research report no. IMS/2000/03.
10. Muzuka, A. N. N., 2000. Diagenetic alteration of organic matter in coastal marine sediments west of Unguja Island, Zanzibar. Unpublished research report no. IMS/2000/01.
11. Muzuka, A. N. N. 1998. Stable isotope compositions of sedimentary organic matter in Tanzanian coastal water. Report No. IMS/1998/01.
12. Muzuka A. N. N. 1996. Variations in the input of organic matter in the Southern Labrador Sea for the past 30,000 years. Proceedings of the International seminar on the use of isotope techniques in marine environmental studies held in Athens (11-22 November, 1996), paper: IAEA-SR-194/39.
13. Muzuka, A. N. N., 1996. Relation between beach ecology and habitat for situations prevailing in Zanzibar. In: Mohamed, S. F. and Betlem, J. Proceedings of the National Workshop on Coastal Erosion Zanzibar, 11 and 12 April, 1996. Zanzibar Environmental Study Series No. 20. Commission for Lands and Environment-Zanzibar.
14. Muzuka, A. N. N., Macko, S. A. and Pedersen, T. F., (1991): Stable carbon and nitrogen isotope compositions of organic matter from ODP Sites 724 and 725, Oman Margin. In: Prell, W. L., Niitsuma et al., Proceedings of the Ocean Drilling Program Scientific Results Vol. 117. College Station, Texas, p. 571-586.

ABSTRACTS FOR CONFERENCES

1. Elinas Monga, Alfred N. N. Muzuka and Mwita M. Mangora 2011. Ecological differences between conserved and unconserved mangrove forests of Zanzibar, Tanzania 7th WIOMSA Conference, Mombasa, Kenya. 24 – 29th October 2011.
2. Neema John and Alfred N. N. Muzuka 2011. Early Diagenetic Alteration of Sedimentary Organic Matter in Maruhubi Mangrove Stand. 7th WIOMSA Conference, Mombasa, Kenya. 24 – 29th October 2011.
3. Kahitira M Bwire, Alfred N. N. Muzuka and Narriman Jiddawi 2011. Adaptation strategies of Coastal Communities Dependent on Coastal Panaeid Shrimp Fisheries to Impacts of Climate Change and Variability in Coastal Region, Tanzania
4. Siyajali Pamba, Alfred N N Muzuka and Y W Shaghude 2011. Preliminary Results on Dispersion and Transport Pattern of Suspended Particulate Matter in the Pangani Estuary, Tanzania. 7th WIOMSA Conference, Mombasa, Kenya. 24 – 29th October 2011.
5. Alfred N.N. Muzuka, Yohanna W. Shaghude and Ntahondi Nyandwi 2011. Glacial-interglacial fluxes and burial rate of carbon and nitrogen along the Tanzanian continental margin. 7th WIOMSA Conference, Mombasa, Kenya. 24 – 29th October 2011.
6. Alfred N.N. Muzuka and Kahitira M.Bwire 2010. Adaptation Strategies of Coastal Communities Dependent on Coastal Panaeid Shrimp Fisheries to Impacts of Climate Change and Variability in Coast Region, Tanzania 3rd EAQUA 7-12 February 2011.
7. Muzuka 2009. Contribution of third world academy of science (TWAS) towards marine sciences development in Tanzania. TWAS 11th General Conference, Durban 20-23 October 2009,
8. Ilomo, O.O, Muzuka, ANN, and Machiwa J.F. 2009. Variation in input of Cu, Cr, Mn, organic carbon and nitrogen in sediment cores from the Dar es Salaam and Zanzibar reef areas. 6th WIOMSA Scientific Conference, St Denis, La Reunion 24 – 29th August 2009
9. Muzuka A.N.N., Shaghude Y.W and Nyandwi, N. 2009. 30 ka record of major and trace elements and its implication to terrigenous sediments input and primary productivity in the Pemba Channel, Tanzania. 6th WIOMSA, St Denis, La Reunion 24 – 29th August 2009

10. Muzuka, A. N.N. 2009. Vegetation changes in northern Tanzania for the past 5 ka years. Presented during the 2nd Eastern African Quaternary Research Association (EAQUA) Workshop, Addis Ababa, Ethiopia, 20-25 May 2009.
11. Muzuka A.N.N., Dubi A.M. and Muhando C.A. Seasonal variation in sediment fluxes at Chumbe and Bawe reefs. Presented during the 6th WIOMSA Scientific Conference held at St Denis, La Reunion 24 – 29th August 2009,
12. Dietary source for organisms dwelling in mangrove ecosystem: stable isotopes appraisal. 5th WIOMSA Scientific Conference held in Durban 22-27 October 2007
13. Muzuka A.N.N., Nyandwi N., Holmgren K, Ryner M, Shaghude Y. W. and Macko S. A., 2007. Mid-late Holocene climate variability in northern Tanzania as recorded in Crater Lake sediments. Presented during the Eastern Africa Quaternary Research Society (EAQUA) Workshop held in Kampala Uganda, 7-8 June 2007.
14. Muzuka, A.N.N. 2006. Stable isotopes compositions of organic carbon and nitrogen as indicator of pollution in mangrove ecosystem. Presented during Indian Ocean Biogeochemical and Ecological Research (SIBER) Conference, Goa INDIA, 3-6 October 2006.
15. Charlet F., Verschuren D., De Batist M., Bessems I, Olago O. and Muzuka, A. 2005. Two glacial-interglacial cycles of lake-level change in equatorial East Africa documented by high-resolution seismic sequence stratigraphy from Lake Challa (Kenya). Geophysical Research Abstracts, Vol. 7, 06662.
16. Muzuka, A. N. N. 2005 Distribution of heavy metals in the coastal surficial sediments in the Msasani Bay-Dar es Salaam Harbour area. 4th WIOMSA Scientific Conference 29 August-3 September 2005
17. Torssander P., Muzuka A. N. N., Mgaya Y. D., Nyandwi N. Wannäs K. Stable isotopes of carbon and nitrogen in coral tissue along the Tanzanian coast. 3rd WIOMSA Scientific Conference 15-17 October 2003
18. Muzuka A. N. N., Shaghude Y. W., Wannäs K. O. and Nyandwi N. 2003 Sediment sources and their distribution in Chwaka Bay. 3rd WIOMSA Scientific Conference 15-17 October 2003
19. Muzuka, A. N. N. 2003 Heavy minerals distribution on the west coast of Unguja and Pemba islands. 3rd WIOMSA Scientific Conference 15-17 October 2003.
20. Muzuka, A. N. N., Nyandwi, N., and Shaghude, Y. W., 2002. Preliminary investigation on the Pleistocene/Holocene sea level changes along the coastline of Tanzania, with reference to Unguja and Pemba Islands. Abstract INQUA Conference, Inhaca, Mozambique 5-9 November 2002.
21. Muzuka, A. N. N., Ryner, M., and Holmgren, K., 2002. Recent climatic changes in northern Tanzania inferred from stable isotopes of nitrogen and organic carbon. Abstract PLATINA meeting 19-21 October 2002, Arusha.
22. Muzuka, A. N. N., 2002. Elemental and isotopic compositions of organic carbon and nitrogen for recently deposited organic matter in Empakai crater, northern Tanzania, and its implication for climatic changes. Scientific Symposium on Environment 23-26 September 2002
23. Muzuka, A. N. N., and Shunula, J. P., 2001. Stable isotope compositions of carbon and nitrogen of mangrove stands along the Tanzanian coastal zone. Book of Abstract 2nd WIOMSA Scientific Symposium 22-26 October 2001, Dar es Salaam, p. 54-55.
24. Muzuka, A. N. N., 2001. Diagenetic alteration of organic matter in coastal marine sediments west of Unguja Island, Zanzibar. Book of Abstract, 2nd WIOMSA Scientific Symposium 22-26 October 2001, Dar es Salaam, p. 54.
25. Muzuka, A. N. N. and Nyandwi, N., 2001. Temporal variation in organic carbon stable isotope composition of lacustrine sediments from sub-arid northern Tanzania. International Conference on the study of Environmental change using isotope techniques, Book of Extended Synopses IAEA-CN-80/34, p.39-40, Vienna, Austria 23-27 April 2001.
26. Muzuka, A. N. N., and Hillaire-Marcel, C., 1995. Sources, paleoproductivity and burial rates of organic carbon and nitrogen in the Labrador Sea for the past 31,000 years. ICP-V (Fifth International Conference on Paleoceanography, October 10-14) Program and Abstracts, p. 109-110.

27. Muzuka, A. N. N., 1994. Stable isotopes of surficial organic matter along a transect across the Labrador Sea. In: Rapport Annuel 1993-1994, Chaire de Recherche en Environnement Hydro-Québec, CRSNG, UQAM, et Centre de Recherche en Géochimie Isotopique et en Géochronologie, p. 62-63.
28. Muzuka, A. N. N., 1994. Episodes of ice rafted debris and their effects on primary productivity in the Labrador Sea for the past 31,000 years. *Mineralogical Magazine* 58A, 641-642.
29. Muzuka, A. N. N., 1994. Stable isotopic compositions of surficial organic matter along a transect across the Labrador Sea. *Mineralogical Magazine* 58A, 643-644.
30. Nyandwi, N., and Muzuka, A. N. N., 1991. Rates and causes of coastal erosion on the Zanzibar Island. In: IOC Workshops Report No. 77 for the IOC-SAREC-KMFRI Regional Workshop on the causes and Consequences of Sea Level Changes on the western Indian Ocean Coastal Islands, Mombasa, Kenya (24-28 June 1991).
31. Muzuka, A. N. N., Macko, S. A. and Pedersen, T. F. (1990): Late Pliocene-Quaternary history of the northwestern Indian Ocean. Abstract and Program, GAC/MAC (Geological Association of Canada/Mineralogical Association of Canada), Vancouver, p. 92.

CONSULTANCY REPORTS

1. Kyewalyanga, M., Mtolera, M., Muzuka, A.N.N., Said, S., Dubi, A., Msuya, F. and Shalli, M. (2010). Investigations and assessment of impacts of vibrations from the processing plant to seaweed production at the Songo Songo Island and their mitigation measures. Ministry of Energy and Minerals, United Republic of Tanzania.
2. Shaghude Y.W., Dubi A.M., Nyandwi N., Muzuka A.N.N., Shalli M. and Sanga I. (2007). Report on the training course on shoreline changes, mitigation and monitoring to the DoE staff, Zanzibar, 62p. Report submitted to SMOLE, March 2007.
3. Dubi, A. M., Shunula, J. P., and Muzuka, A. N. N., 1997. Environmental Impact Assessment for the Proposed Mafia Island Marine Park (MIMP) Headquarters. Report No. IMS 1997/03 (Equal contribution).

1.3 PUBLICATION RECORDS FOR HANS C. KOMAKECH

Journal articles

1. Komakech, H. C. and Van der Zaag, P. inpress. Polycentrism and pitfalls - the formation of water users' forums in Kikuletwa catchment, Tanzania. *Water International*
2. Komakech, H. C., Van der Zaag, P. and Van Koppen, B. 2012. The last will be first: conflict over water transfers from subsistence irrigation to cities in the Pangani river basin, Tanzania. *Water Alternatives* 5(3): 700-720
3. Komakech, H.C., Condon, M. and Van der Zaag, P. 2012. The role of statutory and local rules in allocating water between large- and small-scale irrigators in an African river catchment. *Water SA* 38(1): 115-125.
4. Komakech, H.C., Van Der Zaag, P., Mul, M.L., Mwakalukwa, T.A. and Kemerink, J.S. 2012. Formalization of water allocation systems and impacts on local practices in the Hingilili sub-catchment, Tanzania. *International Journal of River Basin Management* 10(3) 213-227.
5. Komakech, H.C., Van der Zaag, P. and Van Koppen, B. 2012. Dynamics between water asymmetry, inequality and heterogeneity sustain canal institutions in Makanya catchment, Tanzania. *Water Policy* 14(5) 800-820.
6. Komakech, H. C. and Van der Zaag, P. 2011. Understanding the emergence and functioning of river committees in a catchment of the Pangani basin, Tanzania. *Water Alternatives*, 4(2): 197-222.
7. Komakech, H. C.; Van Koppen, B.; Mahoo, H. F. and Van der Zaag, P. 2011. Pangani river basin over time and space: on the interface of local and basin level responses. *Agricultural Water Management* 98(11) 1740-1751.
8. Komakech, H. C.; Mul, M. L.; Rwehumbiza, F. and Van der Zaag, P. 2011. Water allocation and management in an emerging spate irrigation system in Makanya catchment, Tanzania. *Agricultural water management*, 98(11), 1719-1726.

- **Chapters in Books/Thesis**

1. Komakech, H., F. Jaspers and P. van der Zaag, 2007. Strengthening transboundary river basin institutions: a comparative learning from basin institutions in Africa, Europe and Southeast Asia. In "Reducing the vulnerability of societies to water related risks at the basin scale" (Proceedings of the 3rd International Symposium on Integrated Water Resources Management; Bochum, September 2006). IAHS Publ. 317; pp. 157-163.

1.4 PUBLICATION RECORD FOR REVOCATUS MACHUNDA

Journal articles

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8. Molecular physics and heat phenomena. The directives for the school-leavers. Puzyreva G.I., Pogrebnaya T.P., Dmitrieva T.V., Krasnova O.G. Ed.: **Pogrebnoi A.M.** Ivanovo. 2003. 64 p.
9. Mechanics. The directives for the school-leavers. Puzyreva G.I., Pogrebnaya T.P., Burdukovskaya G.G., Dmitrieva T.V., Krasnova O.G. Ed.: **Pogrebnoi A.M.** Ivanovo. 2002. 76 p.
10. Mechanics in questions and answers. The directives for the pupils of the Lyceum and for the first-year students. Puzyreva G.I., Pogrebnaya T.P., Burdukovskaya G.G., Dmitrieva T.V., Krasnova O.G. Ed.: **Pogrebnoi A.M.** Ivanovo. 2001. 64 p.
11. Let us recollect mechanics. The directives for the schools. Pogrebnaya T.P., Dmitrieva T.V., Puzyreva G.I. Ed.: **Pogrebnoi A.M.** Ivanovo. 1998. 36 p.

1.13 PUBLICATIONS RECORDS FOR Askwar Hilonga

2. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Hee-Taik Kim, Reinforced silver-embedded silica matrix from the cheap silica source for the controlled release of silver ions, *Applied Surface Science* 255 (2009) 8239
3. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Hee-Taik Kim, Titania-silica composites with less aggregated particles, *Powder Technology* 196 (2009) 286
4. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Hee-Taik Kim Low-density TEOS-based silica aerogels prepared at ambient pressure using isopropanol as the preparative solvent, *Journal of Alloys and Compounds* 487 (2009) 744-750
5. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Hee-Taik Kim, Influence of Annealing Conditions on the Properties of Reinforced Silver-Embedded Silica Matrix from the Cheap Silica Source, *Applied Surface Science* 256 (2010) 2849-2855
6. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Hee-Taik Kim, Mesoporous Titania-silica Composite from Sodium Silicate and Titanium Oxychloride; Part I: Grafting Method, *Journal of Materials Science* 45 (2010) 1255-1263
7. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade Hee-Taik Kim, Mesoporous Titania-silica Composite from Sodium Silicate and Titanium Oxychloride; Part II: One-pot Co-condensation Method, *Journal of Materials Science* 45 (2010) 1264-1271
8. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade Hee-Taik Kim, Rapid Synthesis of Homogeneous Titania-Silica Composite with High-BET Surface Area, *Powder Technology* 199 (2010) 284-288

9. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade Hee-Taik Kim, Influence of Reaction Conditions on the Properties of Sodium Alumino Silicate Synthesized by Simultaneous addition of Precursors, *Journal of Non-crystalline Solids*, 356 (2010) 1466-1469
10. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Dang Viet Quang, Godlisten Shao, Gideon Elineema, Hee Taik Kim, [Silver-doped Silica powder with antibacterial properties](#), *Powder Technology*, 215-216 (2012) 219-222
11. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Dang Viet Quang, Godlisten Shao, Gideon Elineema, Hee Taik Kim, Synthesis of Mesoporous Silica with Superior Properties Suitable for Green Tire, *Journal of Industrial and Engineering Chemistry*, 18 (2012) 1841-1844
12. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Dang Viet Quang, Godlisten Shao, Gideon Elineema, Hee Taik Kim, BET Study of Silver-doped Silica Based on Inexpensive Method, *Materials Letter*, 80 (2012) 168-170
13. Askwar Hilonga, Jong-Kil Kim, Pradip B. Sarawade, Dang Viet Quang, Godlisten Shao, Gideon Elineema, Hee Taik Kim, Two Step Rapid Synthesis of Inexpensive Mesoporous Silica for Green Tire, *The Korean Journal of Chemical Engineering*, 29 (2012) 1643-1646
14. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Hee-Taik Kim, Preparation of hydrophobic mesoporous silica powder with a high specific surface area by surface modification of a wet-gel slurry and spray-drying, *Powder Technology* 197 (2010) 288–294
15. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Hee-Taik Kim, Recovery of high surface area mesoporous silica from waste Hexafluorosilicic acid (H₂SiF₆) of fertilizer industry, *Journal of Hazardous Materials* 173 (2010) 576–580
16. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Hee-Taik Kim, Production of low-density sodium silicate-based hydrophobic silica aerogel beads by a novel fast gelation process and ambient pressure drying process, *Solid State Sciences* 12 (2010) 911–918
17. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Hee-Taik Kim, Influence of aging conditions on the textural properties of water-glass based silica aerogels prepared at an ambient pressure, *The Korean Journal of Chemical Engineering* (2010), doi:10.1007/s11814-010-0173-z
18. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Dang Viet Quang, Sun Jeong Jeon, Hee Taik Kim, Synthesis and Characterization of Micrometer-Sized Silica Aerogel Nanoporous Beads, *Materials Letters*, 81 (2012) 37-40
19. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Dang Viet Quang, Hee Taik Kim, [Synthesis of hydrophilic and hydrophobic xerogels with superior properties using sodium silicate](#), *Microporous and Mesoporous Materials*, 139 (2011) 138-147
20. Dang Viet Quang, Pradip B. Sarawade, Askwar Hilonga, Sung Dae Park, Jong-Kil Kim, Hee Taik Kim, [Facile route for preparation of silver nanoparticle-coated precipitated silica](#), *Applied Surface Science*, 257 (2011) 4250-4256
21. Dang Viet Quang, Pradip B. Sarawade, Askwar Hilonga, Jong-Kil Kim, Young Gyu Chai, Sang Hoon Kim, Jae-Yong Ryu, Hee Taik Kim, [Preparation of silver nanoparticle containing silica micro beads and investigation of their antibacterial activity](#), *Applied Surface Science*, 257 (2011) 6963-6970
22. Dang Viet Quang, Pradip B. Sarawade, Askwar Hilonga, Jong-Kil Kim, Young Gyu Chai, Sang Hoon Kim, Jae-Yong Ryu, Hee Taik Kim, [Preparation of amino functionalized silica micro beads by dry method for supporting silver nanoparticles with antibacterial properties](#), *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 389 (2011) 118-126
23. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Dang Viet Quang, Sun Jeong Jeon, Hee Taik Kim, [Synthesis of sodium silicate-based hydrophilic silica aerogel beads with superior properties: Effect of heat-treatment](#), *Journal of Non-Crystalline Solids*, 357 (2011) 2156-2162
24. Pradip B. Sarawade, Jong-Kil Kim, Askwar Hilonga, Dang Viet Quang, Hee Taik Kim, [Effect of drying technique on the physicochemical properties of sodium silicate-based mesoporous precipitated silica](#), *Applied Surface Science*, 258 (2011) 955-961

25. Dang Viet Quang, Pradip B. Sarawade, Askwar Hilonga, Jong-Kil Kim, Young Ho Shim, Godlisten N. Shao, Hee Taik Kim, [Synthesis of silver nanoparticles within the pores of functionalized-free silica beads: the effect of pore size and porous structure](#), *Materials Letters*, 68 (2012) 350-353
26. Godlisten N. Shao, Gideon Elineema, Dang Viet Quang, You-Na Kim, Yong-Ho Shim, Askwar Hilonga, Jong-Kil Kim, Hee Taik Kim. [Two steps synthesis of a mesoporous titania-silica composite from titanium oxychloride and sodium silicate](#), *Powder Technology* 217 (2012) 489–496
27. Godlisten N. Shao, Gideon Elineema, Dang Viet Quang, You-Na Kim, Yong-Ho Shim, Askwar Hilonga, Jong-Kil Kim, Hee Taik Kim, Peptization technique in the synthesis of nanoporous titania-silica composites and their photocatalytic properties, *Chemical Engineering Journal*, 198–199 (2012) 122-129
28. Godlisten N. Shao, Askwar Hilonga, Sun Jeong Jeon, Jae Eun Lee, Gideon Elineema, Dang Viet Quang, Jong-Kil Kim, Hee Taik Kim, [Influence of titania content on the mesostructure of titania-silica composites and their photocatalytic activity](#), *Powder Technology*, 233 (2013) 123-130
29. Gideon Elineema, Jong Kil Kim, Askwar Hilonga, Godlisten Namwel Shao, You-Na Kim, Dang Viet Quang, Pradip B. Sarawade, Hee Taik Kim, Quantitative recovery of high purity nanoporous silica from waste products of the phosphate fertilizer industry, *Journal of Industrial and Engineering Chemistry*, 19 (2013) 63-67
30. Godlisten N. Shao, Rizwan Sheikh, Askwar Hilonga, Jae Eun Lee, Yeung-Ho Park, Hee Taik Kim, Biodiesel production by sulfated mesoporous titania-silica catalysts synthesized by the sol-gel process from less expensive precursors, *Chemical Engineering Journal*, 215–216 (2013) 600-607
31. Godlisten N. Shao, Yuna Kim, S.M. Imran, Sun Jeong Jeon, Pradip B. Sarawade, Askwar Hilonga, Jong-Kil Kim, Hee Taik Kim, Enhancement of porosity of sodium silicate and titanium oxychloride based TiO₂-SiO₂ systems synthesized by sol-gel process and their photocatalytic activity, *Microporous & Mesoporous Materials*, 179, 15 (2013) 111-121

Book

1. Askwar Hilonga, Kim Hee Taik, "Nanocomposites with Desired Properties"; *LAP LAMBERT Academic Publishing (2011); ISBN 978-3-8473-1666-4*

Thesis

1. Ph.D Thesis: "*Economic Synthesis of Silica-based Nanocomposites with Desired Properties*", Hanyang University, 20th August 2010.
2. MSc Thesis: "*polyamine-silica hybrids prepared by non-electrostatic surfactant assembly*". University of Dar es Salaam. November, 2007.

CONFERENCE ATTENDANCE/PRESENTATIONS

1. Dec. 2005: Presented a scientific paper (oral) on "*Synthesis of Polyamine-silica Hybrids by a Non-electrostatic Surfactant Assembly*" at the East and Southern Africa Environmental Chemistry Workshop (ESAECW) and the Sixth Theoretical Chemistry Workshop in Africa (TCWA) conducted on 5-9th Dec. 2005 in Windhoek, Namibia. The abstract of the paper can be found in the Conference Proceedings Pg. 15.
2. July 2006: Attended the 9th College on "Thin Film Technology", held at the University of Dar es Salaam, Tanzania.
3. Aug. 2006: Attended the 5th International "Mesostructured Materials" Symposium conducted at Fudan University in Shanghai, China.
4. Hydrothermal effect on textural properties of synthesized hydrotalcite of different Mg/Al molar ratio, Abstracts presented at the 35th Korean Society of Industrial and Engineering Chemistry Meeting, **November 2007**, Hankyong University, Korea.
5. Synthesis of Titania-Silica Composite using Controlled Nanoporous Silica Seed and TiOCl₂ Stock Solution as a Precursor for Thin Paper, The 37th Korean Society of Industrial and Engineering Chemistry Meeting, **May 2008**, Hanyang University - Ansan, Korea
6. Low density TEOS based monolithic silica aerogels with high surface area prepared at an ambient pressure, Abstracts presented at the 37th Korean Society of Industrial and Engineering Chemistry Meeting, (2P-44), **May 2008**, Hanyang University, Ansan, Korea.

7. Design of Mesoporous Titania-Silica Composite Aggregates, 6th International Macrostructured Materials Symposium (IMMS), **September 2008**, Namur, Belgium
8. Reinforced Silver-Embedded Silica Matrix from the Cheap Silica Source for the Controlled Release of Silver Ions, The Korean Society of Industrial and Engineering Chemistry Meeting, **October 2008**, BEXCO, Busan, Korea.
9. Synthesis of low-density monolithic silica aerogels using water glass at ambient pressure, Abstracts presented at the Korean Society of Industrial and Engineering Chemistry Meeting, (P-59(349), **October 2008**, BEXCO, Busan, Korea.
10. Low-cost Route for Synthesis of Titania-Silica Composite with Suitable Morphology, 1st Korea-Japan joint forum on sol-gel science and technology, KAIST, **December 2008**, Dajeon Korea
11. Synthesis of Ultrafine Superhydrophobic Nanoporous Silica (SiO₂) Powders Prepared by Surface Modification on Wet-Gel Slurry, 1st Korea-Japan joint forum on sol-gel science and technology, KAIST, **December 2008**, Dajeon Korea.
12. Rapid Synthesis of Homogeneous Titania-silica Composite by Two step Method, The Korean Society of Industrial and Engineering Chemistry Meeting, **April 2009**, Daegu, Korea.
13. Effect of aging time and temperature on the physicochemical properties of water-glass-based silica aerogels prepared at an ambient pressure, Abstracts presented at the 39th Korean Society of Industrial and Engineering Chemistry Meeting, (1P-29), **April 2009**, Daegu, Korea.
14. Synthesis of Ultrafine Superhydrophobic Nanoporous Silica (SiO₂) Powders Prepared by Surface Modification on Wet-Gel Slurry, The 103rd National Meeting of the Korean Chemical Society Program and Abstracts (KCS), (III37P187), **April 2009**, COEX, Korea.
15. Alumino Silicate with Desirable Properties for Paper and Paint Industry, The 103rd National Meeting of the Korean Chemical Society Program and Abstracts (KCS), (III37P252), **April 2009**, COEX, Korea.
16. Synthesis of Nanoporous Sodium Alumino Silicate (SAS) by Simultaneous Addition of Precursors, the XVth International Sol-Gel Conference, **August 2009**, Porto de Galinhas, Pernambuco State, Brazil.
17. Recovery of hydrofluoric acid (HF) and mesoporous silica through the sol-gel process from hexafluorosilicic acid (H₂SiF₆) of fertilize industry, The XVth International Sol-Gel Conference, 23~27, **August 2009**, Porto de Galinhas, Pernambuco State, Brazil.
18. Synthesis of nanoporous silica aerogel and related materials, 1st Vietnam-Korea Conference on Materials Science Recycling and Waste Treatments: **August 2009**, Hanoi, Vietnam.
19. Influence of Annealing Conditions on the Properties of Reinforced Silver-Embedded Silica Matrix from the Inexpensive Silica Source, The Korean Society of Industrial and Engineering Chemistry meeting, **October 2009**, Seoul National University of Technology, Korea.
20. Low density sodium silicate-based hydrophobic silica aerogel beads by a novel fast gelation process and ambient pressure drying, Abstracts presented at the 40th Korean Society of Industrial and Engineering Chemistry Meeting, (2P-189), **October 2009**, Seoul National University of Technology/ Seoul Technopark, Korea.
21. Attended programs on Technology Commercialization and Incubation (**August 2009 – July 2010**) organized by the Gyeonggi Province (Korea) in conjunction with the University of Texas, USA.
22. Sodium Silicate-based Titania-Silica Composite by Sol-gel Method, The 104th National Meeting of the Korean Chemical Society Program and Abstracts (KCS), **April 2010**, Daegu, Korea.
23. Silver-doped silica reinforced with Aluminium ions, oral presentation (for competition) at the 41st Korean Society of Industrial and Engineering Chemistry Meeting, **May 2010**, Pusan, Korea.
24. Represented the NM-AIST at the 10th Anniversary Korea/Japan International Symposium (28 – 30th May 2012), Daejon, Korea: Presented on "Silver-doped Silica". The theme of the symposium was "**Resources Recycling and Materials Science**".
25. Presented on "NM-AIST Technopark Establishment" in World Technopolis Association - UNESCO conference on 18th November 2011, South Korea

26. Presented a paper on "Silica-based Nanomaterials" in Joint US-Africa Materials Institute (JUAMI):
9th – 21st December 2012, Addis Ababa, Ethiopia

2. School of Life Sciences and Bioengineering

Data on Publications by staff since joining NM-AIST

2.1 Prof. Paul Gwakisa

1. Benigni Alfred and Paul Gwakisa (2013). Haptoglobin gene polymorphism influences the effect of malaria infection on host haptoglobin plasma level but not susceptibility to the disease. *African Journal of Biotechnology* Vol. 12(10), pp. 1115-1120
2. Tuntufye HN, Gwakisa PS, Goddeeris BM (2013). In silico analysis of tkt1 from avian pathogenic *Escherichia coli* and its virulence evaluation in chickens. *Res Microbiol.* (pp pubmed)
3. Tuntufye HN, Lebeer S, Gwakisa PS, Goddeeris BM (2012). Identification of avian pathogenic *Escherichia coli* genes that are induced in vivo during infection in chicken. *Appl Environ Microbiol.* 78(9), 3343-3351.

2.2 Prof. Patrick A Ndakidemi

1. Makoi J.H.J.R., Bambara, S., and **Ndakidemi P.A.** 2013. Macroelements uptake in common bean (*P. vulgaris* L.) plants as affected by *Rhizobium* inoculation and the supply of molybdenum and lime. *Australian Journal of Crop Science.* **7(6):784-793.**
2. Laubscher, C.P., Koehorst, R.R. and **Ndakidemi, P.A.** 2012. A Review: Farmer's perceptions on endangered Proteaceae species of the Agulhas plain, South Africa and the potential for their propagation. *Acta Horticulturae.* **937:783-788.**
3. de Bever¹, A., **Ndakidemi, PA.**, and Laubscher CP. 2012. Effects of different combinations of Hoagland's solution and *Azolla filiculoides* on growth and development of *Beta vulgaris* subsp. *cycla* 'Fordhook Giant' grown in hydroponic cultures. *International Journal of Physical Sciences* **7(33): 5281-5287.**
4. Milne, C.J., Laubscher, C.P., **Ndakidemi. P.A.**, Marnewick, J.L., Rautenbach, F 2012. Salinity induced changes in oxidative stress and antioxidant status as affected by application of silicon in lettuce (*Lactuca sativa*). *International Journal of Agriculture and Biology.* **14(5): 763-768.**
5. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S.2012. Multi-drug resistance, verotoxin production and efficacy of crude stem bark extracts of *Curtisia dentate* among *Escherichia coli* (non-O157) and *Acinetobacter* species isolates obtained from water and wastewater samples. *African Journal of Pharmacy and Pharmacology* **6(23): 1653-1667.**
6. Ayeni, O.O., **Ndakidemi, PA.**, Snyman, R.G. and Odendaal, J. 2012. Assessment of metal concentrations, chlorophyll content and photosynthesis in *Phragmites australis* along the Lower Diep River, Cape Town, South Africa. *Energy and Environment Research.* **2(1): 128-139.**
7. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S.2012. Effect of oxidative and temperature stress on viability and toxin production of environmental isolates of *Escherichia coli*. *African Journal of Pharmacy and Pharmacology* **6(16):1264-1275.**

8. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S. 2012. Antioxidant, antimicrobial and antiverotoxic potentials of extracts of *Curtisia dentata*. *Journal Of Ethnopharmacology* **141(3): 1041– 1050**.
9. North, J.J., Laubscher, C.P., and **Ndakidemi P. A.** 2012. Effects of various medium compositions and wounding treatments on *in vitro* growth and regeneration of bird of paradise (*Strelitzia reginae*). *Scientific Research and Essays*. **7(10): 1118-1133**.
10. Makoi, J.H.J.R., and **Ndakidemi, PA.** 2012. Allelopathy as protectant, defence and growth stimulants in legume cereal mixed culture systems. *New Zealand Journal of Crop and Horticultural Science*. **40(3): 161-186**.
11. North, J.J., and **Ndakidemi, P.A.** 2012. Evaluation of different ratios of auxin and cytokinin for *in vitro* propagation of *Streptocarpus rexii* Lindl. *International Journal of the Physical Sciences*. **7(7): 1083 – 1087**.
12. Milne C.J., Laubscher, C.P. and **Ndakidemi, P.A.** 2012. The alleviation of salinity induced stress with applications of silicon in soilless grown *Lactuca sativa* L.'Eish'. *International Journal of the Physical Sciences*, **7(5): 735 – 742**.
13. North, J.J., **Ndakidemi, P.A.**, and Laubscher, C.P. 2012. Effects of antioxidants, plant growth regulators and wounding on phenolic compound excretion during micropropagation of *Strelitzia reginae*. *International Journal of the Physical Sciences*, **7(4): 638 – 646**.
14. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S. 2012. Effect of oxidative stress on viability and virulence of environmental *Acinetobacter haemolyticus* isolates. *Scientific Research and Essays* **(7)4: 504-510**.
15. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S. 2012. Virulence, resistance genes, and transformation amongst environmental isolates of *Escherichia coli* and *Acinetobacter* spp. *Journal of Microbiology and Biotechnology* **22(1): 25-33**.
16. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S. 2011. Virulence factors and antibiotic susceptibility among verotoxic non O157: H7 *Escherichia coli* isolates obtained from water and wastewater samples in Cape Town, South Africa. *African Journal of Biotechnology* **10(64): 14160-14168**.
17. Nxawe, S., **Ndakidemi, P.A.** and Laubscher, C.P. 2011. Chlorophyll pigmentation and photosynthetic parameters in *Ornithogalum longibracteatum* L. as affected by varying temperatures in hydroponics solution. *International Journal of Physical Sciences* **6(12) 2965-2972**.
18. Makoi J.H.J.R., and **Ndakidemi P.A.** 2011. Changes in plant growth, nutrient dynamics and accumulation of flavonoids and anthocyanins by manipulating the cropping systems involving legumes and cereals- a review. *Australian Journal of Agricultural Engineering*. **2(3):56-65**.
19. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S. 2011. The ecology, biology and pathogenesis of *Acinetobacter* spp.: an overview. *Microbes and Environments*. **26(2): 101– 112**.
20. Doughari, J.H., **Ndakidemi, P.A.**, Izanne, H.S., Benade, S. 2011. *Curtisia dentata*: ethnopharmacological application. *Journal of Medicinal Plants Research* **5(9): 1606-1612**.

21. North, J.J., **Ndakidemi, P.A.**, and Laubscher, C.P. 2011. Effects of various media compositions on the *in vitro* germination and discoloration of immature embryos of bird of paradise (*Strelitzia reginae*). *Plant OMICS: Journal of Plant Biology & Omics*. **4(2): 100-113.**
22. Snyman, R.G., Shuping, L.S., Odendaal, J.P., **Ndakidemi, P. A.** 2011. Accumulation and distribution of metals in *Bolboschoenus Maritimus* (Cyperaceae), from a South African river. *Water, Air, and Soil Pollution* **216:319–328.**
23. **Ndakidemi P.A.**, Bambara, S., and Makoi J.H.J.R. 2011. Micronutrient uptake in common bean (*Phaseolus vulgaris* L.) as affected by *Rhizobium* inoculation, and the supply of molybdenum and lime. *Plant OMICS: Journal of Plant Biology & Omics*. **4(1):40-52.**

2.3 Prof. Amare Gessesse

1. Aragaw T, Andargie M and Gessesse A (2013).Co-digestion of cattle manure with organic kitchen waste to increase biogas production using rumen fluid as inoculums. Intl J Phys Sci 8(7)
2. Haile G, Gessesse A (2012). Properties of alkaline protease C45 produced by alkaliphilic Bacillus sp. isolated from Chitu, Ethiopian Soda Lake. J Biotechnol Biomater 2:136-139
3. Andualem B and Gessesse A. (2012). Methods for refining of brebra (*Milletia ferruginea*) oil for the production of biodiesel. World Appl Sci JI 17: 407-413.
4. Andualem B and Gessesse A. (2012). Microbial Lipases and their industrial applications: Review. Biotechnology 11: 100-118.
5. Andualem B and Gessesse A (2012). Production and characterization of biodiesel from brebra (*M. ferruginea*) seed, a non-edible Oil. Biotechnology, 11: 217-224.
6. Zeleke J, Gessesse A, and Abate D (2013). Substrate-utilization Properties of Termitomyces Culture Isolated from Termite Mound in the Great Rift Valley Region of Ethiopia. J Nat Sci Res 3: 16 -20

2.4 Prof. Dong J Kim

N.D. Young, D.J.Kim et al, The Medicago Genome Provides Insight into the Evolution of Rhizobial Symbioses, Nature 480, 520–524 (22 December 2011)

2.5 Prof. Joram Buza

Shyamesh Kumar , Dusan Kunec , Joram Buza , Hsin-I Chiang , Huaijun Zhou , Suga Subramaniam, Ken Pendarvis, Hans Cheng , Shane Burgess. (2012). NFκB is central to herpesvirus-induced CD30-expressing lymphocyte neoplastic transformation in-vivo. BMC Syst Biol. 14;6:123. doi: 10.1186/1752-0509-6-123.

2.6 Dr. Martin Kimanya

1. Shephard, G.S, Kimanya, M.E., Kpodo, K., Gnonlonfin, B. & Gelderblom, W. C. A.. (2013). The risk management dilemma for fumonisin mycotoxins. Food Control, 34, 596-600.
2. Shirima,C.P., Kimanya, M.E., Kinabo, J. Routledge M., Srey, C., Wild, C. P., & Gong, Y.Y. (2013). Dietary exposure to aflatoxin and fumonisin among Tanzanian children as determined using biomarkers of exposure. Molecular Nutrition and Food Research, DOI 10.1002/mnfr.201300116
3. Martin E. Kimanya, Bruno De Meulenaer, John Van Camp, Katleen Baert and Patrick Kolsteren. (2012). Strategies to reduce exposure of fumonisins from complementary foods in rural Tanzania. Maternal & Child Nutrition, Vol. 8, Issue 4, 503–51

2.7 Dr. Francis Shahada

1. Shahada F, Chuma T, Kosugi G, Kusumoto M, Iwata T and Akiba M (2013). Distribution of extended-spectrum cephalosporin resistance determinants in *Salmonella enterica* and *Escherichia coli* isolated from broilers in southern Japan. *Poult. Sci.* , 92(6): 1614-1649.
2. Chuma T, Miyasako D, Hesham D, Takayama T, Nakamoto Y, Shahada F, Akiba M and Okamoto K (2013). Chronological change of resistance to β -lactams in *Salmonella enterica* serovar *Infantis* isolated from broilers in Japan. *Front. Microbiol.* 4:113.
3. Kameyama M, Chuma T, Nishimoto T, Oniki H, Yanagitani Y, Kanetou R, Gotou K, Shahada F, Iwata H and Okamoto K (2012). Effect of cooled and chlorinated chiller water on *Campylobacter* and coliform counts on broiler carcasses during chilling at a middle-size poultry processing plant. *J. Vet. Med. Sci.* 74(1):129-133.
4. Sugawara M, Shahada F, Izumiya H, Watanabe H, Uchida I, Tamamura Y, Kusumoto M, Iwata T and Akiba M (2012). Change in antimicrobial resistance pattern in *Salmonella enterica* serovar *Typhimurium* isolates detected in a beef cattle farm. *J. Vet. Med. Sci.* 74(1):93-97.

2.8 Dr. Athanasia Matemu

Athanasia O. Matemu, Shigeru Katayama, Hisataka Kayahara, Hisashi Murasawa, and Soichiro Nakamura (2012). Improving Surface Functional Properties of Tofu Whey-Derived Peptides by Chemical Modification with Fatty Acids. *Journal of Food Science*, Vol., 77, Nr. 4, C333-C339

2.9 Dr. Neema Kassim

1. Kassim Neema, Adelard B. Mtenga, Won-Bo Shim and Duck-Hwa Chung (2013). Production of Mouse Anti-Quail IgY and Subsequent Labeling with Horseradish Peroxidase Using Cyanuric Chloride. *Journal of Microbiology and Biotechnology*, 23(4): 527–533.
2. Adelard B. Mtenga, Neema Kassim, Won-Bo Shim, and Duck-Hwa Chung (2013). Efficiency of Fractionated γ -Irradiation Doses to Eliminate Vegetative Cells and Spores of *Bacillus cereus* from Raw Rice. *Food Science and Biotechnology*, 22(2): 1-8.
3. Kassim Neema, Adelard B. Mtenga, Won-Bo Shim and Duck-Hwa Chung (2012). The In Vitro and In Vivo Efficacy of Hen IgY Against *Vibrio parahaemolyticus* and *Vibrio vulnificus*. *Journal of Microbiology and Biotechnology*, 22(10): 1423–1431

2.10 Dr. Beatrice Lyimo

1. Lyimo B., Yagi F., and Minami (2011). Primary structure and Specificity of a new member of galectin family from the Amethyst Deceiver mushroom *Laccaria amethystine*, *Biosci. Biotechnol. Biochem.*, 75(1), 62-69
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2.11 Dr. Simbarashe Chitanga

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