

CURRICULUM VITAE

DR. VINCENT ODONGO MADADI

**SENIOR LECTURER,
DEPARTMENT OF CHEMISTRY,
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1) PERSONAL DETAILS

NATIONALITY : Kenyan

GENDER : Male

DATE OF BIRTH : 22nd December 1976

MARITAL STATUS : Single

OFFICIAL LANGUAGES SPOKEN: English, Kiswahili

2) EDUCATION/ACADEMIC QUALIFICATIONS

YEAR	INSTITUTION	MAJOR FIELD	AWARD
2005 -2012	University of Nairobi	Chemistry	Ph. D.
2001-2005	University of Nairobi	Chemistry	M. Sc.
1996-2000	University of Nairobi	Chemistry	B. Sc. (First Class Honors)
1991-1994	St. Paul's Amukura High School.	'O' Level	KCSE
1982-1990	Nyakwaka Primary School	Primary level	KCPE

3) PROFILE SUMMARY FOR DR. MADADI

I hold a PhD. Degree in Chemistry from the University of Nairobi, where I am a Lecturer of Chemistry. My PhD thesis was on “Pesticides and Phosphorus Dynamics in Lake Victoria Basin” aimed at establishing the fate and transport of pesticides and phosphorus in the Lake Victoria drainage Basin and its net effect on the Lake water quality. To date I have published 11 peer reviewed papers, two book chapters and two papers in peer reviewed proceedings. I have drafted 17 key reports and made 23 conference presentations. I teach over seven units at University, supervised 6 MSc. and 35 undergraduate students to graduation. Currently I have 6 ongoing PhD and 17 MSc. students at different levels of research. My professional consultancy contributions to the University through MOUs and income generating activities amount over 10 million Kenya Shillings from 2013 to 2017. I am a member four key Departmental Committees. As part of community outreach I chair the Technical Committee on Pesticides and the Kenya Bureau of standards, I am a members of the Chemical Steering Committee under the Ministry of Environment and Natural Resources, and I am also the regional coordinator for the Implementation of The Global Monitoring Plan in Africa under the Stockholm Convention on Persistent Organic Pollutants coordinated by UNEP.

Since 2007, I have been strongly involved in implementation the activities of the Multilateral Environmental Agreements, especially the Stockholm Convention, where I have participated in specialized workshops, training activities and also discharged various national and regional responsibilities. Recently contributed to drafting of; 1) the first POPs monitoring report for Africa Region on implementation of the Global Monitoring Plan in Africa under the first effectiveness Evaluation of the Stockholm Convention in February 2015 for the second Africa monitoring report and in March 2009 for the first Africa monitoring report; 2) The Africa Review Report on Chemicals. “A comprehensive regional status review towards environmentally sound Management of Chemicals in Africa”. The report was prepared for UNIDO in September 2009.

At national level, I have contributed to: 1) Development of the National Situation Analysis on Management of Public Health Pesticides in Kenya, in 2008; 2) Preparation of the Situation analysis for the implementation of the Libreville Declaration, in 2009; 3) Development of the National Plans of Joint Action for implementation of the Libreville Declaration in Africa, 4) I was also involved in the implementation of the Strategic Approach to International Chemical Management (SAICM); 5) Participated in preparation of the Kenya National Chemical Profile, and 6) in 2013, I participated in the updating of the Kenya National Implementation plan for Management of Persistent Organic Pollutants under the Stockholm Convention where I coordinated the development of the report on Research, monitoring and public awareness creation on POPs in 2015. I am also the National coordinator for the monitoring of Persistent Organic Pollutants in ambient air in Kenya and spearheaded establishment of five monitoring stations in Kenya namely, Kabete, Mt. Kenya, Dandora, Industrial area and Kitengela. I have developed competencies in several analytical techniques such gas chromatography (GC), High Performance Liquid Chromatography (HPLC), LC/MSMS, Mass Spectrometry (GC/MS), High Resolution GC/MS (GC/MS/MS), Ultra-Violet-Visible (UV-VIS) spectroscopy, Infrared Spectroscopy (IR) and Liquid Scintillation radio tracer technique.

I am currently spearheading research on persistent Chemicals, development and testing application of passive sampling techniques in air and water, Inorganic gases such as SO₂, HNO₃, NO₂, Heavy metals and Mercury (Hg) in ambient air, water, soils, biotic media and products. At global level, my emphasis is geared towards spearheading the Kenyan team in supporting International Conventions on Chemicals, particularly the Stockholm Convention on POPs and the Minamata Convention on Mercury.

Our research group has established global links with other universities including the Department of Civil and Environmental Chemistry at the University of Illinois in the USA, where I have had two fellowships and worked on development of strategies for understanding disinfection mechanism for waterborne pathogenic viruses in drinking water. I have also established research links and collaborations with the Chinese Academy of Sciences; Masaryk University Brno Czech Republic, UNEP; UNDP; and the Ministry of Environment and Natural Resources among other organizations.

4) CAREER DEVELOPMENT

DURATION	POSITION	INSTITUTION	RESPONSIBILITIES
April 2019- to date	Senior Lecturer	Department of Chemistry, University of Nairobi	<ul style="list-style-type: none"> Teaching Postgraduate and Undergraduate students. Research and supervision of postgraduate and undergraduate students. Consultancy and community service.
2013- Apr 2019	Lecturer	Department of Chemistry, University of Nairobi	<ul style="list-style-type: none"> Teaching Postgraduate and Undergraduate students. Research and supervision of postgraduate and undergraduate students. Consultancy and community service.
2009-2013	Tutorial Fellow	Department of Chemistry, University of Nairobi	<ul style="list-style-type: none"> Teaching Undergraduate students. Research and supervision of undergraduate students. Consultancy and community service.
2004-2009	Graduate Assistant	Department of Chemistry, University of Nairobi	<ul style="list-style-type: none"> Teaching Undergraduate students. Research and supervision of undergraduate students. Consultancy and community service.
2001	Vegetable oil Plant maintenance and Technical operator	Menengai oil refinery	<ul style="list-style-type: none"> Operation and general maintenance of vegetable processing plant

5) POSTGRADUATE AND UNDERGRADUATE COURSES TAUGHT

I have over 12 year of experience of teaching at the University Level since September 2004. I was graduate assistant from October 2004 to September 2009, a Tutorial Fellow and from 2009- to September 2013, and a Lecturer from 3rd October 2013 to date. The courses I have taught at University level since 2004 are listed below.

No	Course Code	Course Title	Level
1	SCA 507	Sample preparation techniques in Analytical Chemistry.	Postgraduate (M.Sc.)
2	SCH 502	Physical Methods in Inorganic Chemistry	Postgraduate (M.Sc.)
3	SCA 402	Quantitation and Analytical Chemistry of Pollutants.	Fourth Year
4	SCH 412/ SCA 405/ SCI	Undergraduate research projects in Chemistry:	Fourth Year

	407:	Majors, Analytical, Environmental, Industrial Chemistry programmes.	
5	SCA 303	Separation Techniques and Chromatography	Third Year
6	SCA 301	Instrumental methods of analysis	Third Year
7	SCE 304	Chemical Toxicology	Third Year
8	SCA 201	Quantitative analysis.	Second Year
9	SCE 201	Introduction to Environmental Chemistry.	Second Year
10	FME 151/FCE 181/FEB 105	General and Inorganic for Mechanical, Civil and Biosystem Engineering.	First Year
11	SCH 101	General and Inorganic Chemistry	First Year

6) RESEARCH SUPERVISION AT POSTGRADUATE LEVEL

6.1) SUPERVISION OF PHD STUDENTS

No.	Name	Title	Level	Status
1)	Jacob N. Mwenda	Detoxification of aflatoxin infected maize in Kenya. Co- supervised with: Prof. Shem O. Wandiga, Prof. D.K. Kariuki and Prof. E. Kang'ethe.	PhD	Ongoing
2)	Florence A. Masses	Synthesis and Characterization of Titanium (IV) Oxide Nanoparticle Composites for Water Purification. Co- supervised with: Prof. Shem O. Wandiga and Dr. Damaris Mbui.	PhD	Ongoing
3)	Judy Kananu	Modelling soil to Tobacco Plant transfer factor of Natural Occurring Radioactive elements and heavy metals, and efficiency of cigarette filters. Co- supervised with: Dr. Peterson M. Guto.	PhD	Ongoing
4)	Enock M. Osoro	Photo-degradation and assessment of selected Polybrominated Diphenyl Ethers in Nairobi Drainage Basin, Kenya. Co- supervised with: Prof. Shem O. Wandiga and Dr. Deborah A. Abongo.	PhD	Ongoing
5)	Martin Amokoye	Novel Nano Bio-Adsorbents for the Removal of heavy metal from Polluted Water. Co- supervised with: Dr. Dickson Andala and Dr. Immaculate W. Michira.	PhD	Proposal Development
6)	Rose Chiteva	Environmental Impact on the Post-Harvest Quality of <i>Syzgium Cordatum</i> Fruits in Kenya. Co- supervised with: Prof. John. M. Onyari and Prof. Lydia Njenga	PhD	Ongoing
7)	Vane B. Ondiere	Atmospheric Corrosive Behavior Of Coated Steel Roofing Sheets In Marine-Industrial And Rural Environments In Kenya. Co- supervised with: Dr. John Onyatta, Prof. Amir A. Yusuf	PhD	Ongoing
8)	Anna Moraa Kerandi	Determinants of Phthalate Esters in Human Body Fluids of Nairobi and Kajiado County Sub-populations. Cosupervised with Prof. Shem	PhD	Ongoing

		Wandiga (UoN), Prof. W. Mwanda (KU), Dr. E. Maina (Dept Biochem-UoN)		
9)	Mitchel Otieno Okumu	Evaluation Of The Neutralization Capacity Of Selected Medicinal Plants Against The Toxinological Effects Of <i>Bitis Arietans</i> Viper Venom Using <i>In Vitro</i> Amphibian And Murine Models. Cosupervised with Prof. James Mucunu Mbaria, Prof. Joseph Kangangi Gikunju, Prof. Paul Gichochi Mbuthia.	PhD	Ongoing
10)	George Ng'ang'a Mungai	Physicochemical Study of Carbon Dioxide and Associated Volcanic Gasses in Mofette Springs of Eastern Mt. Kenya Region: The Genesis of Carbon Dioxide, Socio-Economic and Environmental Impact. Cosupervised with Prof. H. Njenga and Prof. E. M. Mathu.	PhD	Ongoing

6.2 SUPERVISION OF MASTERSSTUDENTS

6.2.1 GRADUATED MASTERS STUDENTS

I have supervised 13 master students to completion as listed below.

No	Name	Title and Co-supervisors	Level	Status
1)	Josephine Wanjiku Wakuyu	Determination of the efficiency of Bio-fertilizer from biogas digesters for regeneration of soils. Co- supervised with: Dr. Wanjohi and Prof. Gatebe	M.Sc.	Graduated 2017
2)	Bernard Kipngetich,	Dissipation studies of pesticides used cattle dips in Bureti sub-county and assessment of residue levels in water, soil and sediments. Co- supervised with: Prof. S. Wandiga and Dr. M. Mukabi	M.Sc.	Graduated 2017
3)	Boniface Nderi Kamau	Assessment of dissipation Rates of Ridomil Gold and Actara 25WG pesticides on Potatoes and Snow Peas in Nyandarua County. Co- supervised with: Prof. S. Wandiga	M.Sc.	Graduated 2017
4)	Maurine Atieno Otieno	Study of water purification using clay impregnated with n-doped titanium dioxide –case study Lake Victoria Basin-Homa Bay County. Co- supervised with: Prof. Shem O. Wandga.	M.Sc.	Graduated 2017
5)	Emily Kwamboka Okwaro	Assessment of the fate of selected pesticides used on flowers and vegetables in Naivasha area. Co- supervised with: Dr. Austin Aluoch and Dr. Deborah Abongo.	M.Sc.	Graduated 2017
6)	John Okonjo Ochieng	Investigation and characterization of pyrolysis products of wood debris in fire analysis. Co- supervised with: Dr. Fredrick F.D.O Oduor.	M.Sc.	Graduated 2017
7)	Salia S.	Degradation and Adsorption of Lambda-		Graduated

	Sheriff	Cyhalothrin on Athi River and Coastal Soils and Sediments in Kenya		2017
8)	Vane Boanareri Ondiere	Assessment of nutrients, fluorides, pesticides and selected heavy metals contamination in Lake Elementaita drainage basin. Co- supervised with: Dr. F.D.O. Oduor and Dr. Austin Aluochi.	M.Sc.	Graduated 2016
9)	Gladys Chebet Too	Assessment of chemical and biological contamination in soil, vegetables and irrigation water sources from selected sites in Naivasha. Co-supervised with: Prof. Shem O. Wandiga.	M.Sc.	Graduated 2016
10)	Evans Nangulu	Mapping Spatial and Temporal Variations of Phosphate, Sulphate , Nitrate And <i>Escherichia Coli (E. Coli)</i> Pollution in Ngong River, Kenya Co- supervised with: Dr. Austin Aluoch and Dr. Moses Makayoto, OGW.	M.Sc.	Graduated 2015
11)	Consolata Mutheu Wambua	Analysis of Heavy Metal Concentrations in Selected Species of Genus <i>Tephrosia</i> in South Eastern And Coastal Regions in Kenya Co- supervised with: Prof. Shem O. Wandiga.	M.Sc.	Graduated 2015
12)	Judith Kananu	Effects of Long Term Use of Inorganic Fertilizers on Accumulation of Selected Heavy Metal Residues and Primary Macronutrients on Maize Farm Soils in Kenya. Co- supervised with: Prof. G. N. Kamau.	M.Sc.	Graduated 2015
13)	Antipas Kiprono Kemboi	Adsorption Characteristics of Captafol Pesticide by Sediment and Soil Samples: Apparent Thermodynamic Properties Using Spectroscopic Methods Co- supervised with: Prof. G. N. Kamau and Dr. Person Guto	M.Sc.	Graduated 2015

6.2.2 ONGOING MASTERS STUDENTS SUPERVISION

No.	Name	Title and Co-supervisors	Level	Status
1)	Mary Wairimu Ngotho	Assessment of Polyaromatic Hydrocarbons, BTEX and Aliphatic Hydrocarbons in Ambient Air, Water, Sediments and Soil in Selected Sites in Nairobi County, Kenya. Co- supervised with: Dr. Deborah A. Abong'o	M.Sc	Ongoing
2)	Racheal Wanjiru Kimani	Assessment Of Endocrine Disrupting Chemicals in Indoor Environment in Nairobi and Muranga Counties. Co- supervised with: Prof. J. P. Kithinji	M.Sc	Ongoing
3)	Emily Wanjiru Karanja	Assessment of the Impact of Plastic Pollution on the Levels of Bisphenol A And Phthalates in Water, Soil and Sediment Along Coastal Beaches of Kenya. Co- supervised with: Dr. John M. Wanjohi	M.Sc	Ongoing

4)	Purity Carol Mwendwa	Advanced Photocatalytic Oxidation Of Recalcitrant Pollutants From Industrial Waste Water Management Co- supervised with: Dr. Ruth Odhiambo	M.Sc	Ongoing
5)	Beatrice Kwamboka Nyambuti	Assessment of Heavy Metals in Livestock Feedstuff and Cattle Products, Soil and Water From Peri-Urban Slums of Kisumu City, Kenya Co- supervised with: Dr. Deborah A. Abong'o	M.Sc	Ongoing
6)	Sheridan Wanjiku	Assessment of Veterinary Drugs and Pesticides Residues in Cows Milk and Camels Milk from Kiambu and Laikipia Counties, Kenya. Co- supervised with: Prof. Shem O. Wandiga	M.Sc	Ongoing
7)	Arthur Okumu	Determining Pesticide Residue Levels in <i>Tilapia Zili</i> from Fish Ponds in Ahero Ward, Kisumu County Co- supervised with: Prof. S. Wandiga and Prof. J. Kithinji	M.Sc	Ongoing
8)	Dickens Ouma Omondi	Assessment of Pesticides Residue levels in rice irrigation schemes in Kenya: Case study of Bunyala and Ahero Irrigation schemes. Co- supervised with: Prof. S. Wandiga and Dr. D. Abongo	M.Sc.	Intent to Submit Thesis
9)	Beatrice Adhiambo Ambuso	Investigation of the Extent of Chemical pesticides, heavy metals and Microbiological Contamination in Soils and Vegetables from Selected Sites within the Eastern Part of Nairobi Metropolitan. Co- supervised with: Prof. Shem O. Wandiga.	M.Sc.	Submitted
10)	Mpekethu Vivian Gacheri	Assessment of pesticide contamination in soil, water and sediment in Khat growing areas in Eastern Kenya. Co- supervised with: Prof. Wandiga	M.Sc.	Intent to Submit Thesis
11)	Japheth cheroot	Water purification capacity of selected carbonized and surface modified materials or organic and inorganic origin. Co- supervised with: Prof. Shem O. Wandiga.	M.Sc.	Ongoing
12)	Jacob Omulama	Determination of polycyclic aromatic hydrocarbons and pesticides in sugar industrial effluents in western Kenya. Co- supervised with: Prof. Shem O. Wandiga and Dr. Francis Orata.	M.Sc.	Ongoing
13)	Susan Kyalo	Assessment of the Impact of Human Activities on the Quality of Water relating Pesticides and Heavy metals at the Maruba Dam in Machakos County. Co- supervised with: Prof. S. Wandiga	M.Sc.	Ongoing
14)	Michael Alela Opanga	Assessment of selected antibiotics in Ngong river and their removal using activated carbon. Co- supervised with: Prof. S. Wandiga and Dr. H. Nose	M.Sc.	Defended successfully
15)	Daisy Mmoji	Determination of Heavy metals in bottled drinking water: A case study of Nairobi and Kiambu County	M.Sc.	Ongoing

	Shikanga	Co- supervised with: Dr. J. Wanjohi		
16)	Lawrence Aloo	Determination of aflatoxin in fish from selected markets in Nairobi County. Co- supervised with: Prof. Wandiga and Dr. R. Kayume	M.Sc.	Intent to Submit Thesis
17)	Daniel Muendo David	Effects of Heavy Metal pollution on Levels of Omega-3 Polyunsaturated Fatty acids in Nile Tilapia (<i>Oreochromis Niloticus</i>) from Pollution-Simulated Aquaria. Co- supervised with: Prof. Edward Nguu and Prof. Darington Ogoi.	M.Sc.	Ongoing
18)	Ellyjoy Murugi Amos	Assessment Of Selected Toxic Metal Contamination In Tharaka Sub county. Co- supervised with: Prof. Wandiga	M.Sc.	Ongoing

7. RESEARCH SUPERVISION AT UNDERGRADUATE LEVEL

No.	Name	Research Title	Level	Year	Status
1)	Mary N. Njuki	Assessment of Organochlorine Pesticides in Coastal Areas of Kenya	4 th year	2018	Completed
2)	Jacinta W. Njeri	Analysis of Polycyclic Aromatic Hydrocarbons in Soot from Different Cooking Facilities in Nairobi, Kenya	4 th year	2018	Completed
3)	Elisha Ogweni	Analysis of Heavy Metals, Nutrients and Pesticides in Sony Sugar Effluent	4 th year	2018	Completed
4)	Humphrey Andanyi	Analysis of Physiochemical Parameters in Selected Injection Fluids	4 th year	2018	Completed
5)	Kasyula Nicholas Mitau	Determination of Toxic Organic Compounds Waste Disposal Sites in Nairobi County	4 th year	2017	Completed
6)	Carol N. Ndung'u	Analysis of heavy metals from waste disposal sites and e-waste dumping sites around Nairobi	4 th year	2017	Completed
7)	Ngetich Kiplangat Ronald	Analysis of heavy metals in cosmetic products within Nairobi area	4 th year	2017	Completed
8)	Nato Elizabeth	Analysis of persistent organic pollutants in soils and ambient air around Nairobi County	4 th year	2017	Completed
9)	Racheal Awuor	Analysis of Mercury and selected heavy metals in water, soil and fish from selected sites along Lake Victoria, Kenya	4 th year	2017	Completed
10)	Mwambu M. Kizito	Chemodynamics and antimicrobial studies of chlorophyll as a deodorant	4 th year	2017	Completed
11)	Karanja Emily Wanjiru	Analysis of Toxic Heavy Metals Mercury, Chromium, cadmium, lead and manganese in Glass Beads and Thermoplastic Road Marking Raw Materials used in Kenyan Roads.	4 th year	2016	Graduated
12)	Joan Waithira Nduati	Development of passive samplers for monitoring inorganic gases NO ₂ , SO ₂ , HNO ₃ and NH ₃ in ambient air	4 th year	2016	Graduated

13)	Beatrice Nyaboke	Determination of Pollution Status Within Kabete Veterinary Labs area with Organochlorine and Organophosphate Pesticides	4 th year	2016	Graduated
14)	John Julius Mutua	Analysis of the Quality of the Yatta Canal Water for Drinking and Irrigation use.	4 th year	2015	Graduated
15)	Faith Suter	Assessment of Atmospheric Deposition of Heavy Metals , Nutrients and Particulate Matter in Air and Soil Around Chiromo Campus.	4 th year	2015	Graduated
16)	Violet Awuor	Testing the Performance of Doped Copper Photocatalyst in Disinfection of <i>E. Coli</i> in Drinking Water.	4 th year	2015	Graduated
17)	Allan Robert Ouko	Characterization of natural and synthetic organic matter in water and wastewater treatment plants in Nairobi county.	4 th year	2015	Graduated
18)	James Koriema Rotich	Degradation of selected pesticides in soils from different parts of Kenya.	4 th year	2014	Graduated
19)	MacDonald Kiprop Kipyegon	Assessment of chlorinated pesticides and PCBs contamination of eggs from selected parts of Nairobi City.	4 th year	2014	Graduated
20)	Agnes Muchiri	Assessment of water quality from different sources in Naivasha town.	4 th year	2014	Graduated
21)	Reuben M. Bosire	Assessment of heavy metal contamination in eggs from different locations in Nairobi.	4 th year	2014	Graduated
22)	Mary Wairimu Ngotho	Assessment of Borehole and Shallow Well Water Quality from Nakuru Area	4 th year	2014	Graduated
23)	Carol P. Mwendwa	Testing efficiency of solar disinfection for removal of microbial contaminants under different conditions.	4 th year	2014	Graduated
24)	Roy Odhiambo	Inactivation Kinetics and Stability of green and black tea extracts and lemon grass on <i>E. Coli</i> in drinking water.	4 th year	2013	Graduated
25)	Sheridan Wanjiku Phillip	Kinetics of pesticide residues in a cattle dip in Nairobi.	4 th year	2013	Graduated
26)	Fabian M. Okwisia	Assessment of the extent of obsolete pesticide contamination in Kitengela Obsolete pesticide dumpsite.	4 th year	2013	Graduated
27)	Hawa W. Mukami	Characterisation of grey water in Chiromo Campus.	4 th year	2012	Graduated
28)	Macharia K. John	Investigation of the water quality of Kithumani area in Yatta District.	4 th year	2012	Graduated
29)	Shuaib Y. Abdi	Determination of the effectiveness of Sedimentation tank.	4 th year	2012	Graduated
30)	Marlon Oguma Odhiambo	Assessment of heavy metals in soil around Dandora dumping site.	4 th year	2012	Graduated
31)	Okwena M.	Remediation of pesticide contaminated soil.	4 th year	2012	Graduated

	Norah				
32)	Nicholas Rop	Degradation Studies of d-phenothrin under different environmental.	4 th year	2012	Graduated
33)	James Gitau	Assessment of pesticide residues in Nairobi Bottled water.	4 th year	2011	Graduated
34)	Edwin M. Muganga	Remediation of pesticide contaminated soil from Kitengela.	4 th year	2008	Graduated
35)	Mwathe Loise Ndotu	Assessment of Oil and Grease and Organochlorine pesticides in Mathare River water.	4 th year	2007	Graduated
36)	Kibet A. Chepchumba	Determination of BOD, COD, and their related physico-chemical parameters at selected sites in Athi River.	4 th year	2007	Graduated
37)	Mugao J. Gitonga	Determination of levels of phosphates nitrates and other selected physico-chemical parameters in sections of Ruiru River.	4 th year	2007	Graduated
38)	Caral Ngesa	Assessment of Organochlorine pesticides in water and sediments from Mathare River.	4 th year	2006	Graduated
39)	Eric Manyura	Determination of oil and grease in Ngong River.	4 th year	2006	Graduated

8. ACADEMIC PUBLICATIONS

8A) REFEREED JOURNAL ARTICLES

- 1) Elizabeth N. Ndunda, **Vincent O. Madadi** and Shem O. Wandiga, (2018) Organochlorine pesticide residues in sediment and water from Nairobi River, Kenya: levels, distribution, and ecological risk assessment. *Environmental Science and Pollution Research*. Published online: Pg1-9.
- 2) Michael A. Oponga, **Vincent O. Madadi**, Shem O. Wandiga, Holiness M. Nose, Charles W. Mirikau, Mamo Umuro, (2018) "Adsorption Studies of Trimethoprim Antibiotic on Powdered and Granular Activated Carbon in Distilled and Natural Water", *International Journal of Scientific Research in Science, Engineering and Technology (IJSRSET)*, ISSN : 2456-3307, Volume 4 Issue 11, pp. 223-230. Available at doi : <https://doi.org/10.32628/IJSRSET1841117> Journal URL : <http://ijsrset.com/IJSRSET1841117>.
- 3) Edna M. Masenge, Shem O. Wandiga, Paul M. Shiundu, **Vincent O. Madadi**, (2018) Analysis of Total Petroleum Hydrocarbons in Water from Ngong and Mathare Rivers, Nairobi County, Kenya. *IJSRSET*, (4)8: 252-256. Print ISSN: 2395-1990 | Online ISSN : 2394-4099.
- 4) Masese F. A., Wandiga S.O., **Madadi V.O.** and Mbui D. N. (2017) Water Quality Status of Selected Sources of Domestic Water in Kenya. *International Journal of Scientific Research in Science, Engineering and Technology*, (3)8: 193-198 Print ISSN: 2395-1990 | Online ISSN : 2394-4099.
- 5) **Vincent O. Madadi**, Mary W. Ngotho, Florence A. Masese, (2017) Drinking Water Quality Challenges in Nakuru County, Kenya. *IJSRSET* 3(6)5-11. Print ISSN: 2395-1990 | Online ISSN : 2394-4099.
- 6) Vane B. Ondiere, **Madadi O. Vincent**, Austin A. Ochieng and Fredrick D.O. Oduor , (2017) Assessment of Heavy Metals Contamination in Lake Elementaita Drainage Basin,

- Kenya. *International Journal of Scientific Research in Science, Engineering and Technology*. 3(5) 283-289. Print ISSN: 2395-1990. Online ISSN: 2394-4099.
- 7) James K. Mbugua, Peterson M. Guto, **Vincent O. Madadi** and Geoffrey N. Kamau (2017) Modeling of Experimental Adsorption Isotherm Data for Chlorothalonil by Nairobi River Sediment. *IJSRSET*, 3(5) 259-268.
 - 8) Kipngetich Bernard, Shem O. Wandiga, **Vincent O. Madadi** and Marina Mukabi, (2017) Dissipation studies of Amitraz in cattle dips in Bureti, Kericho county- Kenya. *International Journal of Scientific Research in Science, Engineering and Technology*. 3(5) 248-253. Print ISSN: 2395-1990. Online ISSN: 2394-4099
 - 9) Bonface N. Kamau, Shem O. Wandiga and **Vincent O. Madadi**, (2017) Dissipation Studies of Ridomil Gold Pesticide on Potatoes in Nyandarua County, Kenya. *IJSRSET*, 3(5) 221-229.
 - 10) Emily K. Okworo, **Vincent O. Madadi**, Deborah A. Abong'o, Austin Ochieng, (2017) Assessment of the Level of Organochlorine Pesticides Contamination in Kales, Water and Soil from Naivasha, Kenya. *International Journal of Scientific Research in Science, Engineering and Technology*. 3(5) 205-213.
 - 11) Judith Kananu, **Vincent O. Madadi** and Geoffrey N. Kamau, (2017) Effects of Long-Term Application of Inorganic Fertilizers on Primary Macronutrients in Trans Nzoia Maize Farm Soils, Kenya. *IJSRSET*, 3(5) 120-125.
 - 12) Sherif, S.S. and **V. Madadi**, (2017) Adsorption of Lambda Cyhalothrin onto Athi River Sediments: Apparent Thermodynamic Properties. *International Journal of Scientific Research in Science, Engineering and Technology*, 3(3) 568-574.
 - 13) **Vincent O. Madadi**, (2017) Occurrence and Distribution of Organochlorine Pesticide Residues in Water and Soil Samples from Kargi Area, Marsabit County, Kenya. *IJSRSET* 3(5)91-99.
 - 14) Auchu JK, Wandiga OS, Abong'o DA, **Madadi VO**, Osoro EM, (2017) Organochlorine pesticides in air and soil from nairobi and mount kenya region, kenya. *IOSR Journal of Applied Chemistry (IOSR-JAC)*.10(7)2:5-11. e-ISSN: 2278-5736.
 - 15) **Vincent O. Madadi**, Shem O. Wandiga, Elizabeth N. Ndunda and Kenneth M. Mavuti, (2017) Analysis of Organochlorine Pesticides in Lake Naivasha Catchment. *IJSRSET*, 3(5) 139-145.
 - 16) Jane W. Macharia, Shem O. Wandiga, Lydia W. Njenga, **Vincent O. Madadi**, (2016) Moringa oleifera and Ceramic Filters for Escherichia coli and Turbidity removal from drinking water. *IOSR-JAC*: 9 (5): 46-55. EISSN: 2278-5736.
 - 17) Osoro EM, Wandiga S.O, Abongo DA, **Madadi V O** and Macharia J W. (2016) Organochlorine Pesticides Residues in Water and Sediment from Rusinga Island, Lake Victoria, Kenya. . *IOSR-JAC*. 9 (9): 56-63. EISSN: 2278-5736.
 - 18) Debora Atieno Abong'o, Shem. O. Wandiga, Isaac O. Jumba, Paul J. Van den Brink P, Betty B. Naziriwo, **Vincent O. Madadi** and Godfrey A. Wafula, Peter Nkedi- Kizza, , Kylin Henrik, (2015) Occurrence, abundance and Distribution of Benthic Macro-invertebrates in the Nyando River Catchment, Kenya. *Africa Journal of Physical Sciences*, 40(4) 373-392.
 - 19) Elizabeth N. Ndunda, **Vincent O. Madadi**, Boris Mizaikoff, (2015) An alternative clean-up column for Polychlorinated Biphenyls in solid matrices. *Environmental Science. Processes and Impacts, Royal Society of Chemistry*. DOI: 10-1039/c5em00409h.
 - 20) Abong'o Debora Atieno, Wandiga Shem Oyoo, Jumba Isaac Ogangu, Van den Brink Paul J., Naziriwo Betty Bbosa, **Madadi Vincent Odongo** and Wafula Godfrey Angoe, Kylin Henrik,

Nkedi- Kizza Peter, (2015) Organochlorine pesticide residue levels in soil from the Nyando River Catchment, Kenya. *Africa Journal of Physical Sciences*, 2(1) 18-32.

- 21) Judth Kananu, **Vincent O. Madadi** and Geoffrey N. Kamau, (2014) Impact of Long-term Inorganic Fertilization with Emphasis on **Heavy metals**, Soil pH and Total Organic Carbon on Maize Farm soils in Trans Nzoia Kenya. The *International Journal of Science and Technoloe*. ISSN 2321-919x, 2(11) 183-188.
- 22) Debora Atieno Abong'o, Shem Oyoo Wandiga, Isaac Ogangu Jumba, **Vincent Odongo Madadi** and Henrik Kylin, (2014) Impacts of Pesticides on Human Health and Environment in the River Nyando Catchment, Kenya. *Best: International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS) ISSN(E): 2348-0521*. 2(3) 1-14.
- 23) Kemboi AK, JK Mbugua, **VO Madadi**, PM Guto, GN Kamau, (2014) Adsorption Characteristics of Captafol Pesticide by Sediment and Soil Samples: Apparent Thermodynamic Properties Using Spectroscopic Methods. *International Journal of BioChemiPhysics*. 22:61-68.
- 24) James K. Mbugua, Antipas Kemboi, Immaculate N. Michira, **Vincent O. Madadi**, Mark F. Zaranyika and Geoffrey N. Kamau (2014) Adsorption of Atrazine pesticide by sediment and soil samples: Effect of Equilibration Time on the Freundlich Parameter (n). *International Journal of BioChemiPhysics*, 22: 31-43.
- 25) James K. Mbugua, M. Kagwanja, **Vincent O. Madadi**, Mark F. Zaranyika and Geoffrey N. Kamau (2012) Adsorption of 2,4,5,6-tetrachloroisophthalonitrile (Chlorothalonil) by Nairobi River Sediments: Adsorption characteristics and related thermodynamic Data. *International Journal of BioChemiPhysics*, 20: 25-38.
- 26) Naziriwo Betty Bbosa, Wandiga Shem Oyoo, **Madadi Odongo Vincent** and Abong'o Debra Atieno, (2009) Physicochemical parameters and magnetic speciation of Iron in Nakivubo Channel and Lake Victoria waters. *Lakes and Reservoirs: Research and Management*, 14: 127-137.
- 27) Getenga, M. Z., **Madadi O. V.**, and S. O. Wandiga, (2004) Studies of degradation of 2,4-D and metribuzin in soil under controlled conditions. *Bull. Environ. Contam. Toxicol.* 72(3): 504-513.

8B) REFERREED PROCEEDINGS

- 1) Gall, Aimee M.; **Madadi, Vincent**; Shisler, Joanna L.; Mariñas, Benito J., Disinfection (2013) The Safe Global Water Institute: An integrated, collaborative approach for improving drinking water and sanitation globally. Proceedings of the Water Environment Federation, Disinfection. (4) 184-187.
- 2) **Madadi O.V.**, S.O. Wandiga, (2006) The status of persistent organic pollutants in Lake Victoria catchments. *11th World Lake Conference proceedings*, (2): 107-112.
- 3) **Madadi O. V.**, Wandiga S.O. and I.O. Jumba, (2004) Degradation versus Mineralization of 2,4-D and metribuzin in Tropical soils. *ANCAP proceedings 2004*. Arusha, Tanzania.

8C) BOOK CHAPTERS

- 1) Wandiga S. O. and **V.O. Madadi** (2009) Water quality issues in East Africa. In Handbook of Water purity and Quality. 1st Ed. Satinder Ahuja. *Academic Press Elsevier*. Int. ISBN. 978-01-12-374192-9. Pg. 39-65.

- 2) Wandiga S. O., **V. O. Madadi**, B. T. Kiremire, and M. A. Kishimba, (2006) Lake Victoria: Will it support life tomorrow? A case for abatement of pollution and eutrophication of fresh waters. *In UNEP/PASS: Environment for Development: An Ecosystem Assessment of Lake Victoria Basin Environmental and Socio-Economic Status, Trends and Human Vulnerabilities*. Pg. 61-76.

8D) OTHER CONTRIBUTIONS TO LITERATURE

- 1) Vincent O. Madadi, (2012) Pesticides and Phosphorus Dynamics in Lake Victoria Basin. PhD Thesis, University of Nairobi, Kenya.
- 2) Vincent O. Madadi, (2005) Chemodynamics and Assessment of Pesticide Residues in Lake Victoria Catchments. M.Sc. Thesis, University of Nairobi, Kenya

8E) PUBLISHED REPORTS

- 1) UNEP (2015) Challenges in implementing Global Monitoring Plan under the Stockholm Convention. In The Global Monitoring Plan Report. Secretariat of the **Stockholm Convention on Persistent Organic Pollutants**. Geneva, Switzerland.
- 2) UNEP (2015) The Second Africa POPs Monitoring Report under the effectiveness Evaluation of the Stockholm Convention on Persistent Organic Pollutants. **Report submitted to the Stockholm Convention Secretariat** in March 2015 for the Second effectiveness evaluation of the Stockholm Convention-I coordinated drafting of the report.
- 3) UNEP /GEF, (2014) **Supporting the Global Monitoring Plan on Persistent Organic Pollutants in Kenya**. Report of UNEP-GEF Project on Supporting the Implementation of the GMP in Kenya. Project GFL 4A80. Participated in the development of methodologies for analysis of PFOS and polar POPs in water samples.
- 4) MEWNR (2014) National Research, Monitoring and Public Awareness Activities on persistent organic pollutants in Kenya. A report produced for the Ministry of Environment, Water and Natural Resources to under the framework of updating the **Kenya National Implementation plan NIP** for Persistent Organic Pollutants including Organochlorine Pesticides, PCBs, Dioxins/Furans, PFOS and perflourinated compounds, Under the Stockholm Convention.
- 5) UNEP /GEF, (2013) Supporting the Global Monitoring Plan on Persistent Organic Pollutants in Kenya. Report of UNEP-GEF Project on **Supporting the Implementation of the GMP in Kenya**. Project GFL 4A80.
- 6) UNEP/GEF, (2012) Supporting the Implementation of the GMP in Africa Region Report of UNEP-GEF Project on **Supporting the Implementation of the GMP in Eastern and Southern Africa Sub-Region**. Project GFL 4A80.
- 7) Madadi O. Vincent, (2012) Review of disinfection mechanism of adenovirus type 2 by free chlorine. Research report submitted to the Department of Civil and Environmental Engineering, University of Illinois, Urbana-Champaign, USA.
- 8) Madadi O. Vincent, (2011) Disinfection of PRD1 Virus using monochloramine, SODIS and SOChlor under different temperature and pH conditions. Research report submitted to the Department of Civil and Environmental Engineering, University of Illinois, Urbana-Champaign, USA.

- 9) Wandiga, S. O., Mavuti, M. K., Oduor, F. D. O., Kariuki, D. K., Mirikau, C. W., Wafula, G. A., Madadi, O.V., Mwenda, N., Masese, F., Gitari, K. F., Masenge, E., Ndunda, N. E., Situma, D., Wang'ond, V. C., and G. Ooko. Report of the **Mini-monitoring exercise of the Nairobi River Basin**. Report submitted to UNEP ROA, November, 2009.
- 10) Wandiga, S. O., Oduor, F. D. O., Kariuki, D. K., Mirikau, C. W., Wafula, G. A., Madadi, O. V., Mwenda, N., Masese, F., Gitari, K. F., Masenge, E., Ndunda, N. E., Situma, D., and Ooko, G. **Environmental audit Report**. Report submitted to UNEP ROA, November, 2009.
- 11) Wandiga, S. O., Oduor, F. D. O., Kariuki, D. K., Mirikau, C. W., Wafula, G. A., Madadi, O. V., Mwenda, N., Masese, F., Mavuti, K. M. (2009) Water Quality Monitoring Protocol for Nairobi River Basin. **Protocol submitted to UNEP ROA**, November, 2009.
- 12) Wandiga, S. O., Oduor, F. D. O., Kariuki, D. K., Mirikau, C. W., Wafula, G. A., Madadi, O. V., Mwenda, N., Masese, F., Gitari, K. F., Masenge, E., Ndunda, N. E., Situma, D., and Ooko, G. Nairobi River Basin Reconnaissance Report. **Report submitted to UNEP ROA, November, 2009.**
- 13) Shem O. Wandiga; Vincent Madadi and Peterson O. Olum (2009) Africa Review Report on Chemicals. **A comprehensive regional status review towards Environmentally sound Management of Chemicals in Africa**. Report prepared for UNIDO in September 2009.
- 14) UNEP SC (2009) The first POPs monitoring report for Africa Region on implementation of the Global Monitoring Plan in Africa. **Report submitted to the Stockholm Convention Secretariat for the First effectiveness evaluation of the Stockholm Convention-Coordinated drafting of the report.**
- 15) NRBP (2006) Industrial effluents in the Nairobi River Basin. Chapter 5: **NRBP Report: Desktop Study of Water Quality and Quantity**. Report Submitted by the Department of Chemistry, University of Nairobi to UNEP. April 2006.
- 16) UNEP/GEF (2007) **Project report for UNEP/GEF PROJECT 4821/GFPO40300501-** Assessment of Existing Capacity and Capacity Building Needs to Analyse POPs in Developing Countries.
- 17) Kenya National Inventory of POPs (2003) **Report submitted to the Ministry of Environment and Natural Resources on Inventory of Unintentional Persistent Organic Pollutants in Kenya**. Department of Chemistry, University of Nairobi.

9) PAPERS PRESENTED AT CONFERENCES

- 1) **Vincent O. Madadi, Shem O. Wandiga, Michael A. Opanga and Feng Xiao, (2016)** Opportunities and Challenges in Addressing Contaminants of Emerging Concern (CEC) in Drinking Water in the Developing Countries. A paper presented at the PACN Congress 2016 - Sustainable Water Resources for Africa30-02 December, 2016 University of Nairobi, Nairobi, Kenya. KCS
- 2) **Vincent O. Madadi, Shem O. Wandiga, Michael A. Opanga and Feng Xiao, (2016)** Opportunities and Challenges in Addressing Contaminants of Emerging Concern (CEC) in Drinking Water in the Developing Countries. A paper presented at the PACN Congress 2016 -

- Sustainable Water Resources for Africa 30-02 December, 2016 University of Nairobi, Nairobi, Kenya.
- 3) Vincent O. Madadi, (2016) **Progress in assessment of persistent toxic substances at UON, Kenya and implementation of GMP in Africa** a paper presented at the International ANCAP Symposium, University of Nairobi, Nairobi, Kenya.
 - 4) V.O. Madadi, E. Odada, S. O. Wandiga, D. Olago^{1,3}, G. A. Wafula^{2,3}, C. Galy-Lacaux, (2016) **EADN Passive Sampling of Selected Atmospheric Gaseous Compounds in Ambient Air Across the Sub-Saharan African Great Lakes**. A paper presented at the ESACC-TCC Conference, 15th-17th June, 2016, Reef Hotel, Mombasa, Kenya.
 - 5) V.O. Madadi, E. Odada, S. O. Wandiga, D. Olago^{1,3}, G. A. Wafula^{2,3}, C. Galy-Lacaux, (2015) **EADN Advances in Measurements of Atmospheric Ozone, Nitrogen, Sulphur Compounds in Dry Deposition across Equatorial African Great Lakes**. A paper presented at the International Acid Rain Conference 19th-23rd October, 2015. Rochester, New York, USA.
 - 6) Vincent Madadi and Shem Wandiga (2014) **Environmental pollution and food safety challenges, and Research Perspectives related to pesticides and emerging pollutants**. A paper presented at the ANCAP Symposium, 20th 22nd December 2014. Reef Hotel, Mombasa, Kenya.
 - 7) Vincent Madadi (2014) **Influence of Natural Organic Matter on Adsorption of Sulfamethoxazole on Powdered and Granular Activated Carbons in Natural Waters**. A paper presented at the CAS-TWAS RCEES-W&S Training. 19th September 2014, Beijing, China.
 - 8) Vincent Madadi and Shem Wandiga (2014) **Addressing Water Quality Challenges around Lake Victoria**. A paper presented at the SEANAC Conference on “From Wet Chemistry to Nano-Chemistry”- The Role of Analytical Chemistry in Building Vibrant Economies, Industries, Food Security and Environmental Management, 9th – 13th June, 2014, Reef Hotel, Mombasa, Kenya.
 - 9) Vincent O. Madadi, Shem O. Wandiga, Carol Mwendwa, Maurine Atieno, Roy Odhiambo and Jane Macharia (2013) **The Role of Chemical Sciences in Addressing Water Quality Challenges in Developing Countries**. A paper presented at the PACN Congress on Sustainability in Africa Energy, Water and Waste. 3rd-5th December 2013, Addis Ababa, Ethiopia.
 - 10) Eric Odada, Shem O. Wandiga, Daniel Lago, Vincent Madadi, Godfrey A. Wafula (2013) **EADN measurements of atmospheric Ozone, Nitrogen, Sulphur compounds in dry deposition in the Equatorial African Great Lakes**. A paper presented at the 6th International Nitrogen Conference -N2013 Conference held on 18 – 22 November 2013 at Speke Resort and Conference Center, Munyonyo in Kampala, Uganda.
 - 11) Vincent Madadi, Aimee. Gall, J. Shem Wandiga, J. Mariñas, Shisler, Y. Lu, B and Anthony J. Rodrigues (2013) **Addressing Water Quality challenges and perspectives- collaborative efforts between the University of Nairobi, Kenya and University of Illinois at Urban Champaign, USA**. A paper presented at the International Water Association (IWA) Development Congress and Exhibition 14th October 2013 – 17th October 2013, Kenyatta International Conference Centre (KICC), Nairobi, Kenya.
 - 12) Aimee. Gall, Vincent O. Madadi, J. Shem Wandiga, Joanna L. Shisler, Benito Mariñas, (2013) **University partnerships enhance fundamental disinfection research between Illinois and Kenya**. A paper presented at the International Water Association (IWA) Development Congress and

Exhibition 14th October 2013 – 17th October 2013, Kenyatta International Conference Centre (KICC), Nairobi, Kenya.

- 13) Jane Macharia, Shem Wandiga, Lydiah Njenga and Vincent Madadi, (2013) Exploring application of low cost water purification technologies to provide safe drinking water for rural communities – a case study using Moringa Oleifera seeds and ceramic filters. A paper presented at the International Water Association (IWA) Development Congress and Exhibition 14th October 2013 – 17th October 2013, Kenyatta International Conference Centre (KICC), Nairobi, Kenya.
- 14) Vincent Madadi, Shem Wandiga and Paul Shiundu, (2013) **Organochlorine pesticide contamination in Tropical soils**. A paper presented at the 6th SETAC Africa Conference, 2nd -3rd September 2013. Intercontinental Hotel, Lusaka, Zambia.
- 15) Vincent Madadi and Shem Wandiga, (2013) **Advances in water purification and disinfection technologies**. A paper presented at the Second Stakeholders' Workshop on Addressing Drinking Water Quality Challenges in Developing Countries: Case Study of Lake Victoria Basin, Bondo District. Jaramogi Oginga Odinga University of Science and Technology. 30th -31st May 2013. Care for the Earth, Kisumu, Kenya.
- 16) Vincent Madadi, A. Gall, J. Shisler, Y. Lu, B.J. Mariñas, & S. Wandiga (2013) **Advances in Waterborne Viral Pathogen Control and Sensing**. A paper presented at the Safe Global Water Summit, 30th Jan-1st February 2013, Arusha-Tanzania.
- 17) Vincent Madadi, Shem O. Wandiga and Paul M. Shiundu (2013) **Degradation studies of lindane in amended and non amended soils from Lake Victoria drainage Basin**. A paper presented at ANCAP Symposium, 4th -7th January, University of Dar es Salaam, Tanzania.
- 18) Madadi O.V., S.O. Wandiga and P. M. Shiundu (2007) **Assessment of sustainability of Agricultural practices in Kenyan catchments of Lake Victoria**. Paper presented at the *XII CHEMRAWN International Conference on The role of Chemistry in Sustainable Agriculture and Human well being in Africa*. 2nd-5th December 2007. Stellenbosch University, South Africa.
- 19) Madadi O.V., S.O. Wandiga and I.O. Jumba (21st-22nd July 2005) **Analysis of organochlorine pesticides in river Nzoia drainage system**. Paper presented at the ANCAP Symposium, Makerere University. Kampala-Uganda.
- 20) Madadi O. V, S. O. Wandiga, and I. O. Jumba (21st Jan, 2005) **Cyclization and distribution of organophosphorus pesticides in Lake Victoria Drainage system**. A paper presented at the regional network on Nitrogen, phosphorus and sulphur derivatives in the environment. *Sources, Methods of Quantification, Effects and Fate of NPS Derivatives in the environment*. Hotel Africana, Kampala-Uganda.
- 21) Madadi O. V., S. O. Wandiga, and I. O. Jumba, (19th-20th Nov 2004) **Delineating the challenges of unsustainable development and exploitation of Lake Victoria resources**. A poster presented at "The 1st Annual Science conference". University of Nairobi. College of Biological and Physical Sciences. Nairobi.
- 22) Madadi O. V., S. O. Wandiga, and I. O. Jumba, J. Makopa, and F. Kengara (19th-20th Nov, 2004) **Pesticide transport and Fate Processes**. A poster presented at "The 1st Annual Science conference". University of Nairobi. College of Biological and Physical Sciences.

23) Madadi O. V., S. O. Wandiga, and I. O. Jumba, (17th–19th Sept 2003) **Bioactivation and Bioremediation of 2,4-D and metribuzin in tropical soils.** A paper presented at *ANCAP Symposium*. Department of Chemistry, University of Nairobi. Nairobi-Kenya.

24) Madadi O. V., (8th July-2nd Aug. 2002) **Dioxins and Furans in the tropical environment.** A paper presented at ANCAP symposium. Department of Chemistry, Makerere University-Uganda.

10. MAJOR CONFERENCES ATTENDED

2017	Participated in at SEANAC Conference on Analytical and Environmental Chemistry December, 2016 University of Nairobi, Nairobi, Kenya. SEANAC
2017	AGLC
Dec 2016	Participated in at the PACN Congress 2016 - Sustainable Water Resources for Africa 30-02 December, 2016 University of Nairobi, Nairobi, Kenya.
Nov 2016	Participated in the International ANCAP Symposium, University of Nairobi, Nairobi, Kenya.
Jun 2016	Participated in the ESACC-TCC Conference, 15 th -17 th June, 2016, Reef Hotel, Mombasa, Kenya
Nov 2015	Participated in Pan Africa Chemistry Network PACN Congress 2015 - Healthcare: From discovery to delivery, 17 th -19 th November 2015. University of Nairobi, College of Biological and Physical Sciences. Nairobi, Kenya.
Sept 2012	Participated in Illinois water conference organized by US Geological Survey and the University of Illinois at Urbana Champaign. 24 th -25 th September 2012. University of Illinois, USA.
May 2012	Africa Academy of Sciences/International Foundation for Science workshop On Getting and using Equipment for Scientific Research in Africa. Conference held at the Africa Academy of Sciences, Karen, Nairobi Kenya 30-31 May 2012.
Aug 2009	Participated as a resource person in the Water quality Conference from 26 th –29 th September 2009 at the University of Nairobi, Kenya. Supported by the Pan Africa Chemistry Network
Sept 2008	Pan Africa Chemistry Network Inaugural Conference on Biodiversity. University of Nairobi, Chiromo Campus 10 th –12 th September 2008.
Oct 2006	International conference on pesticide use in Developing Countries: Environmental Fate, Effects and Public Health Implications. Conference organized by ANCAP in collaboration with SETAC Africa branch. 16-20 th October 2006, AICC- Arusha, Tanzania.
Jun 2005	55 th Meeting of Nobel Prize Winners in Lindau, 2 nd Inter-disciplinary meeting of Nobel Laureates for Chemistry, Physics and Physiology/Medicine, 26 th June-1 st July 2005, Lindau Lake-Constance, Germany.
Nov 2004	1 st Annual Science conference at the University of Nairobi, College of Biological and Physical Sciences (CBPS) as the coordinating secretary for the Department of Chemistry.

11. MAJOR WORKSHOPS, MEETINGS AND SUMMER SCHOOLS

Nov 2016	Participated in the 31 st Session of the GAWTEC Training Course Zugspitze, Germany 31 October – 11 November 2016
Jul 2016	Participated in UNEP/GEF project 'Establishing the Tools and Methods to Include the Nine New POPs into Global Monitoring Plan' and Inception Workshop for the UNEP/GEF project 'Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Africa Region' in Accra Ghana from 6 th to 8 th

	July 2016.
Feb 2016	Participated in the Ecological Risk Assessment of Pesticides in East Africa, 25 th -26 th February 2016, Sam Sung Laboratory, Technical University of Kenya, Nairobi, Kenya.
Feb 2016	Participated in the University of Nairobi PhD supervision Training of Trainers workshop, 15 th -17 th February 2016 University of Nairobi. Nairobi, Kenya.
Dec 2015	Participated in the UON writers workshop, 8 th -11 th December 2015 University of Nairobi. Nairobi, Kenya.
Nov 2015	Participated in the INASP AuthorAID-RSC workshop, 20 th -21 st November 2015. University of Nairobi, College of Biological and Physical Sciences. Nairobi, Kenya.
Oct 2015	Participated in the Coordination Group expert meeting for drafting the Global monitoring report on Persistent Organic Pollutants (POPs) held in Geneva Switzerland, from 5 th -8 th October 2015.
Mar 2015	Participated in the Coordination Group expert meeting for drafting the Global monitoring report on Persistent Organic Pollutants (POPs) held at RECETOX, Masaryk University, Brno, Czech Republic, from 17 to 19 March 2015.
Feb 2015	Participated in the 3 rd meeting of the GEF project Document development on Management and Minimizing of UPOPs in Kenya. Lake Naivasha Sawela Lodge, 23 rd - 25 th February 2015.
Dec 2014	Participated in the 7 th Symposium of the African Network for Chemical Analysis of Pesticide (ANCAP) 20 th -22 nd December 2014, Reef Hotel, Mombasa Kenya. Theme: Environmental pollution, food security and public health as related to pesticides.
Nov 2014	Participated in the Meeting of the Coordination Group for the Global Monitoring Plan (GMP) for Persistent Organic Pollutants (POPs) under the Stockholm Convention was held at the International Environment House in Geneva, Switzerland, from 10 to 12 October 2014.
Oct 2014	Participated in the Africa drafting workshop for Second Regional Monitoring Report on persistent organic pollutants. 30 th -31 st October, 2014. Nairobi, Kenya.
Jun 2014	Participated in the 10th Summer School on Toxic Compounds in the Environment, June 23-28, 2014, Research Centre for Toxic Compounds in the Environment (RECETOX), Masaryk University together with Secretariat of the Stockholm Convention and the Ministry of the Environment of the Czech Republic.
Sep 2013	Participated in the Meeting of the Coordination Group and Regional Organization Groups under the Global Monitoring Plan (GMP) for Persistent Organic Pollutants (POPs) was held at Hotel Continental, Brno, Czech Republic, from 17 to 20 September 2013.
Oct 2012	Participated in the Global Monitoring Plan Meeting to discuss Implementation of GMP and preparation of the second regional and Global monitoring plan for the Conference of the Parties in 2015. 10 th -12 th October, 2012. International House, Geneva, Switzerland.
July-Sep 2012	Awarded WaterCAMPWS fellowship by the University of Illinois, Urbana Champaign to conduct research on elucidating mechanisms for inactivation of adenovirus in drinking water using monochloramine. Department of Civil and Environmental Engineering, University of Illinois, Urbana-Champaign, USA.
Jun 2012	Participated in Annual Summer School on passive sampling of New persistent Organic pollutants (New POPs) including PFOS, PBDE and polar pesticides in water held at the Centre for Environmental Chemistry and Toxicology on capacity Building for implementation of the Global Monitoring Plan of Persistent Organic Pollutants under article 16 of the Stockholm Convention. RECETOX, Research Centre for Environmental Chemistry and EcoToxicology, Masaryk University, Brno, Kamenice 126/3, Brno, Czech

	Republic.
Jun-Sep 2011	Awarded WaterCAMPWS fellowship by the University of Illinois, Urbana Champaign to conduct research in water Disinfection of PRD1 Virus using monochloramine, SODIS and SOChlor under different temperature and pH conditions. Department of Civil and Environmental Engineering, University of Illinois, Urbana-Champaign, USA.
Mar 2011	Meeting of the Coordination Group of the Global Monitoring Plan for Persistent Organic Pollutants under the Stockholm Convention was held at the International Environment House in Geneva, Switzerland, from 8 to 10 March 2011.
Mar 2011	UNEP/GEF project final Global workshop on strengthening capacity of developing countries to analyse persistent Organic Pollutants, VU University, Amsterdam, the Netherlands.
Oct 2010	UNEP/GEF workshop training workshop on strengthening capacity of Kenya to analyse persistent Organic Pollutants 18 th -22 nd October, 2010, Department of Chemistry, University of Nairobi, Kenya.
Sept 2010	Participated in the drafting workshop for the National Plans of Joint Action on Implementation of Libreville Declaration in Africa. 13 th -17 th September 2010. Nakuru, Kenya.
Jun 2010	Participated in Annual Summer School on at the School of Environmental Chemistry and Toxicology on capacity Building for implementation of the Global Monitoring Plan of Persistent Organic Pollutants under article 16 of the Stockholm Convention. RECETOX, Research Centre for Environmental Chemistry and EcoToxicology, Masaryk University, Brno, Kamenice 126/3, Brno, Czech Republic.
Mar 2010	Participated in water quality workshop: A chemical Science Perspective. 26 th March, 2010, College of Biological and Physical Sciences, University of Nairobi.
Mar 2010	Participated in Advanced Gas Chromatography Training workshop for East and Central Africa 8 th – 11 th March 2010, University of Nairobi, Kenya.
Mar 2010	Participated in Advanced High Performance Liquid Chromatography Training Workshop for East and Central Africa 5 th – 18 th March 2010, University of Nairobi, Kenya.
Jul 2009	“3 rd Summer School of Environmental Chemistry and Ecotoxicology 2009” on “The Advances and Trends in Environmental Chemistry and Eco-toxicology of Persistent Toxic Substance” RECETOX, Research Centre for Environmental Chemistry and EcoToxicology. Masaryk University, Brno, Kamenice 126/3, Brno, Czech Republic. Trained on application of High resolution GC-MS in analysis of dioxins and furans.
Apr 2009	Workshop to analyse pesticides using GC-MS. Jomo Kenyatta University of Agriculture and Technology, Kenya.
Feb 2009	Workshop to develop National Action Plan on Sound Management of Pesticides in Kenya, 2 nd -6 th February 2009, Garden Hotel, Machakos. Supported by the Ministry of Public Health and Sanitation.
Nov 2008	Global coordination workshop for the implementation of the Global Monitoring plans on Persistent Organic pollutants. Workshop to draft the Global monitoring report for the first effectiveness evaluation of POPs. International House, Geneva, Switzerland.
Oct 2008	Chemical Information Exchange Network (CIEN) training workshop to 1) introduce the CIEN project and its linkage with the POPRC and other GMP related work, 2) discuss country priorities and needs for information exchange, 3) introduce project activities in collecting and gathering national data for the sound management of chemicals and 4) agree on road map for the project implementation. 15 th –23 rd October 2008, Nairobi, Kenya.
Aug 2008	Satellite workshop, “the Relevance of Chemistry in a Global Society”, Trained on the application of micro-scale experiments in advancing the teaching of Chemistry.

	University of Nairobi, School of Physical Sciences, CBPS, 11 th -12 th August 2008.
July 2008	Regional organization group workshop for drafting the Africa POPs Monitoring report for Africa Region for consideration at the 4 th COP in May 2009. Hill Park Hotel, Nairobi, Kenya.
May 2008	Regional organization Group workshop on harmonization of the regional monitoring reports on persistent Organic Pollutants. 18 th -21 st May, 2008. International House Geneva, Switzerland.
Apr 2008	IFS International training workshop on Scientific Manuscript Development for Publication. 29 th April-4 th May 2008, Hill Park Hotel Nairobi, Kenya.
Apr 2008	Involved in the implementation of the training workshop for staff of the Government Chemist's Department on analysis of pesticides in water, soil and biota. 14 th –25 th April 2008, Department of Chemistry, University of Nairobi.
Feb 2008	Sub-regional workshop to support GMP implementation in the Francophone Africa Trained in application of Environmental Sound Technology Information System (ESTIS) and database management for information dissemination, 25 th –27 th February 2008 Lomé, Togo.
Oct 2007	Inception workshop for Regional Organization Group members for Africa Region. Workshop conducted to establish strategy and work plan for implementation of Global monitoring plan in Africa Region. 29-31 st October 2007, UNEP Headquarters, Gigiri, Nairobi, Kenya.
Jul 2007	“3 rd Summer School of Environmental Chemistry and Ecotoxicology 2007” on “The Advances and Trends in Environmental Chemistry and Eco-toxicology of Persistent Toxic Substance” RECETOX, Research Centre for Environmental Chemistry and EcoToxicology, 9 th to 16 th July 2007. Masaryk University, Brno, Kamenice 126/3, Brno, Czech Republic. Trained in analysis of Pesticides and PCBs using GC-MS.
Mar 2007	UNEP/GEF workshop-“assessment of existing capacity and capacity building needs to analyse POPs in developing countries 5 th – 13 th March, 2007, Free University of Amsterdam, the Netherlands.
Jan 2007	UNEP/GEF workshop-“assessment of existing capacity and capacity building needs to analyse POPs in developing countries 8 th – 12 th January, 2007, Department of Chemistry, University of Nairobi, Kenya.
Oct 2006	ANCAP-SETAC Summer School on Chemistry and eco-toxicology of pesticides used in developing countries; 16-20 th Oct. 2006, AICC Arusha, Tanzania.
Oct 2006	IFS Workshop: “Writing IFS grant proposals”, 16-20 th Oct. 2006, Tropical Pesticide Research Institute (TPRI), Arusha, Tanzania.
Oct 2006	GLIC Workshop: “Cyber Chemistry”, 16-20 th Oct. 2006, Tropical Pesticide Research Institute (TPRI), Arusha, Tanzania.
Sept 2006	Ministry of Environment Japan and UNEP/GEF joint workshop on “Environmental Monitoring of Persistent Organic Pollutants in East Asian Countries and the UNEP/GEF POPs Analysis Capacity Project”, 20-22 nd September 2006, Kyoto, Japan.
Oct 2005	UNEP/GEF and BASEL joint workshop “Assessment of Existing Capacity and Capacity Building Needs to Analyse Persistent Organic Pollutants (POPs) in Developing Countries Regional Workshop for African Countries”. 4 th -6 th October 2005, Pretoria, South Africa.
Jul 2005	Participated in African Network for Analysis of Chemical Pesticides (ANCAP) Summer school at Makerere University, Uganda. Course content: Pesticide transport in the tropical environment.
May 2005	Workshop on Atmospheric deposition in Equatorial Africa. Organized by PASS, Ministry of Environment and World Bank aimed at establishing a network for monitoring atmospheric depositions in Equatorial Africa. Safari club, Nairobi.

Jan 2005	Workshop on Nitrogen, Phosphorus and Sulphur derivatives and methods of analysis in the environment aimed at establishing a network for monitoring N, P, S and their derivatives in Africa. 20 th January 2005. Hotel Africana, Kampala, Uganda.
Aug 2004	ANCAP Workshop: “Management of tropical pesticides comprising of pesticide formulation and toxicology, pesticide modeling and cold deposition effects, the Stockholm Convention, and Instrumental methods in pesticide research. Tropical Pesticide Research Institute (TPRI), Arusha-Tanzania.
Apr 2004	Application of Gas Chromatography in analysis of pesticide residues and persistent organic pollutants in environmental samples. University of Dar-es Salaam, Tanzania.
Feb 2004	I participated in the Kenya National Inventory of Persistent Organic Pollutants (POPs) through the initiative of the Ministry of Environment, University of Nairobi Enterprise and Services (UNES), and the United Nations Environment Programme (UNEP), to meet the requirements of the Stockholm Convention.
Sept 2003	African Network for Chemical Analysis of Pesticides (ANCAP) workshop instructor: “methods of environmental modeling and monitoring the fate of persistent organic pesticides”. The course contents: Modeling systems simulating natural environmental ecosystem consisting of water, fish, weeds and sediments; investigating partitioning, distribution, and dissipation rates of persistent organochlorine pesticides from water to fish, sediments and weeds. Department of Chemistry, University of Nairobi, Kenya.
Jul 2002	ANCAP workshop and symposium at Makerere University, Uganda. Trained in environmental modeling and monitoring of pesticides. Workshop contents: Transport of pesticides in the environment through leaching; Adsorption-desorption of pesticides in tropical soils; Degradation and persistence of pesticides in tropical soils; Application of HPLC in pesticide research and interpretation of persistence and transport data using theoretical models.

12) EXAMINATION OF THESES- INTERNAL EXAMINER FOR POSTGRADUATE THESES

No.	Title	Institution	Level	Year
1)	Assessment of the fate of selected pesticides used on flowers and vegetables in Naivasha area.	University of Nairobi	M.Sc.	2017
2)	Conversion of Sludge Aluminum Sulphate for Use in Waste Water Treatment	University of Nairobi	M.Sc.	2017
3)	Degradation and Adsorption of Lambda-Cyhalothrin on Athi River and Coastal Soils and Sediments in Kenya	University of Nairobi	M.Sc.	2017
4)	Assessment of pesticides and heavy metals in Lake Elementaita Kenya.	University of Nairobi	M.Sc.	2016
5)	Nanoporous Ceramics for Water Filtration.	University of Nairobi	M.Sc.	2015
6)	Mapping Spatial and Temporal Variations of Phosphate, Sulphate, Nitrate and <i>Escherichia Coli</i> (<i>E. Coli</i>) Pollution in Ngong River, Kenya.	University of Nairobi	M.Sc.	2014
7)	Electrocatalytic Decomposition of Methoxychlor and Captan Pesticide Residues using Cyanocobalamin.	University of Nairobi	M.Sc.	2014

13) MEMBERSHIP OF LEARNED PROFESSIONAL BODIES

- 1) Found Member of the **Kenya National Young Academy of Sciences** (KNYAS).
- 2) Member of **Kenya Chemical Society** (KCS) from 2000 – Life Member from December 2015. Membership Reference Number 114.
- 3) Affiliate Member **Royal Society of Chemistry** (RSC) from March 2015. Membership Reference number 572245.
- 4) Affiliate Member **American Chemical of Chemistry** (ACS) from May 2016. Membership Reference number 31022356
- 5) Member of **Kenya DAAD Scholars Association** (KDSA) from 2005 to date.
- 6) Society of **SETAC** (Environmental Toxicology and Chemistry) Africa from October 2006 – To date.
- 7) Founder Member of **African Network for Chemical Analysis of Pesticide** (ANCAP) from July 2002 – To date.
- 8) Member of the **Southern and Eastern Africa Network of Analytical Chemists** (SEANAC).
- 9) Member of the East and Southern Africa Environmental/Analytical Chemistry (ESAECAN) Network.

14) UNIVERSITY DEPARTMENTAL COMMITTEE PARTICIPATION & ADMINISTRATIVE RESPONSIBILITIES

- 1) Chairman, Departmental Committee on Direct Service Providers
- 2) Coordinator, Fourth year student projects.
- 3) Member, Departmental Income Generation Committee.
- 4) Member, Departmental Procurement and Equipment Committee.

15) MEMBERSHIP OF NATIONAL, REGIONAL AND GLOBAL STEERING COMMITTEES

2015 to date: Chairman, Technical Committee on Pesticides, Kenya Bureau of Standards, Kenya.
Task: to spearhead the development of Kenyan pesticide Standards.

2011: Member National steering committee for development of the Kenya National Evaluation of implementation of the Libreville Declaration on Health and Environment in Africa.

2010: Contributed to the Development of the Kenya National Plan of Joint Action for implementation of the Libreville Declaration on Health and Environment in Africa.

2009 : Member advisory committee for the Green Belt Project on management of plastics to control dioxins emissions in Kenya.

2009 : Member National committee for implantation of SAICM project on sound management of chemicals in Kenya.

- 2009:** Member National steering committee for situation analysis on the implementation of the Libreville Declaration on Health and Environment in Africa.
- 2008:** Member national steering committee for pesticide management in Kenya. Contributed to Development of Kenya National Situation Analysis and Needs Assessments for management of Public Health pesticides.
- June 2007 to date:** Appointed member of Africa Regional Organization Group (ROG) for the Implementation of Global monitoring plan in Africa, by the UNEP Secretariat of Stockholm convention.
- Nov 2007 to date:** Appointed Coordinator for the Africa Regional Organization Group for the Implementation of the Global Monitoring plan in Africa.
- Nov. 2007 to date:** Appointed member of the Global coordinating committee for implementation of the Global monitoring plan for the first effectiveness evaluation of the Stockholm Convention.

16) RESEARCH GRANTS/SCHOLARSHIPS/FELLOWSHIPS AWARDS

Time	Description	Amount
October 2016-2020	UNEP/GEF GMP project- To implement GMP on POPs monitoring according to Article 16 of the Stockholm Convention and sustainable monitoring of POPs. (Implemented in collaboration with Prof. Shem Wandiga and local team)	USD: 104, 9
Sep 2015	Awarded World Meteorological Organization (WMO) Travel Grant (USD 1,200) to participate in the Acid Rain Conference in Rochester New York from 19 th -23 rd October 2015.	
Aug 2012	Point Of Use Water Purification and Disinfection (POU-Water Purification and Disinfection) for safe Drinking Water. Africa Academy of Sciences: USD 8,000.00.	
Oct 2007	IFS Research grant to conduct research on degradation and volatilization of lindane and fenitrothion in tropical soils. A research grant amounting USD 10,500.	
Sept. 2006	DAAD research grant to pursue Ph. D. research at the Department of Chemistry, University of Nairobi, on pesticide and macronutrient dynamics in water, sediments and soils from Lake Victoria Catchments. Research grant amounting KSh. 900,000.00.	
April 2006	START research grant to conduct project on mitigating phosphorus load in Lake Victoria catchments. Research grants amounting USD 15,000.	
June 2005	UNESCO support amounting USD 1,230, to Participate in the Nobel Laureates Meeting at Lindau Lake Constance-Germany.	
June 2005	Committee for the meetings of Nobel Laureates in Lindau, support amounting 125 Euros, to participate in the Nobel Laureates meeting at Lindau Lake Constance-Germany.	
2001-2003	DAAD scholarship to pursue M. Sc. Degree in Chemistry, at the University of Nairobi.	
Oct 2001	Unilever Prize amounting K. Sh. 5,000.00 for the best final year B. Sc. student in Chemistry, University of Nairobi: academic year 1999/2000.	
Oct 1996	Higher Education Loans Board (HELB) Scholarship to pursue Bachelors Degree at the University of Nairobi.	

17) PROFESSIONAL CONSULTANCIES AND GRANTS TO THE DEPARTMENT & UNIVERSITY

Time	Description	Amount
Nov 2017	RSC meeting grant to support regional participants to attend the SEANAC Conference in Mombasa Kenya.	Nov 2017
Nov 2017	OPCW to support regional participants to attend the ANCAP symposium in Mombasa Kenya.	Nov 2017
Oct 2017	OPCW grant to support regional participants to attend the SEANAC Conference in Mombasa Kenya.	Oct 2017
Jan-Dec 2016	Supporting Department Consultancies and Income generating activities. Cumulative amount in 2016 including ELGON Kenya, Pesticide Control Product Board (PCPB), and others.	KSh. 500,000.00
June 2016	Participated in developing National funded project on: Sound Chemicals Management Mainstreaming and UOPs reduction in Kenya. Implementing agencies: MENR (Ministry of Environment and Natural Resources) and UNDP Kenya. UON will implement activities on Curriculum Development and POPs training	Total Project grant: USD 4,515,000.
Jan 2013	Small Scale Funding Agreement with UNEP Secretariat of the Basel, Rotterdam & Stockholm Convention to implement the Regional Organization Group activities in Africa region.	USD 40,000.
Jan 2008	MOU with UNEP Secretariat of the Basel, Rotterdam & Stockholm Convention UNEP Secretariat of the Stockholm Convention grant for the implementation of the Regional Organization Group activities in Africa region.	USD 40,000.

18) REFEREES

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