

CURRICULUM VITAE

DR. JOHN ONAM ONYATTA

Department of Chemistry

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1. PERSONAL DETAILS

Date of birth: 19/08/1952 **Nationality:** Kenyan **Gender:** Male
Marital Status: Married

2. EDUCATION -QUALIFICATIONS

2.1 Academic qualifications

- 1992-1997 University of Saskatchewan, Saskatoon, Canada
 PhD ó Physical Chemistry
- 1980-1985 Donetsk State University, Ukraine; Msc. Analytical Chemistry.
- 1979-1980 Odessa State University, Ukraine óLanguage Preparatory Course
- 1974 -1976 Kenyatta University; Diploma in Education - Science (Chemistry)
- 1972-1973 St. Maryø Yala: Kenya Advanced Certificate Education
- 1968 -1971 St. Maryø Yala: Cambridge School Certificate/East African
 Certificate of Education
- 1960 -1967 Boi Primary School, Rarieda Sub-County, Siaya County;
 Certificate of Primary Education

3. WORKING AND TEACHING RESPONSIBILITIES

(a) EMPLOYMENT HISTORY

- January 2018 to date Senior Lecturer, Department of Chemistry,
 University of Nairobi
- May 2012 to January 2018 Lecturer, Department of Chemistry, University of
 Nairobi
- April 2008 to July 2012: Part Time Lecturer in chemistry, Technical
 University of Kenya (TUK)
- March 2005 - August 2007 Chief Science Secretary, Head of physical
 and Nuclear Sciences, National Council for
 Science and Technology (NCST)-Ministry of Education
 Science and Technology
- December 2003 - February 2005 Chief Research Officer/Ag. Director, Directorate of
 Research Development, Ministry of Education
 Science and Technology
- January 2001 - November 2003 Principal Research Officer, Department of
 Research Development, Ministry of
 Education , Science and Technology

- September 1997- January 2001 Lecturer, Department of Physical Sciences, Egerton University
- September 1992 - October 1997 PhD Student, - Chemistry , University of Saskatchewan, Canada
- May 1990 - September 1992 Lecturer, Department of Physical Sciences, Egerton University
- November 1989 - May 1990 Assistant Lecturer, Department of Physical Sciences, Egerton University
- September 1985 - October 1989 Assistant Lecturer, Department of Physical Sciences, Kenya Polytechnic, Nairobi
- September 1980- March 1985 Donetsk State University, Ukraine; MSC. Analytical Chemistry.
- September 1979- September 1980 Odessa State University, Ukraine óLanguage Preparatory Course (For MSC óchemistry)
- September 1976 - August 1979 Chemistry teacher, employed by TSC, Mawego Technical School, Kendu Bay, Homa Bay County

(b) TRAINING

1. Online training on AIE ,CBPS-14th July 2020
2. Training on "How to peer review a review article" online organized by Researcher Academy (researcheracademy.com) Elsevier, Saturday 02 May, 2020.
3. Training on "Module Searching for Reactions by Text Terms" Online training organized by Researcher Academy-Elsevier, Wednesday 22 April, 2020.
4. Module training on "How to secure funding-ECR" online organized by Researcher Academy- Elsevier 14 March 2020
5. Online training on writing a persuasive cover letter for manuscript. Research Academy, Elsevier 15 February 2020
6. Pedagogy, Andragogy and Mentorship Training : 22-24th May 2019 held at the Central Catering Unit, Main campus, University of Nairobi
7. Customer Care and Service Delivery Chapter: 7th November 2018, School of Physical Sciences Boardroom, Chiromo Campus, UoN
8. Annual HACH East Africa Conference 10th -13th September 2018. Industrial Effluent and Waste Water Management Technologies. Hilton Garden Inn Hotel, Nairobi.
9. Regional training course on Nuclear Safeguards and Non-Proliferation. Organized by the European Commission, Joint Research Centre (ECJRC) in collaboration with the University of Witwatersrand (Wits) in Centurion (Pretoria) from 12th to 16th February 2018.
10. Training on the Postgraduate Tracking System (9th November 2016)
11. Intellectual Property Training for IP, IP Champions, Principal Technologists and Selected Researchers. At the CCU óUniversity of Nairobi, February 25th 2016.
12. Training on Turnitin and sensitization on ORCID for Academic Staff, at the ICT Department, February 1-5, 2016
13. E-Resource, Plagiarism and Referencing Training, Computer Laboratory, Department of Chemistry, 19th February 2015
14. Training workshop on PhD supervision, at the CCU, UoN, February 6th October 2015,
15. Training workshop on tools for management of citations and References, at the Department of Chemistry, UoN. 9th May 2014
16. Training on Online Library Resources. SPS Computer laboratory, presented by the CBPS E-resources Librarian, 25th October 2014

17. Research and Grant Proposal Writing, Organized by University of Nairobi Enterprises & Services Limited, held at the CCI Building UoN, 22nd ó 26th April 2013.
18. Project management and team building training, held at the NCCCK Jumuia Conference & Beach Resort Hotel, Mombasa, Kenya, 2nd -7th November 2007.
19. 19th-23rd March 2007: Joint International Monitoring System (IMS)/International Data Centre introductory training programme for station operators and national data centre managers, held in Vienna, Austria
20. 5th -8th December 2005: Training on illicit trafficking of nuclear and radioactive material at borders organized by the IAEA in collaboration with the Radiation Protection Board-Kenya held at the Travelerø Beach hotel, Mombasa, Kenya
21. 1st March ó 15th April 2004: General Course on Intellectual Property, conducted by WIPO Academy
22. 5th -10th May 2002: National training on isotope hydrology integration in the water sector. Organized by the NCST and Ministry of Environment and Natural Resources in collaboration with IAEA held in Nakuru, Kenya
23. 23rd July -7th November 2001: Fellowship training: Science and Technology in Africa-Policies and institutions to maximize the benefits from biotechnology. Organized by the African Centre for Technology Studies (ACTS), Nairobi, Kenya
24. 2nd -6th July 2001: On-site Inspection (OSI) introductory training course for the verification regime of nuclear explosions, organized by the Preparatory Commission for the Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO-Pep Com), Vienna, Austria
25. November 1996: Occupational Health and Safety Programme for Radiation Safety Training Course at the Occupational Health and Safety Department, University of Saskatchewan, Canada

4. SUPERVISION OF POSTGRADUATE STUDENTS

(i) Doctor of Philosophy (PhD) Supervision to completion

2014

Supervised a PhD student with Dr. P. Guto and Prof. G. Kamau. Title of the research "*New electrochemical sensor for selected heavy metal pollutants in drinking and waste water*". [Student: Oyagi Moses Ondabu, Reg. N0. I80/95787/2014]. **Completed -2017.**

Graduated 22nd Dec 2017

Ongoing PhD supervision

2018

- Supervising a PhD project with with Prof. Yusuf and Dr. Madadi. Tile of project öAtmospheric corrosive behavior of metallic coated and pre-painted steel roofing sheets in marine-industrial and rural environmentsö [Student **Vane Bonareri Ondiere, Reg. N0: I80/52626/2018**]
- Supervising a PhD project with Dr. Njagi Njomo, Dr. D. Abongo and Dr. Nicholas Musyoka (CSIR- SA) Title of project: Synthesis of Microporous Magaditic Nanozeolits for Removal of Agro-pollutants and Heavy Metals from Aqueous Solutions"[Student: **Janes Omoko Reg.N0:80/53821/2018**]

2019 PhD

- Supervising a PhD project with Dr. D. Mbui, and Dr. Ndangili, TUK. Title of projectö Fabrication of a Nanostructured Biosensor for Early Detection of Lung Cancer Using Electrochemical Methodsö [Student. **Lucia K. Kiio Reg.N0: I80/55014/2019**].

(ii) Master of Science in Chemistry (MSc) supervised to completion

1. Supervised MSc project with Prof. A. Yusuf and Mr. G. Wafula entitled *Quality Assessment of Some Selected Water Boreholes in Mogadishu, Somalia* 2013-2015. [Abdolah Mohamed Adawe- Reg. N0.I56/ 67284/2013. **Graduated 4th December 2015.**
2. Supervised MSc project with Dr. D. Abongo entitled *The Effect of Septic Tanks Sewage Disposal Systems on Borehole Water Quality in Ongata Rongai, Kajiado County, Kenya.* [Hinga Mbugua, Reg. N0. I56/ 80889/2012]. **Graduated 2016.**
3. Supervised MSc project (in Physics) with Dr. A Ogacho Department of Physics and Dr. M. Mukabi (Department of Chemistry) entitled *Characterization of CuZnSnS₄ (CZTS) Thin Films Deposited by Potentiostatic CZT Elemental Deposition followed by chemical Bath Sulfurization* [Jorim Okoth Obila, Reg. I56/76308/2014]. **Graduated 2016.**
4. Supervised MSc project with Prof. D. K. Kariuki, and Prof. A. Yusuf entitled *The effects of Nairobi City Development on the Efficiency of Kariobangi Wastewater Treatment Plant* [Andere Clement Miruka, Reg. N0. I56/69022/2013] **Graduated 2016.**
5. Supervised MSc project with: Prof A. Yusuf and Mr. G. Wafula Title *Assessment of the levels of selected air pollutants in a cement factory in Athi River, Kenya* [Jael Birgen, Reg. N0.I56/67355/2013. (**Graduated- 2016**)
6. Supervised a MSc project with Dr. D. Abongo and Dr. J. Kithure Title: *Determining the pre-harvest interval for Cabendazim in Control of Fungal Diseases in French Beans* [Onesmus K. Mwaniki, Reg. N0. I56/73912/2014] (**Graduated 2017**)
7. Supervised a MSc project with Dr. Evan. Kenanda (Kisii University) entitled *Kinetics and Equilibria of Metal pollutants in water from Nyakomi Saro Stream through Kisii Town as influenced by Banana Stem Biomass* [Janes Bonchaberi Omoko, Reg. MPS13/70016/14, Kisii University]. (**Graduated 2016**)
8. Supervised a MSc project with Prof. A. Yusuf and Dr. P. Guto entitled *Atmospheric corrosion analysis of metallic coated and pre-painted steel roofing products in selected sites in Kenya* .[Student: Jospher Omondi Ooko, Reg. N0. I56/74728/2014] ó **Graduated September 2019**
9. Supervising a MSc project with Prof. A. Yusuf entitled *Sequestering of selected heavy metal ions from wastewater from industrial area in Nairobi using water hyacinth as a low cost adsorbent* [Student: Joseph Mwaniki Munene, Reg. N0. I56/87601/2016]- **Graduated December 2019**

5. GRADUATE STUDENTS STILL ON GOING

(i) Master of Science (MSc) in Chemistry

1. Supervising a MSc project with Prof. A. Yusuf and Dr. D. Abongo entitled: *Determination of methanol content in different brands of alcoholic beverages found in informal settlements in Nairobi County, Kenya.* [Bernard Oyicho, Reg. N0: **I56/68811/2013**]
2. Supervising MSc project with Dr. Madadi and Prof. Wandiga entitled *Analysis of Mercury and Selected Heavy Metals in Ambient Air and Soil at Selected E-Waste Disposal Sites in Nairobi* [Robinson Hinga Njoroge, Reg. N0. I56/ 74905/2014]
3. Supervising a MSc project with Dr. E. Nyaboga and Dr. J. Wanjohi entitled *Influence of Soil Physico-Chemical Parameters on Level of Cyanide in Cassava Cultivars from Western Kenya*. [Caleb Nyarango Ontieri, Reg. N0 **I56/74747/2014**]

4. Supervising a MSc project with Dr. D. Abongo and Dr. J. Kithure, entitled "Assessment of water quality from shallow wells in informal settlements in Kenya: A case study of Nyalenda Estate, Kisumu County, Kenya." [Onyango Denis Owino, Reg. N0. I56/80849/2015]
5. Supervising a MSc project with Prof. A. Yusuf and Dr. H. Chepkwony (National Quality Control Labs) entitled "Water quality assessment of some selected boreholes in Naivasha district, Nakuru County, Kenya." [David Nyamweya Moenga, Reg. N0. I56/80972/2015].
6. Supervising a MSc project with Dr. D. Abongo entitled "Assessment of pesticide residue levels in potato from Nyahururu, Laikipia County, Kenya." [Student: Joseph Ngaruiya Karau Reg. No: I56/89370/2016]
7. Supervising a MSc project with Dr. F. Were. Title of the project is "Evaluation of lead, cadmium and chromium levels in automotive paints in Kenyan market." [Student Lilian Njeri Mwai, Reg. No: I56/7518/2017]
8. Supervising a MSc project with Prof. Yusuf entitled "Preparation and Evaluation of Rust Removal Solution for Anticorrosive Properties." [Student : Charles Irungu Mwangi Reg. N0:I56/7894/2017]
9. Supervising a project with Dr. D. Abongo entitled "Effects of septic tanks sewage disposal system distance on the levels of selected heavy metals in the borehole water and the water quality in Ongata Rongai, Kajiado County." [Student: Ochiba Nancy Khayongo I56/68822/2013]
10. Supervising a project with Dr. D. Abongo entitled "Assessment of major chemical fertilizer nutrients levels in water, soil and sediments from small scale tea farms in Buret Subcounty, Kericho County, Kenya." [Student: Susan Cherotich Reg. N0:I56/7955/2017]
11. Supervising a project with Dr. F. Were entitled "Assessment of Airbone Particulates Around Cement Industries in Athi River, Kenya." [Student: Timothy Nyaga Njagi, Reg. N0:I56/8200/2017]
12. Supervising a project with Dr. Guto and Dr. Michira entitled "Development of a differential Normal pulse Voltametric method with a plain glassy carbon electrode for phosphate determination in water." [Student: Wallace Karanja Kinyanjui Reg. No:I56/12121/2018]
13. Supervising a project with Dr. D. Abongo entitled "Determination of pesticide residues levels in water, sediments and soils from Nyamindi river, Mwea irrigation scheme and implication for ecosystem health." [Student: Dennis Tipaya Mosite, Reg. N0: I56/11866/2018]
14. Supervising a project with Dr. J. Kithure entitled "Determination of heavy metals in river Thingithu and river Thananu tributaries of river Kathita." [Student: Muthinja Timothy Kaume, Reg. N0: I56/14288/2018]
15. Supervising a project with Prof. Yusuf and Dr. Tum entitled "Assessment of selected water quality parameters and identification of pollution risk areas in Ruiru Dam, Kiambu County, Kenya." [Student: Jeremy Wanyoike Machagua, Reg. N0: I56/11889/2018]
16. Supervising a project with Prof. Yusuf entitled "Corrosion protection using zinc rich paints coating on steel roofing sheets as influenced by selected corrosive environments." [Student: Mwaniki Jeremiah Ireri, Reg. N0: I56/7669/2017]
17. Supervising a project with Dr. F. Were entitled "Assessment of maternal and umbilical cord blood lead levels from informal settlements in Nairobi, Kenya." [Student: Lumumba Edith Aida Dorsilla, Reg. N0: I56/11301/2018]

(ii) SUPERVISION OF UNDERGRADUATES

2014

1. Assessment of effluents from selected industrial sites in industrial area in Nairobi (2014). [Odhiambo John Otieno, I08/1062/2010] **Completed.**
2. Analysis of heavy metals along Nairobi River (2014). [Mulwa Esther Mutende, I20/1512/2010] **Completed**
3. Determination of Fluoride content and other physicochemical parameters of water from selected boreholes in Machakos County (2014) [Njeru Elizabeth Wanyaga, I20/1509/2010] **Completed.**

2015

4. Application of Geoaccumulation Index on the Assessment of Heavy metals Pollution of Soil in Selected Urban Farms in Nairobi County, Kenya [Thuo Joseph Nganga, Reg. N0.I14/53120/2012] **Completed.**

2016

5. Sulphur dioxide assessment at chiromo Drive and Chiromo Hall, Nairobi [Njeru Seth Murimi I20/1712/2011]. **Completed.**
6. Sulphur assessment at University of Nairobi tunnel and Main Campus Halls, Nairobi, (2016). [Muuli Stephane Anyona, I08/36390/2013] **Completed.**
7. Defluoridation of water using murrum [Amina Mohamed Mire I08/53724/13] **Completed 2016**
8. Assessment of Efficiency of Water Hyacinth Biomass to Adsorb Fluoride from Aqueous Solution (2016). [Anthony Kipkorir I08/1231/2013] **Completed 2016.**
9. Corrosion assessment of some iron nails from Different Companies in Kenya (2016). [Mutiso Jackline Mueni I08/1229/2013] **Completed 2016.**
10. Assessment of Murrum (Laterite) Soil in Removal of Fluoride Ions in Water (2016). [Mire Amina Mohamed, Reg. I08/53724/2012] **Completed 2016**

2017

11. Removal of Heavy metals from water using water hyacinth. [Elizabeth Nabwire I64/5356/2014.] **-completed**
12. Determination of the purity of a dosing reagent used in geothermal power plant. [Florence Akinyi Ogutu, I20/2095/2014]. **Project completed**
13. Accelerated corrosion of Iron nails from various outlets in Nairobi [Annastacia Mutio Michael, I64/5357/2014 - **completed**
14. Water quality assessment of River Tana (NUNGUNI) Markueni County [Irene Vaati Mulei]. - **completed**
15. Assessment of river water for domestic consumption [Ojango Laviner Ijai, I20/2071/2014] **-completed**
16. Assessment of spring water for domestic consumption [Mulonga Yvette Ngesa, I20/2202/2014] **-completed.**

2018

17. Assessment of lead and cadmium metals in paint scrapings from selected walls at the University of Nairobi [Obara, A.O., Reg. N0. I64/5005/2015]- **completed**

2019

18. Assessment of red soil in adsorption of fluoride from an aqueous solution [Linzy Chepkorir Sigey, Reg. N0. I64/5355/2014]

6. RESEARCH AND PUBLICATIONS

(a) Patent invention/innovation

Innovation: Differential pulse anodic stripping voltammetric sensor using Polyacrylic acid/glassy carbon electrode for simultaneous analysis of Lead (II), Cadmium (II) and Cobalt (II) ions. **KIPI. File N0. KE/P/2016/002467; Date 04/05/2016.**

(b) Refereed Journal Articles

1. Munene, J. M., Onyatta, J. O. and Yusuf, A. O. (2020) Characterization of Water Hyacinth Powder Using FTIR Spectroscopy and the Adsorption Behaviour of Pb^{2+} , Cd^{2+} , Zn^{2+} , Ni^{2+} and Cr^{2+} in Aqueous Solution. *Asian Journal of Applied Chemistry Research* **6**:47-55
2. Mwaniki, J. M., Onyatta, J. O. and Yusuf, A.O. (2019) Adsorption of Heavy Metal Ions from Aqueous Solutions and Wastewater using Water Hyacinth Powder. *International Journal of Trend in Scientific Research and Development (IJTSRD)* **4**:1-5
3. Isaboke, P.A., Njomo, N. and Onyatta, J.O. (2018) Spectroscopic Determination of Heavy Metals in Plant Tissues in Kisii County. *International Journal of Recent Development in Engineering and Technology* **7**:45-47.
4. Miruka, A. C., Kariuki, D. K., Yusuf, A. O. and Onyatta, J. O. (2018) Efficiency of a Wastewater Treatment Plant in the City of Nairobi *International Journal of Sciences: Basic and Applied Research (IJSBAR)* **38**:152-162.
5. Ooko, J. O., Onyatta, J. O., Yusuf, A. O. and Guto. P. M. (2018) Use of Accelerated Tests to Estimate Rate of Corrosion of Roofing Sheets. *International Journal of Sciences: Basic and Applied Research* **37**:1-8.
6. Abongø, D. A. Onyatta, J. O. and Mbugua, H. (2017) The Effect of Septic Tanks Sewage Disposal Distances on Borehole Water Quality in Ongata Rongai, Kajiado County, Kenya. *European International Journal of Science and Technology* **6**:1-10
7. Bochaberi, J. O., Onyatta, J. O. and Okemwa, K. E. (2017) Kinetics of Cadmium Adsorption in Aqueous Media Using Banana Stem Biomass. *International Journal of Scientific Research Engineering & Technology (IJSRET)* **6**:751-755
8. Birgen, J., Wafula, G., Yusuf, A. and Onyatta, J. (2017) Assessment of Sulphur Dioxide Levels in Selected Sites in Athi River, Kenya. *International Journal of Trend in Scientific Research and Development* **1**:416-422.
9. Kipkorir, A., Onyatta, J. O. and Yusuf, A. O. (2017) Removal of fluoride ions from aqueous solution using water hyacinth biomass as a low-cost adsorbent. *Elixir International Journal* **110**:48158-48161.
10. Mwaniki, O.K., Abongo, D.A., Onyatta, J. O. and Kithure, J. G. (2017) Investigating the Effects of Formulation and Geographical Location on Degradation of Carbendazim in French Beans, Kenya. *The International Journal of Science and Technoledge*, **5**:44-51.
11. Obila, J. O., Dinka L. D., Mukabi, M. Onyatta, J. and Ogacho, A. A. (2017) Influence of Annealing Temperature on Some Optical and Structural Properties of Cu_2ZnSnS_4 Deposited by CZT Co-electrodeposition Coupled with Chemical Bath Techniques. *Surface Review and Letters*, **25**:1-6.
12. Odhiambo, J., Yusuf, A. and Onyatta, J. (2016) Assessment of Selected Parameters for Industrial Effluents from Some Industrial Sites in Nairobi, Kenya. *Universal Journal of Chemistry*, **4**:65-68.

13. Omoko, B. J., Onyatta, J. Nyabaro, O. and Kenandwa, O. E. (2016) Level of Metal Pollutants in Water from Nyakomisaro Stream through Kisii Town. *International Journal of Science and Research (IJSR)*, 464-465.
14. Onyatta, J. O. Yusuf, A. O and Ooko, J.O. (2016) Atmospheric Corrosion Studies in Kenya: Past, Present and Future. *African Corrosion Journal* 2:25-31.
15. Onyatta, J. O., Tum, P. K., Kithure, J. G. N. and Oduor, F. D. O. (2016) Photocatalytic Degradation of Acid Orange II Dye on Selected Commercial Titanium Dioxide Catalysts. *International Journal of Advanced Research (IJAR)*, 4:1149-1155.
16. Oyagi, M. O., Onyatta, J. O., Kamau, G.N. and Guto, P. M. (2016) Validation of the Polyacrylic acid/Glassy Carbon Differential Pulse Anodic Stripping Voltammetric Sensor for Simultaneous Analysis of Lead (II), Cadmium (II) and Cobalt (II) Ions. *International Journal of Electrochemical Science*, 11:3852-3861.
17. Oyagi, M. O., Onyatta, J. O., Kamau, G.N. and Guto, P. M. (2015) Simultaneous determination of trace lead (II), cadmium (II) and cobalt (II) by differential pulse anodic stripping voltammetry using polyacrylic acid, glassy carbon electrode. *International Journal of Sciences Basic and Applied Research*. 23:324-334
18. Langat, S. K. and J. O. Onyatta (2006). The changing conceptions and focus of health research in East Africa. *Afri. J. Health Sci.* 13: 1-5.
19. Onyatta, J. O. and P. M. Huang (2006). Distribution of applied cadmium to different size fractions of soils after incubation. *Biol. Fertility. Soils*. 42: 432-436
20. Apiyo, M.O., P. O. Ongoma, C.K. Chepkwony and J. O. Onyatta (2004). The levels and availability indices of iron, copper, manganese, lead and zinc in selected soils from jua kali and non-jua kali sites of Nakuru town, Kenya. *Egerton Journal* 5 (1), 12-32
21. Onyatta, J. O. and P. M. Huang (2003). Kinetics of cadmium release from selected tropical soils from Kenya by low-molecular-weight organic acids. *Soil Science*. 168: 234-252.
22. Onyatta, J. O. and P. M. Huang (1999). Chemical speciation and bioavailability index of cadmium for selected tropical soils in Kenya. *Geoderma* 91:87-107.

(c) Book Chapter

- (12) J. O. Onyatta and P. M. Huang, 2005. Phosphate-induced cadmium release from soils. In P. M. Huang, A. Violante, J.-M. Bollag, and P. Vityakon (Eds.), *Soil Abiotic and Biotic Interactions and the Impact of the Ecosystem and Human Welfare*. Enfield, NH USA: Science Publishers, pp. 343-371.

(d) Reviewed Conference Papers

1. Onyatta, J. O., Yusuf, A. O., and Ooko, J. O. (2016) Review of Atmospheric Corrosion Studies in Kenya: Past, Present and Future. African Corrosion Congress, 27-29th July 2016, Midrand Conference Centre, Johannesburg, South Africa.
2. Onyatta, J. O. Abongø, D. and Muinde, V. (2016). Assessment of heavy metals in selected urban farms in Nairobi County, Kenya. East and Southern Africa Environment/Analytical chemistry conference in Africa. 15th to 17th June 2016, Reef Hotel, Mombas, Kenya
3. Onyatta, J. O., Chepkwony, C. K. and P. O. Ongoma (2009) The impact of urban activities on heavy metal distribution and bioavailability index in selected tropical urban soils. In J. Xu and P. M. Huang (eds.), *Molecular Environmental Soil Science at the Interfaces in the Earth's Critical Zone*. Zhejiang University Press, Published in Springer-Verlag GmbH, pp. 100- 102.

4. Onyatta, J.O. (2005) Urban micro-farming and HIV/AIDS mitigation. Proceedings of the study visit to Johannesburg and Cape Town, South Africa 17-25 August 2005 Johannesburg/Cape Town S.A: RUAF, The Netherlands and Abalimi Bezakhaya, South Africa, EU-ACP Technical Centre for Agricultural and Rural Cooperation (CTA), Ede, the Netherlands.
5. Onyatta, J. O. and P. M. Huang (2004) Distribution of cadmium introduced to soil in different size fractions after incubation. The 4th International Symposium of the Working Group MO. "Interactions of Soil Minerals with Organic Components and Microorganisms" (ISMOM) and the First Inter-Congress Conference of Commission 2.5 "Soil Physical/Chemical/Biological Interfacial Interactions" of the International Union of Soil Sciences, Wuhan, China, 20-23 September 2004
6. Onyatta, J. O. and P. M. Huang (2002) Phosphate-induced cadmium release from selected soils. Proceedings of the 17th World Congress of Soil Science, 14- 21 August 2002, Bangkok, Thailand, Symposium 06, Paper No. 79.
7. Onyatta, J. O. and P. M. Huang (1998) The influence of potassium chloride on cadmium release from selected tropical soils. Proceedings of the 16th World Congress of Soil Science, 20-26 August 1998, Montpellier, France. p.1-5.
8. Onyatta, J. O. and P. M. Huang (1997) The fate of cadmium introduced to soils. Agronomy abstracts. The annual meetings of the American Society of Agronomy, the Crop Science Society and the Soil Science Society of America, Anaheim, California, USA.
9. Onyatta, J. O. and P. M. Huang (1995) Cadmium status in selected Kenyan soils. Agronomy abstracts, P. 217. The annual meetings of the American Society of Agronomy, the Crop Science Society, and the Soil Science Society of America, St. Louis, Missouri, USA.

(e) Consultancy and Projects

Corrosion Project: 5 year MoU between UoN -Department of Chemistry and the Mabati Rolling Mills (MRM): MoU signed on 12/2/2015. **Objective:** To improve the quality of metallic coated and prepainted roofing steel sheets

(f) Non-Reviewed Conference Paper

1. Onyatta, J. O. A. O. Yusuf, P. M. Guto and J. O. Ooko (2017) The need for galvanizing and the corrosion environments in Kenya. The workshop is organized under the umbrella of the International Zinc Association, sponsored by Traxys - the global suppliers of Zinc and Afriken International Ltd who work closely with Traxys on the local Market in supplying Zinc.
2. Murithi, E., M. K. Nyangwara, J. O. Onyatta, V. Kirigua, P. K. Kaburu and J. M. Macharia (2007) Urban and Peri-urban Agriculture: Towards a better understanding of low-income producers' organizations: Nairobi Case Study. FAO Project Report "Feeding Cities".
3. Onyatta, J. O. and W. O. Omoto (2004) Potential for urban and peri-urban agriculture to create employment and reduce poverty. Proceedings of the stakeholders' workshop on urban and peri-urban agriculture policy. Kenya Agricultural Research Institute, Urban Harvest-CIP and International Livestock Research Institute (ILRI).

(g) Other Contributions

1. **PhD Thesis: (1997) Kinetics and Equilibria of Cadmium in Selected Kenyan Soils**

2. **MSc Thesis: (1985)** Extraction of concentrated microquantities of Aluminium in Alloys using Atomic Absorption Spectrophotometer

7. PAPERS PRESENTED IN CONFERENCES, SEMINARS, WORKSHOPS

1. Onyatta, J. O. A. O. Yusuf, P. M. Guto and J. O. Ooko (2017) The need for galvanizing and the corrosion environments in Kenya. The workshop is organized under the umbrella of the International Zinc Association, sponsored by Traxys ó the global suppliers of Zinc and Afriken International Ltd who work closely with Traxys on the local Market in supplying Zinc
2. Mwaniki, O. K., Abongo D. **Onyatta, J. O.** and Kithure J. (2016) Determination of preharvest interval for carbendazim in French beans. African Network for Chemical Analysis of Pesticides [ANCAP] 21st -23rd November, 2016, University of Nairobi, Kenya
3. Onyatta, J. O., Yusuf, A. and Ooko, J. (2016) Review of atmospheric corrosion studies in Kenya: Past, Present and Future, African Corrosion Conference 27-29th July 2016, Midrand Conference Centre, Johannesburg, South Africa
4. Onyatta, J. O. Abongø, D. and Muinde, V. (2016). Assessment of heavy metals in selected urban farms in Nairobi County, Kenya. East and Southern Africa Environment/Analytical chemistry conference in Africa.15th ó17th June 2016, Reef Hotel, Mombas, Kenya
5. Ndakala, A., Opija, F., Mureramanzi, S., **Onyatta, J.** and Kuria, Z. N. (2014) Workshop on thesis guidelines and writing, 26th June 2014, SPS Boardroom, University of Nairobi, Kenya.
6. Mustapha, A. O., Kalambuka, H. A., Maina, D., **Onyatta, J. O.**, Kioko, J., Masinza, S. and Kamande, J. (2007) Needs For Education And Training In Radiation Protection: Kenya Experience. *The Second All African IRPA Regional Radiation Protection Congress 22-26 April 2007 Ismailia Egypt*
7. Murithi, E., M. K. Nyangwara, **J. O. Onyatta**, V. Kirigua, P. K. Kaburu and J. M. Macharia (2007) Urban and Peri-urban Agriculture: Towards a better understanding of low-income producersøorganizations: Nairobi Case Study. FAO Project Report òFeeding Citiesö.
8. Nyangwara, K. M., V. Kirigua, P. Kaburu, P. Mugo, J. M. Macharia, **J. O. Onyatta**, R. Antipa and S. Mwangi. (2007) Research information services for Urban Agriculture and Environment in Cities of Kenya: “Empowering through knowledge sharing”. Project Grant Number 103206 of the International Development Research Centre (IDRC).
9. Onyatta, J. O. and W. O. Omoto (2004) Potential for urban and peri-urban agriculture to create employment and reduce poverty. Proceedings of the stakeholdersøworkshop on urban and peri-urban agriculture policy. Kenya Agricultural Research Institute, Urban Harvest-CIP and International Livestock Research Institute (ILRI).
10. Onyatta, J. O. and P. M. Huang. (2004) Distribution of cadmium introduced to soil in different size fractions after incubation. The 4th International Symposium of the Working Group MO. “Interactions of Soil Minerals with Organic Components and Microorganisms” (ISMOM) and the First Inter-Congress Conference of Commission 2.5 “Soil Physical/Chemical/Biological Interfacial Interactions” of the International Union of Soil Sciences, Wuhan, China, 20-23 September 2004.
11. Døcosta, V. P., Omoto, W., and **Onyatta, J.** (2002) Application of Soils and land evaluation data for urban and peri-urban land use planning of Kisumu, Kenya. **In.** World Congress of Soil Science, 17, 2002, Bangkok, Thailand. Anaisí Bangkok, 5, 1670.

12. Onyatta, J.O, Huang PM. (1997) The fate of cadmium introduced to soils. The annual meetings of the American Society of Agronomy, the Crop Science Society and the Soil Science Society of America, Anaheim, California, USA: The American Society of Agronomy, the Crop Science Society and the Soil Science Society of America
13. Onyatta, J.O. Huang PM. (1995) Cadmium status in selected Kenyan soils. The annual meetings of the American Society of Agronomy, the Crop Science Society and the Soil Science Society of America. 217., St. Louis, Missouri, USA: The American Society of Agronomy, the Crop Science Society and the Soil Science Society of America.

8. CONFERENCES/CONGRESSES/SYMPOSIA/SEMINAR AND PROFESSIONAL MEETINGS ATTENDED

1. E-resources and Reference Management Tools: Pan Africa Chemistry Network Seminar Series, **14 February 2020**, Department of Chemistry , University of Nairobi.
2. Pedagogy, Andragogy, and Mentorship Training, **29-31 January 2020**. UNES-ARZIKI Conference Centre Restaurant -CHIROMO
3. Post Graduate Supervision Seminar, **March 28, 2019**. Safari Club Hotel, Lillian Towers, Nairobi, Kenya
4. Pan Africa Chemistry Network Congress **2016- Sustainable Water Resources For Africa, 30 November- 2 December 2016** Nairobi, Kenya.
5. Photodegradation of pentachlorophenol and dimetnonate on loam soil, Nairobi river sediment and spinach from Ngara market in Kenya, Room 119, Department of Chemistry, **5th August 2016 (Chair)**
6. African Corrosion Congress 2016; Midrand Conference Centre, Johannesburg, South Africa, **27-29th July 2016**
7. Phytochemical investigation of selected plants for insecticidal activity against *sitophilus zeamais*, Rm 118, Department of chemistry, **1st July 2016 (Chair)**
8. Synthesis of microporous clay derived silicate impregnated prosopis juliflora extracted lignin biomaterial nanocomposites for removal of heavy metals in water, Room 119, Department of Chemistry, **24th June 2016 (Chair)**
9. East and Southern Africa Environmental/Analytical Chemistry Conference (ESA ECC) and the 11th Theoretical Chemistry in Africa (TCCA), Reef Hotel, Mombasa, Kenya, **June 15 - 17, 2016**.
10. Identification of anti-infectives against plasmodium Falciparum rRNA targets by homology and de novo modelling, Rm 119 Department of Chemistry **3rd June 2016 (Chair)**
11. Antioxidant and monoamine oxidase inhibition studies on gardenia ternifolia, surface exudates, Rm. 119 Department of Chemistry, **24th May 2016 (Chair)**
12. Two stage and enzymatic preparation and performance evaluation of biodiesel from croton megalocarpus oil, Rm 119, Department of Chemistry, **13th May 2016 (Chair)**
13. The Alexander Von Humboldt Foundation: Be part of a Worldwide network of Excellence , SPS Boardroom, **5th May 2016**
14. Assessment of levels of Methane in landfills and heavy metals in leachate, A case study of Dandora dumpsite, Nairobi, Kenya, Rm 119 Department of Chemistry, **6th May 2016 (Chair)**
15. The effects of tanks sewerage disposal systems on borehole water in Ongata Rongai Kajiado County, Kenya, Rm 119 Department of Chemistry, **29th April 2016 (Chair)**
16. Optimization and design of an effective anaerobic digestion for biogas production using locally available vegetables from Kenyan Markets, RM 119 Department of Chemistry, **29th April 2016 (Chair)**

17. Heavy metals accumulation in sugarcane: Case study of Nairobi River Basin and Nyahururu Farms, Rm 119, Department of Chemistry, **19th April 2016 (Chair)**
18. Extraction and characterization of gelatin from lates niloticus scales and potential industrial applications, Rm 119 Department of Chemistry, **15th April 2016 (Chair)**
19. Natural-products loaded nanoparticles for cancer therapy ó Sythesis , characterization, cellular and proteomics studies, Rm 119 Department of Chemistry, **1st April 2016 (Chair)**
20. Phytochemical investigation of Erythrina saculeuxii for antimicrobial principles, Rm 119 Department of Chemistry, **11th March 2016 (Chair)**
21. Modeling and synthesis of antiplasmodial chromes from natural products of Kenya, Room 119, Department of Chemistry, **29th January 2016 (Chair)**
22. Modeling and synthesis of antiplasmodial benzoaxane scaffolds from a database of natural products of Kenya, Rm 119 Department of Chemistry, **22nd January 2016 (Chair)**
23. Assessment of new persistent organic pollutants-pesticides in air and soil from sites in Nairobi and Mount Kenya, Rm 119 Department of Chemistry, **18th January 2016 (Chair)**
24. Rapid identification of edible oils from Kenya, Rm 119 Department of Chemistry, **15th December 2016 (Chair)**
25. Determination of selected physic-chemical parameters and heavy metals in Ngamia-50 soil exploratory reserve pit, Turkana Kenya, Computer Lab, Room 122C, **25th November 2015**
26. Residues concentration of Carbaryl pesticides in soil and tomatoes from Hippo. Kingfisher and Harnekop Green House farms in Thika and Naivasha, Kenya, Room 122C, **23rd November 2015 (Chair)**
27. Isolation of biomass modifying enzymes for bioremediation and production of green specialty chemical products, Room 122C, Department of Chemistry, **9th November 2015**
28. Introduction to polymers with special reference to starch graft copolymers, Rm 119 Department of Chemistry, **14th October 2015 (Chair)**
29. In silico guided bioprospecting for antiplasmodial principles from Cordia species of Kenya, Room 119 Department of Chemistry, **30th September, 2015 (Chair)**
30. Development of a sensor for soft heavy metals using oxathiacrown ethers, Rm 122C, **15th October 2015 (Chair)**
31. Nanozeolites smart delivery systems (NSDS) for fertilizer, Pesticides and water remediation, **15th October 2015 (Chair)**
32. Assessment of Spatial and Temporal Trends in pesticide residues and water from Nairobi river, SPS Boardroom, **5th October 2015**
33. Current trends in molecular spectroscopy techniques, SPS Boardroom **29th September 2015**
34. Development of a Nanometal and organonic acid-doped polymeric sensor plant form for detection of polycyclic aromatic hydrocarbons (PAHs) SPS **Boardroom, 11th September 2015**
35. Solutions for Human Progress: The Dow Chemical Company, Room 119, Department of Chemistry, **13th August 2015.**
36. Development of slow-release fertilizer composite using biodegradable superabsorbent polymer Rm 119 Department of Chemistry, **6th August 2015**
37. Assessment of organochlorine pesticides residues levels in sediments, soils and water from Rusinga Island, Lake Victoria, Kenya, Rm 119, Department of Chemistry **28th July 2015**

38. Fate of chlorpyrifos in French beans and assessment of dimethoate and chlorpyrifos residue levels in French Beans in Nairobi, Rm 119 Department of Chemistry, **6th July 2015 (Chair)**
39. Phytochemical analysis of four *ormocarpum* species for anticancer activity, SPS Boardroom, **9th June 2015**
40. Synthesis, characterization and selected applications of Tris-cyclometalated 2-(1-Naphthyl) pyridine iridium (III) complexes, Room 119 Department of Chemistry, **8th December 2015 (Chair)**
41. Assessment of water quality trends using remote sensing data: Case study of Lake Naivasha in the Rift Valley of Kenya, RM 119 Department of Chemistry, **8th May 2015 (Chair)**
42. The research sponsorship and other activities of international Science program, SPS Boardroom, **24th April 2015.**
43. Phytochemical investigation *teclea simplicifolia* for analgesic activity, Rm 119 Department of Chemistry, **14th April 2015 (Chair)**
44. Adsorption and phot-degradation of pesticide residues in selected plants grown in organic container garden: Food security phenomenon SPS Boardroom, **26th February 2015**
45. The effects of Nairobi City Development on the efficiency of Kariobangi waste water treatment plant, Rm 119 Department of Chemistry, **5th February 2015 (Chair)**
46. Adsorption of Heavy Metals from aqueous solutions using mangroves from Kenyan Coast, SPS Boardroom, **30th January 2015 (Chair)**
47. Nitrogen-dope carbon nanotubes as supports for Pd catalysts applied in the selective hydrogenation of Aminobenzophenone, SPS Boardroom, **21st January 2015**
48. Fluoride profiling in some selected water boreholes in Mogadishu, Somalia, Room 119, Department of Chemistry, **10th December 2014**
49. Evaluation of the composition physicochemical characteristics, surfactant and anti-microbial potential of commiphora Abyssinica gum resin, SPS Boardroom, **27th November 2014**
50. Mapping Spatial and Temporal variations of phosphate, sulphate, nitrate and Escherichia Coli pollution in ngong River, Kenya, **24th November, 2014**
51. ISP Projects Symposium, School of Physical Sciences, SPS Boardroom, **19th November 2014**
52. International Science Program for ICPIS(International Programme for Chemical sciences) Project Evaluation , at the African Academy of Science, Karen Nairobi, **17-19 November 2014**
53. Phytochemical investigation of *turraea robusta*, *turraea nilotica* and *Ekebergia Capensis* for antiplasmodial and cytotoxic compound, SPS Boardroom, **11th November 2014**
54. Phytochemical investigation of three *Lannea* species for Hepatoprotective principles, Room 119 Department of Chemistry, **3rd November 2014**
55. Effects of long term use of inorganic fertilizers on accumulation of selected Heavy metals and Primary macronutrients in maize farm soils in Trans Zoia, SPS Boardroom, **25th September 2014 (Chair)**
56. Phytochemical investigation of *Zanthoxylum Gilletii* (Rutaceae) for active Biomolecules against protozoal Diseases, Room 119 Department of Chemistry, **15th September 2014**
57. Comparative adsorption of Methylene Blue and Congo Red Dyes on to Coconut Husks, Mangrove and Polylactide blended films, Room 119 Department of Chemistry, **1st September 2014**
58. Phytochemical Investigation of *Harrisonia Abyssinica* and *Thespesia Garckena* for antiplasmodial and antimicrobial Compounds, Room 19 Department of Chemistry, **18th August 2014 (Chair)**

59. Using modified Titanium (IV) Oxide photocatalysts to develop Purification system for use in the in the improvement of Quality of drinking water, SPS Boardroom, **24th July 2014 (Chair)**
60. Phytochemical investigation of some investigation of Bimprovement oardroom **10th July 2014**
61. Royal Society of Chemistry and Procter and Gamble Symposium on: Regulatory Harmonization, Hygiene and Sustainability, MH, UoN, **8-9th July 2014.**
62. Phytochemical investigation of aloe Turkanensis for anticancer activity, SPS Boardroom, **25th April 2014 (Chair)**
63. Marine Bioprospecting , Fish value addition and Post-Harvest control, Room 119 Department of Chemistry, **10th April 2014 (Chair)**
64. Development and characterization of conductive polymers and their application in energy storage devices, Room 119, Department of Chemistry, **8th April 2014 (Chair)**
65. Scoping workshop organized by the Royal Society of Chemistry and Procter and Gamble Company, SPS Boardroom, University of Nairobi, **1st April 2014.**
66. Stripping voltammetric pyrolytic graphite polyaniline sensor for simultaneous determination of Lead and Cadmium, SPS Boardroom , **7th March 2014**
67. Kenya Chemical Society (KCS) National AGM/workshop. SPS Boardroom, UoN, **22nd February 2014**
68. Speciation analysis of selected trace elements in selected medical plants from Nyamira County, SPS Boardroom, **29th November, 2013 (Chair)**
69. International Symposium of molecular Environmental Soil Science at the Earthø Critical Zone (ISMESS), at the Zhejiang University, Hangzhou, China, **10th -14th October 2009**
70. Sub-regional workshop on Illicit Nuclear Material Trafficking Information Management and Coordination for countries of Eastern and Central Africa held at the TravelersøHotel, Mombasa, Kenya. Organized by the IAEA in collaboration with the Radiation Protection Board, **11th -15th July 2008**
71. 18th Technical Working Group Meeting (TWGM) of the AFRA National Coordinators held in Dar Es Salaam, Tanzania, **21st -25th April 200**
72. Workshop on liability on nuclear damage, held in Sun City, South Africa, organized by IAEA in collaboration with the National Nuclear Regulatory of South Africa, **11th - 13th February 2008**
73. Workshop on common user criteria for development and deployment of nuclear power plants for developing countries held in Vienna, Austria, organized by the IAEA, **27th - 30th November 2007.**
74. Regional technical meeting on additional protocol implementation in Africa, held in Gaborone, Botswana, organized by IAEA in collaboration with the Ministry of Communication, Science and Technology of the Government of Botswana, **8th – 12th October 2007**
75. International workshop on harmonization of approaches to assessing safety within National Radioactive Waste Management Policies and Strategies held in Cape town, South Africa, organized by the IAEA, **2nd -6th July 2007**
76. Africa Farmer Outreach workshop on biotechnology held in Pretoria, South Africa, organized by the AfricaBio, **23rd -27th April 2007.**
77. Workshop on issues for the introduction of nuclear power held in Vienna, Austria. Organized by IAEA and co-sponsored by the Governments of Canada, China, France, Japan, Republic of Korea, Russia and United States, **4th -6th December 2006**
78. United Nations/European Space Agency workshop on application of Global Navigation Satellite System Technologies in Sub-Saharan Africa held in Lusaka, Zambia, **26th -30th June 2006**

79. National Public Awareness Seminar on Peaceful Applications of Nuclear Science and Technology. Organized by the NCST in collaboration with IAEA, held in Nairobi, Kenya, **24th -26th October 2005**.
80. **29th-30th September 2005**: Workshop on technology transfer management in Eastern African Countries held in Kampala Uganda. Organized by Uganda Cleaner Production Centre in collaboration with the International Centre for Science and High Technology of UNIDO (ICS-UNIDO)
81. **16th -26th August 2005**: Study visit cum workshop on urban micro-farming and HIV/AIDS held in Johannesburg and Cape Town, South Africa. Organized by RUAFA, The Netherlands and Abalimi Bezakhaya, South Africa
82. **18th -20th May 2005**: East African Regional workshop, an introduction to intellectual property management “ *enhancing the value of research output* ” under the African Programme for Health Innovation (APHI), organized by the Centre for the Management of Intellectual Property in health research and development (MIHR) in collaboration with the Medical Research Centre (MRC) of South Africa held at the National Institute of Medical Research (NIMR), Dar Es Salaam, Tanzania
83. 3rd Meeting of the Advisory Committee on Science and Technology for ACP Agricultural and Rural Development at the CTA Headquarters in Wageningen, The Netherlands “ *Enhancing the Science & Technology Policy Dialogue/Strengthening the Agricultural Science, Technology and Innovation System* ” **23rd -26th November 2004**
84. Workshop on efficient management of science and technology parks held in Bergamo, Italy. Organized by the International Association of Science Parks in cooperation with UNESCO and the Department of Economic and Social Affairs of the United Nations (UNDESA), **19th -20th September 2004**
85. Workshop on information and communication technology (ICT) for sustainable development held in Bangalore, India. Organized by the United Nations, Division for Sustainable Development in collaboration with Carnegie Mellon University, USA, **14th - 16th January 2004**
86. United Forum on Science and Technology Parks on New and Emerging Technologies for sustainable development held in Sofitel Philadelphia Hotel, Philadelphia, Pennsylvania, USA, **30th November– 3rd December 2003**
87. World Congress of Soil Science, held in Bangkok, Thailand, **14th 21st August 2002**
88. Workshop on Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO) international cooperation and national implementation for States from East and Southern Africa held at Safari Park Hotel, Nairobi, Kenya, **18th -20th June 2002**
89. National training workshop on isotope hydrology integration in the water sector. Organized by the NCST and Ministry of Environment and Natural Resources in collaboration with IAEA held in Nakuru, Kenya, **5th -10th May 2002**.
90. Forum on New and Emerging Technologies and sustainable development, a United Nations Forum for Business and Science, hosted by the Ministry of Science and Technology of Peoples Republic China, held in Beijing, China **15th -17th April 2002**
91. Public awareness workshop and drafting of the national public relations (PR) and marketing strategy for the projects of the African Regional Cooperative Agreement for Research and Development related to nuclear science and technology (AFRA) organized by the NCST and IAEA, Nairobi, Kenya, **6th -7th March 200**
92. Workshop on the role of nuclear techniques in combating desertification in Kenya. Organized by the IAEA in collaboration with the National Council for Science and Technology (NCST), Nairobi, Kenya, **30th -31st January 2002**
93. Regional Public Information Seminar on Peaceful Uses of Nuclear Energy in the 21st Century. Organized by the International Atomic Energy Agency (IAEA) held in Cape

- Town, South Africa, **13th -15th November 2001** Heavy metal workshop held at Brandon Research Centre, Manitoba, Canada, **10th -11th February 1996**
94. Soil Chemistry and Ecosystem Health workshop, St Louis Missouri, USA, **28th October 1995**
95. Summer Institute for African Agricultural Research Methodology-University of Wisconsin, Madison, USA, sponsored by Rockefeller Foundation, **11th -30th June 1995**

9. INVITED REVIEWS OF PUBLICATIONS

1. **Current Journal of Applied Science and Technology: 22nd March 2020: Title:** Mitigation of Interference in Impressed Current Cathodic Protection **(Reviewed)**
2. **Journal of Engineering and Reports: 18th March 2020: Title:** Inhibition of mild steel corrosion in 0.25 M H₂SO₄ using Tetracarpidium conophorum Shell Extract **(Reviewed)**.
3. **Asian Journal of Applied Chemistry Research: 13th March 2020: Title:** Synthesis and Characterization of ZnS nanoparticles using Co-precipitation method **(Reviewed)**
4. **International Research Journal of Pure and Applied Chemistry: 14th Feb 2020: Title:** Removal of Cadmium (II) Ions from Synthetic Wastewaters by alginate δ immobilized *Penicillium* sp biomass **(Reviewed)**
5. **Chemical Science International Journal: 16/12/2019: Title:** Evaluation and modeling of corrosion rate of selected Roofing sheets using tetraoxosulphate (VI) Acid and trioxonitrate (V) acid as simulated acid rain **(Reviewed)**
6. **South African Journal of Science:31/05/2018: Title:** Corrosion mapping of South Africa's macro atmosphere **(Reviewed)**
7. **Atmospheric Environment (ATMENV) : 14/01/2013: Title:** Relative accumulation levels of PAH in accumulated soot in traditional rural households in western Province of Kenya **(Reviewed)**
8. **The Environmentalist (EVNR)- 23/06/2012: Title:** Nutrient reduction in runoff water from sugarcane farms by sedimentation method **(Reviewed)**
9. **Environmental Pollution: 27/3/2011: Title:** Variation indoor levels of polycyclic aromatic hydrocarbons from burning various biomass types in traditional grass-roofed households in Kenya.**(Reviewed)**
10. **Chemistry SCI 302 Publication: Industrial Chemistry; Materials and Energy Balances, Centre for Open and Distant Learning (2016). Author Dr. Marina L. Mukabi. (Reviewed and Edited)**

10. PROFESSIONAL CONSULTANCIES

- 1) **Corrosion Project: 5 year MoU** between UoN (Department of Chemistry) and the Mabati Rolling Mills (MRM): MoU signed on 12/2/2015. **Kenyan Corrosion Site Exposure Project". Title of Msc Project:** Atmospheric Corrosion Analysis of Metallic Coated and Pre-painted Steel Roofing Products in Selected Sites in Kenya. The project is supported by the Mabati Rolling Mills with the aim to improve the quality of roofing sheets. The corrosion exposure sites were put up at Mariakani, Mombasa and Arthi River. MSc student (I56/74728/2014) has completed work and is now writing the thesis. MRM

- supported the student by **paying fees** and meeting travelling and accommodation costs while visiting the corrosion sites.
- 2) PhD student has been identified to continue with the corrosion work and the proposal is being developed so that the work can start in 2017
 - 3) **Coordinator** - Country Programme Framework (CPF) Preparation of the CPF for the International Atomic Energy Agency (IAEA) supported projects in Kenya: **2017-2022. (25th July 2016)** under the Kenya Nuclear Electricity Board (KNEB)
 - 4) **Coordinator** of CPF: Preparation of the County Programme Framework (CPF) for the IAEA projects in Kenya: **2011-2016. (18th July 2012)**
 - 5) **Coordinator:** Organization of a workshop for Pan African Tsetse and Trypanosomiasis Eradication Campaign (PATTEC)- supported by AU/African Development Bank through the Ministry of Livestock Development (**2008**)

11. EXAMINATION OF THESES

- **10/03/2020: Internal Examiner** for David Nyamweya Moenga, MSc thesis
- **30/10/2019: Internal examiner** for Joseph Munene Mwaniki defense, MSc thesis
- **30/04/2019: Internal examiner** for the defense of Juspher Omondi Ooko Msc thesis
- **07/08/2019: Internal examiner** for the defense of Bernard K. Rop, PhD thesis- Chemistry
- **17/11/2018: Board member** for defense of Jacinta Akoth Okwako, MSc thesis- Physics
- **03/10/2018: Chair Board of Examiners** meeting (to represent Dean) for John Esemeki Owino's MSc thesis - Chemistry
- **22/05/2018: Board member** for the defense of Martin Mbogo Gicheru, MSc thesis ó Chemistry
- **29/11/ 2017: Board Member** for defense of David Ojok, MSc Thesis, Chemistry
- **01/11/2016: Board member** for the defense of Ondiek John Okoth, MSc thesis Chemistry
- **06/06/2016: Board member** for the defense of Chebon Kiplanagat, MSc Thesis Chemistry
- **03/06/2015: Board member** for the defense of Ann Moraa Kerandi, MSc thesis- Chemistry
- **03/06/2014 Internal examiner** for the defense of Euphrosine Ujenza, MSc thesis Chemistry
- **07/07/2014 Internal examiner** for PhD defense of Marina Mukabi, PhD Thesis in Chemistry

External Examiner: Maseno University:

MSc

2008:

Thesis title: Polycyclic aromatic hydrocarbons in sediments

April 2011:

Thesis title: Levels of certain physicochemical parameters and heavy metal resources within the aquatic system in South Nyanza sugar cane zone

September 2011

Thesis title: Assessment of polycyclic aromatic hydrocarbons in Fish, meat and effect of processing on their content in meat as sources of human exposure in Winam Gulf

12. PARTICIPATION IN THE ORGANIZATION OF SCIENTIFIC MEETINGS/SEMINARS

19th November 2014: International Science Programme (ISP) Project Symposium at the School of Physical Sciences Boardroom, College of Biological and Physical Sciences, University of Nairobi

10th April 2014: Kenya Marine and Fisheries Research Institute (KMFRI): KMFRI-UON collaboration. Presentation: Bioprospecting, Fish Post Harvest Techniques, Value addition and Product safety in Kenya.

27th May 2014: Special Seminar- Computational Modeling and Visualization of Biomolecules by Preston J. MacDougall, Middle Tennessee State University, USA

2014/2015 academic year: Organization of the Departmental Seminars

2015 -2020: Academic year: Organization of the Departmental Seminars as the Chair/Coordinator

13. ADMINISTRATION RESPONSIBILITIES

1. **Chairing** the weekly Departmental Seminars (Postgraduates students and invited speakers) (2013- to date)
2. **Class mentor:** Postgraduate students
3. **Chair,** Postgraduate and Seminars Committee, Department of Chemistry (**2013-to date**)
4. **Member** of the School of Physical Science -Postgraduate Students Committee (SPS-PSC)
5. **Chair- Committee on Partnerships** (University-Industry/institutions partnerships)
6. **Coordinator:** Partnership between Mabati Rolling Mills (MRM) and Department of Chemistry
7. **Departmental Representative:** College Plagiarism Committee, **2013**
8. **Chair: Technical Committee** - Appointed to develop Country Programme Framework (CPF) for the IAEA projects in Kenya Under NCST (**2012**)
9. **2001-2003: Principal Research Officer, JG. P;** Department of Research, Management and Development, Ministry of Education Science and Technology
10. **2003-2004: Ag. Director of Research:** Department of Research, Management and Development, Ministry of Education Science and Technology
11. **2004-2008: Chief Science Secretary:** National Council for Science and Technology-NCST (Now- National Commission for Science, Technology and Innovation- **NASCOTI**)
 - Head of Physical and Nuclear Sciences (**JG. Q**)
 - **Assistant National Liaison Officer** for the International Atomic Energy Agency (**IAEA**), **Coordinator** of IAEA Technical Projects in Kenya
 - **Coordinator:** Comprehensive Nuclear Test Ban-Treaty Organization (CTBTO) Programmes in Kenya

14. MEMBERSHIP OF LEARNED PROFESSIONAL BODIES

1. Kenya Chemical Society- since 2014
2. Royal Society of Chemistry, member since 2014
3. Fellow of the African Scientific Institute (ASI) (Black Achievers in Science and Technology) ó 2006
4. International Humic Substances Society (IHSS), 1997
5. Nairobi and Environs Food Security, Agriculture and Livestock Forum (NEFSALF) based at Mazingira Institute, Nairobi 2006

15. COMMUNITY ENGAGEMENT AND OTHER CONTRIBUTIONS

1. **Chair**, Board of Management St. Nicholas Mixed Secondary School, Boi, P. O. Nyilima.
2. **Member**: Boi Vocational Training Centre
3. **Member**: Boi Catholic Parish Community

16. SCHOLARSHIPS/FELLOWSHIPS AWARDS

1992-1987:

- Canadian International Development Agency (CIDA) Scholarship for PhD at the University of Saskatchewan, Saskatoon, Canada

- Research Grant GP 2383 of the Natural Sciences and Engineering Research Council of Canada

1985 –Rockefeller Foundation training on Research methodologies

1979-1985: USSR-Kenya Governments Scholarships for MSc, Donetsk State University, Ukraine

17. REFEREES

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