

**Dr. Owino Joseph Hazael Odero**



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***PERSONAL INFORMATION***

Date of Birth	1 <sup>st</sup> December 1974
Nationality	Kenyan

***EDUCATION***

Post-Doctoral Research Fellow	University of Stellenbosch, S.Africa	2009 (Aug) -2010 (Mar)
PhD	University of the Western Cape, S.Africa	Awarded in 2009
Masters of Science	Jomo Kenyatta University of Agriculture and Technology, Kenya	Awarded in 2005
Bachelor of Science	Jomo Kenyatta University of Agriculture and Technology, Kenya	Awarded in 1998 [ <i>Honors</i> ]

**Employment History**

- 1. Senior Lecturer, Acting Dean, School of Natural Sciences Masinde Muliro University of Science and Technology, March 2017-To date**
- 2. Lecturer, South Eastern Kenya University, Jan -July, 2015**
- 3. Lecturer, Department of chemistry, College of Science and Technology, University of Rwanda,(formerly Kigali Institute of Science and Technology) From April 2010 to Dec 2014 (Head of Department 2012-2014).**

<b>Courses Taught:</b>	Basic Chemical Thermodynamics, Statistical Thermodynamics, Electrochemistry, Chemical Kinetics, Advanced Chemical Kinetics Theory of Spectroscopy, Instrumental methods of analysis, Separation Techniques and Chromatography, Further Chemical Kinetics and Electrochemistry Quantum Chemistry, Physical Chemistry II, Bioinorganic Chemistry.
<b>Responsibilities:</b>	<ul style="list-style-type: none"> <li>• Setting and advancing the academic strategy of the Department in line with Faculty and University strategic plans.</li> <li>• Developing and sustaining appropriate structures for management, consultation, decision-making and communication with staff and students.</li> <li>• Promoting and representing the department both internally and externally.</li> <li>• Ensuring that all activities are carried out to the highest possible standards and putting in place the necessary evaluation and monitoring procedures to ensure both compliance and improvement: such procedures include teaching and research.</li> <li>• Complying with, quality assurance procedures both internal and external.</li> </ul>
<b>4. Tutor at Chemistry Department, University of the Western Cape – 2006 to 2008</b>	
<b>Responsibilities:</b>	Offering tutorials and supervision of practical sessions to undergraduate students.
<b>5. Quality Assurance Officer at Kapa Oil Refineries Ltd – 1998 to 2002</b>	
<b>Responsibilities:</b>	<ul style="list-style-type: none"> <li>• Observation of Good Manufacturing Practices (GMP), Good Laboratory Practices (GLP) and International Organization of Standards (ISO) 9001:2000 principles.</li> <li>• Trained as an Internal Quality Auditor and also on Documentation and Implementation of ISO 9001:2000 Quality Management System.</li> </ul>
<b>6. Research Assistant, Chemistry Department-JKUAT – 1998</b>	
<b>Responsibilities:</b>	<ul style="list-style-type: none"> <li>• Carrying out fieldwork e.g. sampling as prescribed by scientist.</li> <li>• Collection and recording of raw data of Scientific research results for analysis.</li> <li>• Performing various forms of data analysis e.g. variance</li> </ul>

	test, regression, correlation, standard errors/deviations and their interpretations.
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<b>RESEARCH UNDERTAKEN</b>	
Electro-hydro-dynamic desalination of water	<i>Post-Doctoral Research Project</i>
Frequency and Voltage-Modulated electrochemical Aflatoxin B <sub>1</sub> immunosensor systems prepared on electroactive organic polymer platforms	<i>PhD Thesis</i>
Bio-prospecting for Anti-mosquito compounds from <i>Turraea abyssinica</i> and <i>Turraea cormicopia</i>	<i>MSc Thesis</i>
Determination of copper levels in River Ruiru using AAS	<i>Final years' Research Project (Undergraduate)</i>

<b>PUBLICATIONS</b>	
2018	<p>Martin Patrick Ongol, <b>Joseph Owino</b>, Mercy Lungaho, Théogène Dusingizimana and Hilda Vasankthalam                      Micro-Mineral Retention and Anti-Nutritional Compounds Degradation during Bean Cooking Process. <i>Current Research in Nutrition and Food Science</i> 2018 (Accepted Manuscript)</p> <p><b>Owino Joseph</b>, Mukashyaka Phelomene, Ndayisaba Helene, Habimana Valens, Ongol Martin, Dil Thavarajah, Pushparajah Thavarajah                      Phenolic Compound Profiles of Two Common Beans Consumed by Rwandans. <i>American Journal of Plant Sciences</i>, 2014, 5, 2943-2947</p> <p><b>Joseph Owino</b>, Ahmed Hassanali and Mary Ndung'u Bio-Assay Guided Fractionation of Anti-Mosquito Limonoids From <i>Turraea abyssinica</i> and <i>Turraea cornucopia</i>. <i>Journal of Biofertilizers and Biopesticides</i>. 2014, 5: 142. doi: 10.4172/2155-6202.1000142</p>
2014	
2013	Mbonyimana Emmanuel <b>Owino Joseph</b> Niyonsenga Faustin, Tuyisenge Emmanuel,. Production and Physico-Chemical Analysis Of Lubricant From Castor Seeds. <i>East African Journal of Science and Technology</i> , 2013, 3, 134-

	143
	Gashugi E, Uwikunda S, Tuyishime C, Gafasi A, <b>Owino J</b> (2013). Physico-chemical analysis of groundwater from Rugende II well, Rwamagana district, Rwanda. <i>East African Journal of Science and Technology</i> , 2013, 3, 104-110
2010	Omotayo A. Arotiba, <b>Joseph H. O. Owino</b> , Priscilla G. Baker and Emmanuel I. Iwuoha. Electrochemical impedimetry of electrodeposited poly(propylene imine) dendrimer monolayer. <i>Journal of Electroanalytical Chemistry</i> , 2010. 638,287-292
2009	Everlyne A. Songa, Omotayo A. Arotiba, <b>Joseph H. O. Owino</b> , Nazeem Jahed, Priscilla G.L. Baker and Emmanuel I. Iwuoha. Electrochemical Detection of Glyphosate Herbicide Using Horseradish Peroxidase Immobilized on Sulfonated Polymer Matrix. <i>Bioelectrochemistry</i> , 2009, 75, 117-123.
	Omotayo Arotiba, <b>Joseph, H. O. Owino</b> , Everlyne Songa, Nicolette Hendricks, Tesfaye Waryo, Nazeem Jahed, Priscilla Baker and Emmanuel Iwuoha. An Electrochemical DNA Biosensor Developed on a Nanocomposite Platform of Gold and Poly (propyleneimine) Dendrimer. <i>Sensors</i> . 2008, 8, 6791-6809.
2008	<b>Joseph, H. O. Owino</b> , Mary Ndung'u and Ahmed Hassanali. Two New Azadiron Limonoids from <i>Turraea cornucopia</i> . <i>Journal of the Kenya Chemical Society</i> . 2008, 5, 43-49.
	<b>Joseph, H. O. Owino</b> , Omotayo, A. Arotiba, Priscilla, G. L. Baker, Anthony, Guiseppi – Elie and Emmanuel, I. Iwuoha. Synthesis and Characterization of Poly (2-hydroxyethyl methacrylate)-Polyaniline Based Hydrogel Composites. <i>Reactive and Functional Polymers</i> . 2008, 68, 1239-1244.
	<b>Joseph, H.O. Owino</b> , Omotayo A. Arotiba, Nicolette Hendricks, Everlyne A. Songa, Nazeem Jahed, Tesfaye T. Waryo, Rachel, F. Ngece, Priscilla G .L. Baker and Emmanuel I. Iwuoha. Electrochemical Immunosensor Based on Polythionine/Gold Nanoparticles for the Determination of Aflatoxin B <sub>1</sub> . <i>Sensors</i> . 2008, 8, 8262-8274.
2007	<b>Joseph, H. O. Owino</b> , Ignaszak, A., Al-Ahmed, A., Baker, P.G. L., Alemu, H., Ngila, J. C. and Iwuoha, E. I. Modelling of the Impedimetric Responses of an Aflatoxin B <sub>1</sub> Immunosensor Prepared on an Electrosynthetic Polyaniline Platform. <i>Analytical and Bioanalytical Chemistry</i> . 2007. 388, 1069-1074.

### Conferences

<ul style="list-style-type: none"> <li>Phenolic Compound Profiles of Two Common Bean Varieties Consumed by Rwandans. Pan African International Research</li> </ul>	18 <sup>th</sup> - 21 <sup>st</sup> June 2018
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Congress, Kisumu , Kenya		
<ul style="list-style-type: none"> <li>Retention of micro-minerals and degradation of anti-nutritional compounds during the traditional Rwandan bean cooking process. Micronutrient Forum 2014. Addis Ababa, Ethiopia</li> </ul>		2 <sup>nd</sup> -4 <sup>th</sup> June, 2014
<ul style="list-style-type: none"> <li>Micro-mineral and anti-nutritional content of legumes and cereal- based foods commonly consumed in Rwanda. 3<sup>rd</sup> National Food and Nutrition Summit, Ministry of Health, Rwanda.</li> </ul>		18 -20 <sup>th</sup> February, 2014
<ul style="list-style-type: none"> <li>First Biennial Conference on Agricultural Research and Extension, Kigali Serena Hotel. “Fostering innovation and excellence in Science and Technology” Kigali, Rwanda.</li> </ul>		21 <sup>st</sup> -23 <sup>rd</sup> August, 2013
<ul style="list-style-type: none"> <li>12th International Conference on Electroanalysis, (<b>ESEAC</b>), Prague, Czech Republic.</li> </ul>		16-19 <sup>th</sup> June, 2008
<ul style="list-style-type: none"> <li>1<sup>st</sup> International Symposium on Electrochemistry, University of Western Cape, South Africa.</li> </ul>		9-11 <sup>st</sup> July 2008
<ul style="list-style-type: none"> <li>CHEMRAWN XII (IUPAC) International conference, , Stellenbosch University, South Africa;</li> </ul>		2 – 5 <sup>th</sup> Dec 2007
<ul style="list-style-type: none"> <li>Southern and Eastern African Network for Analytical Chemists (SEANAC) Conference, , Gaborone, Botswana</li> </ul>		15 – 18 July 2007
<ul style="list-style-type: none"> <li>38<sup>th</sup> South Africa Chemical Institute (SACI) conference, Durban, South Africa.</li> </ul>		3-8 Dec 2006

#### FUNDED RESEARCH

2017	Bioprospecting for Phytochemical Repellants and Biopesticides of the Jigger Flea, <i>Tunga Penetrans</i> from the Western Kenya Flora. Role: Research Collaborator
2016	Centre for African Medicinal and Nutritional Flora and Fauna Funded by URF, MMUST Role: Research Collaborator
	Waste to renewable energy: Biogas Cleanup(Upgrading) in Tanzania and

2015	Kenya. Funded by USAID Role: Co-Principal Investigator.
2013	Water and soil iron contents in a tea plantation in Rulindo, Rwanda. Funded by by Centro Internacional de Agricola Tropical (CIAT) and International Food Policy Research Institute (IFPRI) Grant No. 8286. Role: Co-Principal Investigator
2012	Production of sanitary pads from locally available materials. Funded by Sustainable Health Enterprise (SHE) Role: Co-Principal Investigator
2011	Retention studies of iron and zinc in the most common bean dishes as prepared in the Northern and Southern Provinces of Rwanda. Funded by Centro Internacional de Agricola Tropical (CIAT) and International Food Policy Research Institute (IFPRI) Grant No. 8250. Role: Research collaborator.
2010	Training workshops and postgraduate programme on instrumentation for Environmental and Biochemical analysis. Funded by Migration for development of Africa (MIDA). Role: Co-coordinator

#### SUPERVISION

**Velma Judith Adhiambo** : Bioprospecting for Phytochemical Repellants and Biopesticides of the Jigger Flea, *Tunga Penetrans* from the Western Kenya Flora. **PhD MMUST (Ongoing)**

**Colleta Achieng Songa**: Assessment of Phosphorus Levels from Land use Patches along the Upper Reaches of River Isiukhu Watershed, Kakamega County, Kenya **MSc MMUST (Ongoing)**

**Jane Oremo**: Partitioning and Sorption Characteristics of Heavy Metals along Isiukhu River, their levels in Benthic Microinvertebrates, Water and Sediments **MSc MMUST(Ongoing)**

#### PROFFESIONAL ASSOCIATIONS

Kenya Chemical Society

South Africa Chemical Institute

#### SCHOLARSHIP

National Research Foundation (NRF) scholar

2006-2008

NRF Post-Doctoral Fellow

2009

<b>OTHER ACIVITIES</b>	
External Examiner, MSc thesis	University of western Cape, South Africa  Nelson Mandela-Africa Institute of Science and Technology, Tanzania
Reviewer, NRF funded research proposals	
Chair, Tracer study committee-Received 57,400 USD to fund tracer study on KIST graduates	
Chair, Committee on Harmonization of Students' regulations	

<b>REFEREES</b>	
Dr. Antoine Nsabimana	Vice Dean, School of Science University of Rwanda, P.O.Box 3900,Kigali-Rwanda. Email: <a href="mailto:dfos@kist.ac.rw">dfos@kist.ac.rw</a> Phone: +250788435561
Prof. Emmanuel Iwuoha	Department of Chemistry, University of the Western Cape Private Bag X17, 7535 South Africa. Email: <a href="mailto:eiwuoha@uwc.ac.za">eiwuoha@uwc.ac.za</a> Phone: +27219593054
Prof. Joseph Chacha	Deputy Vice Chancellor, Partnerships, Research and Innovations Maseno University, Private bag, Maseno, Kenya. Email: <a href="mailto:chachajs@yahoo.com">chachajs@yahoo.com</a> Phone: +254722611025