

## **TABITHA OWITI ORWA**

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**Profile:** Research scientist proficient in classical and instrumental techniques of measurement with knowledge of laboratory risk management, decision rule, and statements of conformity. ISO 9001, 17025, 17043, 14001, 45001 auditor and trainer. Adept in leading teams to provide valid and timely test reports.

**Professional qualifications:**

- a) Science researcher with ability to operate spectroscopic, chromatographic and tensile testing equipment
- b) Chemical metrologist with skills in proficiency testing, method development and validation, measurement traceability and preparation of reference materials.
- c) Registered management systems auditor
- d) Registered management systems trainer
- e) Laboratory management system assessor

**Professional experience:**

Currently  
Head of Polymer Laboratory  
Kenya Bureau of Standards

October 2008 – December 2017

Laboratory analyst  
Kenya Bureau of Standards

**Education:**

May 2010 – July 2015  
MSc Environmental Legislation and management  
Jomo Kenyatta University of Agriculture and Technology

August 2004 to June 2007  
BSc Industrial Chemistry  
Makerere University Kampala

**Accomplishments:**

- a) Accreditation of Inorganic laboratory to ISO 17025:2005 & transition of Polymer laboratory to ISO 17025:2017
- b) Registered calibration and measurement capability for cadmium in rice
- c) Organized proficiency testing schemes in black tea, cement, and paint

**Professional membership:**

- a) Kenya Chemical Society (N101)
- b) National Quality Institute, Kenya Bureau of Standards (NQI/M/PER/174)
- c) Certification body, Kenya Bureau of Standards (KEBS/PC/135)

**Publications:**

- a) T. Orwa, J. Kiptoo, A. Onditi, P. Njogu Assessment of selected native plants growing along Nairobi River for uptake of copper, zinc and cadmium, Journal of Agriculture, Science and Technology 16(1) (2014), 37 – 50
- b) T.O. Orwa Amaranthus Hybridus in Phytoremediation of Heavy Metal Polluted Waters of Nairobi River, Proceedings of the 2013 JKUAT Scientific, Technological and Industrialization conference, 296 – 304

**Papers presented in conferences and workshop:**

- a) T. Orwa. Chemical measurement of reinforced steel bars used in construction, 8<sup>th</sup> Regional Metrology Conference, 7<sup>th</sup> – 9<sup>th</sup> December 2016 at Bamburi Beach Hotel, Nairobi, Kenya
- b) T. Orwa. Evaluation of fenpropathrin using QuEChERS method and GC/MS/MS QQQ in Kenyan black tea, 2<sup>nd</sup> DeKUT International Conference on Science, Technology, Innovation and Entrepreneurship, 2<sup>nd</sup> -4<sup>th</sup> November 2016 at Dedan Kimathi University, Nyeri, Kenya
- c) T. Orwa. Importance of quality assurance of reinforced steel bars for structures, East and Southern Africa Environmental/Analytical Chemistry Conference and 11<sup>th</sup>Theoretical Chemistry Conference in Africa, 15<sup>th</sup>– 17<sup>th</sup> June, 2016 at Reef Hotel, Mombasa, Kenya
- d) T. Orwa, J. Kiptoo, P. Njogu Amaranthus hybridus in Phytoremediation of Heavy Metal Polluted Waters of Nairobi River, 8<sup>th</sup> JKUAT Scientific, Technological and Industrialization Conference 14<sup>th</sup> – 15<sup>th</sup> November 2013 at AICAD Centre in JKUAT Main Campus, Nairobi, Kenya

**Affiliations:**

- a) Member of East African Community (EAC) Testing Technical sub-committee
- b) Member of East African Community (EAC) proficiency testing providers.
- c) Member of technical committee researching on impact of shelf life on black tea
- d) Member of technical committee preparing Kenya Action plan under the Minamata Convention on mercury, 2017
- e) Testing expert for various Standard development committees