


PERSONAL INFORMATION

Dorothy Akinyi Okoth



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https://www.researchgate.net/profile/Dorothy_Okoth3

Sex Female | Date of birth 8 Jan 1980 | Nationality Kenyan

POSITION

Natural Products Chemistry Lecturer and Researcher

WORK EXPERIENCE

1 Mar 2017–Present **Post-doctoral Researcher**

Helmholtz Institute for Pharmaceutical Research Saarland (HIPS)
University Campus E8.1 , University of Saarland, 66123, Saarbrücken
Saarbrücken (Germany)
<https://www.helmholtz-hzi.de/>

Isolation, purification and structural elucidation of novel biologically active microbial and plant secondary metabolites

Business or sector Professional, scientific and technical activities

17 Jun 2008–Present **Chemistry Lecturer**

Maseno University
Private Bag, Kisumu, 40105 Kisumu (Kenya)
<https://www.maseno.ac.ke>

Lecturing organic chemistry courses for both undergraduate and postgraduate courses.
Supervise undergraduate and postgraduate research projects and thesis.

Business or sector Education

3 Jan 2007–Jun 2007 **Chemistry teacher secondary school**

The Aga Khan Mzizima Secondary School,
Fire Road Upanga, P.O. Box 21563 Dar es Salaam (Tanzania)
<https://www.agakhanschools.org/Tanzania>

Teaching of Chemistry and Biology in both Tanzanian National and International General Certificate of Secondary Education Curricular

Business or sector Education

4 Jan 2003–28 Aug 2004 **Biology teacher secondary school**

Kanyawanga High School
P.O. Box 100, Rongo, 40404 Rongo (Kenya)

Teaching of Kenya Certificate of Secondary Education Curriculum

Business or sector Education

EDUCATION AND TRAINING

1 Aug 2010–9 Apr 2014 **PhD in Natural Products Chemistry**

University of Kwazulu Natal,
Private Bag X54001, Durban University Road, Westville, 4000 Durban (South Africa)
<https://www.ukzn.ac.za>

Additional information

Field of study : Natural sciences, mathematics and statistics

Final grade: PhD

Thesis: Bioactive Natural Products From *Lannea alata*, *L. rivae*, *L. Schimperii* and *L. Schweinfurthii*

Skills acquired include extraction, isolation and characterization of compounds from plants. Spectroscopic techniques acquired include ultraviolet, Infra red, Mass and Nuclear magnetic resonance. In addition skills in biological assays such as antioxidant, antiparasmodial, antibacterial and cytotoxicity were also acquired.

[Related document\(s\)](#): Fehler! Verweisquelle konnte nicht gefunden werden.

1 Sep 2004–17 Dec 2008

Master of Science (Chemistry)

Maseno University

Private Bag, Maseno, 40105 Kisumu (Kenya)

Theory and Research in Organic Chemistry with special emphasis in Natural Products Chemistry.

Acquired skills in extraction and characterization of essential oils. Characterization of the oils was done mainly using gas chromatographic -Mass Spectroscopic Technics .

Biological assays conducted include mosquito larvicidal and repellency assays of the extracts obtained.

[Related document\(s\)](#): Fehler! Verweisquelle konnte nicht gefunden werden.

6 Sep 1999–21 Mar 2004

Bachelor of Education Science

Maseno University, Kisumu (Kenya)

Acquired general Knowledge and Practical skills in Chemistry and Biology.

Received Training in Teaching of Science subjects.

[Related document\(s\)](#): Fehler! Verweisquelle konnte nicht gefunden werden.

PERSONAL SKILLS

Mother tongue(s) Luo

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	A2	A2	A2	A2	A2
Kiswahili	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

Excellent communication skills were gained while in primary and Secondary schools where English and Kiswahili were used as the medium of instruction. At the University, English is the official language of instruction. My experience as a high school teacher and university lecturer has further enhanced my communication skills.

I have learnt over the years how to write scientific documents such as proposals, abstracts, and journals among others. I give oral and poster presentations in scientific meetings, seminars and conferences whenever an opportunity arises.

I have also basic German language skills. Much of speaking and writing was obtained in language school but I have also learnt through daily conversations at place of work and informal gatherings

Organisational / managerial skills

Leadership: I have been the School of Physical and Biological Staff Welfare chairperson at the university where I work. I was the Chairperson of postgraduate student programs at Maseno University.

I was also a member of the Research Committee at Maseno University.

My good organisations, team building, communication and interpersonal relationship skills have been useful in handling issues affecting members of staff at the school.

Job-related skills

My primary expertise is in structure determination of complex natural products, complemented by a working knowledge of natural product isolation and purification technologies and practices. I have demonstrated these skills by having isolated multiple number of complex natural products, having elucidated their structures via state-of-the-art measurements; analysis of mass spectroscopic (MS) fragmentation patterns and nuclear magnetic resonance (NMR) data. I have substantial hands-on experience with high-resolution MS instruments and liquid chromatography (LC) systems.

I have skills in conducting biological assays such as antibacterial, antifungal antiplasmodial, cytotoxicity, larvicidal, antioxidants. These skills are useful in isolation of biologically active natural products.

I am highly motivated and creative and love to work in challenging environment.

I have worked with colleagues from various international backgrounds and enjoy collaborating with them.

I write scientific journals and research proposals for funding.

As a teacher and Lecturer of Chemistry (and Biology in High schools) I have several students in their pursuit for careers in Science, technology, engineering, and mathematics.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem-solving
Proficient user	Proficient user	Independent user	Proficient user	Proficient user

Digital skills - Self-assessment grid

I have good command of office suite can use a number of statistical software packages for data analysis. I use multiple software in chemistry isolation method development and structural elucidation.