

# CURRICULUM VITAE

## A PERSONAL DETAILS

**NAME:** Mulama Austine Amukayia  
**NATIONALITY:** Kenyan  
**PROFESSION:** Teaching  
**CURRENT ADDRESS:** P.O. BOX 333-40105, Maseno  
**PERMANENT ADDRESS:** P.O. BOX 440-50104, Khayega  
**EMAIL ADDRESS:** [mulamaustine@gmail.com](mailto:mulamaustine@gmail.com)  
**MOBILE PHONE NO.:** +254723016868  
**PRESENT POSITION:** Tutorial Fellow (Physics)

## B EDUCATION BACKGROUND

### [1] UNIVERSITY EDUCATION

- [i] PhD (Physics), Maseno University, Kenya (Sept. 2015 to Date)
- [ii] M.Sc. (Physics), Maseno University, Kenya (2014)  
**Mean score: 70% (Credit)**
- [iii] B.Ed. (Science): Physics/Mathematics, Maseno University, Kenya (2008)  
**Mean score: 76% (First Class Honors)**

### [2] SECONDARY SCHOOL EDUCATION

- [i] K.C.S.E., Musingu High School, Kakamega, Kenya (2002)  
**Mean score: B+ (70 points out of 84 points)**

### [3] PRIMARY SCHOOL EDUCATION

- [i] K.C.P.E., Shitochi Primary School, Kakamega, Kenya (1998)  
**Mean score: A (81 points out of 84 points)**

## C WORK EXPERIENCE

Designation	Institution	Period	Nature of work
Tutorial Fellow (Physics)	Maseno University	Aug., 2014 – Date	Undergraduate teaching, Research and fourth years project supervision
Graduate Assistant (Physics)	Maseno University	Sept., 2010 - April, 2014	Research, undergraduate laboratory session supervision, and managing tutorials for allocated courses.
Graduate Teacher	Mautuma Secondary School, Kakamega	June, 2010 - Dec., 2010	Taught Forms I – IV Physics and Mathematics
Graduate Teacher	Musingu High School, Kakamega	Sept., 2008 - May, 2010	Taught Forms I-IV Physics and Mathematics

## D RESPONSIBILITIES (CURRENT & PAST)

1. Ag. Examination Coordinator, Department of Physics and Materials Science (February-June, 2016)
2. Member, Board of Management of Friends Secondary School Shitochi (October, 2015 to Date )
3. Member and Vice Chairman, Board of Management of Shitochi Primary School,(November, 2015 to Date )
4. Staff welfare chairman, Department of Physics and Materials Science (June, 2015 to date)
5. In charge of Undergraduate Laboratory Report Analysis, Department of Physics and Materials Science (January, 2013 to Date)
6. Head of Subject (Physics), Mautuma Secondary School, Kakamega (June, 2010-Dec., 2010)
7. Class teacher (Forms I & II), Musingu High School, Kakamega (January, 2009-May, 2010)
8. Deputy Presiding Officer, IEBC, 2013 General Election, Kenya
9. Deputy Presiding Officer, IIEC, 2010 Referendum, Kenya

#### FOURTH YEARS' SUPERVISED PROJECTS

S. NO.	PROJECT TITLE	NAME OF STUDENT	STATUS
1.	Effect of Film Thickness on the Optical Band Gap of Zinc Sulfide Thin Films Deposited on Glass Substrates by Thermal Evaporation Technique	<b>ONDIEKI MORAA ANNAH</b> <b>SC/00147/2012</b>	Graduated: November, 2016
2.	Optical Properties of MgCl <sub>2</sub> Thin Films	<b>LENNOX HARRIET NEEMA</b> <b>SC/00160/2012</b>	Graduated: November, 2016
3.	Effect of Film Thickness on Transmittance of KNO <sub>3</sub> -NaNO <sub>3</sub> Thin Films Deposited on Glass Substrates by Spin Coating Method	<b>NDOLO BONFACE</b> <b>SC/00136/2012</b>	Graduated: November, 2016
4.	Optoelectronic Properties of MgCl <sub>2</sub> Thin Films	<b>KABAKA K. GEORFREY</b> <b>SC/00116/2012</b>	Graduated: November, 2016
5.	Thermal Conductivity Measurements of Silicon dioxide Thin Films	<b>MWANGI ZACHARIA</b> <b>SC/00175/2012</b>	Graduated: November, 2016

#### E SCHOLARSHIPS/AWARDS

- i. M.Sc. research grant (\$1830), National Council of Science and Technology (NCST), now National Commission of Science, Technology and Innovations (NACOSTI), Kenya (2012-2013)
- ii. PhD. research grant (\$6400), National Commission of Science, Technology and Innovations (NACOSTI), Kenya (2016-2019)
- iii. DAAD Scholarship (2017)

#### F AREAS OF RESEARCH INTEREST

Condensed Matter Physics: *Thin Film Technology, Properties of Thin Films, Properties of Materials, Material Science, Chalcogenide Glasses, Thin Film Solar Cell Materials, Photovoltaic Technology, Nanotechnology, Radioactive materials and Acoustics.*

#### G MEMBERSHIP TO PROFESSIONAL BODIES / SOCIETY

- i. Member, Kenya Physics Society, (Since October, 2013)
- ii. Member, Kenya Young Generation in Nuclear, (Since May, 2016)
- iii. Kenya DAAD Scholars Association (KDSA) (Since March, 2017)

#### H CONFERENCES/SCHOOLS ATTENDED

- i. The 1<sup>st</sup> Young Scientists Material Science and Solar Energy Network for Eastern and Southern Africa (MSSEESA) conference on Material Science and Solar Cell Technology, held at the United Kenya Club, Nairobi-Kenya, on 28<sup>th</sup> -29<sup>th</sup> November, 2013.
- ii. The Joint United States-Africa Materials Institute (JUAMI) Summer School on Materials for Sustainable Energy, held at the SG-Resort-Arusha, Tanzania, from 29<sup>th</sup> May to 10<sup>th</sup> June, 2016.

#### I CONFERENCE PAPER

**Mulama A. A.**, Mwabora J. M., Oduor A. O., and Muiva C. M. (2013). Optical Properties of Flash Evaporated Se<sub>100-x</sub>Bi<sub>x</sub> Thin Films: Effect of Film Thickness. *Proceedings of the MSSEESA Conference on Material Science and Solar Cell Technology*, United Kenya Club, Nairobi-Kenya, 28<sup>th</sup> -29<sup>th</sup> November.

## J M.SC. (PHYSICS) THESIS

**Mulama A. A.** (2014). Optical Properties of  $\text{Se}_{100-x}\text{Bi}_x$  Thin Films Deposited on Glass Substrates by Flash Evaporation Method. *MSc. Thesis*, Maseno University, Kenya. **Supervisors:** *Prof. Julius M. Mwabora (University of Nairobi) & Prof. Andrew O. Oduor (Maseno University)*

## K PUBLICATIONS IN REFERRED JOURNALS:

- i. Mbete D., Lawi G., Nyongesa K., Tireito F., and **Mulama A.** (2016). Estimation of Basic Reproduction Number in a Deterministic Model: A Case of Malaria and Rotavirus Co-Infection. *International Journal of Engineering and Mathematical Sciences*, **9**(1), 24-35.
- ii. **Mulama A. A.**, Mwabora J. M., Oduor A. O., Muiva C. M., Muthoka B., Amukayia B. N., and Mbete D. A. (2015). Role of Bismuth and Substrate Temperature on the Optical Properties of Some Flash Evaporated  $\text{Se}_{100-x}\text{Bi}_x$  Glassy System. *New Journal of Glass and Ceramics*, **5**(2), 16-24.
- iii. **Mulama A. A.**, Mwabora J. M., Oduor A. O., Muiva C. M., Muthoka B., Amukayia B. N., and Mbete D. A. (2015). Stability Investigation in the Optical Properties of  $\text{Ge}_5\text{Se}_{95-x}\text{Zn}_x$  Thin Films. *Journal of Advances in Physics*, **7**(3), 1923-1930.
- iv. **Mulama A. A.**, Mwabora J. M., Oduor A. O., Muiva C. M., and Muthoka B. (2014). Investigation of the Effect of Film Thickness on the Optical Properties of Amorphous  $\text{Se}_{85-x}\text{Te}_{15}\text{Sb}_x$  Thin Films. *Africa Journal of Physical Sciences*, **1**(1), 38-42.
- v. **Mulama A. A.**, Mwabora J. M., Oduor A. O., Muiva C. M., and Walloga C. M. (2014). Effect of Ga Incorporation and Film Thickness on the Optical Properties of as-Deposited Amorphous  $\text{Ga}_x\text{Se}_{1-x}$  Thin Films. *IOSR-Journal of Applied physics*, **6**(5), 01-06.
- vi. **Mulama A. A.**, Mwabora J. M., Oduor A. O., and Muiva C. M. (2014). Optical Properties and Raman Studies of Amorphous Se-Bi Thin Films. *The African Review of Physics*, **9**(6), 33-38.
- vii. **Mulama A.** (2015). Properties of Flash Evaporated Selenium-Bismuth Thin Films: Effect of Preparation Conditions and Bismuth Content. *LAP Lambert Academic Publishing, OmniScriptum, GmbH & Co. KG, Heinrich, Germany*, ISBN: 978-3-659-75233-9, 76 Pages

## L REFEREES

1. **Prof. Andrew O. Oduor**,  
Chairman,  
Physics & Materials Science Department,  
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2. **Prof. Julius M. Mwabora**,  
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3. **Dr. Erick Ogam**,  
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