

Dr. FANUEL MUGWANGA KEHEZE

Address: 195 Kilifi 80108

Mobile Phone: +722291913, **Email:** mugwanga.mugwanga@gmail.com

Date of Birth: 27.01.1974, **Place of Birth:** Vihiga county, Kenya

EDUCATION BACKGROUND		
2014 - 2018:	Ph.D. (Physics) University of Freiburg	Correlation between ordered structures and the corresponding optical and thermal properties of bulky substituted polythiophenes.
2007 - 2011	Masters research Kenyatta University	Characterization of $Cu_xO_y - ZnO:Al$ P-N Junction for Solar Cell Applications
1995 - 1998	Bachelors of Education (Science) Kenyatta University	Physics, Mathematics and Education
RESEARCH INTRESTS		
<ol style="list-style-type: none">1. Characterization of properties of materials2. Studies on semiconducting materials for photovoltaic applications3. Electronics and instrumentation4. Solar cell technology		
WORK EXPERIENCE		
2012- Present	Assistant Lecturer Pwani University	<ul style="list-style-type: none">✚ Teaching undergraduates✚ Marking and supervision of undergraduate projects✚ Supervision of undergraduate experimental work
2001 – 2012	Assistant Teacher: Teachers Service Commission of Kenya	<ul style="list-style-type: none">✚ Marking and supervision of students work✚ Teaching mathematics and physics✚ Class teacher✚ Guidance and counselling master✚ Head of department✚ Games teacher
2000-2001	Lecturer at Railway Training Institute, Nairobi.	<ul style="list-style-type: none">✚ Marking and supervision of students projects✚ Teaching mathematics and electronics
ORGANIZATIONAL / MANAGERIAL SKILLS		
2000-2012	Rose through ranks to a head of department while teaching with the Teachers Service Commission	
SCIENTIFIC RELATED SKILLS		
	<ul style="list-style-type: none">✚ Skills in vacuum sputtering and thermal evaporation.✚ Skills in thin film science and preparation.✚ kills in Optical Microscopy✚ Skills in Optical Spectroscopy	

	<ul style="list-style-type: none"> ✚ Skills in electrical, optical, and structural characterization in thin film Semiconductors. ✚ Sound knowledge in semiconductors and solar cell fabrication and characterization. ✚ Skills in solar cells technology
Computer Skills	Good command of Microsoft Office tools, PowerPoint and excel, origin, and python
Communication Skills	Good command of English and Kiswahili and Little bit of Deutsche

SELECTED PUBLICATIONS

1. **Keheze, F. M.**; Raithel, D.; Wu, T.; Schiefer, D.; Sommer, M.; Hildner, R.; Reiter, G. *Signatures of Melting and Recrystallization of a Bulky Substituted Poly(thiophene) Identified by Optical Spectroscopy*. *Macromolecules* **2017**, *50* (17), 6829–6839.
2. Schiefer, D.; Komber, H.; **Mugwanga Keheze, F.**; Kunz, S.; Hanselmann, R.; Reiter, N.; Sommer, M. *Poly(3-(2,5-Dioctylphenyl)thiophene) Synthesized by Direct Arylation Polycondensation: End Groups, Defects, and Crystallinity*. *Macromolecules* **2016**, *49*, 7230–7237.
3. **Keheze, F. M.** , Karimi PK, Njoroge WK and Omayio O. *Characterization of Aluminum Doped Zinc Oxide (Azo) Thin Films Prepared by Reactive Thermal Evaporation for Solar Cell Applications*. *Journal of Fundamentals of Renewable Energy and Applications* , 2015 5(4)
4. **Keheze, F. M.**, Karimi P.K, Njoroge W.K, Omayio O, and Waita S.M. *Optical Characterization of Copper Oxide Thin Films Prepared By Reactive Dc Magnetron Sputtering For Solar Cell Applications*. *Int. J. Thin Film Sci. Tec.* 1, 15-24(2013)
5. Omayio E O, Karimi P M, Njoroge W K and **Keheze, F: M.** *Current-voltage characteristics of p-CuO/n-ZnO:Sn Solar cell. Jan 2013*. *Int. J. Thin Film Sci. Tec.* 1, 25-28

SEMINARS, CONFERENCE AND WORKSHOPS ATTENDED

1. Consistently attended a weekly institute seminar organized by the **International Research Training Group (IRTG) “Soft Matter Science”** which was based on a **collaboration** between the universities of **Freiburg** and **Strasbourg** (with scientists from **Basel** and **Mulhouse** participating) with a focus on polymer science.
2. Attended summer school organized by (International Research Training Group) which took place in Mittelwihr/France each one week in July 2017:

3. Attended summer school organized by (International Research Training Group) which took place in Mittelwihr/France each one week in July 2016, where I presented a poster on my results of research.
4. Attended summer school organized by (International Research Training Group) which took place in Mittelwihr/France each one week in July 2015, where I presented a poster on my results of research.
5. Attended summer school organized by (International Research Training Group) which took place in Mittelwihr/France each one week in, July 2014, where I presented a poster on my results of research.
6. Attended a 3 days international conference on polymer materials in Bayreuth/Germany in September 2015 where I presented a poster
7. Attended a two days International Research Training Group workshop in October 2015 which took place in Breisach/Germany, where I made an oral presentation.
8. Attended the International Research Training Group workshop in April 2016, which took place at the Freiburger Institut für interaktive Materialien und bioinspirierte Technologien FIT for 2 days.

REFERENCES

Prof. Dr. Günter Reiter

Institute of Physics,
 Albert-Ludwig-University of Freiburg
 Hermann-Herder-Str. 3, 79104 Freiburg,
 Germany
 Tel.: +49 761 203 5857 Fax: +49 761 203 5855
 Email: guenter.reiter@physik.uni-freiburg.de

Prof. Dr. Gabriel Katana Gona

Department of Physics
 Pwani University
 P. O Box 195
 Kilifi, Kenya
 +254727 350 339
 Email:katana_gona@yahoo.com