

CURRICULUM VITAE

NAME	DR. GODFREY BARASA
CURRENT POSITION	LECTURER
UNIVERSITY ACADEMIC POSITION	LECTURER OF PHYSICS
INSTITUTION	JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
PHYSICAL ADDRESS	JOUST, 201-40601-BONDO
QUAIFICATIONS	B.ED. (SCI.), M. SC., PHD
KEY AREAS OF SPECIALIZATIONS	CONDENSED MATTER PHYSICS, SOLID STATE PHYSICS, MATERIALS PHYSICS & MATERIALS SCIENCE

PERSONAL DATA	
PLACE OF BIRTH	BUSIA, KENYA
NATIONALITY	KENYAN
PROFESSION	LECTURER/RESEARCH SCIENTIST
CONTACT ADDRESS	201-40601, BONDO
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RESEARCH PUBLICATIONS-LINK	https://www.researchgate.net/profile/Godfrey-Barasa

1. SUMMARY OF EXPERIENCE
<p>The previous research projects entailed 1) Experimental fabrication, structural and surface characterization (by XRD, SEM, TEM, Raman, XPS, NMR, including Operando electrochemical studies) of various fine-tuned composite/alloyed nanoporous, microstructure materials for Efficient Green Energy Applications including plasmonic catalysis. 2) Structural and Optical studies of CdO doped ZnO Nanocomposites. 3) Synthesis of polycrystalline-ceramics/rare-earth composite magnetic materials and studies of their Magnetocaloric effects; Negative magnetization and sign reversal of exchange bias fields; and magnetic entropy change across the spin reorientation dependence on temperature i.e. Structure and magnetic field-assisted- switching effect for Spintronic Devices like magnetic sensors, and data storage Applications. (Characterization tools used are XRD, XRF, SEM, XPS, and the dc magnetizations were measured by a vibrating sample magnetometer-VSM, on the Physical Property Measurement System (PPMS, Quantum Design).</p>

2. EDUCATION AND TRAINING

<i>Year (from – to)</i>	<i>Degree, Institution</i>
2016-2019	Doctor of Philosophy in Science(Condensed Matter Physics): Huazhong University of Science and Technology (HUST), CHINA
2012-2014	Master of Science in Physics(Solid State Physics)-First <i>Division with Distinction; Osmania University, INDIA</i>
2003-2007	Bachelor of Education Science(Physics major &Mathematics) –Honors; Kenyatta University, KENYA
1998-2001	Kenya Certificate of Secondary Education-K.C.S.E; Mean Grade B+(Plus); Sigalame Boys High School, KENYA

3. EMPLOYMENT

<i>Years since</i>	<i>Company / Institution</i>
2019 TO DATE	LECTURER; JOOUST
2016-2019	Researcher; Huazhong University of Science and Technology- HUST, China
2014-2016	Lecturer in Department of Electrical and Electronics Engineering- Bumbe TTI, Kenya
2008-2012	Graduate Teacher –St Thomas Aquinas Nanderema, Kenya

4. POSITIONS PREVIOUSLY HELD

<i>Year (from – to)</i>	<i>Position, Project / Programme, Company / Institution / Client</i> <i>Description of roles and responsibilities</i>
2016-2019	Researcher-HUST, China
2014-2016	Lecturer-Bumbe Technical Training Institute, Kenya
2012-2014	Research assistant/Masters student- Osmania University, India
2011-2012	Director of studies-St Thomas Aquinas Nanderema, Kenya
2008-2011	Assistant director of studies, School time-tabler and Athletics coach; St Thomas Aquinas Nanderema, Kenya

5. TEACHING RESPONSIBILITY

<i>School/Institute</i>	<i>Class/Discipline</i>
School of Biological and	1)Teaching and assessment of students pursuing undergraduate and postgraduate studies in Physics

Physical Sciences	2) Supervising postgraduate student's studies in Physics 3) Research
6 Supervising postgraduate student's studies in JOOUST	
Student Name	Level
1. Mr. Edwine Atego	Msc. Physics- Graduated 22-04-2022
2. Mr. Jack Abibo Adem	PhD. Physics- Thesis submitted
3. Mr. Manda Timothy	Msc. Physics-Research
4. Antonate N. Wanyonyi	Msc. Physics-Proposal writing
5. Mr. Paul Abuto	Msc. Physics-Proposal writing

7. OTHER LEADERSHIP POSITIONS

Year	Position/Programme/Institution
2021-to Date	Vice-Chairman University academic staff Unions-UASU-JOOUST chapter
2018-2019	Campus Representative for the Kenya Student in Wuhan-KENSWA-Huazhong University of Science and Technology, China
2014-2016	Diploma 1, Electrical Electronics Engineering student's adviser Bumbe TTI.
2008-2012	Deputy/Director of Studies-St Thomas Aquinas Nanderema

8. RESEARCH ACTIVITIES/PROJECTS(Past and Present)

Years/Duration	Position /Title / Sponsor
2020-To date	Co-researcher- Magnetocaloric effect and sign reversal of magnetic entropy change across the spin reorientation temperature in $R_3Fe_5O_{12}$ (R = Gd, Dy)- <i>Xinyang Normal University, China</i>
2016-2019	Researcher-Nanoporous alloys for green energy applications-HUST project-HUST, China
2012-2014	Research assistant- Characterization of ZnO doped CdO Nano composites- Osmania University project

9. CONSULTANCIES

Year from – to	Position, Project / Programme, Company / Institution / Client Description of roles and responsibilities
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12. TRAININGS /WORKSHOPS/SYMPOSIA ATTENDED

2022	CBC-training workshop at JOOUST-8 TH -9 th June 2022.
2022	Conference/Inception ECSDDevelop. workshop at Makerere University-in kampala Uganda held 7 th -8 th June, 2022
2020	Staff Induction workshop at JOOUST
2016	Attended two weeks The Joint Undertaking for an African Materials Institute-(JUAMI); materials for sustainable energy; training in Arusha Tanzania 29 th may-10 th June 2016-“I was fully <i>Sponsored</i> by ICTP-Italy”

13. MEMBERSHIP TO COMMITTEES/BOARDS

i	Member of Department of Physical Sciences Postgraduate studies committee
ii	Member of School board- School of Biological and Physical Sciences

14. MEMBERSHIP TO PROFESSIONAL ASSOCIATIONS /BODIES

i	Member Joint-US Africa Materials Institute JUAMI, since June 2016
ii	Member China Materials Research Society since July 2018
iii	HUST, Osmania and KU Alumni
iv	Associate member Royal society of Chemistry-AMRSC.NO# 695486

15. LANGUAGE PROFICIENCY

	ENGLISH-Excellent
	KISWAHILI- Excellent
	CHINESE-Basics

16. CONFERENCES ATTENDED

1. Attended China materials research conference **C-MRS**” Nanoporous metal materials-room” held in Xiamen, Fujian, P.R of China on 11th-16th July 2018.
2. Lihua Qian and Godfrey Okumu Barasa. Electrochemical training of nanoporous bimetallic catalysts for efficient CO₂-to-CO conversion and high durability: SCON International Conference on Materials Science and Engineering, (Paper presented) - Las Vegas, USA. 6-7th, December, 2018
3. Attended International Symposium of Flexible and stretchable electronics ISFSE 2018 in HUST, Wuhan, Hubei, China. held on 3rd-4th, June 2018
4. Attended Joint-US Africa Materials Institute-(**JUAMI**) conference in Arusha, Tanzania, from 29th May to 10th June 2016.
5. Attended National Conference on Advanced materials for Energy Applications-**NCAMEA**-2014 at Osmania University in India from 31st Jan. to 1st Feb.2014 Paper presented “Synthesis and characterization of pure ZnO, CdO and CdO coated ZnO core-shell nanoparticles by Sol-gel method.”
6. Attended National Conference on Advanced materials NSAM-2013 at Osmania University from 27-28 Feb 2013.

17. ACADEMIC HONORS, AWARDS, and ACHIEVEMENTS

i	HUST Academic Excellence Award for outstanding postgraduate students in the School of Physics 2017-2018. Huazhong University of Science and Technology, P.R of China, December 2018.
ii	Awarded China government scholarship to study PhD in Condensed Matter Physics from Sept. 2016 to June 2019.
iii	Common wealth scholarship award/through ICCR Indian Government scholarship to study MSc. Physics at Osmania University in June 2012-2014
iv	Awarded Kenya government –JAB scholarship to study B.Ed. Science at Kenyatta University from 2003 to 2007
v	Awarded a cash price token of 3000 元 (ksh. 45,000) as best Physics postgraduate student in HUST 2018

vi	Awarded HUST honorary outstanding international Graduate certificate, 2019
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24. PUBLICATIONS

1. **Godfrey Okumu Barasa**, Celline Awino, Canglong Li, Kevin Okoth, John Agumba, Denis Magero. Indium decorated nanoporous Ag as an efficient catalyst for enhancement CO₂ electroreduction, *Journal of Solid State Sciences*, 129, (2022) 106916.
2. Canglong Li, **Godfrey Okumu Barasa**, Yang Qiu and Songliu Yuan Magnetocaloric effect and sign reversal of magnetic entropy change across the spin reorientation temperature in R₃Fe₅O₁₂ (R = Gd, Dy) *Journal of Alloys and Compounds*, 820 (2020) 15,153138, <https://doi.org/10.1016/j.jallcom.2019.153138>
3. **Godfrey Okumu Barasa**, Tianshui Yu, Xianglong Lu, Xiangji Zhou, Hailing Wang, Lihua Qian, Yao Yu, Lin Liu, Pengxiang Lei: Electrochemical training of nanoporous Cu-In catalysts for efficient CO₂-to-CO conversion and high durability: *Electrochimica Acta* 295(2019) 584-590. <https://doi.org/10.1016/j.electacta.2018.10.175>.
4. Celline Awino, **Godfrey Barasa** and Victor Odari: Light induced degradation of the transport length of CH₃NH₃PbI₃ studied by modulated surface photovoltage spectroscopy after Goodman. *Organic Electronics*, 77 (2020) 105503 <https://doi.org/10.1016/j.orgel.2019.105503>
5. Canglong Li, **Godfrey Okumu Barasa**, Gebru Zerihun, Xinghan Chen, Songliu Yuan: Structure and magnetic switching effect in iron-doped europium chromite ceramics: *Journal of Alloys and Compounds*, 787 (2019) 463-468 DOI: [10.1016/j.jallcom.2019.02.138](https://doi.org/10.1016/j.jallcom.2019.02.138)
6. **Godfrey Okumu Barasa** and Wafula Barasa Henry: Structural and optical characterization of CdO-ZnO deposited by Sol-gel method. *International research journal of multidisciplinary sciences and technology* 3 (2018) 15-19 <http://www.irjmr.com>
7. Canglong Li, Tengyun Yan, **Godfrey Okumu Barasa**, Yanhong. Li, Run Zhang, Qingshan Fu, Xinghan Chen and Songliu Yuan: Negative magnetization and exchange bias effect in Fe-doped CoCr₂O₄, *Ceramics International*, 44(2018)15446-15452, DOI: <https://doi.org/10.1016/j.ceramint.2018.05.200>
8. Canglong Li, Tengyun Yan, **Godfrey Okumu Barasa**, Yanhong Li, Run Zhang, Shuai Huang and Songliu Yuan: Colossal dielectric response in Ba_{1.5}Sr_{1.5}Co₂Fe₂₄O₄₁ ceramics at high-temperature, *Journal of Materials Science: Materials in electronics*, 29(2018) 9971-9978. <https://doi.org/10.1007/s10854-018-9040-1>
9. Canglong Li, Tengyun Yan, Chiranjib Chakrabarti, Run Zhang, Xinghan Chen, Qingshan Fu, Songliu Yuan, and **Godfrey Okumu Barasa**: Negative magnetization and the sign reversal of exchange bias field in Co(Cr_{1-x}Mn_x)₂O₄ (0 ≤ x ≤ 0.6), *Journal of Applied Physics* 123, (2018) 093902 <https://doi.org/10.1063/1.5009404>
10. Wenpeng Yang, Ke Wu, Weimin Yang, Hailing Wang, Xianglong Lv, Lihua Qian, Tianshui Yu, Zengquan Li, Xiangji Zhou, **Godfrey Okumu Barasa**,

Songliu Yuan, Yingtao Jiang, and Zhilin Yang: Nanoporous Au-Ag shell with fast kinetics: integrating chemical and plasmonic catalysis. *Nanotechnology* 28 (2017) 425704: <https://doi.org/10.1088/1361-6528/aa8470>

11. Khanna K.M, Namwitako J, Sakwa, Ayodo Y.K, Sarai A , **Barasa G.O.**& Prichani S.J: Thermodynamics of incommensurate quantum crystal, *International journal of physics and mathematical sciences* (2015) Vol. 5 (2),<HTTP://WWW.CIBTECH.ORG/JPMS.HTM>
12. **Godfrey .O. Barasa** and Reddy M. V. Ramana Reddy: Synthesis and characterization of Pure ZnO, CdO and CdO Coated ZnO core/shell nanoparticles by Sol-Gel Method.) Master's thesis, Osmania University,(June, 2014).
13. **Godfrey O. Barasa** and Lihua Qian, Nanoporous alloys with well-defined microstructure for CO₂ electroreduction, PhD dissertation, HUST, (June, 2019).www@hust.lib.edu.cn

Referees

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