

1.1 PERSONAL PROFILE

1.1.1 Personal Details

Name: Dr. Philip Musyimi

Title/Qualification: Dr., Ph.D. in Physics

Department: Physics, Mombasa Campus

Designation/Position: TF

Email: musyimi.philip@ku.ac.ke ;
musyimi.p.k@gmail.com

Contact Address: 16778-80100, Mombasa

Mobile: 0721251007

Area of Specialization:

-material science and technology at extreme conditions.

Research Interests:

-physics of materials and technology at extreme conditions.

-electronic correlations in MF/SCES materials using pressure.

-characterization and analysis of III–V semiconductor nanostructures.

-nanophysics, and solar cells/devices modelling & applications (i.e., materials for energy applications)



ORCID ID: <https://orcid.org/0000-0002-2612-7101>

1.1.2 Academic & Professional Qualifications

- a). Jan.2013–Dec.2017: Ph.D. in Physics (University of Johannesburg, South Africa).
- b). Sep.2000–Jun.2002: M.Phil. in Physics (University of Nottingham, UK).
- c). Aug.1990–Dec.1994: B.Sc.(Hons) in Physics/Maths (Jomo Kenyatta University, Kenya).

1.1.3 Primary & Secondary Educations

- a). Jan.1986–Nov.1989: Kenya Certificate of Secondary Education, KCSE, (Tseikuru Secondary School, Kitui County).
- b). Jan.1977–Nov.1985: Kenya Certificate of Primary Education, KCPE, (Kwavonza Primary School, Kitui County).

1.1.4 Employment History

- Apr.2011–to date: Tutorial Fellow (physics) at Kenyatta University, Kenya.
- Jan.2013–Oct.2017: Undergraduate Physics Tutor / Lab demonstrator at the University of Johannesburg, South Africa.
- Jan.2008–Aug.2012: Part-time physics lecturer at Jomo Kenyatta Univ., Mt Kenya Univ., Taita Taveta Univ. College (now TTU) and TUM (formerly MPUC) universities.
- Aug.2009: Supervisor with the Kenya National Bureau of Statistics in KPHC 2009 National Census.
- Dec.2007: Presiding Officer in Kitui West Constituency with the Electoral Commission of Kenya (IEBC) in 2007 General Election, Kitui County.
- Jan.2003–Dec.2008: BOM teacher (Phys/Math) at Kwa-Mutonga sec. school, Kitui County.
- Apr.–Dec. 2002: Quality controller at the Pizza factory, UK.
- Jan.–Nov. 2001: General warehouse assistant, Hyperama Plc., UK.
- Jan.1996–Sep.2000: TSC untrained graduate (Phys/Math) teacher at St. Lukes Yatta sec. school, Kitui County.
- Jan.1995–Dec.1996: BOM teacher (Phys/Math) at Yumbisye sec. school, Kitui County.

1.1.5 Achievements/Accomplishments since last appointment

Completed Ph.D. in Physics

Co-authored 3 publications in a peer-reviewed Journal

1.2 PUBLICATIONS

1.2.1 Referred Journals

- [P. Musyimi, G.R. Hearne, S. Bhattacharjee, M.K. Forthaus & M.M. Abd-Elmeguid “Unusual pressure-induced metallic state of FeSi” in preparation](#)
- [G.R. Hearne, S. Bhattacharjee, B.P. Doyle, M.A.M. Ahmed, P. Musyimi, E. Carleschi & B. Joseph “Pressure-induced disruption of the local environment of Fe-Fe dimers in FeGa₃ accompanied by metallization” Phys. Rev. B **98**, 020101\(R\) \(2018\).](#)
- [G.R. Hearne, E. Carleschi, W.N. Sibanda, P. Musyimi, G. Diguët, Y.B. Kudasov, D.A. Maslov & A.S. Korshunov “Coexistence of site- and bond-centered electron localization in the high-pressure phase of LuFe₂O₄” Phys. Rev. B **93**, 105101 \(2016\).](#)
- [G. Diguët, G.R. Hearne, W.N. Sibanda, E. Carleschi, P. Musyimi, V. Pischedda & J.P. Attfield “Wigner-Mott insulator-to-insulator transition at pressure in charge-ordered Fe₂OBO₃” Phys. Rev. B **89**, 035132 \(2014\).](#)

1.2.2 Books and Books Chapters

-none at the moment-

1.2.3 Conference/Workshop//Seminar Papers

1.2.3.1 Conference Papers

-none at the moment-

1.2.3.2 Workshops Papers

-none at the moment-

1.2.3.3 Seminar Papers

-none at the moment-

1.2.4 Student Co-authored Publications

-none at the moment-

1.2.5 Other Publications

- [A.M. Kinyua, C.K. Gatebe, M.J. Mangala, D.M. Maina, K. Korir, G.O. Odhiambo, S.K. Nderitu, P. Musyimi, J. Njogu, S. Bartilol, W.G. Mugeru, G.N. Kamau, N.O. Hashim, I.V.S. Rathore, R.L. Stangi, W. Njue, M.P. Oyugi, R.C. Chhabra, J.M. Chakaya, M. Karama, D.M. Miungu, R. Kwach, L.N. Njau & E.A. Mukolwe “Monitoring of particulate matter \(APM\), background radiation, analysis of trace metals, and other parameters in some parts of Kenya” IAEA-TECDOC-1576, 151 \(2008\).](#)

1.3 RESEARCH

-none at the moment-

1.4 FUNDED PROJECTS

-none at the moment-

1.5 CONFERENCES/WORKSHOPS/SEMINARS ATTENDED

1.5.1 Conferences Attended

- 07th–11th Jul.2014: South African Institute of Physics (SAIP) annual Conference held at the Univ. of Johannesburg, South Africa. I gave poster presentation entitled “*Electrical-transport behaviour under high pressure of charge-ordered Fe₂OBO₃ and LuFe₂O₄*”
- 18th–21st Jul.2012: Inaugural Conference of Nanotechnology & Material Science Development in Kenya, held at Kenyatta University, Kenya.
- 19th–23rd Sept. 2010: 6th Jomo Kenyatta University of Agriculture & Agriculture (JKUAT) Scientific Conference, held at JKUAT, Kenya.
- 5th–9th Aug.1999: 1st Theoretical Chemistry Conference in Kenya, held at the University of Nairobi, Kenya.

1.5.2 Workshops Attended

- 26th–29th Oct.2015: Workshop on the physical properties of materials and their measurements, held in the Department of Physics at the University of Johannesburg. I gave oral presentation entitled “*Electrical-transport measurements at high-pressure in the diamond anvil cell (DAC)*”.

- 19th–23rd Jan.2015: Workshop on electronic structure methods and applications, held at the University of Witwatersrand, South African.
- 26th–30th Nov.2012: HDM 2012: International Workshop on Hot and Dense Nuclear and Astrophysical Matter, held at the Univ. of Johannesburg, South Africa.

1.5.3 Seminars Attended

- 11th Feb.2015: Training on synchrotron based applications held at University of Johannesburg, South Africa.
- 18th Feb.2001: Low temperature techniques course in Aston Business School, Birmingham, United Kingdom.

1.6 SUPERVISION OF POSTGRADUATE STUDENTS

1.6.1 Masters

-none at the moment-

1.6.2 Ph. D.

-none at the moment-

1.7 PROFESSIONAL/CONSULTANCY (Editor/Peer review in journals, Networks/Collaborations, External Examiner, Patents)

-not yet-

1.8 COMMUNITY SERVICE AND OTHER ENGAGEMENTS

-not yet-

1.9 AFFILIATION OF PROFESSIONAL BODIES

-not yet-

2.0 NATIONAL AND INTERNATIONAL AWARDS AND RECOGNITIONS

-not yet-

2.1 ADMINISTRATIVE POSITIONS HELD

2.1.1 Recognized university administrative positions

Sep.2011–Aug.2012: Acting Coordinator, School of Pure & Applied Sciences (SPAS), Kenyatta University, Mombasa Campus.

2.1.2 Other administrative positions Held

Current Chairperson of Kwavonza Disabled Group, Kitui County.

Patron: Science Club (Yumbisye & St. Lukes Yatta secondary schools).

Prefect in charge of library during my secondary school tenure.

Chairperson of Science and Mathematics Clubs during my secondary school days.