# CURRICULUM VITAE

## PERSONNAL INFORMATION

NAME : Oswald Ashirifi Nunoo

NATIONALITY : Ghanaian

DATE OF BIRTH : 21ST March, 1961

PLACE OF BIRTH : Kumasi, Ashanti Region, Ghana

ADDRESS : Department of Physics, KNUST, Kumasi, Ghana

TELEPHONE : 0248-546454 / 020-88 33 104

E-MAIL : onunoo@yahoo.co.uk

MARITAL STATUS : Married

NAME OF SPOUSE : Theresa Adwoa Kobi

HOBBIES : jogging,watching movies, and reading

NUMBER OF CHILDREN : One (1), Rosemary Awo Serwah Nunoo

**1(a) ACADEMIC DEGREES/CERTIFICATES EARNED WITH DATES**

 2016-Date PhD Physics (On going)

 2002 – 2003: PGCE (Postgraduate Certificate in Education)

 1992 – 1995: M.Sc. Physics

 1984 – 1987: B.Sc. (Hons) Physics

 1979 – 1981: G. C. E. A – Level

 1974 – 1979: G. C. E. O - Level

**1(b) INSTITUTIONS ATENDED WITH DATES**

2002 - 2003: Goldsmiths College (University of London)

1992 – 1995: Kwame Nkrumah University of Science and Technology

(KNUST), Kumasi, Ghana.

1984 – 1987: Kwame Nkrumah University of Science and Technology

 (KNUST), Kumasi, Ghana.

1979 – 1981: Accra High School, Asylum Down, Accra.

1974 – 1979: Accra High School, Asylum Down, Accra.

**2. UNIVERSITY TEACHING AND/OR RESEARCH EXPERIENCE WITH**

**DATES**

**2(a) Academic Ranks held and subjects taught**

i. 2007 - date: **Lecturer in Physics, Department of Physics, Kwame Nkrumah**

 **University of Science and Technology,Kumasi**,

During this period I have been involved in teaching the following courses: Electronics, Electronic Materials and Devices, Solid State Physics, Atomic Physics, Advanced Programming (Turbo Pascal), Mechanical Evaluation of Material, Structural Defects in Crystal and their Consequencies, Phase Transformations, Nondestructive Testing of Materials, Polymers: Properties and Applications, Metallic Properties, Electronic Instrumentation, Non-ferrous Metals, as well as supervising B.Sc. and MPhil final year students’ projects.

ii. 1996 - 2002: **Lecturer in Physics, Department of Physics, Kwame Nkrumah**

 **University of Science and Technology, Kumasi**,

During this period I have been involved in teaching the following courses: Introduction to Computers, Electricity and Magnetism, Electronic Materials and Devices, Solid State Physics, Atomic Physics, Electronic Instrumentation, Basic Instrumentation, as well as supervising B.Sc. final year students’ projects.

iii. 1994 – 1996: **Teaching Assistant**, at the Department of Physics, KNUST, Kumasi. My work schedule involved:

1. Giving tutorials and helping undergraduate students in their laboratory training.
2. Training undergraduate students in the Department of Physics, on Introduction to Computers and programming with Turbo Pascal.

iv. 1994 – 1996: **Teaching Assistant**, at the Department of Physics, KNUST, Kumasi. My work schedule involved;

 Giving tutorials and helping undergraduate students in their laboratory

 Training.

**2(b) Students project work supervised (2009 – 2019)**

***Undergraduate Projects: B. Sc (Physics), M.Phil(Physics)***

1. Adzri Emmanuel Proven, Menu Bruce Gandhi, Akplah Ofoe Theophilus, *Integrating Science, Technology and ICT into Pre-Tertiary Institutions: A Case Study of Afua Kobi Ampem Senior High School,* 2009.
2. Abaka John Kwame, Afoakwah Victor, *Producing high mechanical-strength Thermoplastic Fibres Through a Combination of Crystallization and Annealing of Polyethylene ,* 2009.
3. Agbenyefia Kweku Isaac, Owusu Prince, *Strengthening of Planks made from Sawdust with Cylindrical Rods made from Mineral Water Sachets,*2010.
4. John Oklu, Alexander Taylor, *Strengthening of Planks made from Sawdust with Cylindrical Rods made from Polyethylene pellets,* 2010.

vi Opata Reagan Nuetey, Asilevi Prince Junior, *Heat Treatment of Locally*

Manufactured *Iron Rods By Normalization at a Fixed Temperature,* 2011

vii Kwasi Panyin Benyan Eshun, Kofi Amu Morrison, *Heat Treatment of Locally*

 *Manufactured Iron Rods by Normalization at Different temperatures,* 2011

viii Lydia Amponsah Otoo, Ayishetu Sulleyman, *Heat Treatment of Locally*

*Manufactured Iron Rods by Normalization at Different temperatures,* 2012

ix Sawyerr Akilapka, Bawah Joyce, *Heat Treatment of Locally Manufactured Iron*

 *rods by Normalization at a Fixed temperature,* 2013

x Antwi Ibrahim, *Recrystallization* *Studies and Measurement of Recrystallization*

 *Index of Direct-Chilled Cast Aluminium Alloy(3105)of two Different Thicknesses,*

 2013

xi Bernard Ashaley Ashiley, Asare Gyimah Akwasi, *Recrystallization Studies and*

 *Measurement of Recrystallization Index of Direct-Chilled Cast Aluminoium Alloy*

 *(1100) of two Different Thicknesses,* 2013

xii Azumah Abandoh, Sandra Gyasi, *Microstructural Studies and Measurement of Impact Energy of locally manufactured low carbon steel continuously cooled in different media, 2016*

xiii Christian Moore, Adubofuor Michael, *Microstructural Studies and Impact*  *Energy Measurement of Locally Manufactured Age-Hardened Sand Cast Al-Si-Cu and Al-Si-Mg Alloys, 2016*

xiv (MPhil) Ebenezer Donkoh,  *Study of the Effects of Ageing Temperature and Ageing Time on the Microstructure and Some Mechanical Properties of Sand Cast Al-Si-Cu and Al-Si-Mg Alloys,2016*

xv Joseph Asare Awuah, *A Study of the Effects of Cooling Rates on the Microstructure and mechanical properties of Locally Manufactured Low Carbon Steels of Different Carbon Content, 2015*

xvi Ishmael Gameli Dzotrah, *The Study of Microstructural Structure and Mechanical Properties of Locally Manufactured Low carbon Steels of Different Carbon Content,2015*

 xvii Joseph Asare Awuah, *Synthesi, Characterization, and Conductivity Study of*

 *Polyaniline by Electrochemical and Chemical Oxidation Methods, 2019*

**3. DETAILS OF RESEARCH**

3a **Research conducted (topics with dates)**

2007 – 2010: Using environmental pollutants like mineral water sachets and saw

 dust to produce long-lasting useful products.

2011 - 2014: **(a)**Studying recrystallization and grain growth phenomena in

 Aluminium alloys.

 **(b)**Studying the problem of brittleness in locally manufactured iron

 **r**ods and ways to improve their ductility.

2015-Date: **(a)** Precipitation Hardening of Heat Treatable Aluminium Alloys

 (E.g. Al-Si-Cu/Al-Si-Mg Alloys)

 **(b)** *Characterization of Electrically Conducting Polymers*

 *(Polyaniline, PANI)*

 **(c)** *Comparative Studies of the Microstructures of Heat Treated*

 Locally Manufactured and Imported Plain Carbon Steels

**3b CO-AUTHORED PUBLICATION**

1. A.B.C. Dadson, **O.A. Nunoo,** *Recrystallization Kinetics and grain growth studies in twin-rolled cast strips of commercial purity aluminium (1050) and aluminium-magnesium alloy(5005).*Int. J. Cast Metals Res., 1998. **10,** 329-334
2. Ebenezer Donkor. **O.A. Nunoo,** *Study of the Effects of Ageing Temperature and Ageing Time on the Microstructure and Some Mechanical Properties of Sand Cast Al-Si-Mg Alloys.* International Journal of Innovation and Scientific Research

ISSN 2351 – 8014 **vol. 25 No. 1** Jun. 2016, pp. 212 – 219

1. **O.A. Nunoo**, E.K.K. Abavare, R.K. Nkum and K. Singh, *Synthesis and Study of ATR spectra of Polyaniline/GRA Nanocomposites.* International Journal of Advanced Research in Engineering and Technology (IJARET). **Volume** **10**, **Issue** **4**, July – August 2019, pp. 40 - 46
2. **O. A. Nunoo,** Joseph Asare Awuah, Eric K. K. Abavare and K. Singh

*Effect of Primary Dopants on the Conductivity of Polyaniline Synthesized by Electrochemical Polymerization.* International Journal of Advanced Research in Engineering and Technology (IJARET). **Volume** **10**, **Issue** **6**, November – December 2019, pp. 157 – 163

1. Eric K.K. Abavare , Bright Kwakye-Awuah , **Oswald A. Nunoo**, Peter Amoako-Yirenkyire, G. Gebreyesus, Abu Yaya, Keshaw Singh

*The stability of 3C-SiC(111) on Si(111) thin films: First-principles calculation.*

Chemical Physics Letters **766 (2021)** 138318

1. **O. A Nunoo,** Joseph Asare Awuah, Eric K.K. Abavare and K. Singh

*Effect of Transitions on Conductivity of Polyaniline Synthesized Using Different Dopants by Chemical Oxidation.*International Journal of Advanced Research in Engineering and Technology (IJARET). **Volume 11, Issue 9,** September 2020,

pp. 664 - 672

 **4.**  **CONFERENCES/WORKSHOPS ATTENDED (INCLUDING THOSE FOR WHICH ABSTRACTS WERE ACCEPTED AND PRESENTATIONS MADE)**

1. **O.A. Nunoo,** *Production of High Mechanical Strength Polyethylene Cylindrical Rods made from Mineral Water Sachets by Extrusion process,*Presented at Ghana Science Association Conference, University of Cape Coast, August 5-9, 2009.
2. One-day Workshop by Ghana Science Association :*’ Minimizing Post Harvest Losses as an Effective Poverty Reduction Strategy: The Role of Science and Technology’*, University of Development Studies International Conference Centre, Tamale, August 4, 2010.
3. Henry Martin Adulai, **O.A. Nunoo,** A Study on how toImprove the Ductility of Locally Manufactured Iron Rods by Tempering, Presented at the 27th Biennial Conference of the Ghana Science Association, Kwame Nkrumah University of Science and Technology, Kumasi, July 10 – 15, 2011.
4. 13th Biennial Workshop of the Ghana Science Association, Cocoa Research Institute of Ghana (CRIG), Akim Tafo, Eastern Region, August 1, 2012.
5. 28th Biennial Conference of the Ghana Science Association, University of Ghana, Legon, July 14 – 19, 2012.
6. 8th Ghana Science Association Research Seminar and Poster Presentations

Wednesday 1st May, 2019.

**Poster Presentation**: Abdul-Karim Mushin, Charlotte Morenikej Manu, **O.A. Nunoo,** E.K.K. Abavare, Synthesis and Study of the Electrical Properties of PANI/Pb Nanocomposites.

**5. RECORD OF SERVICE TO THE COMMUNITY**

**(a) *University***

1. Developed the software used for the 1997 – 1998 admissions of the

 university**.**

2. August, 2008 Member of the Search Committee for Headship position for the

 Basic School, Kwame Nkrumah University of Science and

 Technology, Kumasi

3. October, 2008 Member of the sub-committee in charge of Seminars for the

 Faculty Board, College of Science, Kwame Nkrumah

 University of Science and Technology, Kumasi

4. October, 2011 Coordinator for the General Physics Lab IV, Department of

 Physics, College of Science. Kwame Nkrumah University of

 Science and Technology, Kumasi

5. October, 2011 Member of Materials Science Lab team, Department of Physics,

 College of Science, Kwame Nkrumah University of Science and

 Technology, Kumasi

6. October, 2011 Member of Income Generation/Physics Workshop Committee

of the Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi

7. October,2011 Member of the Exhibitions/Tratech Committee of the Department

 of Physics, College of Science, Kwame Nkrumah University of

 Science and Technology, Kumasi

8. October, 2012-Date Coordinator, Students’ Final Year Projects, Department

 of Physics, College of Science, Kwame Nkrumah University of

 Science and Technology, Kumasi

***(b). National***

9. NOV. 2008 Member of the National Working Party Meeting for Senior High

 High School Physics held from 19th – 21st November, 2008 at The

 West African Examinations Council, Accra