


Francis Kofi Ampong

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	Date of Birth:	11TH July 1969
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1. ACADEMIC DEGREES EARNED AND INSTITUTIONS ATTENDED

<i>Date</i>	<i>Institution</i>	<i>Qualification</i>
2008 – 2012	Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana/ School of Chemistry, University of Manchester, UK	PhD Physics (awarded in June 2012)
1998 – 2000	Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana	MPhil Physics (Awarded in June 2000)
1990 – 1993	Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana	B.Sc (Hons) Physics (Awarded in June 1994)
1986 – 1988	Technology Secondary School, Kumasi, Ghana	G. C. E. A – Level
1980 – 1985	Technology Secondary School, Kumasi, Ghana	G. C. E. O – Level

2. UNIVERSITY TEACHING AND/OR RESEARCH EXPERIENCE WITH DATES:

2(a) Academic Ranks held and subjects taught

<i>August 2017 - Date</i>	<i>Associate Professor in the Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi</i>
<i>October 2011 – July 2017</i>	<p><i>Senior Lecturer in the Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi</i></p> <p><i>My work schedule involves, teaching various courses in Physics such as: Solid State Physics, Theory of Fields, Nanoscience and Nanotechnology, Quantum Mechanics, Introductory Electronics, Analogue and Digital Electronics, , and Supervising undergraduate and post-graduate student projects</i></p>
2003 – 2011	<p>Lecturer, Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi.</p> <p><i>During this period I was involved in teaching the following courses: Electricity and Magnetism, Introductory Electronics, Analogue and Digital Electronics, Electronic Materials and Devices, Microprocessors, Quantum Mechanics, Optoelectronics, Solid State Physics, Programming in C++ and Java, as well as supervising undergraduate and post-graduate student projects</i></p>
1998 – 2003	<p>Demonstrator, at the Department of Physics, KNUST, Kumasi. <i>My work schedule involved, assisting undergraduate students during practical sessions and giving tutorials in various Physics courses</i></p>

2(b) Supervision of students Project works/theses/research

Over 50 Undergraduate Projects: B. Sc (Physics)

Graduate Projects: MPhil (Physics)

1. Anthony Owusu Ansah, *characterization of Zinc sulphide thin films, deposited from acidic chemical baths.* (completed in June 2011)
2. Charles K Bando, *Structure and Optical Properties of Chemical bath deposited, cadmium selenide and lead selenide thin films* (graduated in June 2015)
3. Bernice Danu, *Structure and Optical Properties of Chemical bath deposited, copper sulphide and copper selenide thin films* (graduated in June 2015)
4. David Ngbiche Usirib, *Structural and Optical Characterization of Cadmium Sulphur Selenide, $CdS_{1-x}Se_x$ ($0 < x < 1$) thin films deposited by the Chemical Bath Deposition Technique* (Graduated in November 2017)
5. Humphrey Asem Dake, *Structural and optical properties of Al and Cu-doped ZnS thin films deposited by the chemical bath deposition technique* (graduated in June 2016)
6. Mark Paal, *Structural and optical properties of FeS thin films deposited by the chemical bath deposition technique* (completed in June 2018)
7. David Bagunabteng Puzer, *Development of Copper-Tin-Sulphide thin films for photovoltaic applications* (graduated in 2020)

Graduate Projects: PhD Physics

1. Fekadu Gashaw Hone, *Synthesis and characterization of cadmium selenide (CdSe) and lead sulphur selenide ($PbS_{1-x}Se_x$) thin films deposited by chemical bath deposition technique* (graduated in June 2015, funded by European Union African-Caribbean-Pacific PhD mobility award scheme)
2. Tizazu Abza Abshiro, *Synthesis and Characterization of Cadmium Zinc Sulphide ($Cd_{1-x}Zn_xS$, $0 < x < 1$) thin films deposited from modified acidic chemical baths for*

photovoltaic applications. (graduated in June 2016, funded by European Union African-Caribbean-Pacific PhD mobility award scheme)

3. Esau Abekah Armah, *Synthesis and Characterization of Mn doped Zinc Oxide Nanoparticles using the solution and solid phase methods* (completed in November 2017)
4. Emmanuel Botchwey, *Electrochemical deposition of Copper-Tin-Zinc Sulphide (CTZS) and Iron disulphide (FeS₂) thin films for photovoltaic applications* (to graduate in November 2019)
5. Bernice Yram Danu, *Polymer based nanocomposites for the removal of organic pollutant in water* (funded by Royal Society DFID grant – completed February 2021)

3(a) Other professionally related experience

2010-2012 (6 months for each year):

Research Fellow at the School of Chemistry, University of Manchester, UK. I worked under the supervision of Prof. Paul O'Brien, FRS, to synthesize Cadmium-Zinc-Sulphide thin films from acidic chemical baths for photovoltaic applications. This was a collaborative research work between KNUST and the school of Chemistry, University of Manchester, UK, and funded by the Leverhulme – Royal Society Africa Award, under the project titled: “Developing Internationally Competitive research on Solar Cell Materials at KNUST”.

2004 -2006: Facilitator for African Virtual University/Royal Melbourne Institute of Technology, Computer Science programme

2000 – 2003: Trainer at the Kumasi Virtual Center for Information Technology (KVCIT-KNUST).

1998 – 2000: Participated in a joint collaborative research between the Department of Physics, KNUST and the Universities of Frankfurt And Kiel, Germany, in carrying out geophysical investigation of The Lake Bosumtwi crater.

3(b). GRANTS AND AWARDS

1. Co PI (Ghana) for the Royal Society – DFID Project on: **Developing Materials for Application in Solar Cells.**
2. PI - KNUST Research fund of Ten Thousand Ghana Cedis (GHC 10,000.00) for the project titled: **Investigation of Some properties of Copper-Zinc-Tin-Sulphide and Iron Pyrite thin films synthesized by the Chemical Bath Deposition and Electrodeposition Technique for Photovoltaic Applications.** In 2016
3. Beneficiary of one million, two hundred and fifty thousand pound sterling (£1,250,000.00) Royal Society/DFID Africa Capacity Building Initiative, 2015
4. Beneficiary of one hundred and fifty thousand pound sterling (£150000.00) Leverhulme Trust-Royal Society Africa Award Scheme in 2010.

4(a) RESEARCH INTEREST:

Solid State Physics

4(b) Research Areas:

I. Present Research:

My current research involves the Synthesis and characterization of some inorganic nano-materials and studies of their opto-electronic properties for applications as solar cell materials. The syntheses technique employs soft chemical routes (Chemical bath deposition and Electrochemical deposition) with lowered environmental impact to deposit functional thin film compound semiconductor materials (binary and ternary) which have useful applications in photovoltaics such as; cadmium sulphide, lead selenide, lead sulphide, cadmium-zinc-sulphide, copper sulphide, Copper-zinc-tin-sulphide, just to mention a few.

My other areas of research are

II. Development of nanomaterials for the treatment of water and waste water.

Syntheses of semiconductor nanoparticles by wet chemical solution methods such as sol-gel, co-precipitation and solvothermal and their use in applications such as; waste water treatment.

III. Magnetic properties of materials

Synthesis and characterisation of magnetic materials notably those on alpha manganese thin films and its alloys. Alpha manganese is registered as the key material lying on the border between phenomena of itinerant ferromagnetism with spin fluctuations playing an extremely important role in its properties. The anomalous behaviour of alpha manganese thin films have generated a lot of interest because of their tremendous use in magnetic recorder heads.

IV. Optical properties of $KNO_3 - KClO_3$ system

Ferroelectric thin films such as, $K(NO_3)_{1-x}(ClO)_x$ have received a great deal of attention because of their device applications. In this research work $K(NO_3)_{1-x}(ClO)_x$ solid solutions are synthesized by the melt quench technique. The optical properties of these films are investigated for possible optical and optoelectronic applications. The output of this research has also been published in a high impact factor journal; Journal of Optoelectronics and Advanced Materials – Rapid Communications

4c PUBLICATIONS ARISING OUT OF THE RESEARCH

4c(i) Refereed Journal papers with exact references

1. Puzer B. David, Nkrumah Isaac, Ampong Francis, Paal Mark, Emmanuel Botchway, Robert K. Nkum, and Francis Boakye. **Copper-Tin-Sulphide (CTS) thin films, obtained by a two-electrode electrochemical deposition of metal precursors, followed by soft annealing and sulfurization.** Chalcogenide letters, Vol 18, No. 8 August 2021

2. B. Y. Danu, E. S. Agorku, F. K. Ampong, J. A. M. Awudza, V. Torve, I. M. K. Danquah, O. M. Ama, P.O. Osifo, S. S. Ray. **Iron Sulfide Functionalized Polyaniline Nanocomposite for the Removal of Eosin Y from Water: Equilibrium and Kinetic Studies**, Polymer Science, Series B, **63**, 3 (2021) pages304–313
3. C. K. Bando, I. Nkrumah, F. K. Ampong, R. K. Nkum, F. Boakye. *Effect of annealing on the structure and optical properties of lead selenide and cadmium selenide thin film prepared by chemical bath deposition*, Chalcogenide Letters, Vol. 18, No. 2, February 2021, p. 81 – 89
4. Esau Nii Abekah Akwetey Armah, Martin Egblewogbe, Hubert Azoda Koffi, Alfred Ato Yankson, Francis Kofi Ampong, Francis Boakye, Josef Kwaku Ametefee Amuzu, Robert Kwame Nkum. **Solubility of Mn in ZnO Crystallites Synthesized Using Solid State Techniques** *Adv. Nan. Res.*; Vol. 3, Issue 1, pp: 28-39, 202
5. Mark Paal, Isaac Nkrumah, Francis K. Ampong, David U. Ngbiche, Robert K. Nkum, and Francis Boakye. *The effect of deposition time and sulfurization temperature on the optical and structural properties of iron sulfide thin films deposited from acidic chemical baths*, Science Journal of University of Zakho 8(3), 97-104, September-2020
6. Bernice Y. Danu, Eric S. Agorku Francis K. Ampong, Johannes A.M. Awudza, Vincent Torve, Caleb Amponsah, Ruth N.M Quaye, Onoyivwe M. Ama, Peter O. Osifo, Suprakas S. Ray. **FeS Encapsulated Chitosan Graft Polyacrylamide Nanocomposite for the Uptake of Model Anionic Eosin Y from Water: Isotherm, Kinetics and Equilibrium Studies**. Research Square (2020) DOI: <https://doi.org/10.21203/rs.3.rs-30309/v1>
7. David U. Ngbiche, Isaac Nkrumah, Francis K. Ampong, Mark Paal, Robert K. Nkum, Francis K. Boakye. *Optical and Structural Properties of Chemical Bath Deposited Cadmium Sulphur Selenide ($CdS_{1-x}Se_x$ ($0 \leq x \leq 1$)) Thin Films*, Open Journal of Applied Sciences, 2019, 9, 785-798

8. A. Britwum, M. K. Donkor, F. K. Ampong, F. Boakye, R. K. Nkum. ***Transport Properties of $K(NO_3)_{1-x}(ClO_3)_x$ Thick Films***, International Journal of Science and Research, Volume 8 Issue 11, November 2019

9. Esau Nii Abekah Armah, Francis Kofi Ampong, Martin Egblewogbe, Hubert Azoda Koffi, Francis Boakye, Josef Kwaku Ametefee Amuzu, Robert Kwame Nkum. ***Solubility of Mn in ZnO Nanocrystallites using Wet Chemical Synthesis***, Advanced Nano Research, Volume 2, Issue 1, pp. 53-61, 2019

10. Emmanuel A. Botchway, **Francis K. Ampong**, Isaac Nkrumah, Francis K. Boakye, Robert K. Nkum. ***Growth of a Pure and Single Phase Iron Sulfide (Pyrite) Thin Film by Electrochemical Deposition for Photovoltaic Applications***, Open Journal of Applied Sciences, Vol. 9 No. 9, (2019), 725-735

11. Tizazu Abza, **Francis Kofi Ampong**, Fekadu Gashaw Hone, Robert Kwame Nkum, Francis Boakye. ***Preparation of cadmium zinc sulfide ($Cd_{1-x}Zn_xS$) thin films from acidic chemical baths***, Thin Solid Films 666 (2018) 28–33

12. Eric K.K. Abavare Michael K.E. Donkor, Samuel N.A. Dodoo, Osei Akoto, **Francis K. Ampong**, Bright Kwaakye-Awuah, Robert K. Nkum. Indirect phase transition of refractory nitrides compounds of: TiN, ZrN and HfN crystal structures, Computational Materials Science 137 (2017) 75–84

13. Tizazu Abza, **Francis Kofi Ampong**, Fekadu Gashaw Hone, Isaac Nkrumah, Robert Kwame Nkum and Francis Boakye. A New Route for the Synthesis of CdS Thin Films from Acidic Chemical Baths, Int. J. Thin. Fil. Sci. Tec. **6**, No. 2, (2017), 1-9

14. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Robert Kwame Nkum, and Francis Boakye. ***Band gap engineering in Lead sulphur selenide ($PbS_{1-x}Se_x$) thin films synthesized by chemical bath deposition method***, Journal of Materials Science: Materials in Electronics 28, 3, (2017) 2893-2900

15. Fekadu Gashaw Hone and **Francis Kofi Ampong**. *Effect of deposition temperature on the structural, morphological and optical band gap of lead selenide thin films synthesized by chemical bath deposition method*, Materials Chemistry and Physics, 183 (2016) 320-325
16. Tizazu Abza, **Francis Kofi Ampong**, Fekadu Gashaw Hone, Isaac Nkrumah, Robert Kwame Nkum and Francis Boakye. *The influence of deposition temperature on the structure and optical band gap of zinc sulphide thin films deposited from acidic chemical baths*, Elixir Condensed Mater Physics, 93 (2016) 39511 – 39514
17. Bernice Y. Danu, Isaac Nkrumah, **Francis K. Ampong**, Robert K. Nkum, and Francis Boakye. *Annealing-induced phase changes and variations in the optical properties of CuS and CuSe thin films synthesized by the CBD technique*, International Journal of Technical Research and Applications ,Volume 4, Issue 3 (May-June, 2016), PP. 65-72
18. **Francis K. Ampong**, Johannes A. M. Awudza, R. K. Nkum, F. Boakye, P. John Thomas, Paul O'Brien. *Ternary Cadmium Zinc Sulphide films with high charge mobilities*. Solid State Sciences, 40, (2015) 50-54
19. Isaac Nkrumah, **Francis K. Ampong**, Bright Kwakye-Awauh, Tommy Ive. *Optical and Structural properties of PbCdS ternary thin films deposited by chemical bath deposition*, Journal of Advances in Physics, vol. 11, 1 (2015) 2954 – 2959
20. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Isaac Nkrumah, Robert Kwame Nkum and Francis Boakye. *Effect of Annealing on the Structural, Morphological and Optical Band Gap of Nanocrystalline Cadmium Selenide Thin Films Synthesized by Chemical Bath Deposition Technique*, Elixir Thin Film Tech. 84 (2015) 33486-33489
21. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Tizazu Abza, Isaac Nkrumah, Mark Paal, Robert Kwame Nkum and Francis Boakye. *The effect of deposition*

- time on the structural, morphological and optical band gap of lead selenide thin films synthesized by chemical bath deposition method*, Materials letters, 155 (2015) 58 - 61
22. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Tizazu Abza, Isaac Nkrumah, Robert Kwame Nkum, and Francis Boakye. *Synthesis and characterization of CdSe nanocrystalline thin film deposited by Chemical Bath Deposition Technique*. Int. J. Thin Film. Sci.& Tec. 4, 2, (2015) 69 – 74
 23. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Tizazu Abza, Isaac Nkrumah, Robert Kwame Nkum and Francis Boakye. *Investigating the effect of deposition time on the morphology, structure and optical band gap of PbS thin films synthesized by CBD technique*, Elixir Thin Film Tech. 76 (2014) 28432-28437
 24. **F. K. Ampong**, I. Nkrumah, R. K. Nkum and F. Boakye, *Investigating the structure, morphology and optical band gap of cadmium sulphide thin films grown by chemical bath deposition*. International Journal of Technical Research and Application, 2, 6, (Nov. – Dec. 2014) 91-93
 25. I. Nkrumah, **F. K. Ampong**, B. Kwakye-Awuah, R. K. Nkum, F. Boakye, *Synthesis and Characterization of ZnO thin films deposited by Chemical bath technique*. International journal of Research in Engineering and Technology, 2, 12, (2013)
 26. R. K. Nkum, **F. K. Ampong** and F. Boakye, *Conduction mechanism in amorphous As₂S₃*. Journal of Science and Technology, 32, 3, (2012) 11-17
 27. R. K. Nkum, E. K. K. Abavare, **K. Ampong**, F. Boakye, *Optical band gap, extinction coefficient and refractive index of K(NO₃)_{1-x}(ClO)_x films*. Journal of Optoelectronics and Advanced Materials – Rapid Communications, **6**, (2012,)1170 - 1173

28. **F. K. Ampong**, and F. Boakye, *The low temperature resistivity of thermally evaporated antiferromagnetic $Mn_{100-x}Ru_x$ thin films*
Turk. J. Phys., **35**, (2011), 23-29.
29. **F. K. Ampong**, F. Boakye and R. K. Nkum, *The anomalous low temperature resistivity of thermally evaporated α -Mn thin film*, J. Magn. Magn. Mater. 322 (2010) 2235 – 2237
30. **F. K. Ampong**, N. K. Asare Donkor, and F. Boakye, *The Effect of Thermal Annealing on the Optical Band Gap of Cadmium Sulphide Thin Films, Prepared by the Chemical bath Deposition Technique*, Journal of the Ghana Science Association, 12(2), 14-20, 2010
31. D. Ompong, **K. Ampong**, and F. Boakye, *The Effect of Thermal Annealing on the Optical Band Gap of $Cd_{1-x}Zn_xS$ Thin Films Deposited by the Dip Technique*.
Journal of the Ghana Science Association, 12(2), 7-13, 2010
32. F. Boakye, **F.K. Ampong**, E.K.K. Abavare, *Effect of substrate temperatures on the electrical resistivity of thermally evaporated Mn thin films*, Elsevier Ltd, Cryogenics 47 (2007) 153–157
33. **F. K. Ampong**, A. Aning, A. Menyeh, and S. K. Danuor, *Groundwater prospecting in the Sekyere-West District using Electromagnetic Method*, Journal of the Ghana Science Association, 4(1), 70-77, 2002

BOOKS WITH EXACT REFERENCES

1. **F. K. Ampong** and F. Boakye, 2011, *The Low Temperature Resistivity of Mn-Ni Films*. In Magnetic Thin Films: Properties, Performance and Applications (Ed) John P. Volkerts, Nova Science Publishers Inc., New York, Chapter 14, ISBN: 978-1-61209-302-4

PUBLISHED CONFERENCE PAPERS

1. George Obeng-Akrofi, Joseph Oppong Akowuah, Gifty Opoku-Agyeman, Isaac Nkrumah, Michael K. E. Donkor, Reuben Y. Tamakloe, **Francis K. Ampong**, Maïke Waldhoff, Tobias Klaus, Alexander Olenberg, Eugeny Kenig, Stefan Krauter. **An automated solar biomass hybrid dryer in rural communities in Ghana**, *IEA SHC International Conference on Solar Heating and Cooling for Buildings and Industry, ISES Solar World Congress 2017*, Published by International Solar Energy Society Selection and/or peer review under responsibility of Scientific Committee doi:10.18086/swc.2017.26.10 Available at <http://proceedings.ises.org>
2. **F. K. Ampong**, and K. Singh, *Gain Characteristics of a Quantum Cascade Laser*, Proceedings of the 1st College of Science research conference, 21st – 24th July 2006, Busia Beach Resort, Takoradi, pp 17 – 23.
3. **F. K. Ampong**, F. Boakye, R. K Nkum, S. Pupilampo and Y. Collins, *Photconductivity of Vanadium pentoxide thin films*, Proceedings of the 2nd College of Science research conference, 10th – 13th July 2008, Chances Hotel, Ho, Ghana, pp 94 – 100.

5. CONFERENCES/SEMINARS AND WORKSHOPS ATTENDED

1. Bernice Y. Danu , Eric S. Agorku , Francis K. Ampong , Johannes A.M. Awudza , Vincent Torve , Ian M.K. Danquah , Onoyivwe M. Ama , Peter O. Osifo , and Suprakas S. Ray. **Iron sulphide functionalized polyaniline nanocomposite for the removal of Eosin Y from water: equilibrium and kinetic studies**. Royal Society-UK Department for International Development sponsored Chemistry to Functional Materials conference. 8th to 10th April 2021
2. David Ngbiche, **Francis K. Ampong**, Robert K. Nkum and Francis Boakye. **Synthesis and characterization of the ternary cadmium sulphur selenide (CdS_{1-x}Se_x) thin films deposited by the chemical bath technique**. Presentation made at the International conference on Materials for Renewable and Sustainable Energy: From Research to Development, organized by the Royal Society/Africa

capacity building initiative at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana from 3rd to 5th June 2019

3. Emmanuel Botchway, **Francis K. Ampong**, Robert K. Nkum, and Francis Boakye: **Synthesis and Characterization of Single phase Copper-Zinc-Tin-Sulfide (CZTS) and Iron pyrite (FeS₂) thin films deposited on ITO-coated glass substrates by electrodeposition technique.** Presentation made at the International conference on Materials for Renewable and Sustainable Energy: From Research to Development, organized by the Royal Society/Africa capacity building initiative at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana from 3rd to 5th June 2019
4. Mark Paal, **Francis K. Ampong**, Robert K. Nkum and Francis Boakye. **Optical and structural properties of iron sulfide thin films deposited from acidic chemical baths.** Presentation made at the International conference on Materials for Renewable and Sustainable Energy: From Research to Development, organized by the Royal Society/Africa capacity building initiative at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana from 3rd to 5th June 2019
5. Bernice Y. Danu, Eric S. Agorku, **Francis K. Ampong** and Johannes A. Awudza. **Iron sulfide based polyaniline nanocomposites for the removal of eosin Y from synthetic waste water.** A Presentation made at the International conference on Materials for Renewable and Sustainable Energy: From Research to Development, organized by the Royal Society/Africa capacity building initiative at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana from 3rd to 5th June 2019
6. Mark Paal, **Francis K. Ampong**, Johannes A Awudza and Robert K. Nkum. **Influence of deposition time on the optical and structural properties of iron sulfide thin films grown by the chemical bath deposition technique.** A poster presented at the 7th International Conference on Nanoscience and Nanotechnology, in Durban, South Africa from the 22nd to 25th April 2018

7. Emmanuel A. Botchway, Francis K. Ampong, Robert K. Nkum, and Francis Boakye. **Synthesis and Characterization of CZTS thin films grown on ITO-coated glass substrates by electrochemical technique**, A poster presented at the 7th International Conference on Nanoscience and Nanotechnology, in Durban, South Africa from the 22nd to 25th April 2018,
8. Bernice Y. Danu, Eric S. Agorku, F. K. Ampong, J. A. M. Awdza and R. K. Nkum. **Iron Sulphide based graft biopolymer composites for the uptake of pollutants in water**. Presentation made at the Royal Society/DFID conference meeting from the 25th April 2018 until the 28th April 2018 at the Umfolozi Casino Resort in Empangeni
9. H. D. Assem, I. Nkrumah, **F. K. Ampong** and R. K. Nkum. *Properties of Cu-doped ZnS thin films deposited from acidic chemical baths*, **A paper presented at the International Conference on Materials Chemistry, organized by The Royal Society of Chemistry, at the IDL Conference centre, KNUST, Ghana from the 3rd to 5th October, 2016.**
10. E. A. Armah, **F. K. Ampong**, R. K. Nkum and J. K. Amuzu. *Investigating some structural properties of Mn-doped ZnO nanoparticles synthesized by the solution and solid state techniques*. **A paper presented at the International Conference on Materials Chemistry, organized by The Royal Society of Chemistry, at the IDL Conference centre, KNUST, Ghana from the 3rd to 5th October, 2016.**
11. **Francis K. Ampong**. *Synthesis and Characterizaion of nanomaterials for photovoltaic applications*, - A paper presented at the Ghana South Africa Joint Research and Development Symposium, organized by the Ministry of Environment, Science, Technology and Innovation, in collaboration with the Department of Science and Technology – South Africa, 20-21 September, 2016, at the MJ Grand hotel, Accra

12. DAAD Start-Up Factory Project, from 19th to 28th July, 2016, University of Paderborn University, Germany
13. The South African Square Kilometre Array Project, 2015 Postgraduate Bursary Conference, 30th November to 4th December, 2015, The Wallenberg Centre, Stellenbosch Institute for Advanced Study, Stellenbosch, South Africa
14. R. Y. Tamakloe, M. E. K. Donkor, I. Nkrumah and **F. K. Ampong**. Problem Based Learning: The Physics Approach, - A paper presented at the 1st Regional conference on Problem Based Learning and E-Learning, 30th November to 2nd December 2015, Institute of Distance Learning Conference Centre, KNUST-Kumasi
15. Royal Society/DFID Capacity building initiative program – training workshop under the theme: “Developing Materials for Applications in Solar Cells, 2nd – 6th November, 2015, University of Zululand, South Africa
16. **F. K. Ampong**, M. K. E. Donkor, I. Nkrumah, and R. Y. Tamakloe. Research Activities in the Department of Physics, KNUST. – A presentation made at the DAAD Start-Up Factory Project, Preparatory Workshop for a Collaborative Project between the Department of Physics, KNUST and Paderborn University, Germany, from 8th to 18th August, 2015, Paderborn University
17. Bernice Y. Danu, I. Nkrumah, **F. K. Ampong**, R. K. Nkum, and F. Boakye. Investigating the optical band gap and crystal structural of CuS and CuSe thin films deposited by the chemical bath deposition technique. A poster presented at the 3rd African School of Fundamental Physics and its Applications (ASP2014), 3rd – 23rd August, 2014, Faculte des Sciences et Techniques, University Cheikh Anta Diop, Dakar-Fann, Senegal.
18. Hannah M. Tsey, **Francis K. Ampong** and Robert K. Nkum. Synthesis and Characterization of cadmium zinc sulphide thin films for photovoltaic applications, A paper presented at the 28th Biennial Conference of the Ghana Science Association, 10 –15, July, 2013, University of Ghana Legon

- 19. F. K. Ampong**, and F. G. Hone. Effect of deposition time on the structure and optical band gap of FeS thin films deposited by CBD Technique, - A presentation made at the workshop on “Development of Internationally Competitive Research on Solar Cell Materials at KNUST” organized by the Royal Society Leverhulme Africa Programme Project, from 12th – 15th November, 2013, Venue: College of Science, KNUST
- 20. F. K. Ampong**. Thin Film Characterization Techniques, - A presentation made at the workshop on “Development of Internationally Competitive Research on Solar Cell Materials at KNUST” organized by the Royal Society Leverhulme Africa Programme Project, from 12th – 15th November, 2013, Venue: College of Science, KNUST
- 21.** The South African Square Kilometre Array Project, 2015 Postgraduate Bursary Conference, 25th to 29th November, 2013, The Wallenberg Centre, Stellenbosch Institute for Advanced Study, Stellenbosch, South Africa
- 22. Francis K. Ampong**, J. A. M. Awudza, P. John Thomas, R. K. Nkum, F. Boakye and Paul O’Brien. *Synthesis and Characterization of Cd_{1-x}Zn_xS (0 ≤ x ≤ 1) thin films deposited from acidic chemical baths*. A poster presented at the Royal Society of Chemistry, UK India Symposium on molecular Materials chemistry at The Chemistry Centre, London, UK, 10th - 11th September 2012
- 23.** Paul S.K. Amegadze, N.K. Asare-Donkor and **F. K. Ampong**. Investigating the optical properties of CdS and CdSe thin films prepared using chemical bath deposition technique. Presentation made at the Workshop on “Developing Internationally Competitive Research on Solar Cell Materials at Kwame Nkrumah University of Science and Technology (KNUST)” Organized by the Ghana Chemical Society, KNUST Branch, May 2011, Department of Chemistry, KNUST.
- 24.** C. Bandoh, **F. K. Ampong**, I. Nkrumah. *Investigating the optical properties of zinc sulphide thin films deposited from acidic chemical baths*, A paper presented at the 27th Biennial Conference of the Ghana Science Association, 10 –15, July, 2011, Kwame Nkrumah University of Science and Technology.
- 25. F. K. Ampong**. Developing an Astrophysics Programme at the Department of Physics, KNUST – A presentation made at the South African Square Kilometre

Array Project, Human Capital Development Programme Workshop under the theme: Capacity Development in SKA Science and Engineering in Africa, 16th to 21st May 2011, South African SKA Offices, Carnarvon, Northern Cape Province, South Africa

- 26. Francis K. Ampong**, Alexander M. Lockett, P. John Thomas, Paul O'Brien.
Characterization of Cd_{1-x}Zn_xS thin films deposited from chemical acidic baths. A poster presented at the Leverhulme – Royal Society Africa Award Holder Meeting in Dar es Salaam on 5th and 6th December 2010
- 27.** Winter College on Optics and Energy held at the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, from 1st to 19th February 2010.
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