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RESEARCH

Interests	Synthesis and characterization of semiconductor materials
Areas	Materials Chemistry · Electrical and Electronic Engineering · Biomedical Engineering · Electronic, Optical and Magnetic Materials · Water Science and Technology · Renewable Energy, Sustainability and the Environment

RESEARCH SUMMARY

47	503	13	16	1.00	3%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 47 publications listed below, 2007–2026. Field-weighted impact is the mean over the 36 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 36 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer/professor 2003–present
Physics, Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

PhD/Physics 2009–2012
Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 47

1. Bernice Yram Danu, Charles Kwame Bandoh, John Kwabena Adusei, Moro Haruna, Ahmed Kangmennaa, Prince Yeboah, **Francis Kofi Ampong**, Eric Selorm Agorku (2026). Carbon-based materials for the removal of organic dyes from wastewater. *Discover Nano*. https://doi.org/10.1186/s11671-026-04445-5
2. Evans Asamoah, Christiana Subaar, Joseph Amanfo Ofori, Ezekiel Amarh Ashai, Eric Clement Desmond Kotei Addison, David Dotse Wemegah, **Francis Kofi Ampong**, Eric Kwabena Kyeh Abavare (2026). Evaluation of Natural Radionuclide Content in Potable Water in some Communities in Abuakwa South Municipality, Ghana. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v44i3.4
3. D.B. Puzer, A.C.K. Amuzu, A. Abandoh, I. Nkrumah, B. Kwakye-Awuah, **F.K. Ampong**, R.K. Nkum, F. Boakye (2025). A New Approach of Obtaining Sodium Metasilicate from Dealuminated Kaolin for The Synthesis of Amorphous Silicon Dioxide Nanoparticles. *East European Journal of Physics*. https://doi.org/10.26565/2312-4334-2025-2-38
4. Charles Kwame Bandoh, Moro Haruna, David Adu-Poku, Bernice Yram Danu, Ophelia Pinto, Mandela Toku, Mercy Badu, Eric Selorm Agorku, **Francis Kofi Ampong**, Robert Kwame Nkum (2025). Gd-doped ZnO-g-C3N4 nanocomposite: a novel photocatalyst for the photodegradation of eosin yellow dye in water. *Discover Applied Sciences*. https://doi.org/10.1007/s42452-025-06759-y

5. D. A. Adu-Boadu, M. Paal, M. B. Mensah, I. Nkrumah, R. Y. Tamakloe, **F. K. Ampong**, R. K. Nkum, F. Boakye (2025). Synthesis and characterization of Cd1-xPbxSe (0≤x≤1) thin films deposited by chemical bath for photovoltaic application. *Chalcogenide Letters*. https://doi.org/10.15251/cl.2025.227.603

6. Charles Kwame Bandoh, David Adu-Poku, Moro Haruna, Ophelia Pinto, Bernice Yram Danu, Agnes Tutuwaa, Eric Selorm Agorku, **Francis Kofi Ampong**, Robert Kwame Nkum (2025). The influence of cobalt and graphitic carbon nitride on the efficiency of zirconium oxide for photodegradation of an organic dye in wastewater. *Journal of Chemical Research*. https://doi.org/10.1177/17475198251316376

7. Eric Selorm Agorku, Ahmed Kangmennaa, Bernice Yram Danu, **Francis Kofi Ampong**, Ray Bright Voegborlo (2024). Core-shell V2O5- Gum ghatti grafted poly (acrylamide-co-methacrylic acid) adsorbent for the removal of methylene blue dye in water: Kinetic, equilibrium and thermodynamic studies. *Next Sustainability*. https://doi.org/10.1016/j.nxsust.2024.100069

8. Charles Kwame Bandoh, Moro Haruna, David Adu-Poku, Bernice Yram Danu, Mandela Toku, **Francis Kofi Ampong**, Robert Kwame Nkum, Eric Selorm Agorku (2024). Gadolinium doped-zirconium oxide-graphitic carbon nitride heterostructures for photocatalytic degradation of eosin yellow dye in water. *Next Materials*. https://doi.org/10.1016/j.nxmate.2024.100424

9. Matilda Kpeli, Michael K. E. Donkor, **Francis K. Ampong**, Reuben Y. Tamakloe (2024). INVESTIGATION AND V-I CHARACTERISTICS OF SUBSTRATE FOR MFC: CASE STUDY OF RAW HONEY. *MOMENTO*. https://doi.org/10.15446/mo.n68.110493

10. I. Nkrumah, **F. K. Ampong**, A. Britwum, M. Paal, B. Kwakye-Awuah, R. K. Nkum, F. Boakye (2023). Determining the majority charge carrier, optical and structural properties of electrochemically deposited lead tin sulfide (PbSnS) thin films. *Chalcogenide Letters*. https://doi.org/10.15251/cl.2023.203.205

11. Raymond A. Antwi, Isaac Nkrumah, **Francis K. Ampong**, Mark Paal, Reuben Y. Tamakloe, Robert K. Nkum, Francis Boakye (2023). Synthesis of Pure and Manganese Doped Zinc Oxide Nanoparticles by a Solution Growth Technique: Structural and Optical Investigation. *East European Journal of Physics*. https://doi.org/10.26565/2312-4334-2023-4-13

12. E.A. Botchway, **Francis Kofi Ampong**, Isaac Nkrumah, D.B. Puzer, Robert Kwame Nkum, Francis Boakye (2023). The CZTS Thin Films Grown by Sulfurization of Electrodeposited Metallic Precursors: The Effect of Increasing Tin Content of the Metallic Precursors on the Structure, Morphology and Optical Properties of the Thin Films. *East European Journal of Physics*. https://doi.org/10.26565/2312-4334-2023-2-28

13. Charles Kwame Bandoh, Bernice Yram Danu, Eric Selorm Agorku, **Francis Kofi Ampong**, Robert Kwame Nkum (2023). The effect of cobalt-doped ZnO-g-C3N4 heterostructures on photocatalytic degradation of eosin yellow dye in water under simulated solar light. *Results in Materials*. https://doi.org/10.1016/j.rinma.2023.100515

14. I. Nkrumah, **F. K. Ampong**, A. Britwum, M. Paal, B. Kwakye-Awuah, R. K. Nkum, F. Boakye (2023). The effect of the concentration of tin (Sn) in the metallic precursor, on the structure, morphology, optical and electrical properties of electrochemically deposited lead-tin-sulphide (PbSnS) thin films. *Chalcogenide Letters*. https://doi.org/10.15251/cl.2023.206.399

15. John Kwabena Adusei, Eric Selorm Agorku, Ray Bright Voegborlo, **Francis Kofi Ampong**, Emmanuel Awarikabey, Bernice Yram Danu, Flora Amerley Amarh (2023). Zero Valent Iron Impregnated Sodium Alginate Grafted (Acrylamide-Co-Acrylic Acid) Adsorbents for the Removal of Methylene Blue in Aqueous Systems. *Journal of Macromolecular Science Part B*. https://doi.org/10.1080/00222348.2023.2211376

16. ES Agorku, **FK Ampong** (2022). Graphitic Carbon Nitride Based Composites as Advanced Photocatalysts, from Synthesis to Application: A Review. *Res. Rev.: J. Mater. Sci*. https://www.academia.edu/download/89748551/graphitic_carbon_nitride_based_composites_as_advancedphotocatalysts_from_synthesis_to_application_a_review.pdf

17. John Kwabena Adusei, Eric Selorm Agorku, Ray Bright Voegborlo, **Francis Kofi Ampong**, Bernice Yram Danu, Flora Amerley Amarh (2022). Removal of Methyl red in aqueous systems using synthesized NaAlg-g-CHIT/nZVI adsorbent. *Scientific African*. https://doi.org/10.1016/j.sciaf.2022.e01273

18. Bernice Y. Danu, Eric S. Agorku, **Francis K. Ampong**, Johannes A.M. Awudza, Bismark Owusu, Patrick N.O. Brown, Onoyivwe M. Ama, Peter O. Osifo, Suprakas S. Ray (2021). Chitosan-Graft-Sodium Alginate

Encapsulated Vanadium Pentoxide (V2 O5) Nanocomposite for Adsorption and Antimicrobial Studies. *Journal of Advanced Materials Science and Engineering*. https://doi.org/10.33425/2771-666x.1006

19. D. B. Puzer, I. Nkrumah, **F. K. Ampong**, M. Paal, E. A. Botchway, R. K. Nkum, F. Boakye (2021). Copper-tin-sulphide (CTS) thin films, obtained by a two-electrode electrochemical deposition of metal precursors, followed by soft annealing and sulfurization. *Chalcogenide Letters*. https://doi.org/10.15251/cl.2021.188.481
20. C. K. BANDOH, I. NKRUMAH, **F. K. AMPONG**, R. K. NKUM, F. BOAKYE (2021). EFFECT OF ANNEALING ON THE STRUCTURE AND OPTICAL PROPERTIES OF LEAD SELENIDE AND CADMIUM SELENIDE THIN FILM PREPARED BY CHEMICAL BATH DEPOSITION. *Chalcogenide Letters*. https://doi.org/10.15251/cl.2021.182.81
21. 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 (2021). Iron Sulfide Functionalized Polyaniline Nanocomposite for the Removal of Eosin Y from Water: Equilibrium and Kinetic Studies. *Polymer Science Series B*. https://doi.org/10.1134/s1560090421030040
22. 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 (2020). Solubility of Mn in ZnO Crystallites Synthesized Using Solid State Techniques. *Advanced Nano Research*. https://doi.org/10.21467/anr.3.1.28-39
23. Mark Paal, Isaac Nkrumah, **Francis K. Ampong**, David Ngbiche, Robert K. Nkum, Francis Boakye (2020). 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*. https://doi.org/10.25271/sjuoz.2020.8.3.752
24. Emmanuel A. Botchway, **Francis K. Ampong**, Isaac Nkrumah, Francis K. Boakye, Robert K. Nkum (2019). Growth of a Pure and Single Phase Iron Sulfide (Pyrite) Thin Film by Electrochemical Deposition for Photovoltaic Applications. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2019.99059
25. David U. Ngbiche, Isaac Nkrumah, **Francis K. Ampong**, Mark Paal, Robert K. Nkum, Francis K. Boakye (2019). Optical and Structural Properties of Chemical Bath Deposited Cadmium Sulphur Selenide (CdS1−xSex (0 ≤ x ≤ 1)) Thin Films. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2019.911064
26. Esau Abekah Armah, **Francis Kofi Ampong**, Martin Egblewogbe, Hubert Azoda Koffi, Francis Boakye, Josef Kwaku Ametefee Amuzu, Robert Kwame Nkum (2019). Solubility of Mn in ZnO Nanocrystallites using Wet Chemical Synthesis. *Advanced Nano Research*. https://doi.org/10.21467/anr.2.1.53-61
27. Tizazu Abza, **Francis Kofi Ampong**, Fekadu Gashaw Hone, Robert Kwame Nkum, Francis Boakye (2018). Preparation of cadmium zinc sulfide (Cd1−xZnxS) thin films from acidic chemical baths. *Thin Solid Films*. https://doi.org/10.1016/j.tsf.2018.09.011
28. Akwasi Acheampong, **FK Ampong**, I Nkrumah, RK Nkum, F Boakye (2017). A new route for the synthesis of CdS thin films from acidic chemical baths. *International Journal of in Films Science and Technology*. https://www.researchgate.net/profile/Tizazu-Abza-2/publication/317547711_A_New_Route_for_the_Synthesis_of_CdS_Thin_Films_from_Acidic_Chemical_Baths/links/5bb35a5545851574f7f47a70/A-New-Route-for-the-Synthesis-of-CdS-Thin-Films-from-Acidic-Chemical-Baths.pdf?_sg%5B0%5D%5C%5Cx3dstarted_experiment_milestone%5C%5Cx26origin%5C%5Cx3djournalDetail
29. **Francis Kofi Ampong**, JO Akowuah, I Nkrumah (2017). An automated solar biomass hybrid dryer in rural communities in Ghana. *ISES Solar World Congress 2017–IEA SHC International Conference on Solar Heating and Cooling for Buildings and Industry 2017, Proceedings*. https://www.academia.edu/download/64394089/swc2017-0163-ObengAkrofi.pdf
30. Eric K.K. Abavare, Michael K.E. Donkor, Samuel N.A. Dodoo, Osei Akoto, **Francis K. Ampong**, Bright Kwaakye-Awuah, Robert K. Nkum (2017). Indirect phase transition of refractory nitrides compounds of: TiN, ZrN and HfN crystal structures. *Computational Materials Science*. https://doi.org/10.1016/j.commatsci.2017.04.038

31. **Francis Kofi Ampong** (2017). International Journal of Thin Film Science and Technology. *Int. J. Thin. Fil. Sci. Tec*. https://www.naturalspublishing.com/ContIss.asp?IssID=443

32. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Robert Kwame Nkum, Francis Boakye (2016). Band gap engineering in lead sulphur selenide (PbS1−x Se x) thin films synthesized by chemical bath deposition method. *Journal of Materials Science Materials in Electronics*. https://doi.org/10.1007/s10854-016-5874-6

33. Fekadu Gashaw Hone, **Francis Kofi Ampong** (2016). 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*. https://doi.org/10.1016/j.matchemphys.2016.08.034

34. Kwasi Obiri-Danso, **FK Ampong**, I Nkrumah, RK Nkum, F Boakye (2016). The influence of deposition temperature on the structure and optical band gap of zinc sulphide thin films deposited from acidic chemical baths. *Elixir*. https://www.researchgate.net/profile/Tizazu-Abza-2/publication/328026602_The_influence_of_deposition_temperature_on_the_structure_and_optical_band_gap_of_zinc_sulphide_thin_films_deposited_from_acidic_chemical_baths/links/5f292e37a6fdcccc43a8a9d8/The-influence-of-deposition-temperature-on-the-structure-and-optical-band-gap-of-zinc-sulphide-thin-films-deposited-from-acidic-chemical-baths.pdf

35. **FK Ampong**, I Nkrumah, RK Nkum, F Boakye (2015). 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 Technol*. https://www.academia.edu/download/76345172/1435826483_84_202015_2033486-33489.pdf

36. I Nkrumah, **FK Ampong**, B Kwakye-Awuah (2015). Optical and structural properties of PbCdS ternary thin films deposited by chemical bath deposition. *Journal: JOURNAL OF ADVANCES IN PHYSICS*. https://www.academia.edu/download/109297340/6878.pdf

37. **FK Ampong**, I Nkrumah, RK Nkum, F Boakye (2015). Synthesis and characterization of CdSe nanocrystalline thin film by chemical bath deposition technique. *Int. J. Thin. Fil. Sci. Tec*. https://www.naturalspublishing.com/download.asp?ArtcID=7296

38. Fekadu Gashaw Hone, **Francis Kofi Ampong**, Tizazu Abza, Isaac Nkrumah, Mark Paal, Robert Kwame Nkum, Francis Boakye (2015). 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*. https://doi.org/10.1016/j.matlet.2015.04.074

39. **FK Ampong**, I Nkrumah, RK Nkum, F Boakye (2014). 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*. https://www.researchgate.net/profile/Isaac-Nkrumah/publication/284834631_Investigating_the_effect_of_deposition_time_on_the_morphology_structure_and_optical_band_gap_of_PbS_thin_films_synthesized_by_CBD_technique/links/5c88d435299bf14e7e785feb/Investigating-the-effect-of-deposition-time-on-the-morphology-structure-and-optical-band-gap-of-PbS-thin-films-synthesized-by-CBD-technique.pdf

40. **FK Ampong**, I Nkrumah, RK Nkum, F Boakye (2014). Investigating the structure, morphology and optical band gap of cadmium sulphide thin films grown by chemical bath deposition technique. *International Journal of Technical Research and Applications*. https://www.academia.edu/download/94662623/investigating-the-structure-morphology-and-optical-band-gap-of-cadmium-sulphide-thin-films-grown-by-chemical-bath-deposition-technique.pdf

41. **Francis K. Ampong**, Johannes A.M. Awudza, R.K. Nkum, F. Boakye, P. John Thomas, Paul O'Brien (2014). Ternary cadmium zinc sulphide films with high charge mobilities. *Solid State Sciences*. https://doi.org/10.1016/j.solidstatesciences.2014.12.013

42. I. Nkrumah ., **FK Ampong**, B Kwakye-Awuah, F Boakye (2013). SYNTHESIS AND CHARACTERIZATION OF ZNO THIN FILMS DEPOSITED BY CHEMICAL BATH TECHNIQUE. *International Journal of Research in Engineering and Technology*. https://doi.org/10.15623/ijret.2013.0212135

43. RK Nkum, **FK Ampong**, F Boakye (2012). Conduction Mechanism in Amorphous As {sub 2} S {sub 3}. *Journal of Science and Technology*. https://scholar.google.com/scholar?cluster=5301688086964576468&hl=en&oi=scholarr

44. R.K. Nkum, **Francis Kofi Ampong**, F. Boakye (2012). Conduction Mechanism in Amorphous As2S3.

45. **FRANCIS KOFI AMPONG**, FRANCIS BOAKYE (2011). The low temperature resistivity of thermally evaporated antiferromagnetic Mn_{100-X} Ru_x thin films. *TURKISH JOURNAL OF PHYSICS*. https://doi.org/10.3906/fiz-1001-7

46. **F.K. Ampong**, F. Boakye, R.K. Nkum (2010). The anomalous low temperature resistivity of thermally evaporated α-Mn thin film. *Journal of Magnetism and Magnetic Materials*. https://doi.org/10.1016/j.jmmm.2010.02.017

47. F. Boakye, **F.K. Ampong**, E.K.K. Abavare (2007). Effect of substrate temperatures on the electrical resistivity of thermally evaporated Mn thin films. *Cryogenics*. https://doi.org/10.1016/j.cryogenics.2006.11.001