Akwasi Acheampong

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RESEARCH

Interests	Chemistry and Pharmaceutical Sciences
Areas	Plant Science · Food Science · Pollution · Analytical Chemistry · Public Health, Environmental and Occupational Health · Radiological and Ultrasound Technology

RESEARCH SUMMARY

59	609	14	15	1.45	17%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 59 publications listed below, 2006–2026. Field-weighted impact is the mean over the 30 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 30 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Associate Professor 2019–present
Chemistry Education, University of Education Winneba Faculty of Science Education, Mampong, Ghana

Senior Lecturer (Part time) 2014–present
I.E.D.E, University of Education Winneba, Winneba, Ghana

Associate Professor 2006–present
Chemistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Lecturer (part time) 2006–2008
Dispensing Technology, Kumasi Polytechnic, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

PhD 2008–2011
Chemistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PhD 2008–2011
Institute Universitaire Technologique D'Orsay, University of Paris-Sud, Ecole Doctorale de Chimie, Orsay, Orsay, France

MSc Pharm Anal & Qlty Ctrl 2001–2005
Pharmaceutical Chemistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

BSc (Hons) Chemistry 1994–1999
Chemistry, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 56

1. Cedric Dzidzor Kodjo Amengor, Prince Danan Biniyam, Patrick Gyan, Benjamin Kingsley Harley, David Neglo, Paul Quansah, Victoria Ohene-Adu, Michael Osei, Cyril Makafui Amengor, Patrick Buah, **Akwasi Acheampong**, Lydia Tima Sarfo-Mainoo (2026). Click-synthesized triazoles-phosphonium hybrids as CYP51-targeting antifungal agents against multidrug-resistant Candida spp.: Experimental and in silico evaluation. *In Silico Research in Biomedicine*. https://doi.org/10.1016/j.insi.2026.100447
2. Patrick Buah, **Akwasi Acheampong**, Cedric Dzidzor Amengor, Adolf Oti-boakye, Kennedy Ameyaw Baah, Judith Odei, Lydia Opoku Acheampong, Lydia Tima Sarfo-Mainoo (2026). In Vitro Antioxidant, Anti-Inflammatory, Anthelmintic, Anti-Microbial, FTIR and TLC Analysis of the Leaves of Memecylon amoenum. *Sciences of Phytochemistry*. https://doi.org/10.58920/sciphy0501529
3. Anna Mwnibuabu Naah, Theophilus Acquinas Ossei-Anto, **Akwasi Acheampong** (2026). Integrating Indigenous Practices into the Teaching and Learning of Science: A Study-led Model. *Journal of Science and Education (JSE)*. https://doi.org/10.58905/jse.v6i2.574
4. Linda Mensah Sarpong, **Akwasi Acheampong**, Mercy Badu, Jibira Yakubu, Kennedy Ameyaw Baah, Silas Adjei, Emmanuel Quaye Kontoh, Joseph Adusei-Sarkodie, Isaac Kingsley Amponsah, Samuel Oppong Bekoe (2026). Zanthoxylum rhetsa Metabolites Demonstrate Potent Anti-Prostate Cancer Activity: Insights From in Vitro Screening and Molecular Docking Study. *Chemistry Africa*. https://doi.org/10.1007/s42250-026-01687-9
5. Linda Mensah Sarpong, **Akwasi Acheampong**, Mercy Badu, Silas Adjei, Jibira Yakubu, Kennedy Ameyaw Baah, Joseph Adusei Sarkodie, Isaac Kingsley Amponsah (2025). Anti-Prostatic Carcinoma Activity of Entandrophragma angolense and Methyl Angolensate: In Vitro and In Silico Analyses. *Natural Product Communications*. https://doi.org/10.1177/1934578x251384534
6. Theophilus Aquinas Ossei-Anto, **A Acheampong** (2025). Exploring factors influencing the acceptance of dry lab technologies in Ghanaian senior high schools: IPMA insights on the influence of technology familiarity. *Journal of Research in Science, Mathematics and Technology Education*. https://jrsmte.com/article/importance-performance-map-analysis-based-ipma-framework-for-assessing-determinant-factors-16403
7. Patrick Buah, **Akwasi Acheampong**, Adolf Oti-Boakye, Silas Ofori Frimpong, Lydia Tima Sarfo-Mainoo, Kennedy Ameyaw Baah, Judith Odei (2025). In vitro anti-helminthic, antimicrobial, antioxidant, activity and GC-MS of fractions of the stem bark of Memecylon accedens. *Journal of Pharmacognosy and Phytochemistry*. https://doi.org/10.22271/phyto.2025.v14.i2c.15295
8. **Akwasi Acheampong**, Silas Ofori Frimpong, Patrick Buah, Lydia Tima Sarfo-Mainoo, Adolf Oti-Boakye, Kennedy Ameyaw Baah, Judith Odei (2024). Antioxidant, anthelminthic, and antimicrobial activities and GC-MS analysis of methanolic stem extract of Memecylon accedens. *Journal of Pharmacognosy and Phytochemistry*. https://doi.org/10.22271/phyto.2024.v13.i3b.14952
9. Kennedy Ameyaw Baah, **Akwasi Acheampong**, Isaac Kingsley Amponsah, Reinhard Isaac Nketia (2024). Antiplasmodial Activity and Phytochemical Evaluation of the Stems of Albizia coriaria and Ficus sur. *European Journal of Medicinal Plants*. https://doi.org/10.9734/ejmp/2024/v35i21179
10. Frank Owusu Ansah, Humphrey Darkeh Assem, Theophilus Aquinas Ossei-Anto, Michael Owusu, **Akwasi Acheampong** (2024). Assessing Safety Status of Physical Infrastructure in Chemistry Laboratories: A Study of Public Colleges of Education in Ghana. *Creative Education*. https://doi.org/10.4236/ce.2024.1512149
11. Frank Owusu Ansah, Humphrey Darkeh Assem, Theophilus Aquinas Ossei-Anto, **Akwasi Acheampong**, Michael Owusu (2024). Evaluating the Availability and Effectiveness of Safety Equipment in Chemistry Laboratories at Public Colleges of Education in Ghana. *Creative Education*. https://doi.org/10.4236/ce.2024.1510136
12. **Akwasi Acheampong**, Kofi Sarpong, Osei Akoto, Joseph Apau, Godfred Darko (2024). Health Risk

Assessments of Potentially Toxic Elements in Selected Medicinal Plants from the Ashanti Region of Ghana. *Chemistry Africa*. https://doi.org/10.1007/s42250-024-01076-0

13. **Akwasi Acheampong**, Emmanuel Quartey, Maud Adoley Acquaye, Abdulai A Naazo, Kennedy Ameyaw Baah, Lydia Tima Amankwaa, Patrick Buah, Silas Ofori Frimpong (2024). In vitro anthelminthic and anti-inflammatory activities, and GC-MS analysis of methanol and acetone extracts of Mareya micrantha leaves. *Journal of Pharmacognosy and Phytochemistry*. https://doi.org/10.22271/phyto.2024.v13.i2f.14926
14. **Akwasi Acheampong**, Patrick Buah, Silas Ofori Frimpong, Lydia Tima Sarfo-Mainoo, Adolf Oti-Boakye, Walter Mensah, Judith Odei (2024). In vitro anti-helminthic, antimicrobial, and antioxidant activity of methanolic extract of Aspilia silphioides leaves. *Journal of Pharmacognosy and Phytochemistry*. https://doi.org/10.22271/phyto.2024.v13.i2b.14895
15. Patrick Buah, **Akwasi Acheampong**, Adolf Oti-Boakye, Silas Ofori Frimpong, Walter Mensah, Judith Odei, Lydia Tima Sarfo-Mainoo (2024). In vitro antimicrobial, antioxidant, and anti-helminthic activities and GC-MS analysis of fractions of the leaves of AspiliA silphioides. *Journal of Pharmacognosy and Phytochemistry*. https://doi.org/10.22271/phyto.2024.v13.i5c.15071
16. **Akwasi Acheampong**, Isaac Buabeng (2024). Indigenous materials, processes and scientific concepts employed in the production of akpeteshie and pito: Their relevance to teaching and learning of science. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*. https://www.academia.edu/download/122270268/Indigenous_materials_processes_and_scientific_concepts.pdf
17. Kennedy Ameyaw Baah, **Akwasi Acheampong**, Isaac Kingsley Amponsah, Silas Adjei, Yakubu Jibira, Reinhard Isaac Nketia, Linda Mensah Sarpong, Emmanuel Quaye Kontoh (2024). "Hydroethanol extract and triterpenoids of Senegalia ataxacantha show antiplasmodial activity and the compounds are predicted to inhibit parasite lactate dehydrogenase (pfLDH) as indicated by molecular docking studies". *Scientific African*. https://doi.org/10.1016/j.sciaf.2024.e02455
18. **Akwasi Acheampong**, Owusu Bempah, Jonathan Osei-Owusu, Samuel Osafo-Acquaah (2023). Chemical composition of the headspace volatiles of intact cowpea pods and cowpea pods infested by Riptortus dentipes and Nezara viridula pests. *Scientific African*. https://doi.org/10.1016/j.sciaf.2023.e02011
19. Jonathan Osei-Owusu, William K. Heve, Owusu Fordjour Aidoo, Maxwell Jnr Opoku, Joseph Apau, Kodwo Ninsin Dadzie, Bright Yaw Vigbedor, Kwaafo Akoto Awuah-Mensah, Margaret Appiah, **Akwasi Acheampong**, Michael Birkett, Antony Hooper (2023). Repellency Potential, Chemical Constituents of Ocimum Plant Essential Oils, and Their Headspace Volatiles against Anopheles gambiae s. s., Malaria Vector. *Journal of Chemistry*. https://doi.org/10.1155/2023/3848998
20. Joseph Apau, Margaret Ohui Siameh, Jemima Adwoa Misszento, Opoku Gyamfi, Jonathan Osei-Owusu, Edward Ebow Kwaansa-Ansah, **Akwasi Acheampong** (2022). Determination of potentially toxic elements in selected vegetables sampled from some markets in the Kumasi metropolis. *Cogent Public Health*. https://doi.org/10.1080/27707571.2022.2145699
21. PE Akwasi Afrifa Acheampong, CY Asante, **AA Acheampong** (2022). GIS mobile application for crime reporting and monitoring. *Ghana Journal of Technology*. https://scholar.google.com/scholar?cluster=10827586317750563 86&hl=en&oi=scholarr
22. Kofi Sarpong, **Akwasi Acheampong**, Godfred Darko, Osei Akoto (2022). Potentially toxic Metal Loads in Soils Supporting Medicinal Plants in the Ashanti Region of Ghana. *Chemistry Africa*. https://doi.org/10.1007/s42250-022-00341-4
23. **Akwasi Acheampong**, Abdullai Alhassan Naazo, Jonathan Osei-Owusu, Abdul Tatawu Abdul Malik, Emmanuel Quartey (2022). Toxicity and repellency of shea nut cake extracts against Sitophilus zeamais (Coleoptera: Curculionidae) and Prostephanus truncatus (Coleoptera: Bostrichidae). *Cogent Food & Agriculture*. https://doi.org/10.1080/23311932.2022.2112425
24. Clement Osei Akoto, **Akwasi Acheampong**, Yaw Duah Boakye, Bernard Asante, Samuel Ohene, Francis Amankwah (2021). Anthelminthic, Anti-Inflammatory, Antioxidant, and Antimicrobial Activities and FTIR Analyses of Vernonia camporum Stem-Bark. *Journal of Chemistry*. https://doi.org/10.1155/2021/3328073
25. Clement Osei Akoto, **Akwasi Acheampong**, Yaw Duah Boakye, Abdulai A. Naazo, Derrick H. Adomah

(2020). Anti-Inflammatory, Antioxidant, and Anthelmintic Activities of Ocimum basilicum (Sweet Basil) Fruits. *Journal of Chemistry*. https://doi.org/10.1155/2020/2153534

26. CO Akoto, **A Acheampong** (2020). Determination of the antimicrobial and antioxidant activities of the leaf extracts of Griffonia simplicifolia. *Journal of Pharmacognosy and Phytochemistry*. https://www.researchgate.net/profile/Clement-Osei-Akoto-2/publication/340233272_Determination_of_the_antimicrobial_and_antioxidant_activities_of_the_leaf_extracts_of_Griffonia_simplicifolia/links/5e7e084e92851caef4a2e214/Determination-of-the-antimicrobial-and-antioxidant-activities-of-the-leaf-extracts-of-Griffonia-simplicifolia.pdf
27. **Akwasi Acheampong** (2020). In vitro anthelmintic, anti-inflammatory, antioxidant activities and FTIR analysis of Sclerocarya birrea root. *Journal of Pharmacognosy and Phytochemistry*. https://www.academia.edu/download/100630855/9-2-79-362.pdf
28. **AA Acheampong** (2020). Spatial dimensions of food and nutrition security in the Northern region of Ghana. *South African Journal of Geomatics*.
29. **AA Acheampong**, AA Acheampong (2019). Analysis of GNSS baseline solutions in Ghana. *South African Journal of Geomatics*.
30. Godfred Darko, Kwadwo Owusu Boakye, Marian Asantewaa Nkansah, Opoku Gyamfi, Eugene Ansah, Lily Lisa Yevugah, **Akwasi Acheampong**, Matt Dodd (2019). Human Health Risk and Bioaccessibility of Toxic Metals in Topsoils from Gbani Mining Community in Ghana. *Journal of Health and Pollution*. https://doi.org/10.5696/2156-9614-9.22.190602
31. CO Akoto, **A Acheampong**, YD Boakye (2019). In vitro anthelminthic, antimicrobial and antioxidant activities and FTIR analysis of extracts of Alchornea cordifolia leaves. *Journal of Pharmacognosy and Phytochemistry*. https://www.academia.edu/download/77942379/8-4-313-212.pdf
32. CO Akoto, **A Acheampong**, YD Boakye (2019). Phytochemical screening and in vitro antioxidant and antimicrobial activities of the extracts of the stem-bark of Psydrax peruviana. *Journal of Medicinal Plants Studies*. https://scholar.google.com/scholar?cluster=16510374467162774364&hl=en&oi=scholarr
33. **A Acheampong** (2018). Antioxidant and antimicrobial activity of the methanol and petroleum ether extracts of the stem of Microdesmis puberula. *The Pharmaceutical and Chemical Journal*. https://www.academia.edu/download/104013378/TPCJ2018-05-01-38-48.pdf
34. **A Acheampong**, CO Akoto (2018). Antioxidant, antimicrobial and FTIR analysis of methanol root extract of Cnestis ferruginea and ethanol root extract of Citrus limon. *Journal of Pharmacognosy and Phytochemistry*. https://www.academia.edu/download/89206740/7-4-468-984.pdf
35. **Akwasi Acheampong** (2018). Comparative Assessment of some Physicochemical Properties of marketed Ayurvedic Mahanarayan massage oils. *Current Research in Pharmaceutical Sciences*. http://www.crpsonline.com/index.php/crps/article/view/12
36. **Akwasi Acheampong**, Albert Gyebi, Godfred Darko, Joseph Apau, Wilfred Owusu Gyasi, Sylvester Addai-Arhin (2018). Development and validation of RP-HPLC method for simultaneous estimation of sulfadoxine and pyrimethamine in tablet dosage form using diclofenac as internal standard. *Cogent Chemistry*. https://doi.org/10.1080/23312009.2018.1472198
37. **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
38. Jonathan Osei-owusu, **Akwasi Acheampong**, J.V.K Afun, Samuel Osafo Acquaah (2017). Chemical Composition of the Headspace Volatiles from Chromolaena odorata (L.) R.M. King in Ghana. *Journal of Essential Oil Bearing Plants*. https://doi.org/10.1080/0972060x.2017.1396928
39. **A Acheampong** (2017). Evaluation of the Anti-Inflammatory, Antimicrobial and Antioxidant Properties of Aqueous Crude Gel Extract of Aloe Buettneri. *World Journal of Pharmacy and Pharmaceutical Sciences*.

https://www.academia.edu/download/89206760/6-6-96-618.pdf

40. KINGSLEY AMPONSAH, **A Acheampong** (2017). Evaluation of the Anti-inflammatory, Antimicrobial and Antioxidant activities of the stem bark extract of Croton penduliflorus Hutch (Euphorbiaceae). *Journal of Pharmacognosy and Phytochemistry*. https://www.academia.edu/download/76615365/6-6-96-618.pdf

41. Godfred Darko, Lawrence Sheringham Borquaye, **Akwasi Acheampong**, Kwasi Oppong (2017). Veterinary antibiotics in dairy products from Kumasi, Ghana. *Cogent Chemistry*. https://doi.org/10.1080/23312009.2017.1343636

42. G Darko, **A Acheampong** (2016). Public exposure to naturally occurring radioactivity in gold mining communities in Ghana. *8th International Toxicology Symposium in Africa*. https://www.researchgate.net/profile/Rofiat-Abdus-Salaam/publication/344176527_Dietary_exposure_to_mycotoxins_by_adult_consumers_of_locally_processed_rice_from_Nigeria/links/676203dd1da39f14957f4fca/Dietary-exposure-to-mycotoxins-by-adult-consumers-of-locally-processed-rice-from-Nigeria.pdf#page=140

43. **Akwasi Acheampong**, Wilfred Owusu Gyasi, Godfred Darko, Joseph Apau, Sylvester Addai-Arhin (2016). Validated RP-HPLC method for simultaneous determination and quantification of chlorpheniramine maleate, paracetamol and caffeine in tablet formulation. *SpringerPlus*. https://doi.org/10.1186/s40064-016-2241-2

44. **A Acheampong**, J Apau (2015). Development and validation of a RP-HPLC method with PDA detection for the simultaneous estimation of acetylsalicylic acid, paracetamol and caffeine in fixed dose combination …. *Int J Chem Biomol Sci*. https://scholar.google.com/scholar?cluster=5137487104287861474&hl=en&oi=scholarr

45. Godfred Darko, Augustine Faanu, Osei Akoto, **Akwasi Acheampong**, Eric Jude Goode, Opoku Gyamfi (2015). Distribution of natural and artificial radioactivity in soils, water and tuber crops. *Environmental Monitoring and Assessment*. https://doi.org/10.1007/s10661-015-4580-9

46. J Apau, **A Acheampong**, O Akoto (2015). Physicochemical and microbial analysis of water from selected hand-dug wells in Ayeduase, Kumasi. *Int J f Chem Biomolec Sci*. https://scholar.google.com/scholar?cluster=19043993390519215 35&hl=en&oi=scholarr

47. **Akwasi Acheampong**, Godfred Darko, Joseph Apau, Adolf Oti-Boakye (2014). Assessment of Mercury Levels in Omega-3 Food Supplements Available on the Ghanaian Market.

48. **A Acheampong** (2014). DETERMINATION OF MERCURY AND CADMIUM LEVELS IN OMEGA-3 FOOD SUPPLEMENTS AVAILABLE ON THE GHANAIAN MARKET: 1136. *Basic & Clinical Pharmacology & Toxicology*. https://scholar.google.com/scholar?cluster=13938765228687261899&hl=en&oi=scholarr

49. J Apau, **A Acheampong** (2014). Levels and health risk assessment of heavy metals in tubers from markets in the Kumasi metropolis, Ghana. *Int J Sci Technol*. https://www.academia.edu/download/55145276/Heavy_metals_in_tubers_publication.pdf

50. J Apau, **A Acheampong** (2014). Physicochemical and microbial parameters of water from hand-dug wells from Nyamebekyere, a surburb of Obuasi, Ghana. *Int J Sci Technol*. https://scholar.google.com/scholar?cluster=13714129122656228051&hl=en&oi=scholarr

51. **A Acheampong** (2012). Determination of triacylglycerol regioisomers using electrospray ionization-quadrupole ion trap mass spectrometry with a kinetic method. *Analytica chimica acta*. https://www.sciencedirect.com/science/article/pii/S000326701200267X

52. **Akwasi Acheampong**, Nathalie Leveque, Alain Tchapla, Sylvie Heron (2011). Simple complementary liquid chromatography and mass spectrometry approaches for the characterization of triacylglycerols in Pinus koraiensis seed oil. *Journal of Chromatography A*. https://doi.org/10.1016/j.chroma.2011.05.064

53. **A Acheampong** (2010). Bamboo in Green Construction in Ghana: the Studies of Selected Anatomical Properties. *International Convention of Society of Wood Science and Technology and United Nations Economic Commission for Europe–Timber Committee*. https://www.swst.org/wp/meetings/AM10/pdfs/WS-85%20tekpetey%20paper.pdf

54. **AA Acheampong** (2008). Developing a differential GPS (DGPS) Service in Ghana. *Kwame Nkrumah University of Science and Technology Msc Thesis*. https://scholar.google.com/scholar?

cluster=14301812040669812001&hl=en&oi=scholarr

55. S Asare-Nkansah, SO Bekoe, **A Acheampong** (2007). Determination of relative bioavailability of a locally manufactured co-trimoxazole tablets using urinary excretory data. *Journal of the Ghana Science Association*. https://www.researchgate.net/profile/Akwasi-Acheampong-2/publication/259638581_Determination_of_relative_bioavailability_of_locally_manufactured_co-trimoxazole_tablets_using_urinary_excretion_data/links/58aab3464585150402fff1bc/Determination-of-relative-bioavailability-of-locally-manufactured-co-trimoxazole-tablets-using-urinary-excretion-data.pdf

56. S Asare-Nkansah, **A Acheampong** (2006). Simultaneous determination of sulphamethoxazole and trimethoprim in co-trimoxazole tablets using RP-LC analysis. *journal of science and technology*. https://journal.knust.edu.gh/index.php/just/article/view/689

Reports 2

1. **Akwasi Acheampong**, AFA Marfo, A Brobbey, AO Antwi, MK Baah, E Bessah, Gordon A Awandare (2021). Scientific African. *Scientific African*. https://www.researchgate.net/profile/Temitope-D-Timothy-Oyedotun/publication/356402866_Household_Waste_Generation_Change_in_Waste_Composition_and_the_Exposure_to_COVID-19_in_Guyana_and_Nigeria/links/619fb8b1d7d1af224b241a9b/Household-Waste-Generation-Change-in-Waste-Composition-and-the-Exposure-to-COVID-19-in-Guyana-and-Nigeria.pdf?_sg%5B0%5D=started_experiment_milestone&origin=journalDetail

2. **A Acheampong** (2019). Ghana Standard (Certification Mark)(Amendment) Rules, 2019 LI 2388. *Parliament of Ghana*. https://scholar.google.com/scholar?cluster=19461769547620361 91&hl=en&oi=scholarr

Theses 1

1. **A Acheampong** (2011). Development of lc-ms method to identify triacylglycerols in resinous seed oils. *Paris 11*. https://theses.fr/2011PA112083