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RESEARCH

Interests: Environmental Chemistry · Analytical Chemistry · Ecological Modelling

Areas: Pollution · Health, Toxicology and Mutagenesis · Water Science and Technology · Waste Management and Disposal · Environmental Chemistry · Applied Microbiology and Biotechnology

RESEARCH SUMMARY

47	714	10	10	0.99	6%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 47 publications listed below, 2010–2026. Field-weighted impact is the mean over the 31 works scored for it; 1.00 is the world average for works of the same field, type and year. 2 of the 31 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2022–present
Environmental Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Lecturer 2011–present
Laboratory Technology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 40

1. Paul Appiah Sekyere, **David Azanu**, Osei Akoto (2026). Comparative evaluation of composting and solarization techniques for mitigating antibiotic residues, and resistance genes in poultry manure. *Scientific African*. https://doi.org/10.1016/j.sciaf.2026.e03228
2. Carsten Felder, Henry Kojo Okyir, **David Azanu**, Thomas Peprah Agyekum, Dirk Skutlarek, Harald Färber, Marian Asantewah Nkansah, Nico Tom Mutters (2026). Determination of Poly- and Perfluorinated Alkyl Substances (PFAS) in Livestock and Game Animals in Ghana: First Data on Contamination in the Liver Tissue of Mammals and Birds from Africa. *Exposure and Health*. https://doi.org/10.1007/s12403-026-00784-x
3. Isaac Osei-Safo, Junias Adusei-Gyamfi, **David Azanu**, Justine Criquet (2026). Drinking Water Quality Assessment in Sub-Saharan Africa: The Case of Disinfection Byproducts in Ghana. *ACS ES&T Water*. https://doi.org/10.1021/acsestwater.5c01262
4. Kwame Ankomah, **David Azanu**, Mwema Felix Mwema (2026). Life cycle assessment of polyethylene carrier bags manufactured from recycled plastics in Ghana: Environmental impacts of chemical additives and a fossil-intensive electricity grid. *PLOS Sustainability and Transformation*. https://doi.org/10.1371/journal.pstr.0000259
5. Paul Appiah Sekyere, **David Azanu**, Osei Akoto (2026). Microbial sensitivity and ecological risk of veterinary antibiotics in poultry waste from Ghanaian farms. *Next research*.. https://doi.org/10.1016/

j.nexres.2026.101640

6. **David Azanu**, Charles Ato Arthur, David Adu-Poku, Abenaa Owusuwaa Adu, Agnes Oppong, Timothy Abane Alemya (2026). Occurrence and ecotoxicological risk assessment of pharmaceutical residues in water resources of Obuasi metropolis, Ghana. *Discover Environment*. https://doi.org/10.1007/s44274-026-00880-4
7. Paul Appiah Sekyere, **David Azanu**, Osei Akoto, Vivian Etsiapa Boamah, Lyndon N. A. Sackey, Charles K. Sekyere, Jonathan N. Hogarh, R. C. Abaidoo (2026). Quantification of Veterinary Antibiotics and Antibiotics Resistant Bacteria in Poultry Droppings. *Journal of Chemistry*. https://doi.org/10.1155/joch/5407152
8. Kwame Ohene Buabeng, A Sulemana, **D Azanu** (2025). A Review on Occurrence, Risk Assessment and Removal of Pharmaceuticals in Hospital Effluents. *International Journal of Environment and Geoinformatics*. https://dergipark.org.tr/en/pub/ijegeo/article/1565196?issue_id=90600
9. Felix Nana Yaw Cobbinah, Sampson Kofi Kyei, **David Azanu**, Roland S. Kabange (2025). Bioaccumulation of Heavy Metals and Health Risk Assessment in Taro (Colocasia Esculenta) Grown with Mine-Affected Irrigation Water in the Atiwa East Municipality, Ghana. *Soil and Sediment Contamination An International Journal*. https://doi.org/10.1080/15320383.2025.2595647
10. Julius Asamoah-Ntow, Sampson Kofi Kyei, **David Azanu**, Roland S. Kabange (2025). Integrated assessment of heavy metal contamination and health risks in irrigation water, soil, and vegetables along the Dankran River, Bekwai Municipality, Ghana. *Chemosphere*. https://doi.org/10.1016/j.chemosphere.2025.144690
11. **David Azanu**, Nasser Dia, James Darmey, David Adu-Poku, Kwame Effrim Tabbicca, Ebenezer Ebo Yahans Amuah, Sampson Kofi Kyei, Alikalifa Sanogo (2025). Optimizing composite microplastics for antibiotics removal in water: An eco-friendly solution. *Sustainable Environment*. https://doi.org/10.1080/27658511.2025.2464377
12. Emma Kofua Nsafoah, Cindy Yaa Gyeniaw, Alhassan Sulemana, Bernard Fei-Baffoe, **David Azanu**, Kodwo Miezah, Kofi Sekyere Boateng, Daniel Nimako Amprako, Jonathan Nartey Hogarh, Kwame Ohene Buabeng (2025). Relationship Between Physicochemical Parameters and Risk of Analgesics and Antibiotics of Effluents From Three Selected Hospitals in Kumasi Metropolis, Ghana. *The Scientific World JOURNAL*. https://doi.org/10.1155/tswj/2891425
13. Osei Akoto, BK Benjamin, **D Azanu**, F Opoku, LNA Sackey (2024). A review of health hazards associated with exposure to galamsey-related pollutants. *Health Sciences Investigations Journal*. https://www.ajol.info/index.php/hsij/article/view/275701
14. David Adu-Poku, Selina Ama Saah, Patrick Opare Sakyi, Charles Kwame Bandoh, Benjamin Agyei-Tuffour, **David Azanu**, Michael Oteng-Peprah, Issifu Hawawu, Samuel Azibere, Kweku Amaning Affram (2024). Acid-Activated Biochar for Efficient Elimination of Amoxicillin From Wastewater. *Journal of Chemistry*. https://doi.org/10.1155/2024/3648098
15. Enoch Nii Klu Nortey, **David Azanu**, Sampson Kofi Kyei, Roland Songotu Kabange (2024). Physico-Chemical Characteristics of Wastewater at A Polyethylene Bag Manufacturing Company in Bekwai Municipality, Ghana. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v1i2.5s
16. Lyndon N. A. Sackey, Augustine Okobeng, Priscilla Yawa Obidieh, Flora-Marie Mpaka Ngala, Emmanuel Bentum Otoo, Jeremiah Quartey, Joseph A. Bentil, **David Azanu** (2024). Risk Assessment of Pharmaceutical Contaminants in Pharmaceutical Wastewater. *The Scientific World JOURNAL*. https://doi.org/10.1155/2024/5538398
17. **D Azanu** (2023). Adsorption of ciprofloxacin using composite microplastics. *International Journal of Innovation and Development*. https://ijid.kstu.edu.gh/index.php/ijid/article/view/23
18. **David Azanu**, Agnes Oppong, Olivia Poku Asare, Christopher Acquah, Opoku Bempah (2021). Health Risk Assessment of Sugarcane Grown in an Area under the Influence of Hospital Wastewater. *The International Journal of Science & Technoledge*. https://doi.org/10.24940/theijst/2021/v9/i11/st2111-007
19. **David Azanu**, Mufidah Zintang Abass, Agnes Oppong, Linda Opponbea-Amoani, Timothy Abane Alemya (2021). Microbiological and Physicochemical Evaluation of Some Locally Produced Soft Drinks and

Beverages Sold in Kumasi Metropolis in Ghana.

20. **David Azanu**, David Adu-Poku, Selina Ama Saah, William Ofori Appaw (2021). Prevalence of Pharmaceuticals in Surface Water Samples in Ghana. *Journal of Chemistry*. https://doi.org/10.1155/2021/7829477

21. **David Azanu**, Sven Erik Jørgensen, Godfred Darko, Bjarne Styrishave, Robert Clement Abaidoo (2020). Antibiotic Uptake by Plant Model. *Environmental Modeling & Assessment*. https://doi.org/10.1007/s10666-020-09712-y

22. **D Azanu**, G Darko, RC Abaidoo (2020). Antibiotic Uptake by Plant Model: Azanu D. et al. *Environmental Modeling & Assessment*.

23. R. D. Nagre, P. A. Owusu, Alain Pierre Tchameni, S. K. Kyei, **D. Azanu** (2020). Synthesis and assessment of a hydrophobically associating heteropolymer in water-based mud. *Chemical Papers*. https://doi.org/10.1007/s11696-020-01379-9

24. **D Azanu** (2019). Interlaboratory Comparison Exercise for the Determination of Copper and Lead in Ghana. *International Conference on Applied Science and Technology Conference Proceedings*. https://scholar.google.com/scholar?cluster=7564228126360425214&hl=en&oi=scholarr

25. **D Azanu** (2019). Physico-chemical properties of some selected plants gum exudates in Ghana, EC Pharmacol. *Toxicology*. https://scholar.google.com/scholar?cluster=9385984718083498747&hl=en&oi=scholarr

26. **David Azanu**, K Tano-Debrah, KK Addo, FK Saalia (2019). The role of gamma irradiation and storage at 28 [+ or-] 2 [degrees] C on the inactivation of Listeria monocytogenes, Escherichia coli and Salmonella enterica serotype .... *International Journal of food Contamination*. https://go.gale.com/ps/i.do?id=GALE%7CA596793697&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=21962804&p=AONE&sw=w

27. Bernard Tawiah Odai, Kwaku Tano-Debrah, Kennedy Kwasi Addo, Firibu K. Saalia, Moses Lorenzo Akyeh, Wellington Torgby-Tetteh, Seth Willliams Nii-Odartey Mills, **David Azanu** (2019). The role of gamma irradiation and storage at 28 ± 2 °C on the inactivation of Listeria monocytogenes, Escherichia coli and Salmonella enterica serotype Typhimurium in sun-dried Legon-18 pepper (Capsicum annuum) powder. *International Journal of Food Contamination*. https://doi.org/10.1186/s40550-019-0077-6

28. Agnes Oppong, **David Azanu**, Linda Aurelia Ofori (2018). Assessment of sugarcane grown in wetlands polluted with wastewater. *Sustainable Environment*. https://doi.org/10.1080/23311843.2018.1455277

29. Godfred Darko, Eugene Ansah, A. Faanu, **David Azanu** (2017). Natural radioactivity and heavy metal distribution in reservoirs in Ghana. *Polymer Journal*.

30. **David Azanu**, Bjarne Styrishave, Godfred Darko, Johan Juhl Weisser, Robert Clement Abaidoo (2017). Occurrence and risk assessment of antibiotics in water and lettuce in Ghana. *The Science of The Total Environment*. https://doi.org/10.1016/j.scitotenv.2017.11.287

31. Godfred Darko, **David Azanu**, Nelson Kwame Logo (2016). Accumulation of toxic metals in fish raised from sewage-fed aquaculture and estimated health risks associated with their consumption. *Sustainable Environment*. https://doi.org/10.1080/23311843.2016.1190116

32. J. K. Adengala, R. B. Voegborlo, **D. Azanu**, J. I. Adam (2016). DISTRIBUTION OF TOTAL LEAD, COPPER, ZINC AND CADMIUM IN SOILS ALONG THE HIGHWAY FROM TAFO TO ABOASO IN KUMASI IN THE ASHANTI REGION OF GHANA. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v36i2.6

33. G Darko, **D Azanu** (2016). Estimated health risks associated with consumption toxic metals in fish raised from sewage-fed aquaculture. *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=28

34. **David Azanu**, Christiana Mortey, Godfred Darko, Johan Juhl Weisser, Bjarne Styrishave, Robert Clement Abaidoo (2016). Uptake of antibiotics from irrigation water by plants. *Chemosphere*. https://doi.org/

10.1016/j.chemosphere.2016.05.035

35. Julianne Hagarty, **David Azanu**, Bernadette Atosona, Ray Voegborlo, Erica A.H. Smithwick, Kamini Singha (2015). Chemistry of natural waters and its relation to Buruli ulcer in Ghana. *Journal of Hydrology Regional Studies*. https://doi.org/10.1016/j.ejrh.2015.03.006
36. **David Azanu**, Sven Erik JØrgensen, Godfred Darko, Bjarne Styrishave (2015). Simple metal model for predicting uptake and chemical processes in sewage-fed aquaculture ecosystem. *Ecological Modelling*. https://doi.org/10.1016/j.ecolmodel.2015.07.023
37. **D Azanu** (2015). Street sugar cane vendors practices, metals and microbial levels of sugar cane sold in Kumasi, Ghana. *International Journal of Science and Technology*. https://www.researchgate.net/profile/Sampson-Kyei/publication/322860704_Street_Sugar_Cane_Vendors_Practices_Metals_and_Microbial_Levels_of_Sugar_Cane_Sold_In_Kumasi_Ghana/links/5a730e980f7e9b20d48ee799/Street-Sugar-Cane-Vendors-Practices-Metals-and-Microbial-Levels-of-Sugar-Cane-Sold-In-Kumasi-Ghana.pdf
38. **D Azanu** (2014). Heavy metals and organochlorine pesticides residue levels in natural spices sold in Kumasi, Ghana. *Int J Environ Sci Toxic Res*. https://scholar.google.com/scholar?cluster=12419337539421793869&hl=en&oi=scholarr
39. **D Azanu** (2014). Optimal Conditions for Ammonia Leaching of Copper/Chalcocite-Rimmed Pyrite: Part 2. *International Journal*. https://www.academia.edu/download/106575400/729_IJAR-3359.pdf
40. **D Azanu**, RB Voegborlo (2014). Sorption of inorganic mercury on soils from Ankobra basin in the south - western part of Ghana. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v33i3.1

Book chapters 2

1. James Darmey, **David Azanu**, Nene Kwabla Amoatey, Abena Owusuaa Adu, Nasser Dia (2023). Antibiotics in the Ghanaian Environment. *Advances in logistics, operations, and management science book series*. https://doi.org/10.4018/978-1-6684-9843-9.ch006
2. **D Azanu** (2023). Antibiotics in the Ghanaian Environment: Occurrence, Uptake, Risk Assessment, and Removal. *Technological Innovation Driving Sustainable Entrepreneurial Growth in Developing Nations*. https://www.igi-global.com/chapter/antibiotics-in-the-ghanaian-environment/330352

Conference papers 2

1. Osei Safo, Isaac, Adusei-Gyamfi, Junias, **Azanu, David**, Criquet, Justine (2025). Drinking water quality assessment in sub-Saharan Africa: the case of disinfection by-products in Ghana. *HAL (Le Centre pour la Communication Scientifique Directe)*.
2. J Adusei-Gyamfi, **D Azanu** (2023). Capacity building for the assessment of the occurrence of disinfection by-products in Ghana Ghana Water Resources First Results on DBPs. *Water Disinfection, Byproducts and Health Gordon Research Conference*. https://lilloa.hal.science/hal-05288712/document

Theses 2

1. **David Azanu** (2017). Transnational Media Articulations of Ghanaian Women: Mapping Shifting Returnee Identities in an Online Web Series. *Ohio University*. https://rave.ohiolink.edu/etdc/view?acc_num=ohiou1490962935074027
2. **David Azanu** (2012). PHYSICAL AND CHEMICAL CHARACTERISTICS OF WATER AND SOIL IN BURULI ULCER ENDEMIC AND NON-ENDEMIC AREAS IN THE WESTERN, CENTRAL AND NORTHERN REGIONS OF GHANA. *Department of Chemistry, College of Science, Kwame Nkrumah University of Science and Technology*. https://scholar.google.com/scholar?cluster=2363314571242542604&hl=en&oi=scholarr

Other publications 1

1. **A DAVID** (2010). SORPTION OF INORGANIC MERCURY ON SOILS FROM ANKOBRA BASIN IN THE SOUTH-WESTERN PART OF GHANA. *DEPARTMENT OF CHEMISTRY*.