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RESEARCH

Interests	Indigenou & Underutilised Crops · Food composition & Nutri · Sensory science · Food product development
Areas	Food Science · Plant Science · Nutrition and Dietetics · General Health Professions · Analytical Chemistry · Animal Science and Zoology

RESEARCH SUMMARY

43	256	8	7	1.12	14%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 43 publications listed below, 2007–2026. Field-weighted impact is the mean over the 29 works scored for it; 1.00 is the world average for works of the same field, type and year. 4 of the 29 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Teaching, Research and Community Engagement 2018–present
Food Science and Technology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

Visiting student (PhD Fellow) 2015
DTU-Food; Nano-Bio Science Research Group, Technical University of Denmark, Kongens Lyngby, Denmark

PhD Food Science and Technology 2013–2017
Food Science and Technology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 36

1. Charles C. Dapuliga, Nana Baah Pepra-Ameyaw, **Abena Boakye**, Faustina Dufie Wireko-Manu, Henrietta N. Ene-Obong, Ibok N. Oduro, William Otoo Ellis (2026). Effect of high-quality cassava flour (HQCF) substitution on the in vivo glycemic response of two bread types. *Journal of Food Measurement & Characterization*. https://doi.org/10.1007/s11694-026-04152-w
2. Vera Wemoye Abajegebawo, Nana Baah Pepra-Ameyaw, **Abena Boakye**, Frances Wendy Grant, Kwadwo Owusu Akuffo, Mary Amoako (2026). Formulation and sensory evaluation of gluten-free cookies utilizing maize, soybean, and orange-fleshed sweet potato. *Food and Humanity*. https://doi.org/10.1016/j.foohum.2026.101258
3. Gideon Baffoe, Selorm Yaotse Dorvlo, **Abena Boakye**, Eleanor Jew, Philip Antwi-Agyei, Andy Dougil (2026). Fragmented urban food governance and impacts on the marginalisation of indigenous crops in Ghana. *Food Policy*. https://doi.org/10.1016/j.foodpol.2026.103170

4. **Abena Boakye**, Kanaan Selasie Doe-Addo, Beulah Pretorius, John-Lewis Zinia Zaukuu, Agnes Mwangwela, Redeemer Agbolegbe, Elizabeth Ama Mensah, Heather Legodi, William Otoo Ellis, Andrew John Dougill (2025). Chemical and physical characterization of 'egusi' melon seeds and prediction of fat content by NIR Spectroscopy. *Food, Nutrition and Health.*. https://doi.org/10.1007/s44403-025-00035-y

5. **A Boakye**, I Oduro (2025). Gari as a vehicle for vitamin A delivery across West Africa. *Sight and Life Special Report*. https://lirias.kuleuven.be/retrieve/5d49d605-9260-48ba-aab5-607ff93b1c88#page=73

6. **Abena Boakye**, Mary Sefa Boampong, Andrew John Dougill, David Akyen, Theophilus Kwabla Tengey, Charles Naapoal, Addobea Addow Koranteng, Agnes Mwangwela, Heather Legodi, William Otoo Ellis (2025). Potential of egusi for food and nutrition security in northern Ghana: gender perspectives and social constructs underpinning cultivation and use. *Frontiers in Sustainable Food Systems*. https://doi.org/10.3389/fsufs.2025.1446681

7. Selorm Yaotse Dorvlo, Elizabeth Mkandawire, Melody Mentz-Coetzee, Andrew Dougill, Frans Swanepoel, Mohammad Naushad Emmambux, **Abena Boakye**, Antoinette Simpah Anim-Jnr, Nobuhle Sharon Lungu, Frank Tchuwa and 20 others (2025). Transforming African food systems: perspectives from the Food Systems Network for Africa (FSNet-Africa). *Journal of Agriculture and Food Research*. https://doi.org/10.1016/j.jafr.2025.102289

8. Mercia Lionel Adjei, **Abena Boakye**, Godwin Deku, Nana Baah Pepra-Ameyaw, AS Anim-Jnr, Ibok Nsa Oduro, William Otoo Ellis (2024). Development of yoghurt incorporated with beetroot puree and its effect on the physicochemical properties and consumer acceptance. *Heliyon*. https://doi.org/10.1016/j.heliyon.2024.e25492

9. ABANO ERNEST EKOW, CA Wongnaa, **AA Boakye**, B Adjei-Mensah, B Asante, F Idan, C Antwi (2024). Journal of agriculture and food research. *Journal of Agriculture and Food Research*. https://www.researchgate.net/profile/Lukeman-Haruna/publication/380865604_Effect_of_Partial_pulp_removal_and_fermentation_duration_on_drying_behavior_nib_acidification_fermentation_quality_and_flavor_attributes_of_Ghanaian_cocoa_beans/links/66599179bc86444c721f15c7/Effect-of-Partial-pulp-removal-and-fermentation-duration-on-drying-behavior-nib-acidification-fermentation-quality-and-flavor-attributes-of-Ghanaian-cocoa-beans.pdf

10. K. S. Doe-Addo, T. K. Tengey, **A. Boakye**, J-L. Z. Zaukuu, I. N. Oduro, W. O. Ellis (2024). Physico-mechanical measurements, functional properties, proximate composition of newly developed climate-resilient cowpea (Vigna unguiculata) varieties and their classification with near-infrared spectroscopy. *Food, Nutrition and Health.*. https://doi.org/10.1007/s44403-024-00004-x

11. **Abena Boakye**, Doreen D. Avor, Isaac K. Amponsah, William O. Appaw, Leslie Owusu-Ansah, Silas Adjei, Michael K. Baah, John N. Addotey (2024). Quality Assessment of Tomato Paste Products on the Ghanaian Market: An Insight Into Their Possible Adulteration. *International Journal of Food Science*. https://doi.org/10.1155/2024/8285434

12. **Abena Boakye**, AK Sandra (2024). Repellent and larvicidal properties of selected indigenous plants in the control of Anopheles mosquitoes. *Journal of Vector Borne Diseases*. https://journals.lww.com/jvbd/fulltext/2024/61010/repellent_and_larvicidal_properties_of_selected.10.aspx

13. Eline Van Wayenbergh, **Abena A. Boakye**, Jolien Baert, Niels A. Langenaeken, William O. Appaw, Imogen Foubert, Ibok N. Oduro, Christophe M. Courtin (2024). Vitamin A stability during storage of fortified gari produced using different fortification strategies. *npj Science of Food*. https://doi.org/10.1038/s41538-024-00350-2

14. Donald Bimpong, Lois Amponsah Adofowaa, Ama Agyeman, **Abena Boakye**, Ibok Nsa Oduro, Ellis William Otoo, John-Lewis Zinia Zaukuu (2023). Authenticating peanut butter and yoghurt in the Kumasi Metropolis of Ghana using near infrared spectroscopy. *Progress in Agricultural Engineering Sciences*. https://doi.org/10.1556/446.2023.00093

15. Evelyn Serwah Ayeh, Enoch Aryeetey, Ebenezer Quandoh, **Abena Boakye**, Faustina Dufie Wireko-Manu, James Osei Mensah, Ibok N. Oduro (2023). Economic Impact of Plantain Ripening: A Case Study Among Plantain Traders in Accra. *International Journal of Fruit Science*. https://doi.org/10.1080/15538362.2023.2271993

16. Evelyn Serwah Ayeh, Ebenezer Asiamah, **Abena Achiaa Boakye**, Faustina Dufie Wireko-Manu, Enoch Aryeetey, Ibok N. Oduro (2023). Effects of ripening stages and thermal treatment on quality characteristics of the overripe plantain puree. *Journal of Agriculture and Food Research*. https://doi.org/10.1016/j.jafr.2023.100662

17. Kofi Owusu-Akyaw Oduro, **Abena Boakye**, Ibok Nsa Oduro, William Otoo Ellis, Nana Baah Pepra-Ameyaw (2023). Efficiency of Edible Coating from Locally Sourced Materials in Maintaining the Postharvest Quality of Belfast Tomatoes. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v41i3.5

18. N. K. Safo, R. M. Al-Hassan, H. A. Somuah, **A. A. Boakye**, I. S. Egyir (2023). Warehouse receipt system: A shift to improve maize marketing in Ghana. *Ghana Journal of Agricultural Science*. https://doi.org/10.4314/gjas.v58i1.6

19. Isaac Kingsley Amponsah, **Abena Boakye**, Emmanuel Orman, Francis Ackah Armah, Lawrence Sheringham Borquaye, Silas Adjei, Yaa Afrakoma Dwamena, Kennedy Ameyaw Baah, Benjamin Kingsley Harley (2022). Assessment of some quality parameters and chemometric-assisted FTIR spectral analysis of commercial powdered ginger products on the Ghanaian market. *Heliyon*. https://doi.org/10.1016/j.heliyon.2022.e09150

20. **A Boakye**, FD Wireko-Manu, I Oduro (2022). Development of Convenient Cocoyam Pottage (Mpotompoto). *Journal of Science and Technology*. https://www.ajol.info/index.php/just/article/view/230988

21. AS Anim-Jnr, **B Abena***, S Etuah, C Antwi, W Appaw, I Oduro (2022). Handling, safety and hygienic practices of frozen meat and fish during vending in the Kumasi metropolis. *Journal of Science and Technology*. https://journal.knust.edu.gh/index.php/just/article/view/1270

22. Matthew A. Achaglinkame, Eric Owusu-Mensah, **Abena A. Boakye**, Ibok Oduro (2020). Effect of Size and Drying Time on the Rehydration and Sensory Properties of Freeze-Dried Snails (Achatina achatina). *International Journal of Food Science*. https://doi.org/10.1155/2020/5714140

23. Reuben Ssali, Edward Carey, Simon Imoro, Jan W. Low, Eric Kuuna Dery, **Abena Boakye**, Ibok Oduro, Rachel M. Omodamiro, Hauwa Ladi Yusuf, Eunice Etwire, Abigail O. Iyilade, Souleimane Adekambi, Abdullahi Ali, Muhammad Haliru, Prince Maxwell Etwire (2020). Fried sweetpotato user preferences identified in Nigeria and Ghana and implications for trait evaluation. *International Journal of Food Science & Technology*. https://doi.org/10.1111/ijfs.14764

24. Eric K. Dery, Edward E. Carey, Reuben T. Ssali, Jan W. Low, Suzanne D. Johanningsmeier, Ibok Oduro, **Abena Boakye**, Rachael M. Omodamiro, Hauwa L. Yusuf (2020). Sensory characteristics and consumer segmentation of fried sweetpotato for expanded markets in Africa. *International Journal of Food Science & Technology*. https://doi.org/10.1111/ijfs.14847

25. O Ibok, **AA Boakye** (2019). Value Addition Interventions along the Root and Tuber Food Supply Chain. *Roots and Tubers in Ghana: Overview and Selected Research Papers*. https://www.researchgate.net/profile/Felix-Frimpong-2/publication/337494062_INFLUENCE_OF_FERTILIZER_APPLICATION_ON_POSTHARVEST_STORAGE_OF_WHITEYAM_TUBERS/links/5ddbcbf1299bf10c5a316640/INFLUENCE-OF-FERTILIZER-APPLICATION-ON-POSTHARVEST-STORAGE-OF-WHITEYAM-TUBERS.pdf#page=215

26. **Abena A. Boakye**, Faustina Dufie Wireko-Manu, Ibok Oduro, William O. Ellis, María Gudjónsdóttir, Ioannis S. Chronakis (2018). Utilizing cocoyam (Xanthosoma sagittifolium) for food and nutrition security: A review. *Food Science & Nutrition*. https://doi.org/10.1002/fsn3.602

27. **Abena A. Boakye**, María Gudjónsdóttir, Faustina Dufie Wireko-Manu, Ibok Oduro, William Otoo Ellis, Ioannis S. Chronakis (2018). Water-Starch Interactions of Red and White Cocoyam (Xanthosoma sagittifolium). *Starch - Stärke*. https://doi.org/10.1002/star.201800128

28. **Abena Achiaa Boakye**, María Gudjónsdóttir, Jacob Lercke Skytte, Ioannis S. Chronakis, Faustina Dufie Wireko-Manu, Ibok Oduro (2017). Characteristics of Xanthosoma sagittifolium roots during cooking, using physicochemical analysis, uniaxial compression, multispectral imaging and low field NMR spectroscopy. *Journal of Food Science and Technology*. https://doi.org/10.1007/s13197-017-2704-7

29. **AA Boakye** (2016). Enhancing the food utilization of cocoyam: Development of Ɛtɔ-mix. *Poster presented*

at World congress on root and tuber crops, Nanning Guangxi, China. https://scholar.google.com/scholar?cluster=11149713627754930046&hl=en&oi=scholarr

30. **A. Boakye Abena**, D. Wireko-Manu Faustina, K. Agbenorhevi Jacob, Oduro Ibok (2014). Dietary fibre, ascorbic acid and proximate composition of tropical underutilised fruits. *African Journal of Food Science*. https://doi.org/10.5897/ajfs2014.1165

31. **AA Boakye**, FD Wireko-Manu, JK Agbenorhevi, I Oduro (2014). Dietary fibre, ascorbic acid and proximate composition of tropical underutilized fruits. *African Journal of Food Science*. https://academicjournals.org/journal/AJFS/article-full-text-pdf/9B56DDF45992.pdf

32. **Boakye, Abena** (2013). Methodological Evaluation of Community Health Centres Systems in Ghana Using Difference-in-Differences for Clinical Outcome Measurement. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18989575

33. Gyamfi, Yaw, **Boakye, Abena**, Agyeman, Esi, Darko, Kafui (2010). Bayesian Hierarchical Model Adoption Rates in Ghanaian Regional Monitoring Networks: A Comparative Study. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18904227

34. Asare, Kofi, **Boakye, Abena**, Gyekye, Yaw, Bonsu, Esi (2010). Community-Driven Waste Management Initiatives in Accra's Slums: Participation Rates and Environmental Health Impacts. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18910194

35. Appiah, Kofi, Dansu, Frimpong, **Boakye, Abena**, Agyei, Yaw (2010). Methodological Evaluation of Public Health Surveillance Systems in Ghana Using Difference-in-Differences Models for Clinical Outcome Assessment. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18903465

36. Rey, Kofi Agbley, **Boakye, Abena** (2007). Topological Data Analysis for Optimising Ghanaian Traffic Flow Using Finite-Element Discretization Methodology. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18849063

Book chapters 1

1. Ibok Oduro, **AA Boakye**, FD Wireko-Manu (2019). Enhancing the food applications of cocoyam (Xanthosoma sagittifolium): Deductions from a three-year study. *Roots and Tubers in Ghana: Overview of selected research papers*. https://iris.landsbokasafn.is/is/publications/enhancing-the-food-applications-of-cocoyam-xanthosoma-sagittifoli/

Conference papers 3

1. María Gudjónsdóttir, **Abena Boakye**, Faustina Wireko-Manu, Ibok Oduro (2016). Characterization of red and white cocoyam (Xanthosoma sagittifolium) roots, flours and starches during heating by low field NMR. https://doi.org/10.1255/mrfs.10

2. **A Boakye**, I Oduro, F Wireko-Manu (2013). DIETARY FIBRE AND PROXIMATE COMPOSITION OF SOME SELECTED GHANAIAN UNDERUTILISED FRUITS. *ANNALS OF NUTRITION AND METABOLISM*. https://scholar.google.com/scholar?cluster=14868966864614751026&hl=en&oi=scholarr

3. F Wireko-Manu, **A Boakye**, I Oduro (2013). HEALTH BENEFICIAL CONSTITUENTS OF FOUR UNDERUTILIZED TROPICAL FRUITS. *ANNALS OF NUTRITION AND METABOLISM*. https://scholar.google.com/scholar?cluster=4759400350821562051&hl=en&oi=scholarr

Reports 2

1. SSali, Reuben Tendo, Dert, Eric Kuuna, Carey, Edward, Low, Jan, Imoro, Simon, **Boakye, Abena**, Oduro, Ibok, Etwire, Eunice, Etwire, Prince Maxwell, Tinyiro, Samuel Edgar (2023). Gendered Food Mapping of Fried Sweetpotato in Ghana. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.7584307

2. **A Boakye** (2022). Participatory processing diagnosis of fried sweetpotato in Nigeria & Ghana. Understanding the drivers of trait preferences and the development of multi-user RTB product …. *RTBfoods Project*. https://www.researchgate.net/profile/Abena-Boakye/publication/377152748_Participatory_Processing_Diagnosis_of_Fried_Sweetpotato_in_Nigeria_Ghana_Understanding_the_Drivers_of_Trait

_Preferences_and_the_Development_of_Multi-_user_RTB_Product_Profiles_WP1_Step_3/links/659724943c472d2e8eb4c66b/Participatory-Processing-Diagnosis-of-Fried-Sweetpotato-in-Nigeria-Ghana-Understanding-the-Drivers-of-Trait-Preferences-and-the-Development-of-Multi-user-RTB-Product-Profiles-WP1-Step-3.pdf

Theses 1

1. **AA Boakye** (2013). Assessment of Some Health Beneficial Constituents of Edible Portions of Four Underutilised Fruits. *Master's Thesis*. https://www.researchgate.net/profile/Abena-Boakye/publication/312662133_ASSESSMENT_OF_SOME_HEALTH_BENEFICIAL_CONSTITUENTS_OF_EDIBLE_PORTIONS_OF_FOUR_UNDERUTILISED_FRUITS/links/5887a370aca272b7b4525927/ASSESSMENT-OF-SOME-HEALTH-BENEFICIAL-CONSTITUENTS-OF-EDIBLE-PORTIONS-OF-FOUR-UNDERUTILISED-FRUITS.pdf