CURRICULUM VITAE

EVANS FRIMPONG BOATENG (Ph.D.)

University of Energy and Natural Resources, School of Agriculture and Technology,
Department of Food Science and Technology, Dormaa Ahenkro Campus,
P. O. Box 214, Sunyani, Bono, Ghana

Telephone: +233546907452
Nationality: Ghanaian
Language Spoken: English (Official Language)
E-mail: nanafrimpong94@yahoo.com
nanafrimpong94@gmail.com
Institutional E-mail: evans.boateng@uenr.edu.gh

PERSONALITY PROFILE

Dr. Boateng is a highly motivated and experienced individual with a Doctorate in Food Science and Engineering. I have a good knowledge of food science and engineering which is beneficial for the human system and improved nutrition. My degree in history has enabled me to develop good organizational skills, and an analytical/logical approach to biochemical factors and functions of meat and meat products. I research meat science, agriculture (animal) science, processed meat products quality and safety, food science, food materials, and food safety. To alleviate environmental sustainability issues, my research direction focuses mainly on the valorization of agro-waste in processed meat products for quality and safety enhancement. Also, the development of natural-based hybrid active film materials for meat products' intelligent packaging is my key scope of research interest.

EDUCATIONAL INSTITUTIONS ATTENDED AND ACADEMIC QUALIFICATIONS

Nanjing Agricultural University, Nanjing, Jiangsu, P.R China - (Ph.D.)
Sept 2018-July 2022

Nanjing University of Science and Technology, Nanjing, Jiangsu, P.R China - (M.Sc.)
Sept 2015-April 2018

University for Development Studies, Nyankpala, Tamale, Ghana - (B.Sc.)
Aug 2009-July 2013

AWARD/GRANT

- Jiangsu Province Talent Selection Programme (TSP) scholarship for international students 2018, to pursue doctorate studies in P.R China.
- Nanjing Municipal Government and Nanjing University of Science and Technology (NMG-NJUST) joint scholarship for international students to pursue master's degree studies in P.R China.

RESEARCH OF SPECIAL INTEREST

Food waste not only exacerbates global food crisis issues but also affects food availability and the impact of the economy. Food science and technology impact considers the multifaceted research-related spheres to achieve a more stable and equitable future for the food sector, human nutrition and health, and industries. Agro-waste utilization provides valuable benefits in sustainable food systems and primarily serves as a source of agro resources to industries. However, there is a dearth of mitigation measures in both the economy and the environment. Therefore, the valorization of agro-waste as eco-friendly and low-cost alternatives in sustainable food systems coupled with consumer concerns associated with food quality and safety from epidemiological studies remain key interests of scientific research exigency. Hence, to avert these concerns, my research interest explores:

- A scientific revolutionary means to harness the complexity and pervasive matters of food waste, quality, and safety for improved human nutrition.

- The synergistic effect of food materials science engineering mechanisms on food science technologies in fabricating active packaging films for food packaging and preservation.

SCIENTIFIC RESEARCH PUBLICATIONS

1. **Boateng, E.F**., Ziyi, Y., Zhang, J., Zhou, L., Xing, L., & Zhang, W. Incorporation of kiwifruit peel improved the property of carboxymethyl cellulose-gum arabic active film and its effects on the quality of beef sausages. *Food Production, Processing and Nutrition* **2025***,* 7, 10. https://doi.org/10.1186/s43014-024-00277-x . **(IF=5.1)**
2. Nasiru, M.M, **Boateng, E.F**, Alnadari. F., Bako, H.K, Ibeogu, H.I, Feng, J., Song, J., Liu, H., Zhang, Q., Masisi, K., Roth, C.M, Yan, W., Zhang, J. & Li, C. Cold plasma reengineers peanut protein isolate: Unveiling changes in functionality, rheology, and structure. *International Journal of Biological Macromolecules* **2024**, 286 (2025) 138407. https://doi.org/10.1016/j.ijbiomac.2024.138407. (**IF=7.7)**
3. Fordjour, D. K., Sarpong, F., Owusu-Kwarteng, J., & **Boateng, E.F.** Drying kinetics and mathematical modeling of coconut meat slices: Insight into pretreatment and drying synergic effect. *Heliyon* **2024**, 10 (20) e39307. https://doi.org/10.1016/j.heliyon.2024.e39307. (**IF=3.4)**
4. Amedor, E. N., Sarpong, F., Bordoh, P. K., **Boateng, E. F.**, & Owusu-Kwarteng, J. Modelling convectional oven drying characteristics and energy consumption of dehydrated yam (Dioscorea rotundata) chips. *Heliyon* **2024**, 10 (14) e34672. https://doi.org/10.1016/j.heliyon.2024.e34672. (**IF=3.4)**
5. Nasiru, M.M., **Boateng, E.F**., Alnadari, F., Bassey, A.P., Yan, W., Masisi, K., Li, C. & Zhang, J. Effect of Cold Atmospheric Plasma Fusion 222 nm UV and PAHP on Cold Pasteurisation of Egg Surfaces. *Food and Bioprocess Technology* **2024**, 1-16. https://doi.org/10.1007/s11947-024-03433-w. **(IF=5.6)**
6. Nasiru, M.M., **Boateng, E.F**., Umair, M., Alnadari, F., Bassey, A. P., Qian, J., Yan, W., Li, C. & Zhang, J. Decontamination of egg-associated pathogens by plasma-activated water and hydrogen peroxide. *Journal of Food Safety* **2024**, 44 (3), e13136. https://doi.org/ 10.1111/jfs.13136. **(IF=2.4)**
7. Nasiru, M.M., **Boateng, E.F**., Alnadari, F., Umair, M., Wang, Z., Senan, A. M., Yan, W. & Zhuang, H. Dielectric barrier discharge cold atmospheric plasma treatment of egg white protein: Insights into the functional, rheological, and structural properties. *Food and Bioprocess Technology* **2023***,* 1-22. https://doi.org/10.1007/s11947-023-03159-1-**(IF=5.58)**
8. Bassey, A.P., Liu, P.P., Chen, J., Bako, H.K., **Boateng, E.F.,** Ibeogu, H.I., Ye, K., Li, C. & Zhou, G. Antibacterial efficacy of phenyllactic acid against Pseudomonas lundensis and Brochothrix thermosphacta and its synergistic application on modified atmosphere/air-packaged fresh pork loins. *Food Chemistry* **2023**, 430 (1) p.137002. https://doi:10.1016/j.foodchem.2023.137002. **(IF=8.8)**
9. Alnadari, F., Al-Dalali, S., Nasiru, M. M., **Frimpong E.B.**, Hu, Y., Abdalmegeed, D., Dai, Z., AL-Ammari, A., Chen, G., & Zeng, X. A new natural drying method for food packaging and preservation using biopolymer-based dehydration film. *Food Chemistry* **2023**, 404: 134689. https://doi.org/10.1016/j.foodchem.2022.134689. **(IF=9.23)**
10. Alnadari, F., Al-Dalali, S., Pan, F., Abdin, M., **Frimpong, E.B.**, Dai, Z., AL-Dherasi, A. & Zeng, X. Physicochemical characterization, molecular modeling, and applications of carboxymethyl chitosan-based multifunctional films combined with gum Arabic and anthocyanins. *Food and Bioprocess Technology* **2023**, 1-19. https://doi.org/10.1007/s11947-023-03122-0. **(IF=5.58)**
11. Yang, Z., Cai, J., **Boateng, E.F.**, Xing, L., Zhang, W. Insight into antioxidant activity and peptide profile of Jinhua ham broth peptides at different cooking times. *Antioxidants* **2023**, 12 (3)*,* 606. https://doi.org/10.3390/antiox12030606. **(IF=7.67)**
12. **Boateng, E.F**., Yang, Z., & Zhang, W. Effects of kiwifruit peel extract and its antioxidant potential on the quality characteristics of beef sausage. *Antioxidants* **2022**, 11(8), 1441. https://doi.org/10.3390/antiox11081441. **(IF=7.67)**
13. Bassey, A.P., **Boateng, E.F.**, Zhu, Z., Zhou, T., Nasiru, M.M., Guo, Y., Dou, H., Ye, K., Li, C., & Zhou, G. Volatilome evaluation of modified atmosphere packaged chilled and super-

chilled pork loins using electronic nose and HS-GC-IMS integration. *Food Packaging and Shelf Life* **2022**, 34: 100953. https://doi.org/10.1016/j.fpsl.2022.100953. **(IF=8.74)**

14. Bassey, A.P., Chen, Y., **Boateng, E.F**., Zhang, Y., Diao, X., Nasiru, M.M., Tang, C., Ye, K., Li, C., & Zhou, G. Evaluation of physicochemical, microbiological, and sensory profiles of vacuum-packed low-salt pork belly under refrigeration and room-temperature storage. *LWT* **2022**, 167, 113847. https://doi.org/10.1016/j.lwt.2022.113847. **(IF=6.05)**
15. Nasiru, M.M., **Boateng, E.F**., Wang, Z., Yan, W., Zhuang, H., & Zhang, J. Ultrasound-assisted high-voltage cold atmospheric plasma treatment on the inactivation and structure of lysozyme: effect of treatment voltage. *Food Bioprocess Technol* **2022**, 15, 1866–1880. https://doi.org/10.1007/s11947-022-02842-z. **(IF=5.58)**
16. Nasiru, M.M., **Boateng, E.F**., Mustapha, A.T., Kelechi, A.J., & Raj, J.D. Mathematical modelling of potassium meta-bisulphite treatedmango (*mangifera indica*) slices cv dasheri. *Journal of Agriculture and Food Sciences* **2022**, 20(1), 91-100. https://dx.doi.org/10.4314/jafs.v20i1.8.
17. Anachinaba, I.A., Adzitey, F., Brown, C.A., & **Boateng, E.F**. Knowledge and perception of farmers in tema metropolis, Ghana on microbiological meat safety, antibiotic resistance and antibiotic residues. *African Journal of Health, Safety and Environment* **2022**, 3(2), 13-30. https://doi.org/10.52417/ajhse.v3i2.237.
18. Anachinaba, I.A., Adzitey, F., Teye, G.A., Brown, C.A., & **Boateng, E.F**. Knowledge and perception of consumers on microbiological meat safety, antibiotic resistance and residues in Tema metropolis, Ghana. *Journal of Agriculture and Food Sciences* **2022**, 20(1), 135-153. https://dx.doi.org/10.4314/jafs.v20i1.11.
19. Anachinaba, I.A., Adzitey, F., Brown, C.A., & **Boateng, E.F**. Knowledge and perception of butchers/meat sellers in Tema, Ghana on microbiological meat safety, antibiotic resistance and residues. *International Journal of Meat Science.* **2022**, 12: 1-11. doi: 10.3923/ijmeat.2022.1.11.
20. Nasiru, M.M., Umair, M., **Boateng, E.F**., Alnadari, F., Khan, K.-u.R., Wang, Z., Luo, J., Yan, W., Zhuang, H., Majrashi, A., & Zhang, J.; Korma, S.A. Characterisation of flavour attributes in egg white protein using HS-GC-IMS combined with E-nose and E-tongue: Effect of high-voltage cold plasma treatment time. *Molecules* **2022**, 27, 601. https://doi.org/10.3390/molecules27030601. **(IF=4.92)**
21. Nasiru, M.M., **Frimpong, E.B**., Muhammad, U., Qian, J., Mustapha, A.T., Yan, W, Zhuang, H., & Zhang, J. Dielectric barrier discharge cold atmospheric plasma: Influence of processing parameters on microbial inactivation in meat and meat products. *Compr Rev Food Sci Food Saf* **2021***,* 1–34. https://doi.org/10.1111/1541-4337.12740. **(IF=15.91)**
22. Bassey, A.P., Chen, Y., Zhu, Z., Odeyemi, O.A., **Frimpong, E.B**., Ye, K., Li, C., & Zhou, G. Assessment of quality characteristics and bacterial community of modified atmosphere packaged chilled pork loins using 16S rRNA amplicon sequencing analysis. *Food Research International* **2021**, 142, 110412. https://doi.org/10.1016/j.foodres.2021.110412. **(IF=7.42)**
23. Adzitey, F., Monten, S.K., & **Frimpong, E.B**. Impact of COVID-19 on butchers and meat processors in Ghana: Implication on food (meat) biosecurity. *Asian Journal of Research in Animal and Veterinary Sciences* **2021**, 8(4), 39-54.
24. Pereira, J., Sathuvan, M., Lorenzo, J.M., **Boateng, E.F**., Brohi, S.A., & Zhang, W. Insight into the effects of coconut kernel fiber on the functional and microstructural properties of myofibrillar protein gel system. *LWT* **2021**, 138, 110745. https://doi.org/10.1016/j.lwt.2020.110745. **(IF=6.05)**
25. **Boateng, E.F**., Nasiru, M.M., & Agyemang, M. Meat: Valuable animal-based nutritional food. *Asian Journal of Food Science* **2020**, 15(1): 9-19. https://doi.org/10.9734/AFSJ/2020/v15i130140.
26. Pereira, J., Sathuvan, M., Brohi, S.A., **Boateng, E.F**., & Zhang, W. Impact of unripe flour on water states, rheological behavior and structural properties of myofibrillar protein composite gel. *LWT* **2020**, 125, 109276. https://doi.org/10.1016/j.lwt.2020.109276. (**IF=6.05)**
27. Adzitey, F., Asiamah, P., & **Boateng, E.F**. Prevalence and antibiotic susceptibility of salmonella enterica isolated from cow milk, milk products and hands of sellers in the Tamale

metropolis of Ghana. *Journal of Applied Sciences and Environmental Management* **2020**, 24(1):59-64.

28. **Boateng, E.F**., & Nasiru, M.M. Applications of ultrasound in meat processing technology: A review. *Food Science and Technology*, **2019**, 7(2): 11-15. https://doi.org/10.13189/fst.2019.070201.
29. Sulleyman, K.W, Adzitey, F., & **Boateng, E.F**. Knowledge and practices of meat safety by meat sellers in the Accra metropolis of Ghana. *International Journal of Veterinary Science* **2018**, 7(3):167-171.
30. Adzitey, F., Alexander A., Teye, G.A., Addah, W., Adam, I., & **Boateng, E.F**. Handling and storage of leftover meat by butchers in the Tamale metropolis and Bolgatanga municipality of Ghana. *Journal of Meat Science and Technology* **2018**, 6(3): 30-35.
31. Ampadu, B., **Boateng, E.F**., & Miriam A.A. Assessing adaptation strategies to the impact of climate change: A case study of pungu-upper east region, Ghana. *Environment and Ecology Research* **2018**, 6(1):33-44. https://doi.org/ 10.13189/eer.2018.060103. ISSN:2331-6268.
32. Adzitey, F., Teye, G.A., & **Boateng, E.F**. Whole Egg of Chicken as a Binder in Beef Burger. *Ghana Journal of Science, Technology and Development* **2014**, 1(1).

SCIENTIFIC ARTICLES IN PRESS AND UNPUBLISHED

- **Boateng, E.F**., Ziyi, Y., Nasiru, M.M., Xing, L., & Zhang, W. Highlights of kiwifruit and its by-products functional potential valorization in meat–A review.
- **Boateng, E.F**., Ziyi, Y., Nasiru, M.M., Zhang, J., Bassey, A.P., Zhou, L., Wang, Z., Xing, L., & Zhang, W. Effect of kiwifruit peel powder extract valorization on the quality of beef sausage under different cooking conditions.
- **Boateng, E.F**., Nasiru, M.M, Ziyi, Y., Zhang, J., Bassey, A.P., Zhou, L., Wang, C., Wang, C., Xing, L., & Zhang, W. Characterization of kiwifruit peel: Effect of kiwifruit peel powder extract on the quality characteristics of beef sausages.
- **Boateng, E.F**., Brohi, S.A., Pereira, J., Sathuvan, M. & Zhang, W. Evaluation and LC-ESI-QTOF/MS characterization of lyophilized kiwifruit peels (Hayward, Arguta, and Zespri® SunGold) via milli-Q water extraction and antioxidant activity potency.
- Nasiru, M.M., **Boateng, E.F**., Alnadari, F., Wang, Z., Qian, J., Yan, W. & Zhuang, H. Synergetic inhibition effect of plasma-activated water and hydrogen peroxide on eggshell pathogens: Inhibition mechanism and storage stability.

PUBLICATION ONLINE REFERENCES

ORCID: https://orcid.org/0000-0001-5466-4425
ResearchGate: https://www.researchgate.net/profile/Evans-Frimpong-Boateng
GoogleScholar ID: https://scholar.google.com/citations?hl=en&user=NeZItKoAAAAJ
Scopus: https://www.scopus.com/authid/detail.uri?authorId=57215686191
Academia: https://uenr.academia.edu/EvansFrimpongBoatengPhD
SciProfiles: https://sciprofiles.com/profile/evansfrimpongboateng
LinkedIn: linkedin.com/in/evans-frimpong-boateng-a152867b
Web of Science ResearcherID: D-1018-2019
ResearchID: rid41346

GUEST EDITORIAL ROLE

Guest editor (assistant) for the special issue "Incorporating Non-Thermal Technologies to Enhance Food Fortification Strategies: Current Trends and Future Directions in Personalized Nutrition" ***Frontiers in Nutrition***, 2025.
https://www.frontiersin.org/research-topics/69420/incorporating-non-thermal-technologies-to-enhance-food-fortification-strategies-current-trends-and-future-directions-in-personalized-nutrition

AFFILIATE JOURNALS: PEER REVIEW ROLE

LWT, Foods, Sensors, Processes, Molecules, Agriculture, Sustainability, Food Chemistry, Food Bioscience, Applied Sciences, Applied Food Research, Asian Food Science Journal, Food Research International, Food Science and Engineering, Current Opinion in Food Science, Current Research in Food Science, Journal of Agriculture and Food Research, European Journal of Nutrition & Food Safety, Asian Journal of Food Research and Nutrition, Journal of Advances in Biology & Biotechnology, International Journal of Molecular Sciences (IJMS), Journal of Advances in Food Science & Technology, Innovative Food Science and Emerging Technologies, International Journal of Biological Macromolecules (IJBM), International Journal of Environmental Research and Public Health (IJERPH).

AFFILIATE ASSOCIATIONS AND MEMBERSHIP OF LEARNED SOCIETIES

Professional Member:

Ghana Association of Food Scientists and Technologists (GhAFOST), Kumasi, Ghana.

Sept 2024- Present

REFEREES

Available upon request.