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RESEARCH

Interests	Carbon Dioxide Capture · Life Cycle Assessment (LCA) · Biofuels · Wastewater Treatment
Areas	Pollution · Building and Construction · Energy Engineering and Power Technology · Renewable Energy, Sustainability and the Environment · Waste Management and Disposal · Environmental Engineering

RESEARCH SUMMARY

24	975	13	13	2.39	21%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 24 publications listed below, 2008–2026. Field-weighted impact is the mean over the 14 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 14 papers scored for it are among the world's most cited tenth for their field, type and year.

EDUCATION AND QUALIFICATIONS

PhD 2012–2015
Chemical Engineering, The University of Melbourne, Melbourne, Australia

DISTINCTIONS, MEMBERSHIPS AND SERVICE

Member (MIEAust) 2017–present
Institution of Engineers Australia, Melbourne, Australia

PUBLICATIONS

Journal articles 21

1. Francis W. Y. Momade, **A Ntiamoah**, HMK Essandoh (2026). Enhancement of Fluoride Uptake via Fe (III) Functionalization of Zeolite Y: Comparative Modification Approaches. *Microporous and Mesoporous Materials*. https://www.sciencedirect.com/science/article/pii/S138718112600209X
2. Drussilla A. Pobee, Godfred Ohemeng-Boahen, **Augustine Ntiamoah**, Helen M.K. Essandoh, Mandela Toku, Francis W.Y. Momade (2026). Enhancement of fluoride uptake via Fe (III) functionalisation of zeolite Y: Comparative modification approaches. *Microporous and Mesoporous Materials*. https://doi.org/10.1016/j.micromeso.2026.114234
3. **Augustine Ntiamoah**, Bridget Ama Quansah, Godfred Ohemeng-Boahen, Nana Yaw Asiedu, Ulrike Gayh, Kenneth Bedu-Addo (2025). Environmental impacts of Small-Scale palm oil production in Ghana: A life cycle assessment study. *Environment Development and Sustainability*. https://doi.org/10.1007/s10668-025-06641-2
4. RJ Tanyi, LD Mensah, **A Ntiamoah**, DA Quansah (2025). Feedstocks and Pathways, and Its Prospects in Sub-Saharan Africa. *African Green Transition Through Innovative Pathways*. https://books.google.com/books?hl=en&lr=&id=zk1nEQAAQBAJ&oi=fnd&pg=PA223&dq=info:OTR3bEMvdd4J:scholar.google.com&ots=jOAv9jJdYi&sig=NTkOBgcmrnRdkA-WOSXewLfNTdk

5. Robinson J. Tanyi, Lena D. Mensah, **Augustine Ntiamoah**, David A. Quansah, Muyiwa S. Adaramola (2025). Systematic Literature Review of Hydrogen Production Technologies, Feedstocks and Pathways, and Its Prospects in Sub-Saharan Africa. *World sustainability series*. https://doi.org/10.1007/978-3-031-87043-9_12
6. Eric Agyeman, David A. Quansah, **Augustine Ntiamoah**, Lena D. Mensah, Emmanuel W. Ramde (2025). Toward a circular economy in Ghana's renewable energy sector: A quantitative assessment of waste from solar photovoltaic modules in Ghana. *International Journal of Green Energy*. https://doi.org/10.1080/15435075.2025.2469136
7. Enoch Asante, Nana Yaw Asiedu, Samuel Sarpong, Emmanuel Okoh Agyemang, Ibrahim Ajani, **Augustine Ntiamoah**, Albert Amatey Adjaottor, Ahmad Addo (2024). Modeling and assessment of the techno-economic analysis of biogas and its potential for the generation of electricity from water hyacinth biomass. *Journal of Engineering and Applied Science*. https://doi.org/10.1186/s44147-024-00431-9
8. Kenneth Bedu-Addo, Louis Boansi Okofo, **Augustine Ntiamoah**, Henry Mensah (2024). Pollution of water bodies and related impacts on aquatic ecosystems and ecosystem services: The case of Ghana's booming 'galamsey' industry. *Heliyon*. https://doi.org/10.1016/j.heliyon.2024.e40880
9. Robinson J Tanyi, Lena D Mensah, **Augustine Ntiamoah**, David A Quansah, Muyiwa S Adaramola (2024). Techno-economic assessment of hydrogen production in Ghana through PV electrolysis and biomass gasification. *Oxford Open Energy*. https://doi.org/10.1093/ooenergy/oiae014
10. Enoch Asante, Nana Yaw Asiedu, Emmanuel Okoh Agyemang, Elvis Boateng, **Augustine Ntiamoah**, Albert Amatey Adjaottor, Ahmad Addo (2024). The influence of particle size on biomethanation: a study of Eichornia crassipes biomass (water hyacinth) from the Lower Volta River in Ghana using fruit waste sludge as inoculum source. *Biomass Conversion and Biorefinery*. https://doi.org/10.1007/s13399-024-05638-7
11. Enoch Asante, Nana Yaw Asiedu, Elvis Boateng, Emmanuel Okoh Agyemang, Ibrahim Ajani, **Augustine Ntiamoah**, Albert Amatey Adjaottor, Ahmad Addo (2024). Thermodynamic analysis of anaerobic digestion of Eichornia crassipes (Water Hyacinth) biomass from the Volta River basin of Ghana using fruit waste sludge as inoculum. *Chemical Thermodynamics and Thermal Analysis*. https://doi.org/10.1016/j.ctta.2024.100131
12. **A Ntiamoah** (2017). A new multi-bed vacuum swing adsorption cycle for CO2 capture from flue gas streams. *Energy Procedia*. https://www.sciencedirect.com/science/article/pii/S1876610217315837
13. **A Ntiamoah** (2016). CO2 Capture by Temperature Swing Adsorption: Use of Hot CO2-Rich Gas for Regeneration. *Industrial & Engineering Chemistry Research*. https://doi.org/10.1021/acs.iecr.5b01384
14. **A Ntiamoah** (2016). Strategies for CO2 capture from different CO2 emission sources by vacuum swing adsorption technology. *Chinese journal of chemical engineering*. https://www.sciencedirect.com/science/article/pii/S1004954115004395
15. **A Ntiamoah** (2015). CO2 capture by vacuum swing adsorption: role of multiple pressure equalization steps. *Adsorption*. https://doi.org/10.1007/s10450-015-9690-8
16. **A Ntiamoah** (2015). Effects of feed gas concentration, temperature and process parameters on vacuum swing adsorption performance for CO2 capture. *Chemical Engineering Journal*. https://www.sciencedirect.com/science/article/pii/S1385894714015897
17. **A Ntiamoah** (2014). Overview of CO2 capture from flue gas streams by vacuum pressure swing adsorption technology. *Austin J. Chem. Eng*. https://scholar.google.com/scholar?cluster=7726314807564277795&hl=en&oi=scholarr
18. George Afrane, **Augustine Ntiamoah** (2012). Analysis of the life-cycle costs and environmental impacts of cooking fuels used in Ghana. *Applied Energy*. https://doi.org/10.1016/j.apenergy.2012.03.041
19. George Afrane, **Augustine Ntiamoah** (2011). Comparative Life Cycle Assessment of Charcoal, Biogas, and Liquefied Petroleum Gas as Cooking Fuels in Ghana. *Journal of Industrial Ecology*. https://doi.org/10.1111/j.1530-9290.2011.00350.x
20. **A Ntiamoah** (2011). Pesticides in the modern world-risks and benefits. *Use of Pesticides in the Cocoa Industry and Their Impact on the Environment and the Food Chain. Livre*. https://scholar.google.com/scholar?

cluster=6770263630424514664&hl=en&oi=scholarr

21. **Augustine Ntiamoah**, George Afrane (2008). Environmental impacts of cocoa production and processing in Ghana: life cycle assessment approach. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2007.11.004

Book chapters 2

1. George Afrane, **Augustine Ntiamoah** (2011). Use of Pesticides in the Cocoa Industry and Their Impact on the Environment and the Food Chain. *InTech eBooks*. https://doi.org/10.5772/17921
2. **A. Ntiamoah**, G. Afrane (2009). Life Cycle Assessment of Chocolate Produced in Ghana. https://doi.org/10.1007/978-1-4020-9139-1_5

Theses 1

1. **A Ntiamoah** (2015). Developing Advanced Vacuum Swing Adsorption and Temperature Swing Adsorption Cycles for Post-combustion CO2 Capture. *University of Melbourne, Department of Chemical & Biomolecular Engineering*. https://scholar.google.com/scholar?cluster=14215834179010736245&hl=en&oi=scholarr