Isaac Kow Tetteh

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RESEARCH

Interests	Atmospheric/Climate/Environmental Science
Areas	Water Science and Technology · Pollution · Management, Monitoring, Policy and Law · Sociology and Political Science · Ecology, Evolution, Behavior and Systematics · Global and Planetary Change

RESEARCH SUMMARY

36	557	10	10	3.18	26%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 36 publications listed below, 2004–2026. Field-weighted impact is the mean over the 19 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 19 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2000–present
Department of Theoretical & Applied Biology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

MS; PhD 2006–2012
Department of Marine, Earth, & Atmospheric Sciences, North Carolina State University, Raleigh, United States

PUBLICATIONS

Journal articles 27

1. Solomon Nandomah, **Isaac K. Tetteh**, Ibrahim Issahaku, Antonia Y. Tetteh, Lawson Mensah (2026). Remediation of chemical and biochemical oxygen demand in untreated abattoir effluent using a locally engineered bio-based adsorbent. *Discover Chemical Engineering*. https://doi.org/10.1007/s43938-026-00140-0
2. **Isaac K. Tetteh**, Solomon Nandomah, Janet A. Boadu, Amos Nortey, Esther B. Dwemoh, Antonia Y. Tetteh (2025). Characterization and environmental performance evaluation of locally manufactured P-32 and commercial activated carbons on the Ghanaian market. *Sustainable Chemistry for the Environment*. https://doi.org/10.1016/j.scenv.2025.100261
3. Solomon Nandomah, **Isaac K. Tetteh**, Antonia Y. Tetteh (2025). Decolorization and deturbidization of untreated abattoir effluent using a locally engineered bio-based adsorbent. *Desalination and Water Treatment*. https://doi.org/10.1016/j.dwt.2025.101585
4. **Isaac Kow Tetteh**, Solomon Nandomah (2025). Detoxification of potentially eutrophic substances using P-32 powdered activated carbon. *Discover Chemical Engineering*. https://doi.org/10.1007/s43938-025-00080-1

5. Stephen Arthur, Lawson Mensah, Kwabena Nsafoah Koduah, Ethel Bentil, Solomon Nandomah, **Isaac Kow Tetteh**, Jonathan Nartey Hogarh (2025). The dull side of gold ore exploration and analysis: an assessment of heavy metal pollution and ecological risk posed by untreated wastewater from gold assaying laboratories. *Environmental Monitoring and Assessment*. https://doi.org/10.1007/s10661-025-14295-w

6. Justice Moses K. Aheto, Tracy Gates, **Isaac Tetteh**, Rahmatu Babah (2024). A multilevel analysis of the predictors of health facility delivery in Ghana: Evidence from the 2014 Demographic and Health Survey. *PLOS Global Public Health*. https://doi.org/10.1371/journal.pgph.0001254

7. **IK Tetteh** (2024). P-32 powdered activated carbon detoxifies potentially toxic elements in the Kumasi Abattoir Ghana effluent. *Scientific African*. https://www.sciencedirect.com/science/article/pii/S2468227624003314

8. Solomon Nandomah, **Isaac K. Tetteh** (2024). Potentially toxic elements pose a threat to environmental quality and human health: The Kumasi Abattoir Ghana in perspective. *Environmental Challenges*. https://doi.org/10.1016/j.envc.2024.100904

9. **Isaac K. Tetteh**, Ibrahim Issahaku, Antonia Y. Tetteh (2024). Recent advances in synthesis, characterization, and environmental applications of activated carbons and other carbon derivatives. *Carbon Trends*. https://doi.org/10.1016/j.cartre.2024.100328

10. Solomon Nandomah, **Isaac K. Tetteh** (2024). Spatial variability and risk assessment of potentially toxic elements in the effluent of Kumasi Abattoir Ghana. *Environmental Advances*. https://doi.org/10.1016/j.envadv.2024.100499

11. Ibrahim Issahaku, **Isaac K. Tetteh**, Antonia Y. Tetteh (2023). Chitosan and chitosan derivatives: Recent advancements in production and applications in environmental remediation. *Environmental Advances*. https://doi.org/10.1016/j.envadv.2023.100351

12. Ebenezer Ebo Yahans Amuah, **Isaac Kow Tetteh**, Janet Afia Boadu, Solomon Nandomah (2023). Environmental impact assessment practices of the federative republic of Brazil: A comprehensive review. *Environmental Challenges*. https://doi.org/10.1016/j.envc.2023.100746

13. **IK Tetteh** (2023). Heavy Metal Pollution Resulting from Informal E-Waste Recycling. *Heavy Metals-Recent Advances: Recent Advances*. https://books.google.com/books?hl=en&lr=&id=PATIEAAAQBAJ&oi=fnd&pg=PA239&dq=info:hBDQO35ifdoJ:scholar.google.com&ots=YoESDwcnfv&sig=P7B_m5GkEQH9tyv3bGioizhnLjI

14. Solomon Nandomah, **Isaac Kow Tetteh** (2023). Potential ecological risk assessment of heavy metals associated with abattoir liquid waste: A narrative and systematic review. *Heliyon*. https://doi.org/10.1016/j.heliyon.2023.e17359

15. Olawale Emmanuel Olayide, **Isaac Kow Tetteh**, Labode Popoola (2016). Differential impacts of rainfall and irrigation on agricultural production in Nigeria: Any lessons for climate-smart agriculture? *Agricultural Water Management*. https://doi.org/10.1016/j.agwat.2016.08.034

16. Olayide, Olawale Emmanuel, **Tetteh, Isaac Kow**, Porter, John Roy, Popoola, Labode (2016). Review and analysis of vulnerability to rainfall variability and policy responses to agricultural water supply in Nigeria. *Research at the University of Copenhagen (University of Copenhagen)*.

17. **IK Tetteh** (2015). On the data-driven inference of modulatory networks in climate science: an application to West African rainfall. *Nonlinear Processes in Geophysics*. https://npg.copernicus.org/articles/22/33/2015/

18. Olawale Emmanuel Olayide, **Isaac Kow Tetteh**, Labode Popoola (2015). Trends and Policy Correlates of Agricultural Production and Agricultural Production Sustainability Outcomes in Ghana and Nigeria. *Journal of Sustainable Development*. https://doi.org/10.5539/jsd.v8n9p71

19. **IK Tetteh** (2014). On the Data-driven Inference of Modulatory Networks in Climate Science: An Application to West African Rainfall. *Nonlinear Processes in Geophysics Discussions*. https://pdfs.semanticscholar.org/751c/fc018ffca2e25f66d8a96769a798a9686233.pdf

20. **IK Tetteh** (2013). Discovery of extreme events-related communities in contrasting groups of physical

system networks. *Data Mining and Knowledge Discovery*. https://doi.org/10.1007/s10618-012-0289-3

21. **EAEF Isaac K. Tetteh** (2012). A EMPIRICAL PERSPECTIVE ON ENVIRONMENTAL. ANTECEDENTS: PART 11- STOCHASTIC AR (1) MODELING FOR RETROSPECTIVE PREDICTION OF THE ENVIRONMENTAL QUALITY OF THREE RIPARIAN …. *Environmental Research Journal*.
22. **IK Tetteh** (2012). AN EMPIRICAL PERSPECTIVE ON ENVIRONMENTAL ANTECEDENTS: PART II-STOCHASTIC AR (1) MODELING FOR RETROSPECTIVE PREDICTION OF THE ENVIRONMENTAL QUALITY OF THREE RIPARIAN …. *Environmental Research Journal*. https://openurl.ebsco.com/contentitem/gcd:85692815?sid=ebsco:plink:crawler-gcd&id=ebsco:gcd:85692815&crl=c&jrnl=19353049
23. **IK Tetteh** (2011). AN EMPIRICAL PERSPECTIVE ON ENVIRONMENTAL ANTECEDENTS: PART I-ANALYSIS OF THE ENVIRONMENTAL QUALITY OF THREE RIPARIAN COMMUNITIES ASSOCIATED WITH TWO DAMS IN KUMASI, GHANA. *Environmental Research Journal*. https://www.researchgate.net/profile/Isaac-Tetteh-2/publication/315293221_AN_EMPIRICAL_PERSPECTIVE_ON_ENVIRONMENTAL_ANTECEDENTS_PART_I_ANALYSIS_OF_THE_ENVIRONMENTAL_QUALITY_OF_THREE_RIPARIAN_COMMUNITIES_ASSOCIATED_WITH_TWO_DAMS_IN_KUMASI_GHANA/links/58cc60c7a6fdcc5cccb98e54/AN-EMPIRICAL-PERSPECTIVE-ON-ENVIRONMENTAL-ANTECEDENTS-PART-I-ANALYSIS-OF-THE-ENVIRONMENTAL-QUALITY-OF-THREE-RIPARIAN-COMMUNITIES-ASSOCIATED-WITH-TWO-DAMS-IN-KUMASI-GHANA.pdf
24. **Isaac K.Tetteh** (2009). Environmental and regional air pollution. *(No Title)*. https://cir.nii.ac.jp/crid/1970867909843128596
25. **Isaac Kow Tetteh**, Esi Awuah, Emmanuel Frempong (2005). Post-project analysis: The use of a network diagram for environmental evaluation of the Barekese Dam, Kumasi, Ghana. *Environmental Modeling & Assessment*. https://doi.org/10.1007/s10666-005-9021-7
26. **Isaac K Tetteh**, Emmanuel Frempong, Esi Awuah (2004). An analysis of the environmental health impact of the Barekese Dam in Kumasi, Ghana. *Journal of Environmental Management*. https://doi.org/10.1016/j.jenvman.2004.04.012
27. **IK Tetteh** (2004). Development of a weighting system for use in environmental health impact assessment associated with water impoundment projects in Ghana and its application. *Journal of the Ghana Science Association*. https://www.africabib.org/rec.php?RID=Q00040657

Book chapters 5

1. **IK Tetteh** (2023). Heavy Metal Pollution Resulting from Informal E-Waste Recycling in the Greater Accra Region of Ghana. *Heavy Metals-Recent Advances*. https://www.intechopen.com/chapters/87796
2. Olawale Emmanuel Olayide, **Isaac Kow Tetteh** (2017). Between Climate Reliance and Climate Resilience: Empirical Analysis of Climate Variability and Impact on Nigerian Agricultural Production. *Climate change management*. https://doi.org/10.1007/978-3-319-49520-0_2
3. **Isaac K. Tetteh**, Nana K. A. Appiah-Badu, Fredrick H. M. Semazzi, Olawale E. Olayide (2017). Deriving Useful Information from Bimonthly Global-Scale Climate Analysis for Climate Change Adaptation Over East Africa. *Climate change management*. https://doi.org/10.1007/978-3-319-49520-0_8
4. **IK Tetteh** (2016). Trends in climate change in Africa. *Climate Change and Food Security*. https://doi.org/10.4324/9781315469737-9/trends-climate-change-africa-walter-leal-filho-isaac-kow-tetteh-haruna-moda-musa
5. **IK Tetteh** (2012). Toward data-driven, semi-automatic inference of phenomenological physical models: Application to eastern sahel rainfall. *Proceedings of the 2012 SIAM International Conference on Data Mining*. https://doi.org/10.1137/1.9781611972825.4

Conference papers 3

1. **IK Tetteh** (2013). Coupled heterogeneous association rule mining (charm): Application toward inference of modulatory climate relationships. *2013 IEEE 13th International Conference on Data Mining*. https://ieeexplore.ieee.org/abstract/document/6729597/
2. **IK Tetteh** (2012). Hierarchical classifier-regression ensemble for multi-phase non-linear dynamic system response prediction: Application to climate analysis. *2012 IEEE 12th international conference on data mining workshops*. https://ieeexplore.ieee.org/abstract/document/6406519/
3. **IK Tetteh** (2011). Community dynamics and analysis of decadal trends in climate data. *2011 IEEE 11th International Conference on Data Mining Workshops*. https://ieeexplore.ieee.org/abstract/document/6137354/

Theses 1

1. **IK Tetteh** (2012). West African seasonal climate variability and predictability. *North Carolina State University*. https://search.proquest.com/openview/c67461c8a756652d1ba27d9ba730fdae/1?pq-origsite=gscholar&cbl=18750