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RESEARCH

Interests	Environmental Chemistry
Areas	Health, Toxicology and Mutagenesis · Pollution · Water Science and Technology · Analytical Chemistry · Environmental Chemistry · Mechanical Engineering

RESEARCH SUMMARY

36	509	11	12	0.84	8%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 36 publications listed below, 2006–2026. Field-weighted impact is the mean over the 25 works scored for it; 1.00 is the world average for works of the same field, type and year. 2 of the 25 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 35

1. Justice Wiston Amstrong Jonathan, Daniel Elorm Kwame Kabotso, David Kofi Essumang, **John Kwesi Bentum**, Isaac Boamah, John Nketsiah, Innocentia Ruby Gborgblorvor, Alberta Dzifa Dayie, Justice Hayfron (2026). Heavy metal concentrations in composite breast milk and health risk assessment for breastfed infants in Ho, Ghana. *Heliyon*. https://doi.org/10.1016/j.heliyon.2026.e45425
2. Richard Ando, Jones Anan, Micheal Kojo Ainooson, Collins Obuah, Rajesh Sunasee, **John K. Bentum**, Christian K. Adokoh (2026). Stabilization of gold nanoparticles by thiolated tridentate nitrogen donor ligands and investigation of their DNA binding properties. *Next Materials*. https://doi.org/10.1016/j.nxmate.2026.101963
3. Joseph K. Adjei, Thomas Ahenguah, Anita Asamoah, **John K. Bentum**, David K. Essumang (2025). Distribution paradigm, ecological risk assessment and source apportionment of multiclass pesticides in the aquatic environment. *Ecotoxicology*. https://doi.org/10.1007/s10646-025-02992-8
4. Justice Wiston Amstrong Jonathan, Daniel Elorm Kwame Kabotso, David Kofi Essumang, **John Kwesi Bentum**, Jesse Azebiik Anak, Innocentia Ruby Gborgblorvor, Emmanuel Kormla Danyo, Hintermann Mbroh, John Tampuori, Richard Harry Asmah (2025). Essential minerals in colostrum of preterm and full-term Ghanaian mothers and related maternal factors. *Scientific Reports*. https://doi.org/10.1038/s41598-025-15815-x
5. **John K. Bentum**, Albert Eshun, David K. Essumang, Patrick Boakye, Joseph Kweku Adjei, Obed O. Ohene-Kwayisi, Jonathan N. Hogarh (2025). Fingerprints of Polychlorinated Biphenyl (PCB) Congener and Homologous Profile of the Pra River Basin Sediment. *OALib*. https://doi.org/10.4236/oalib.1113166
6. **John K. Bentum**, Albert Eshun, David K. Essumang, Patrick Boakye, Joseph Kweku Adjei, Justice Wiston Amstrong Jonathan, Obed O. Ohene-Kwayisi (2025). Polychlorinated Biphenyls Contamination of Drinking Water Source of the Pra River: Congener Distribution and Associated Risk. *OALib*. https://doi.org/10.4236/oalib.1113293
7. Justice Wiston Amstrong Jonathan, David K. Essumang, **John K. Bentum**, Daniel Elorm Kwame Kabotso, Innocentia Ruby Gborgblorvor, Albert Eshun, Norkplim Dei Hlorlewu, Elizabeth Davordzi (2024). Exploring perfluoroalkyl substances contamination in human breast milk: First ghanaian study. *Chemosphere*. https://doi.org/10.1016/j.chemosphere.2024.143769

8. Charity Owusu, Albert Ofori, Frank Adusei-Mensah, Joseph Kweku Adjei, George Yaw Hadzi, **John Kwesi Bentum**, Reginald Quansah, David K Essumang (2024). Health Risk Assessment of Occupational Exposures of Polycyclic Aromatic Hydrocarbons, Phthalates, and Semi-Volatile Chlorinated Organic Compounds in Urine of Commercial Fish Smokers, Ghana. *Environmental Health Insights*. https://doi.org/10.1177/11786302241306932

9. Justice Wiston Amstrong Jonathan, Daniel Elorm Kwame Kabotso, David Kofi Essumang, **John Kwesi Bentum**, Innocentia Ruby Gborgblorvor, Fidelis M. Kpodo, Francis Ofosu-Koranteng, Comfort Worna Lotse, Norkplim Dei HIorlewu (2024). Investigating the levels of organochlorine pesticides in human milk at three lactational stages: an intensive Ghanaian study. *Environmental Monitoring and Assessment*. https://doi.org/10.1007/s10661-024-12404-9

10. Prince Asilevi Junior, Felicia Dogbey, Patrick Boakye, Jeffrey Nii Armah Aryee, Edmund Ilimoan Yamba, Stephen Yaw Owusu, David Kofi Peprah, Emmanuel Quansah, Nana Ama Browne Klutse, **John Kwesi Bentum**, Kwaku Amaning Adjei, Geophrey Kwame Anornu, Sampson Oduro-Kwarteng, Leonard Kofitse Amekudzi (2023). Bias-corrected NASA data for aridity index estimation over tropical climates in Ghana, West Africa. *Journal of Hydrology Regional Studies*. https://doi.org/10.1016/j.ejrh.2023.101610

11. Nathaniel Thompson, Joseph Kweku Adjei, **John Kwesi Bentum**, David Kofi Essumang, Godfred Odame Duodu, George Hadzi, George Alimo Adjei (2022). Vehicular influence on atmospheric concentrations and source apportionment of polycyclic aromatic hydrocarbons in some major cities in three regions of Ghana using epiphytic lichens. *Toxicology Reports*. https://doi.org/10.1016/j.toxrep.2022.08.002

12. Boadu Kwasi Opoku, Asiamah Isaac, Anang Akrofi Micheal, **John Kwesi Bentum**, Wanjala Paul Muyoma (2021). Characterization of Chemically Activated Carbons Produced from Coconut and Palm Kernel Shells Using SEM and FTIR Analyses. *American Journal of Applied Chemistry*. https://doi.org/10.11648/j.ajac.20210903.15

13. Joseph Kweku Adjei, Albert Ofori, Harry Kwaku Megbenu, Thomas Ahenguah, Alex Kissi Boateng, George Alimoh Adjei, **John Kwesi Bentum**, David Kofi Essumang (2021). Health risk and source assessment of semi-volatile phenols, p-chloroaniline and plasticizers in plastic packaged (sachet) drinking water. *The Science of The Total Environment*. https://doi.org/10.1016/j.scitotenv.2021.149008

14. Robert Agbemafle, SE Aggor-Woananu, Olivia Akutey, **John Kwesi Bentum** (2019). Heavy Metal Concentrations in Leachates and Crops Grown Around Waste Dumpsites in Sekondi-Takoradi in the Western Region of Ghana. *Research Journal of Environmental Toxicology*. https://doi.org/10.3923/rjet.2020.16.25

15. E.J Koranteng-Addo, M Jnr Horsfall, O.F Joel, **J.K Bentum** (2019). Single and Joint Toxicological Effect of Dispersit SPC 1000 and Bonny Oil on Mudskipper Fish (Periophthalmus Papilio) from the Brackish Waters of Buguma, Rivers State, Nigeria. *Journal of applied science and environmental management*. https://doi.org/10.4314/jasem.v22i11.18

16. E.J. Koranteng–Addo, M Horsfall Jnr., O.F. Joel, **J.K. Bentum** (2019). Toxicity comparison of water-accommodated fraction and chemically enhanced fraction of bonny light crude oil and dispersit SPC 1000 to mudskipper (Periophthalmus papilio) fish. *Journal of applied science and environmental management*. https://doi.org/10.4314/jasem.v22i12.4

17. **John Bentum**, EJ Koranteng-Addo, Agbemafle (2017). Assessment Of Ecological And Human Health Risks Of Cu, Zn And Pb Accumulation In Agricultural Soils And Okra. *Researchjournali's Journal of Ecology*. https://ir.ucc.edu.gh/items/e7fc0658-b739-4314-864e-0ca2e64f54ac

18. George Adjei, Christian Adokoh, **John Bentum**, George Hadzi, Evans Ameho (2017). The Impact of Anthropogenic Activities on the Fosu Lagoon in the Central District of Cape Coast: Integrated Assessment of Heavy Metal Contamination. *British Journal of Applied Science & Technology*. https://doi.org/10.9734/bjast/2017/31275

19. **John Bentum** (2016). Ecological And Health Risk Assessment Of Polychlorinated Biphenyls (Pcbs) In Tropical Soils From Ghana, West Africa. *Researchjournali's Journal of Ecology*.

20. David K. Essumang, Albert Eshun, Jonathan N. Hogarh, **John K. Bentum**, Joseph K. Adjei, Junya Negishi, Shihori Nakamichi, Md Habibullah-Al-Mamun, Shigeki Masunaga (2016). Perfluoroalkyl acids (PFAAs) in the Pra and Kakum River basins and associated tap water in Ghana. *The Science of The Total Environment*.

https://doi.org/10.1016/j.scitotenv.2016.11.035

21. **John K. Bentum**, David K. Dodoo, Peter K. Kwakye, David K. Essumang, George A. Adjei (2016). Spatial and Temporal Distribution of Polychlorinated Biphenyl Residues in Tropical Soils. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2016.64024

22. **John Bentum**, D Acquah-Baidoo (2015). Safety of Copper, Zinc and Iron Metal Residues in Fresh Sugarcane Juices Sold in the Cape Coast Metropolis of Ghana. *Journal of Basic & Applied Sciences*. https://ir.ucc.edu.gh/server/api/core/bitstreams/645ebe19-4811-4828-a5ac-fe4f65c33f38/content

23. Richard Amfo-Otu, **John Kwesi Bentum**, Stephen Omari (2013). Assessment of Soil Contamination through E-Waste Recycling Activities in Tema Community One. *Environment and Pollution*. https://doi.org/10.5539/ep.v2n2p66

24. **John K Bentum**, AE Duncan (2013). Evaluation of heavy metal pollution index of groundwater in the Tarkwa mining area, Ghana. *Elixir Pollution*. https://scholar.google.com/scholar?cluster=2934999999473773300&hl=en&oi=scholarr

25. **JK Bentum** (2012). Man and His Environment. *Cape Coast: Yaci Press LTD*. https://scholar.google.com/scholar?cluster=10101067333907724893&hl=en&oi=scholarr

26. D.K. Dodoo, D.K. Essumang, J.W.A. Jonathan, **J.K. Bentum** (2012). Polychlorinated biphenyls in coastal tropical ecosystems: Distribution, fate and risk assessment. *Environmental Research*. https://doi.org/10.1016/j.envres.2012.07.011

27. David K. Essumang, Louis K. Boamponsem, Christian K. Adokoh, **John K. Bentum**, Christiana Owusu, Millicent E. Adu-Boakye, Joseph Afrifa (2012). Research Article: Evaluation of the Levels of Selected Heavy Metals in Mangrove Ecosystem and Roadside Topsoil in Ghana. *Environmental Practice*. https://doi.org/10.1017/s1466046612000191

28. **JK Bentum**, DK Essumang, JE Koranteng-Addo (2011). Analysis of heavy metals in citrus juice from the Abura-Asebu-Kwamankese District, Ghana. *Journal of Chemical and Pharmaceutical Research*. https://www.researchgate.net/profile/Epton-Koranteng-Addo/publication/280765021_Analysis_of_heavy_metals_in_citrus_juice_from_the_Abura-Asebu-Kwamankese_district_Ghana/links/5c34c824a6fdccd6b59c23e1/Analysis-of-heavy-metals-in-citrus-juice-from-the-Abura-Asebu-Kwamankese-district-Ghana.pdf

29. JE . Koranteng- Addo, **JK Bentum** (2011). Analysis of lead and cadmium in human milk in the greater Accra region of Ghana. *Der Chemica Sinica*. https://doi.org/10.5555/20113324868

30. **J.K. Bentum**, M. Anang, K.O. Boadu, E.J. Koranteng-Addo, E. Owusu Antwi (2011). Assessment of heavy metals pollution of sediments from Fosu lagoon in Ghana. *Bulletin of the Chemical Society of Ethiopia*. https://doi.org/10.4314/bcse.v25i2.65869

31. JPK Adotey, **JK Bentum**, EJ Koranteng-Addo (2011). Comparative studies of some heavy metals in the urine of people engaged in mining and non-miners. *Journal of Chemical and Pharmaceutical Research*. https://www.researchgate.net/profile/Epton-Koranteng-Addo/publication/330222799_Comparative_studies_of_some_heavy_metals_in_the_urine_of_people_engaged_in_mining_and_non_miners/links/5c34cb6292851c22a364b258/Comparative-studies-of-some-heavy-metals-in-the-urine-of-people-engaged-in-mining-and-non-miners.pdf

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34. **JK Bentum**, DK Essumang, EJ Koranteng-Addo (2010). Lead, Cadmium and Arsenic in breast milk of lactating mothers in Odumanse-Atua community in Manya Krobo district of eastern region of Ghana. *J Chem Pharm Res*. https://www.academia.edu/download/123522706/lead-cadmium-and-arsenic-in-breast-milk-of-lactating-mothers-in-odumanseatua-community-in-manya-krobo-district-of-easter.pdf

35. D.K. Essumang, **J.K. Bentum**, D.K. Dodoo (2006). Lindane and propuxur residues in the top soils of some cocoa growing areas in five districts of the Central Region of Ghana. *Bulletin of the Chemical Society of*

Ethiopia. https://doi.org/10.4314/bcse.v20i2.21161

Theses 1

1. **John Kwesi Bentum** (2012). Assessment of the Levels and Distribution of Polychlorina Ted Biphenyls in Soils in the Vicinity of Electric Transformers in the Central Region of Ghana. *University of Cape Coast*. https://ir.ucc.edu.gh/items/8851fd92-1416-4962-a747-fec6bd609cce