Albert Ebo Duncan

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University of Cape Coast

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RESEARCH

Interests	Water resources management · Water treatment · Environmental quality and Environmental chemistry
Areas	Pollution · Water Science and Technology · Artificial Intelligence · Health, Toxicology and Mutagenesis · Environmental Engineering · Ocean Engineering

RESEARCH SUMMARY

25	504	10	10	1.23	17%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 25 publications listed below, 2010–2026. Field-weighted impact is the mean over the 18 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 18 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

ASSOCIATE PROFESSOR 2020–present
WATER AND SANITATION, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PHD 2014–2019
FHML, Maastricht University, Maastricht, Netherlands

MSC 2006–2008
CIVIL ENGINEERING, Kwame Nkrumah University of Science and Technology, KUMASI, Ghana

BSC CHEMISTRY 1994–1999
CHEMISTRY, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 23

1. Samuel Nketia Boateng, Leslie Sarfo Gyamfi, Christina Antwi, Samuel Duku, Prince Kwesi Yeboah-Danso, Gertrude Oboh, Wilfred Okrah, Alimatu Awagah, **Albert Ebo Duncan** (2026). A multi-criteria review and geospatial analyses for air conditioner (AC) condensate water reuse. *Discover Water*. https://doi.org/10.1007/s43832-026-00381-8
2. Samuel Nketia Boateng, Felicia Takyi, Gertrude Oboh, Harriet Kyerewaah Ampoful, Josephine Kuttor, **Albert Ebo Duncan** (2026). Multivariate analysis of air pollution and associated potential respiratory health risks in urban areas of the Southeast Asian region and Africa. *Journal of Air Pollution and Health*. https://doi.org/10.18502/japh.v11i1.21270
3. **Albert Ebo Duncan**, Christian Adokoh, Martha Osei-Marfo, Samuel Barnie, Aboagye George Sakyi, Josephe Adjei (2023). Analysis and risk assessment of pharmaceutical residues in fish from three water bodies in Ghana. *Journal of Water and Health*. https://doi.org/10.2166/wh.2023.208
4. **Albert Ebo Duncan**, Sara Pennellini, Samuel Barnie, Martha Osei-Marfo, Samuel Nketia Boateng,

Alessandra Bonoli (2023). Assessing the sustainable management of Coastal Wetlands in Developing Economies: A Case Study on the Iture-Abakam Natural Wetland in Cape Coast, Ghana. *Wetlands*. https://doi.org/10.1007/s13157-023-01743-x

5. **Albert Ebo Duncan**, Samuel Barnie, Martha Osei-Marfo, Samuel Nketia Boateng, George Acquaah, Gertrude Oboh (2023). Water Quality Monitoring in the Pra Basin of Ghana. *OALib*. https://doi.org/10.4236/oalib.1110173
6. **AE Duncan**, KB Nyarko (2022). An intervention to address deteriorating water quality: An application of Ajzen's theory of planned behavior. *Current Psychology*.
7. Martha Osei-Marfo, **Albert Ebo Duncan**, Samuel Barnie, Sampson Nyame Owusu, Esi Awuah, Nanne de Vries (2022). Institutional Involvement and Collaboration in Disseminating Biogas Technology in Ghana. *Journal of Energy*. https://doi.org/10.1155/2022/1165136
8. Josephine Obodai, Kwaku Amaning Adjei, **Albert Ebo Duncan**, Samuel Nii Odai (2022). Potentially Toxic Elements (PTEs) contamination and ecological risk of sediment in the upper course of the Ankobra River, Ghana. *Environmental Monitoring and Assessment*. https://doi.org/10.1007/s10661-022-10120-w
9. Samuel Barnie, Jia Zhang, **Albert Ebo Duncan**, Martha Osei-Marfo, Caspar Daniel Adenutsi, Honghan Chen (2022). The adsorption and reduction mechanism of Cr(VI) by kerogen with different degrees of geochemical alteration using a thermal simulation method. *Applied Geochemistry*. https://doi.org/10.1016/j.apgeochem.2022.105261
10. Samuel Barnie, Peter Appiah Obeng, **Albert Ebo Duncan**, Caspar Daniel Adenutsi, Lin Xu, Honghan Chen (2021). Mechanism and multi-step kinetic modelling of Cr(VI) adsorption, reduction and complexation by humic acid, humin and kerogen from different sources. *Environmental Science and Pollution Research*. https://doi.org/10.1007/s11356-021-13519-z
11. **Albert Ebo Duncan**, Nanne de Vries, Kwabena Biritwum Nyarko (2020). An intervention to address deteriorating water quality: An application of Ajzen's theory of planned behavior. *Current Psychology*. https://doi.org/10.1007/s12144-020-00698-0
12. **Albert Ebo Duncan** (2020). The Dangerous Couple: Illegal Mining and Water Pollution—A Case Study in Fena River in the Ashanti Region of Ghana. *Journal of Chemistry*. https://doi.org/10.1155/2020/2378560
13. **Albert Ebo Duncan**, Michael Oteng Peprah, Martha Osei Marfo (2020). Unregulated Hand Dug Wells and Their Quality Threat: A Case Study in Cape Coast Metropolis. *OALib*. https://doi.org/10.4236/oalib.1106482
14. **Albert Ebo Duncan**, Jonathan Oti, Melvin Enam Potakey (2019). Impacts of Human Activities on the Quality of River Water: A Case Study of River Densu in Nsawam Adoagyiri of the Akwapim South District, Eastern Region of Ghana. *OALib*. https://doi.org/10.4236/oalib.1105785
15. **Albert Ebo Duncan**, Nanne de Vries, Kwabena Biritwum Nyarko (2019). The effectiveness of water resources management in Pra Basin. *Water Policy*. https://doi.org/10.2166/wp.2019.123
16. **Albert Ebo Duncan**, Nanne de Vries, Kwabena Biritwum Nyarko (2018). Assessment of Heavy Metal Pollution in the Sediments of the River Pra and Its Tributaries. *Water Air & Soil Pollution*. https://doi.org/10.1007/s11270-018-3899-6
17. **Albert Ebo Duncan**, Nanne de Vries, Kwabena Biritwum Nyarko (2018). Assessment of heavy metal pollution in the main Pra River and its tributaries in the Pra Basin of Ghana. *Environmental Nanotechnology Monitoring & Management*. https://doi.org/10.1016/j.enmm.2018.06.003
18. **Albert Ebo Duncan**, K Nyarko (2016). Assessing The effect of integrated water resources management on water quality in Ghana. *International Journal of Latest Research in Science and Technology*. https://scholar.google.com/scholar?cluster=6237573264818651 78&hl=en&oi=scholarr
19. **Albert Ebo Duncan**, Michael Oteng-Peprah, Martha Osei Marfo, Gifty Rhodalyn Tetteh, Alexander Opoku (2015). GROUNDWATER QUALITY ANALYSIS ON SELECTED HAND-DUG WELLS IN THE CAPE COAST METROPOLIS, GHANA: A CASE STUDY OF ABURA. *Journal of Basic & Applied Sciences*.
20. David Kofi Essumang, **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

21. A Sam, **AE Duncan** (2011). Assessment of the cation exchange capacities and elemental compositions of clay samples from the eastern region of Ghana. *International Journal of Applied Environmental Sciences*. https://go.gale.com/ps/i.do?id=GALE%7CA323258111&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=09736077&p=AONE&sw=w

22. David Kofi Essumang, **AE Duncan** (2011). The Hydrochemical Characteristics of Groundwater in the Tarkwa Mining Area, Ghana. *Research Journal of Environmental and Earth Sciences*. https://www.airitilibrary.com/Article/Detail/20410492-201108-201507220021-201507220021-600-607

23. **AE Duncan**, David Kwesi Dodoo, A Sam (2010). Assessing the Potential of a Natural Wetland in Grey Water Treatment (A Case Study in Cape Coast-Central Region of Ghana). *International Journal of Applied Environmental Sciences*. https://www.researchgate.net/profile/Arkoful-Sam/publication/292903905_Assessing_the_potential_of_a_natural_wetland_in_grey_water_treatment_A_case_study_in_Cape_Coast_-_central_region_of_Ghana/links/584fdb3a08aeb989252e685d/Assessing-the-potential-of-a-natural-wetland-in-grey-water-treatment-A-case-study-in-Cape-Coast-central-region-of-Ghana.pdf

Book chapters 1

1. Josephine Obodai, **Albert Ebo Duncan**, Kweku Amaning Adjei, Samuel Nii Odai (2023). A Preliminary Investigation of Surface and Groundwater Quality Along the Upper Part of the Ankobra River, Impacted by Illegal Mining Activities. *Water Air & Soil Pollution*. https://doi.org/10.1007/s11270-023-06170-6

Reports 1

1. Martha Osei-Marfo, **A Duncan** (2014). Rainwater harvesting potential of University of Cape Coast campus: a GIS approach. *Loughborough University*. https://repository.lboro.ac.uk/articles/conference_contribution/Rainwater_harvesting_potential_of_University_of_Cape_Coast_campus_a_GIS_approach/9595748