

CURRICULUM VITAE

GODFRED DARKO (PhD)

Associate Professor of Analytical Chemistry

Department of Chemistry

Kwame Nkrumah University of Science & Technology

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EDUCATION

Doctor of Philosophy (PhD in Chemistry) 2012
Department of Chemistry
Rhodes University
Grahamstown. South Africa.

Master of Science (MSc in Analytical Chemistry) 2003
Department of Chemistry
Kwame Nkrumah University of Science & Technology
Kumasi. Ghana.

Bachelor of Science (BSc in Chemistry) 1999
Department of Chemistry
University of Cape Coast
Cape Coast. Ghana.

MEMBERSHIP TO PROFESSIONAL BODIES

- i. Member, Ghana Science Association (GSA)
- ii. Member, Ghana Chemical Society (GCS)
- iii. Member, Ghana Young Academy
- iv. Fellow, International Union of Pure and Applied Chemistry (IUPAC)

TEACHING EXPERIENCE

Professor 2021
Department of Chemistry
Kwame Nkrumah University of Science & Technology
Kumasi, Ghana.

Associate Professor 2018 - 2021
Department of Chemistry
Kwame Nkrumah University of Science & Technology
Kumasi, Ghana.

Senior Lecturer Department of Chemistry Kwame Nkrumah University of Science & Technology Kumasi, Ghana.	2012 - 2017
Lecturer Department of Chemistry Kwame Nkrumah University of Science & Technology Kumasi, Ghana.	2005 - 2012
Demonstrator and Tutor Department of Chemistry Rhodes University Grahamstown, South Africa.	2009 - 2011
Lecturer Department of Chemical Engineering Kumasi Polytechnic Kumasi, Ghana.	2003 - 2005
Science Tutor Wesley College of Education Kumasi, Ghana.	1999 - 2003
Demonstrator Department of Chemistry Kwame Nkrumah University of Science & Technology Kumasi, Ghana.	2000 - 2003

PhD thesis supervised

- 1) **Osei Akoto.** Heavy metal pollution in some environmental compartments in Ghana. 2012-2015.
- 2) **David Azanu.** Antibiotics in Ghanaian environment: Occurrence, uptake, model and risk assessment of vegetables irrigated with low quality. 2012-2015.
- 3) **Gloria Ankar-Brewu.** Human health risks due to heavy metals and polycyclic aromatic hydrocarbons in street-vended foods. 2014-2019.
- 4) **Lily Lisa Yevuga.** Spatial mapping and modelling of heavy metals in Ghana. 2016-2020
- 5) **Sampson Kyei.** Synthesis, characterization and application of azo-catechin metal complexes for biofouling paints. 2016-2020.
- 6) **Ekpor Anyimah-Ackah.** Toxic elements in foods from mining areas; exposures and risks. 2014-2021.
- 7) **Cheetham Lawrence Mingle.** Public exposure to residues of veterinary drugs in animal tissues. 2015-2021.

- 8) **Kofi Sarpong.** Hazardous metals profiles in soils, medicinal plants and herbal drugs from the Ashanti region. 2016-2021
- 9) **Opoku Gyamfi.** Emission and distribution of mercury in and around some artisanal gold mining areas in Ghana: environmental concentrations, fate, human exposure and health risk assessment. 2016-2021.
- 10) **Lydia Otoo.** Local scale assessment and modelling of heavy metals and xenobiotics at a small-scale e-waste recycling site in Ghana. 2016-2021
- 11) **Rejoice Ametete** Effect of access to information on risk handling strategies in artisanal gold mining communities in Ghana. 2016/2020.
- 12) **Eugene Ansah.** Heavy metals and xenobiotics in soils and water from the informal economic sector of Ghana: Distribution, transport model and risk assessment. 2016-2021.
- 13) **Michael Osei Asibey.** Building the resilience of artisanal gold mining Communities: Awareness and Communication of the effects of xenobiotics and heavy metals in the environment. 2016/2020.
- 14) **Kwabena Kyere.** Distribution, transport and fate of xenobiotic substances and heavy metals in the environment. 2015-2021
- 15) **Benette Osei Yaw.** Temporal Variability of Litter Fall, Carbon Stock And Hydrology of Soils Under Different Land Use
- 16) **Kwame Osei.** Fate studies of biphenthrin and imidocloprid levels in Ghanaian premium cocoa beans. 2017-2022.
- 17) **Benjamin Darko Asamoah.** Spatial distribution and bioaccessibility of mercury vapour in communities impacted by small scale gold mining activities in Ghana. 2021-2024.

Number of non-PhD thesis supervised

- | | | |
|-----|-----------|----|
| i. | MSc/MPhil | 24 |
| ii. | BSc | 60 |

Courses taught at KNUST

- i. CHEM 151: Basic Inorganic Chemistry
- ii. CHEM 152: Coordination Chemistry
- iii. CHEM 155: Basic Physical Chemistry I
- iv. CHEM 156: Basic Physical Chemistry II
- v. CHEM 261: Titrimetric Methods of Analysis

- vi. CHEM 513: Radiochemistry
- vii. PST 515: Introduction to Nanotechnology
- viii. SCI 352: Research Methods
- ix. PCHEM: Advanced Analytical Chemistry

Administrative duties in the Department of Chemistry, KNUST

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|------|--|-------------|
| i. | Head of Department | 2020 - date |
| ii. | Head of Department | 2014 - 2016 |
| iii. | Department Examinations/Registration Officer | 2013 - 2014 |
| iv. | Department's Seminars Coordinator | 2012 - 2014 |
| v. | Department's Graduate Coordinator | 2012 - 2014 |
| vi. | Department Examinations/Registration Officer | 2008 - 2009 |
| vii. | Department Seminar Coordinator | 2005 - 2009 |

SERVICE TO THE COMMUNITY

International

- | | | |
|-------|---|-------------|
| i. | Associate Editor, Chemistry Africa (Springer) | 2020-date |
| ii. | Editor-in-Chief, Journal of Ghana Science Association
(KNUST branch) | 2020 - date |
| iii. | Editorial Board Member, Heliyon (Elsevier) | 2015-2020 |
| iv. | Editorial Advisor, Environmental Monitoring and Assessment (Springer) | 2012-date |
| v. | Advisor, Mendeley Community | 2014-date |
| vi. | Examiners' Team Leader - West African Examinations Council | 2007-2009 |
| vii. | Assistant Examiner - West African Examinations Council | 2003-2007 |
| viii. | Review Boards – Reviewer for more than 20 journals | 2008-date |
| ix. | External Assessor for Promotion of Research/Academic staff.
University of Cape Coast
Ghana Atomic Energy Commission
South African National Research Fund | 2015-date |
| x. | External Examiner of research thesis | |
| | i. Aalborg University, Denmark. | 2016-date |
| | ii. Bharathidasan University, Tamil Nadu, India | 2016-date |
| | iii. Botswana International University of Science
and Technology. Botswana. | 2017-date |

iv.	Macquarie University, Australia	2019-date
v.	University of Cape Coast, Ghana	2018-date
vi.	University of Development Studies	2021-date
vii.	University of Ghana, Ghana	2016-date
viii.	University of Johannesburg, South Africa	2022-date
ix.	University of Witwatersrand, South Africa.	2016-date

AMOUNT OF RESEARCH GRANTS AWARDED

- i. Seven Million Danish Krone (7 million DKK) DANIDA funded Heavy Metals and Xenobiotics in the Ghanaian Environment (Sheathe) Project (2016-2021). My Role: Principal Investigator/Project Coordinator.
- ii. Nine Million Danish Krone (9 million DKK) DANIDA funded Safe Water for Food (SaWaFo) Project (2012-2016). My Role: Work Package Leader/Supervisor.
- iii. Fifty-Six Thousand Ghana Cedis (GH¢56,000.00) CoCoBod funded fumehood installation at Cocoa Research Institute, Tafo-Akim contracted to the Department of Chemistry, College of Science (2015). My Role: Consultant/Contact Person
- iv. Ten Thousand United States Dollars (US\$10,000) BSU II funded Owabi Pilot Project I (2016). My Role: Work Package Leader.
- v. Ten Thousand United States Dollars (US\$10,000) BSU II funded Owabi Pilot Project II (2016). My Role: Work Package Leader.

NUMBER OF RESEARCH WORK PUBLISHED

Ninety (95) published papers including one (1) international patent.

(<https://scholar.google.com/citations?user=B4-lr5YAAAAJ&hl=en&oi=ao>)

List of Publications

- [1]. **Darko, G.**, Obiri, S., Stephen, Y., Takyi, A., Amponsah, O., Sheringham, L., Otoo, L., Benedicta, A., & Mensah, Y. F. (2022). Urbanizing with or without nature : pollution effects of human activities on water quality of major rivers that drain the Kumasi Metropolis of Ghana. *Environmental Monitoring and Assessment*, 1–18. <https://doi.org/10.1007/s10661-021-09686-8>
- [2]. Kyei, S. K., Eke, W. I., **Darko, G.**, Akaranta, O. (2022). Natural polyhydroxy resins in surface coatings: a review. *Journal of Coatings Technology and Research*, 1-20

- [3]. Sarpong, K., Acheampong, A., **Darko, G.**, Akoto, O. (2022). Potentially toxic Metal Loads in Soils Supporting Medicinal Plants in the Ashanti Region of Ghana. *Chemistry Africa*, 1-15
- [4]. Yevugah, L.L., **Darko, G.**, Bak, J. (2021). Does mercury emission from small-scale gold mining cause widespread soil pollution in Ghana? *Environmental Pollution* 284, 116945
- [5]. Snow, M. A., **Darko, G.**, Gyamfi, O., Ansah, E., Breivik, K., Hoang, C., Lei, Y. D., & Wania, F. (2021). Characterization of inhalation exposure to gaseous elemental mercury during artisanal gold mining and e-waste recycling through combined stationary and personal passive sampling. *Environmental Science: Processes & Impacts*, 23(4), 569–579. <https://doi.org/10.1039/D0EM00494D>
- [6]. Mingle, C. L., **Darko, G.**, Asare-Donkor, N. K., Borquaye, L. S., & Woode, E. (2021). Patterns in protein consumption in Ghanaian cities. *Scientific African*, 11, e00684. <https://doi.org/10.1016/j.sciaf.2020.e00684>
- [7]. Anyimah-Ackah, E., Oforu, I.W., Lutterodt, H.E., **Darko, G.** (2021). Exposures and health risks associated with elements in diets from a gold mining area. *Biological Trace Element Research*, 1-13
- [8]. Nartey, D., Accorley, E.D., Opoku, R., **Darko, G.** (2021). Borquaye LS Essential oils from *Averrhoa carambola* L.(Oxalidaceae): Chemical composition, antioxidant, antimicrobial and anti-biofilm potential. *Chemistry Africa*, 1-12
- [9]. Mingle, C.L., **Darko, G.**, Asare-Donkor, N.K., Borquaye, L.S., Woode, E. (2021). Patterns in protein consumption in Ghanaian cities. *Scientific African* 11, e00684
- [10]. Anyimah-Ackah, E., Oforu, I.W., Lutterodt, H.E., **Darko, G.**, Kpeglo, D.O. (2021). Excess lifetime cancer risk and committed effective dose associated with dietary exposure to radioactivity of natural origin from mining areas. *Journal of Consumer Protection and Food Safety*, 1-7
- [11]. Anyimah-Ackah, E., Oforu, I. W., Lutterodt, H. E., & **Darko, G.** (2021). Health benefit: risk assessment of trace and essential elements found in cocoa beans and derived products. *Chemistry Africa*, 0123456789. <https://doi.org/10.1007/s42250-020-00214-8>
- [12]. Gyamfi, O., Sørensen, P. B., **Darko, G.**, Ansah, E., Vorkamp, K., & Bak, J. L. (2021). Contamination, exposure and risk assessment of mercury in the soils of an artisanal gold mining community in Ghana. *Chemosphere*, 267, 128910. <https://doi.org/10.1016/j.chemosphere.2020.128910>
- [13]. Mingle, C. L., **Darko, G.**, Borquaye, L. S., Asare-Donkor, N. K., Woode, E., & Koranteng, F. (2021). Veterinary drug residues in beef, chicken, and egg from Ghana. *Chemistry Africa*. <https://doi.org/10.1007/s42250-020-00225-5>

- [14]. Konwuruk, N., Borquaye, L. S., **Darko, G.**, & Dodd, M. (2021). Distribution, bioaccessibility and human health risks of toxic metals in peri-urban topsoils of the Kumasi Metropolis. *Scientific African*, 11, e00701. <https://doi.org/10.1016/j.sciaf.2021.e00701>
- [15]. Akanchise, T., Boakye, S., Borquaye, L. S., Dodd, M., & **Darko, G.** (2020). Distribution of heavy metals in soils from abandoned dump sites in Kumasi, Ghana. *Scientific African*, 10, e00614. <https://doi.org/10.1016/j.sciaf.2020.e00614>
- [16]. Amo-Mensah, J., **Darko, G.**, & Borquaye, L. S. (2020). Anti-inflammatory and antioxidant activities of the root and bark extracts of *Vitex grandifolia* (Verbanaceae). *Scientific African*, 10, e00586. <https://doi.org/10.1016/j.sciaf.2020.e00586>
- [17]. Ankar-Brewoo, G. M., **Darko, G.**, Abaidoo, R. C., Dalsgaard, A., Johnson, P.-N., Ellis, W. O., & Brimer, L. (2020). Health risks of toxic metals (Al, Fe and Pb) in two common street vended foods, fufu and fried-rice, in Kumasi, Ghana. *Scientific African*, 7, e00289. <https://doi.org/10.1016/j.sciaf.2020.e00289>
- [18]. Ankar-Brewoo, G. M., **Darko, G.**, Abaidoo, R. C., Dalsgaard, A., Johnson, P. N., Ellis, W. O., & Brimer, L. (2020). Dietary risk assessment due to the consumption of polycyclic aromatic hydrocarbon in two commonly consumed street vended foods. *Polycyclic Aromatic Compounds*. <https://doi.org/10.1080/10406638.2020.1830128>
- [19]. Ankar-Brewoo, G. M., **Darko, G.**, Abaidoo, R. C., Johnson, P., Ellis, W. O., & Brimer, L. (2020). Dietary risk assessment due to the consumption of polycyclic aromatic hydrocarbon in two commonly consumed street vended foods. *Polycyclic Aromatic Compounds*, 0(0), 1–11. <https://doi.org/10.1080/10406638.2020.1830128>
- [20]. Anyimah–Ackah, E., Ofori, I. W., Lutterodt, H. E., & **Darko, G.** (2020). Consumer characteristics and consumption analytics of frequently consumed food categories in mining areas. *Academic Journal of Life Sciences*, 6(65), 39–52. <https://doi.org/10.32861/ajls.65.39.52>
- [21]. Azanu, D., Jørgensen, S. E., **Darko, G.**, Styrihave, B., & Abaidoo, R. C. (2020). Antibiotic uptake by plant model. *Environmental Modeling & Assessment*, 25(4), 545–553. <https://doi.org/10.1007/s10666-020-09712-y>
- [22]. **Darko, G.**, Adjei, S., Nkansah, M. A., Borquaye, L. S., Boakye, K. O., & Dodd, M. (2020). Accumulation and bioaccessibility of toxic metals in root tubers and soils from gold mining and farming communities in the Ashanti region of Ghana. *International Journal of Environmental Health Research*, 00(00), 1–11. <https://doi.org/10.1080/09603123.2020.1772203>
- [23]. **Darko, G.**, Boakye, K. O., Nkansah, M. A., Gyamfi, O., Ansah, E., Yevugah, L. L., Acheampong, A., & Dodd, M. (2019). Human health risk and

bioaccessibility of toxic metals in topsoils from Gbani mining community in Ghana. *Journal of Health and Pollution*, 9(22), 190602. <https://doi.org/10.5696/2156-9614-9.22.190602>

- [24]. Gyamfi, O., Sørensen, P. B., **Darko, G.**, Ansah, E., Vorkamp, K., & Bak, J. L. (2021). Contamination, exposure and risk assessment of mercury in the soils of an artisanal gold mining community in Ghana. *Chemosphere*, 267, 128910. <https://doi.org/10.1016/j.chemosphere.2020.128910>
- [25]. Gyamfi, O., Sorenson, P. B., **Darko, G.**, Ansah, E., & Bak, J. L. (2020). Human health risk assessment of exposure to indoor mercury vapour in a Ghanaian artisanal small-scale gold mining community. *Chemosphere*, 241, 125014. <https://doi.org/10.1016/j.chemosphere.2019.125014>
- [26]. Kyei, S. K., Akaranta, O., & **Darko, G.** (2020). Synthesis, characterization and antimicrobial activity of peanut skin extract-azo-compounds. *Scientific African*, 8, e00406. <https://doi.org/10.1016/j.sciaf.2020.e00406>
- [27]. Kyei, S. K., **Darko, G.**, & Akaranta, O. (2020). Chemistry and application of emerging ecofriendly antifouling paints: a review. *Journal of Coatings Technology and Research*, 17(2), 315–332. <https://doi.org/10.1007/s11998-019-00294-3>
- [28]. Rweyemamu, A. R., Nkansah, M. A., **Darko, G.**, & Dodd, M. (2020). Contamination and human health risk due to toxic metals in dust from transport stations in the Kumasi Metropolis, Ghana. *Chemistry Africa*, 3(3), 831–843. <https://doi.org/10.1007/s42250-020-00174-z>
- [29]. Wireko-Gyebi, R. S., Asibey, M. O., Amponsah, O., King, R. S., Braimah, I., **Darko, G.**, & Lykke, A.-M. (2020). Perception of small-scale miners on interventions to eradicate small-scale mining in Ghana. *SageOpen*, 65–75.
- [30]. Borquaye, L. S., Ekuadzi, E., **Darko, G.**, Ahor, H. S., Nsiah, S. T., Lartey, J. A., Mutala, A.-H., Boamah, V. E., & Woode, E. (2019). Occurrence of antibiotics and antibiotic-resistant bacteria in landfill sites in Kumasi, Ghana. *Journal of Chemistry*, 2019, 1–10. <https://doi.org/10.1155/2019/6934507>
- [31]. Anyimah-Ackah, E., Ofosu, I. W., Lutterodt, H. E., & **Darko, G.** (2019). Exposures and risks of arsenic, cadmium, lead, and mercury in cocoa beans and cocoa-based foods: a systematic review. *Food Quality and Safety*, 3(1), 1–8. <https://doi.org/10.1093/fqsafe/fyy025>
- [32]. Azanu, D., Styryshave, B., **Darko, G.**, Weisser, J. J. & Abaidoo, R. C. (2018). Occurrence and risk assessment of antibiotics in water and lettuce in Ghana. *Sci. Total Environ.* 622–623, 293–305.
- [33]. Acheampong, A., Gyebi, A., **Darko, G.**, Apau, J., Owusu Gyasi, W., Addai-Arhin, S., 2018. Development and validation of RP-HPLC method for simultaneous estimation of sulfadoxine and pyrimethamine in tablet dosage

form using diclofenac as internal standard. *Cogent Chem.* 4. <https://doi.org/10.1080/23312009.2018.1472198>

- [34]. Azanu, D., Styryshave, B., **Darko, G.**, Weisser, J.J., Abaidoo, R.C., 2018. Occurrence and risk assessment of antibiotics in water and lettuce in Ghana. *Sci. Total Environ.* 622–623, 293–305. <https://doi.org/10.1016/j.scitotenv.2017.11.287>
- [35]. Boadi, N.O., Borquaye, L.S., **Darko, G.**, Wemegah, D.D., Agorsor, D., Akrofi, R., 2018. Assessment of the quality of the Owabi reservoir and its tributaries. *Cogent Food Agric.* 4, 1–15. <https://doi.org/10.1080/23311932.2018.1492360>
- [36]. Borquaye, L.S., **Darko, G.**, Laryea, M.K., Roberts, V., Boateng, R., Gasu, E.N., 2017. Anti-inflammatory activities of extracts from *Oliva* sp., *Patella rustica*, and *Littorina littorea* collected from Ghana's coastal shorelines. *Cogent Biol.* 3, 1–11. <https://doi.org/10.1080/23312025.2017.1364063>
- [37]. Borquaye, L.S., Ekuadzi, E., Esseku, Y., Ahor, H.S., Nsiah, S.T., Lartey, J.A., Murtala, A.H., **Darko, G.**, Woode, E., 2018. Disposal of unused and expired medicines in Ghana. *West African J. Pharm.* 29, 83–91.
- [38]. **Darko, G.**, Boakye, K.O., Nkansah, M.A., Gyamfi, O., Ansah, E., Yevugah, L.L., Acheampong, A., Dodd, M., 2019. Human health risk and bioaccessibility of toxic metals in topsoils from Gbani mining community in Ghana. *J. Heal. Pollut.* 9, 190602. <https://doi.org/10.5696/2156-9614-9.22.190602>
- [39]. Fosu-Mensah, B.Y., Ofori, A., Ofosu, M., Ofori-Attah, E., Nunoo, F.K.E., **Darko, G.**, Tuffour, I., Gordon, C., Arhinful, D.K., Nyarko, A.K., Appiah-Opong, R., 2018. Assessment of heavy metal contamination and distribution in surface soils and plants along the west coast of Ghana. *West African J. Appl. Ecol.* 26, 167–178.
- [40]. Ofosu, I.W., Samuel, A.-F., Emmanuel De-Graft J, O.-A., **Darko, G.**, D., 2018. Exposure and Risk Assessment of Selected Chemical Hazards in Cabbage and Lettuce. *J. Toxicol. Risk Assess.* 4, 1–10. <https://doi.org/10.23937/2572-4061.1510014>
- [41]. **Darko, G.**, Dodd, M., Nkansah, M. A., Ansah, E. & Aduse-Poku, Y. (2017). Distribution and bioaccessibility of metals in urban soils of Kumasi, Ghana. *Environ. Monit. Assess.* 189, 1-13.
- [42]. Borquaye, L. S., **Darko, G.**, Laryea, M. K., Gasu, E. N., Amponsah, N. A. A., Appiah, E. N (2017). Nutritional and anti-nutrient profiles of some Ghanaian spices. *Cogent Food Agric.* 3, 1–12.
- [43]. Akomea-Frempong, S., Ofosu, I. W., Owusu-Ansah, E. de-G. J. & **Darko, G.** (2017). Health risks due to consumption of pesticides in ready-to-eat vegetables (salads) in Kumasi, Ghana. *Int. J. Food Contam.* 4, 1-11.

- [44]. **Darko, G.**, Dodd, M., Nkansah, M. A., Aduse-Poku, Y., Ansah, E., Wemegah, D. D. & Borquaye, L. S. (2017). Distribution and ecological risks of toxic metals in the topsoils in the Kumasi metropolis, Ghana. *Cogent Environ. Sci.* 3, 1354965
- [45]. **Darko, G.**, Addai Tabi, J., Adjaloo, M. K. & Borquaye, L. S. (2017). Pesticide Residues in Honey from the Major Honey Producing Forest Belts in Ghana. *J. Environ. Public Health* 2017, 1–6.
- [46]. Akoto, O., Gyamfi, O., **Darko, G.** & Barnes, V. R. (2017). Changes in water quality in the Owabi water treatment plant in Ghana. *Appl. Water Sci.* 7, 175–186.
- [47]. **Darko, G.**, Borquaye, L. S., Acheampong, A. & Oppong, K. (2017). Veterinary antibiotics in dairy products from Kumasi, Ghana. *Cogent Chem.* 3, 1343636–1343636
- [48]. Nkansah, M. A., **Darko, G.**, Dodd, M., Opoku, F., Essumang, T. B. & Antwi-Bosiako, J. (2017). Assessment of pollution levels, potential ecological risk and human health risk of heavy metals/metalloids in dust around fuel filling stations from the Kumasi Metropolis, Ghana. *Cogent Environ. Sci.* 3, 1–19.
- [49]. Borquaye, L. S., **Darko, G.**, Laryea, M. K., Roberts, V., Boateng, R. & Gasu, E. N. (2017). Anti-inflammatory activities of extracts from *Oliva sp.*, *Patella rustica*, and *Littorina littorea* collected from Ghana's coastal shorelines. *Cogent Biol.* 3, 1–11.
- [50]. Quansah, R., Bend, J. R., Abdul-Rahaman, A., Armah, F. A., Luginaah, I., Essumang, D. K., Iddi, S., Chevrier, J., Cobbina, S. J., Nketiah-Amponsah, E., Adu-Kumi, S., **Darko, G.** & Afful, S. (2016). Associations between pesticide use and respiratory symptoms: A cross-sectional study in Southern Ghana. *Environ. Res.* 150, 245–254.
- [51]. Azanu, D., Mortey, C., **Darko, G.**, Weisser, J. J., Styryshave, B. & Abaidoo, R. C. (2016). Uptake of antibiotics from irrigation water by plants. *Chemosphere* 157, 107–114.
- [52]. Affum, A. O., Dede, S. O., Nyarko, B. J. B., Acquah, S. O., Kwaansa-Ansah, E. E., **Darko, G.**, Dickson, A., Affum, E. A. & Fianko, J. R. (2016). Influence of small-scale gold mining and toxic element concentrations in Bonsa River, Ghana: a potential risk to water quality and public health. *Environ. Earth Sci.* 75, 178, 1-17.
- [53]. Usman, A., Thoss, V., **Darko, G.** & Itodo, A. U. (2016). Determination of triacylglycerol composition of *Trichilia emetica* seed oil using GC-MS and H-NMR spectroscopy. *Adv. Anal. Chem.* 6, 10–16.
- [54]. Acheampong, A., Gyasi, W. O., **Darko, G.**, Apau, J. & Addai-Arhin, S. (2016). Validated RP-HPLC method for simultaneous determination and quantification

of chlorpheniramine maleate, paracetamol and caffeine in tablet formulation. Springerplus 5, 625, 1-8.

- [55]. Borquaye, L. S., **Darko, G.**, Oklu, N., Anson-Yevu, C. & Ababio, A. (2016). Antimicrobial and antioxidant activities of the ethyl acetate and methanol extracts of *Littorina littorea* and *Galatea paradoxa*. Cogent Chem. 2, 1161865, 1-10.
- [56]. Fosu-Mensah, B. Y., Okoffo, E. D., **Darko, G.** & Gordon, C. (2016). Assessment of organochlorine pesticide residues in soils and drinking water sources from cocoa farms in Ghana. Springerplus 5, 869, 1-15.
- [57]. **Darko, G.**, Azanu, D. & Logo, N. K. (2016). Accumulation of toxic metals in fish raised from sewage-fed aquaculture and estimated health risks associated with their consumption. Cogent Environ. Sci. 2, 1–37.
- [58]. **Darko, G.**, Goethals, A., Torto, N. & De Clerck, K. (2016). Steady state electrospinning of uniform polyethersulfone nanofibers using a non-heated solvent mixture. Appl. Nanosci. 6, 837–845.
- [59]. Fosu-Mensah, B. Y., Okoffo, E. D., **Darko, G.** & Gordon, C. (2016). Organophosphorus pesticide residues in soils and drinking water sources from cocoa producing areas in Ghana. Environ. Syst. Res. 5, 10, 1-12.
- [60]. Nkansah, M. A., Korankye, M., **Darko, G.** & Dodd, M. (2016). Heavy metal content and potential health risk of geophagic white clay from the Kumasi Metropolis in Ghana. Toxicol. Reports 3, 644–651.
- [61]. **Darko, G.**, Ansah, E., Faanu, A., Azanu, D., Darko, E. O. & Emi-Reynolds, G. (2016). Natural radioactivity and heavy metal concentrations in reservoirs. J. Radioanal. Nucl. Chem. 3, 1–23.
- [62]. **Darko, G.**, Boakye, S., Akoto, O., Rammika, M. & Gyamfi, O. (2015). Distribution and potential risks of heavy metals in fish, water and sediment. Energy Environ. Sci. 11, 74–82.
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International Patents

- [94]. Ruphino, Z., **Darko, G.**, Litwinski, C., Nyokong, T., Torto, N. (2012). Polymer bound metallophthalocyanines. International Patent Published under the Patent Cooperation Treaty (PCT) International Publication Number: WO2012/023100 A1.

RESEARCH PRESENTATIONS MADE AT CONFERENCES

- i. 9th International Toxicology Symposium in Africa. Benin City, Nigeria. 6-8 September, 2017.
- ii. 8th International Toxicology Symposium in Africa. Giza, Egypt. 29th August to 1st September, 2016.
- iii. 5th Toxicology Symposium in Africa. Johannesburg, South Africa. 28-30 August, 2014.
- iv. EcoHealth Africa. Abidjan, Ivory Coast. 27-30 September, 2013.
- v. York Pesticides Conference. York, England. 2-4 September, 2013.
- vi. 44th World Chemistry Congress and 47th IUPAC General Assembly, Istanbul, Turkey. 8-16 August 2013.
- vii. 7th European Conference on Pesticides and Related Organic Micropollutants in the Environment and the 13th Symposium on Chemistry and Fate of Modern Pesticides Porto, Portugal. 7-10 October, 2012.
- viii. 11th International Chemistry Conference and Exhibition in Africa. Luxor. Egypt. 20th-23rd Nov 2010.
- ix. Analitika 2010 Conference. Stellenbosch. Cape Town. South Africa. 5-9 December, 2010.
- x. 10th International Symposium on Kinetics in Analytical Chemistry. Cape Town, South Africa. 2-4 December, 2009.

- xi. 3rd SEANAC International Conference on Chemistry for Food Security and Sustainable Development. Ezulwini, Swaziland. 5-8 July, 2009.
- xii. Organization for Prohibition of Chemical Weapon's Basic Analytical Chemistry Course. Pretoria. South Africa. 23 March-3 April, 2009.
- xiii. 9th Annual Conference on Pesticide Stewardship. Albuquerque, New Mexico. USA. 22-24 February, 2009.

RESEARCH AWARDS WON

- i. Best Senior Member in Scholarship and Research. College of Science. Kwame Nkrumah University of Science and Technology. (2018).
- ii. African Best Young Researchers Award in the field of Water, Energy and Environmental Sciences (2016). Fifteen Thousand United States Dollars (US\$15,000)
- iii. Outstanding Reviewer. Science of the Total Environment
- iv. IUPAC Young Observer. Two Thousand United Kingdom Pounds (£2000) Travel Grant in 2013.
- v. Dow AgroScience. Travel Bursary to present research findings at the 2013 York Pesticides Conference in the UK.
- vi. Young Fellow to the Ghana Young Academy of Arts and Sciences.