Kofi Atiah

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RESEARCH

Interests	nutrient use and efficiency · biochar systems analysis · NPK uptake and utilization of plants in highly weathered soils · fertilizer optimization studies
Areas	Plant Science · Soil Science · Agronomy and Crop Science · Waste Management and Disposal · Management, Monitoring, Policy and Law · Mechanical Engineering

RESEARCH SUMMARY

28	477	10	11	2.17	25%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 28 publications listed below, 2017–2026. Field-weighted impact is the mean over the 24 works scored for it; 1.00 is the world average for works of the same field, type and year. 6 of the 24 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

University of Cape Coast
Cape Coast, Ghana

PUBLICATIONS

Journal articles 27

1. Kwame Agyei Frimpong, **Kofi Atiah**, Richard Yankey (2026). Biochar and compost application synergistically enhance soil microbial activity in coastal savanna Acrisol. *Discover Soil*. https://doi.org/10.1007/s44378-026-00327-5
2. Rebecca Owusu, **Kofi Atiah** (2026). Consumer willingness to pay for fortified tomato juice in Ghana and its relevance for sustainable food systems. *Discover Sustainability*. https://doi.org/10.1007/s43621-026-04888-x_reference
3. Agnes Naa Abeley Abbey, Kwame Agyei Frimpong, Edward Akwasi Ampofo, **Kofi Atiah**, Emmanuel Hanyabui, Flavio Odoi-Yorke, Ransford Opoku Darko (2026). Integrating biochar, NPK and green mucuna for sustainable soil fertility and yield optimization in sweet potato production. *Agroforestry Systems*. https://doi.org/10.1007/s10457-026-01434-6
4. Dorcas Blankson, Kwame Agyei Frimpong, **Kofi Atiah**, Maliheh Fouladidorhani, John Bright Amoah Nyasapoh, Sabine Ravnskov, Emmanuel Arthur (2026). Mitigating greenhouse gas emissions from a tropical sandy loam using oil palm empty fruit bunch biochar and compost amendments. *Vadose Zone Journal*. https://doi.org/10.1002/vzj2.70090
5. Michael O. Adu, Francis Kumi, Peter B. Obour, Emmanuel Arthur, Eric Oppong Danso, Samuel Banafo, **Kofi Atiah**, Kwadwo K. Amoah, Paul A. Asare, Joel Asiedu, Donatus B. Angnuureng, Stephen E. Moore (2026). Root system architecture and shoot canopy effects drive erosion control in Napier and Vetiver grasses. *Ecological Engineering*. https://doi.org/10.1016/j.ecoleng.2026.108126
6. Dorcas Blankson, Emmanuel Arthur, **Kofi Atiah**, Kwame Agyei Frimpong, Patrick Manfo, Sabine Ravnskov (2025). Empty oil palm fruit bunch biochar and compost influence soil properties that drive okra (Abelmoschus esculentus L.) nutrient use efficiency and yield. *Soil Science Society of America Journal*.

https://doi.org/10.1002/saj2.70172

7. Danquah Danquah, Emmanuel Plas Otwe, Isaac Kojo Angnangsoore Galyuon, **Kofi Atiah**, Clement Napo (2025). Growth and Tuberization in Seed-Propagated Cassava. *American Journal of Agriculture*. https://doi.org/10.47672/aja.2811
8. Dorcas Blankson, **Kofi Atiah**, Emmanuel Arthur, Kwame Agyei Frimpong (2025). Immediate Chemical Response and Potential Phytotoxicity of Different Tropical Soils to Empty Oil Palm Fruit Bunch Biochar Application. *Journal of soil science and plant nutrition*. https://doi.org/10.1007/s42729-025-02415-x
9. Godfred Okyere-Prah, Paul A. Asare, Kwadwo K. Amoah, **Kofi Atiah**, Moses Teye, Alfred A. Darkwa, Roseline L. Macarthur, Michael O. Adu (2025). Optimizing Agronomic Zinc Biofortification in Carrots. *Plant-Environment Interactions*. https://doi.org/10.1002/pei3.70086
10. Michael O. Adu, Peter B. Obour, Francis Kumi, Emmanuel Arthur, Paul A. Asare, Eric Oppong Danso, Samuel A. Banafo, Kwabena A. Sanleri, Hygienus Godswill, **Kofi Atiah**, Kwadwo K. Amoah, Joel B.K. Asiedu, Stephen E. Moore, Donatus B. Angnuureng (2025). Soil reinforcement potential of multifunctional crop plants on arable and non-arable tropical soils. *Geoderma*. https://doi.org/10.1016/j.geoderma.2025.117470
11. Emmanuel Hanyabui, Kwame Agyei Frimpong, Festus Annor-Frempong, **Kofi Atiah** (2024). Effect of pineapple waste biochar and compost application on the growth and yield of pineapple varieties in Ghana. *Frontiers in Agronomy*. https://doi.org/10.3389/fagro.2024.1331377
12. Thomas Abindaw, David Atiiwin Abugri, **Kofi Atiah** (2024). Effects Of Greenhouse Technology on Tomato Growth and Yield (Production) In the Transitional Zone of Ghana. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v1i1.6s
13. Thomas Abindaw, Emmanuel Hanyabui, **Kofi Atiah**, Edward Ampofo Akwasi, Imoro Abukari Ziblim (2023). Influence of land use types on the distribution of selected soil properties in tropical soils of the Coastal Savanna zone. *Heliyon*. https://doi.org/10.1016/j.heliyon.2023.e14002
14. Michael O. Adu, Nathaniel Zigah, David O. Yawson, Kwadwo K. Amoah, Emmanuel Afutu, **Kofi Atiah**, Alfred A. Darkwa, Paul A. Asare (2023). Plasticity of root hair and rhizosheath traits and their relationship to phosphorus uptake in sorghum. *Plant Direct*. https://doi.org/10.1002/pld3.521
15. Francis Kumi, Peter B. Obour, Emmanuel Arthur, Stephen E. Moore, Paul A. Asare, Joel Asiedu, Donatus B. Angnuureng, **Kofi Atiah**, Kwadwo K. Amoah, Shadrack K. Amponsah, Selorm Y. Dorvlo, Samuel Banafo, Michael O. Adu (2023). Quantifying root-induced soil strength, measured as soil penetration resistance, from different crop plants and soil types. *Soil and Tillage Research*. https://doi.org/10.1016/j.still.2023.105811
16. Ernest Teye, Charles L. Y. Amuah, **Kofi Atiah**, Ransford Opoku Darko, Thomas Abindaw, Kwadwo Kusi Amoah, Michael Miyittah, Emmanuel Afutu, Rebecca Owusu (2023). Quick Determination of Soil Quality Using Portable Spectroscopy and Efficient Multivariate Techniques. *Journal of Spectroscopy*. https://doi.org/10.1155/2023/2024318
17. Ernest Teye, Charles L. Y. Amuah, **Kofi Atiah**, Ransford Opoku Darko, Kwadwo Kusi Amoah, Emmanuel Afutu, Rebecca Owusu (2022). Feasibility Study on the Use of a Portable NIR Spectrometer and Multivariate Data Analysis to Discriminate and Quantify Adulteration in Fertilizer. *Journal of Spectroscopy*. https://doi.org/10.1155/2022/1412526
18. Michael O. Adu, Paul A. Asare, David O. Yawson, Kwadwo K. Amoah, **Kofi Atiah**, Matthew K. Duah, Alex Graham (2022). Root System Traits Contribute to Variability and Plasticity in Response to Phosphorus Fertilization in 2 Field-Grown Sorghum [Sorghum bicolor (L.) Moench] Cultivars. *Plant Phenomics*. https://doi.org/10.34133/plantphenomics.0002
19. **KOFI ATIAH**, Kofi Atia, Emmanuel Arthur, Paul Agu Asare, Peter Bilson Obour, Eric Oppong Danso, Kwame Agyei Frimpong, Kwabena Azure Sanleri, Samuel Asare-Larbi, Richmond Adjei, George Mensah, Mathias Neumann Andersen (2022). The use of oil palm empty fruit bunches as a soil amendmentto improve growth and yield of crops. A meta-analysis. *Agronomy for Sustainable Development*. https://doi.org/10.1007/s13593-022-00753-z
20. **K Atiah**, E Yeboah, E Nartey (2020). 5. Changes in bulk and surface properties of two biochar types during

12 months of field ageing in two West-African soils. *West African Journal of Applied Ecology*. https://journals.ug.edu.gh/index.php/wajae/article/view/382

21. Christian Adler Phares, Andrews Danquah, **Kofi Atiah**, Frimpong Kwame Agyei, Osei-Tutu Michael (2020). Antibiotics utilization and farmers' knowledge of its effects on soil ecosystem in the coastal drylands of Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0228777
22. Christian Adler Phares, **Kofi Atiah**, Kwame Agyei Frimpong, Andrews Danquah, Aaron T. Asare, Samira Aggor-Woananu (2020). Application of biochar and inorganic phosphorus fertilizer influenced rhizosphere soil characteristics, nodule formation and phytoconstituents of cowpea grown on tropical soil. *Heliyon*. https://doi.org/10.1016/j.heliyon.2020.e05255
23. Samuel Obeng Apori, **Kofi Atiah**, Emmanuel Hanyabui, John Byalebeka (2020). MORINGA OLEIFERA SEEDS AS A LOW-COST BIOSORBENT FOR REMOVING HEAVY METALS FROM WASTEWATER. *STED JOURNAL*. https://doi.org/10.7251/sted2002045o
24. Emmanuel Hanyabui, Samuel Obeng Apori, Kwame Agyei Frimpong, **Kofi Atiah**, Thomas Abindaw, Muhammed Ali, Joshua Yeboah Asiamah, John Byalebeka (2020). Phosphorus sorption in tropical soils. *AIMS Agriculture and Food*. https://doi.org/10.3934/agrfood.2020.4.599
25. Samuel Obeng Apori, Marius Murongo, Emmanuel Hanyabui, **Kofi Atiah**, John Byalebeka (2020). Potential of termite mounds and its surrounding soils as soil amendments in smallholder farms in central Uganda. *BMC Research Notes*. https://doi.org/10.1186/s13104-020-05236-6
26. Christoph Steiner, Imogen Bellwood-Howard, Volker Häring, Kwame Tonkudor, Foster Addai, **Kofi Atiah**, Abdul Halim Abubakari, Gordana Kranjac-Berisavljevic, Bernd Marschner, Andreas Buerkert (2018). Participatory trials of on-farm biochar production and use in Tamale, Ghana. *Agronomy for Sustainable Development*. https://doi.org/10.1007/s13593-017-0486-y
27. Volker Häring, Delphine Manka'abusi, Edmund K. Akoto-Danso, Steffen Werner, **Kofi Atiah**, Christoph Steiner, Désiré J. P. Lompo, Samuel Adiku, Andreas Buerkert, Bernd Marschner (2017). Effects of biochar, waste water irrigation and fertilization on soil properties in West African urban agriculture. *Scientific Reports*. https://doi.org/10.1038/s41598-017-10718-y

Book chapters 1

1. Kwabena Azure Sanleri, KK Amoah, PA Asare, E Afutu, **K Atiah**, Michael Osei Adu (2020). A meta-analysis of modifications of root system traits of crop plants to potassium (K) deprivation. *Plant Roots*. https://www.intechopen.com/chapters/74284