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RESEARCH

Interests Nanotechnology

Areas Materials Chemistry · Atomic and Molecular Physics, and Optics · Biomedical Engineering · Electrical and Electronic Engineering · Civil and Structural Engineering · Radiology, Nuclear Medicine and Imaging

RESEARCH SUMMARY

108	715	14	27	0.28	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 108 publications listed below, 1991–2025. Field-weighted impact is the mean over the 86 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 86 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 104

1. Samuel Mensah (2025). A case of Plasmodium falciparum malaria presenting 13 years after leaving an endemic area. *Infectious Diseases*. <https://doi.org/10.1080/23744235.2025.2505078>
2. Patrick Akakpo, Emmanuel G Imbeah, Samuel Mensah (2025). Assessing the impact of improved pre-analytic tissue handling on immunohistochemistry and breast cancer subtypes in Ghana. *Cancer Research*. https://aacrjournals.org/cancerres/article/85/8_Supplement_1/5927/760856
3. PATRICK KAFUI AKAKPO, Samuel Mensah (2025). Barriers to cancer diagnosis and treatment among women in low-and low-middle-income countries. *Cancer Research*. https://aacrjournals.org/cancerres/article/85/8_Supplement_1/7113/760660
4. D Sekyi-Arthur, S Y Mensah (2025). Generation of acousto-electric direct current in fluorine-doped single-walled carbon nanotubes due to the mixing of waves with commensurate frequencies (phaseless). *Pramana*. <https://doi.org/10.1007/s12043-025-03003-5>
5. S Y MENSAH (2025). Global anaesthesia practice using inguinal hernia surgery as a tracer condition: a secondary analysis of an international prospective cohort study. *Anaesthesia*. <https://doi.org/10.1111/anae.16686>
6. Kwaku Boakye, Selorm Akaba, Shallan Awuye, Samuel Mensah (2025). Sustainability in Agricultural Value Chains: Evidence from the Pineapple Sector in Ghana. *Research on World Agricultural Economy*. <https://doi.org/10.36956/rwae.v6i2.1641>
7. Samuel Mensah, Patrick K Akakpo, Samuel Mensah (2025). Variation in breast cancer molecular sub-types prevalence among ethnic groups within Ghana and implication for tumor biologic studies among African-Americans. *Cancer Research*. https://aacrjournals.org/cancerres/article/85/8_Supplement_1/7104/760669
8. Naa Korkor Leeyoo Watson-Nortey, Samuel Arko Mensah Mensah (2025). WHERE DO WE KEEP THE GODS? GALAMSEY, SACRED ECOLOGY AND THE CRISIS OF SUSTAINABILITY IN GHANA. *Journal of African Arts & Culture*. <https://doi.org/10.63102/jaac.v8i2.202510>
9. S Y MENSAH (2024). Access to and quality of elective care: a prospective cohort study using hernia

surgery as a tracer condition in 83 countries. *The Lancet Global Health*. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(24\)00142-6/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(24)00142-6/fulltext)

10. M. Amekpewu, S.Y. Mensah, R. Musah, S.S. Abukari, K.A. Dompseh, D. Sekyi-Arthur, N.G. Mensah, W. Ebikor (2024). Effect of doping on domain suppression in the presence of hot electrons in semiconducting achiral carbon nanotubes. *Journal of Physics and Chemistry of Solids*. <https://doi.org/10.1016/j.jpics.2024.112010>
11. M. Amekpewu, S.Y. Mensah, R. Musah, S.S. Abukari, N.G. Mensah, K.A. Dompseh, K.W. Adu (2024). Impact of diameter and temperature on domain suppression by hot electrons in zigzag carbon nanotubes under constant electric field. *Materials Chemistry and Physics*. <https://doi.org/10.1016/j.matchemphys.2024.129747>
12. Raymond Edziah, Samuel S. Bentsiefi, Kwadwo Dompseh, Anthony Twum, Emmanuel Kofi Amewode, Patrick Mensah-Amoah, Ebenezer T. Tatchie, Cynthia Jebuni-Adanu, Samuel Y. Mensah (2024). Investigation of Acoustomagnetolectric Effect in Bandgap Graphene by the Boltzmann Transport Equation. *World Journal of Condensed Matter Physics*. <https://doi.org/10.4236/wjcmp.2024.141002>
13. S Y MENSAH (2024). Microbiology testing capacity and antimicrobial drug resistance in surgical-site infections: a post-hoc, prospective, secondary analysis of the FALCON randomised trial in seven *The Lancet Global Health*. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(24\)00330-9/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(24)00330-9/fulltext)
14. S Y MENSAH (2024). Routine sterile glove and instrument change at the time of abdominal wound closure to prevent surgical site infection (ChEETAh): a model-based cost-effectiveness analysis of a *The Lancet Global Health*. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(23\)00538-7/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(23)00538-7/fulltext)
15. Isaac Bentum Ennin, Samuel Mensah, Evans Kulu (2024). Taxes, institutions, and illicit financial flows in Africa. *Global Business and Economics Review*. <https://doi.org/10.1504/gber.2024.139318>
16. Daniel Sekyi-Arthur, Samuel Yeboah Mensah, Kofi Wi-Adu, Kwadwo Anokye Dompseh, Raymond Edziah (2024). Tunable High-Frequency Acoustoelectric Current Oscillations in Fluorine-Doped Single-Walled Carbon Nanotubes. *Journal of Nanotechnology*. <https://doi.org/10.1155/2024/7426184>
17. D. Sekyi-Arthur, S.Y. Mensah, E.K. Amewode, R. Arthur, R.R. Adams (2023). Acoustoelectric direct current density in fluorine doped single-walled carbon nanotubes due to harmonic mixing of bichromatic fields with commensurate frequencies. *Diamond and Related Materials*. <https://doi.org/10.1016/j.diamond.2023.109993>
18. D. Sekyi-Arthur, S.Y. Mensah, E.K. Amewode, C. Jebuni-Adanu, J. Asare (2023). High frequency amplification of acoustic phonons in fluorine-doped single-walled carbon nanotubes. *Diamond and Related Materials*. <https://doi.org/10.1016/j.diamond.2023.110642>
19. Christiana Odumah Hood, Jaćimović Radjoko, Samuel Yeboah Mensah, Milena Horvat (2023). Spatial distribution of Hg in Pra River Basin, Southwestern Ghana using HF acid combination method. *Environmental Monitoring and Assessment*. <https://doi.org/10.1007/s10661-023-11122-y>
20. S Y MENSAH (2023). The importance of post-discharge surgical site infection surveillance: an exploration of surrogate outcome validity in a global randomised controlled trial (FALCON). *The Lancet Global Health*. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(23\)00256-5/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(23)00256-5/fulltext)
21. Kwadwo A. Dompseh, Daniel Sekyi-Arthur, Samuel Y. Mensah, Kofi W. Adu, Raymond Edziah, Mathew Amekpewu (2022). Effect of band-gap tuning on absorption of phonons and acoustoelectric current in graphene nanoribbon. *Physica E Low-dimensional Systems and Nanostructures*. <https://doi.org/10.1016/j.physe.2022.115516>
22. S Y MENSAH (2022). Elective surgery system strengthening: development, measurement, and validation of the surgical preparedness index across 1632 hospitals in 119 countries. *Lancet*. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01846-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01846-3/fulltext)
23. S. S. Abukari, S. Y. Mensah, R. Musah, M. Amekpewu, N. G. Mensah, K. W. Adu (2022). Enhanced nonlinear conductivity due to hot-electron injection in carbon nanotubes. *Low Temperature Physics*. <https://doi.org/10.1063/10.0011603>

24. D. Sekyi-Arthur, M. Egblewogbe, S.Y. Mensah, N.G. Mensah, K.W. Adu, K.A. Dompseh, R. Edziah, S. Atarah (2022). Giant thermoelectric figure of merit in fluorine-doped single walled-carbon nanotubes. *Physica E Low-dimensional Systems and Nanostructures*. <https://doi.org/10.1016/j.physe.2022.115292>
25. D. Sekyi-Arthur, S.Y. Mensah, K.A. Dompseh, G. Nkrumah-Buandoh, N.G. Mensah (2022). Giant thermoelectric power in fluorine-doped single-walled carbon nanotubes. *Journal of Physics and Chemistry of Solids*. <https://doi.org/10.1016/j.jpccs.2022.111020>
26. Anthony Twum, Samuel Y. Mensah, Raymond Edziah, Natalia G. Mensah, S.S. Abukari, K.A. Dompseh, G. Nkrumah-Buandoh, Augustine Arthur (2022). Investigation of laser modulated thermoelectric power of chiral carbon nanotubes. *Physica E Low-dimensional Systems and Nanostructures*. <https://doi.org/10.1016/j.physe.2022.115304>
27. S Y MENSAB (2022). Routine sterile glove and instrument change at the time of abdominal wound closure to prevent surgical site infection (ChEETAH): a pragmatic, cluster-randomised trial in seven *The Lancet*. [https://www.thelancet.com/article/S0140-6736\(22\)01884-0/fulltext?ref%5C%5Cx3dgyoedu.org](https://www.thelancet.com/article/S0140-6736(22)01884-0/fulltext?ref%5C%5Cx3dgyoedu.org)
28. Isaac Boadi, Joseph Abekah, Abednego Okoe Amartei, Raymond K. Dziwornu, Koryoe Anim-Wright, Samuel Mensah (2022). Social capital and knowledge creation: a higher education institution networks. *Cogent Education*. <https://doi.org/10.1080/2331186x.2022.2107313>
29. D. Sekyi-Arthur, C. Jebuni-Adanu, S.Y. Mensah, E.K. Amewode (2022). Thermal conductivity in fluorine-doped single-walled carbon nanotubes. *Materialia*. <https://doi.org/10.1016/j.mtla.2022.101613>
30. K. A. Dompseh, K. W. Adu, D. Sakyi-Arthur, N. G. Mensah, S. Y. Mensah, A. Twum, M. Amekpewu (2021). Acoustoelectric current in graphene nanoribbon due to Landau damping. *Scientific Reports*. <https://doi.org/10.1038/s41598-021-95896-6>
31. Isaac Boadi, James Ntiamoah Doku, Daniel Osarfo, Thompson Aneyire Kubaje, Samuel Mensah, Peter Ackah, Siddique Abdul-Samad (2021). Herding Behavior of Ghana Stock Market Participants: A Daily Analysis. *Journal of Applied Business and Economics*. <https://doi.org/10.33423/jabe.v23i5.4563>
32. M. Amekpewu, S. Y. Mensah, R. Musah, S. S. Abukari, K. A. Dompseh, N. G. Mensah, M. Kuwonu (2021). Influence of temperature variation on the electrical conductivity of zigzag carbon nanotubes under homogeneous axial dc field. *Low Temperature Physics*. <https://doi.org/10.1063/1.50006068>
33. M. Amekpewu, S.Y. Mensah, R. Musah, S.S. Abukari, N.G. Mensah, K.A. Dompseh (2021). Radius dependence of the electrical conductivity of zigzag carbon nanotubes. *Physica E Low-dimensional Systems and Nanostructures*. <https://doi.org/10.1016/j.physe.2021.114712>
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35. D. Sakyi-Arthur, S. Y. Mensah, K. W. Adu, K. A. Dompseh, R. Edziah, N. G. Mensah (2020). Acoustoelectric Effect in Fluorinated Carbon Nanotube in the Absence of External Electric Field. *World Journal of Condensed Matter Physics*. <https://doi.org/10.4236/wjcmp.2020.101001>
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37. Anthony Twum, Samuel Yeboah Mensah, Raymond Edziah, Augustine Arthur (2020). Laser induced resistivity of chiral single wall carbon nanotubes. *Journal of Physics Communications*. <https://doi.org/10.1088/2399-6528/aba1d4>
38. S. S. Abukari, R. Musah, M. Amekpewu, S. Y. Mensah, N. G. Mensah, R. Edziah, K. W. Adu (2020). Rectification in Chiral Carbon Nanotubes with Hot Electron Injection. *Journal of Experimental and Theoretical Physics*. <https://doi.org/10.1134/s1063776120080099>
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41. SY Mensah, NG Mensah, KA Dompheh, R Edziah (2018). Absorption of acoustic phonons in fluorinated carbon nanotube with non-parabolic, double periodic band. *Phonons in low dimensional structures*. https://books.google.com/books?hl=en&lr=&id=GFWRDwAAQBAJ&oi=fnd&pg=PA129&dq=info:7jMbiNdQywsJ:scholar.google.com&ots=5A5GR9xINA&sig=H6zr_x0HSUYloZiSknDc66FkBel
42. Kofi W. Adu, Paul Armstrong, Lucas Servera, David K. Essumang, Samuel Y. Mensah (2018). Conversion of Agricultural Waste Streams into Value Added Products. *MRS Advances*. <https://doi.org/10.1557/adv.2018.232>
43. E.K. Sosu, M. Boadu, S.Y. Mensah (2018). Determination of dose delivery accuracy and image quality in full - Field digital mammography. *Journal of Radiation Research and Applied Sciences*. <https://doi.org/10.1016/j.jrras.2018.02.002>
44. Samuel N. A. Tagoe, Samuel Y. Mensah, John J. Fletcher (2018). Implementation of compensator-based intensity modulated radiotherapy with a conventional telecobalt machine using missing tissue approach. *Polish Journal of Medical Physics And Engineering*. <https://doi.org/10.2478/pjmpe-2018-0024>
45. Sosu, Edem, Boadu, Mary, Mensah, Samuel Yeboah (2018). Optimization of Radiation Protection of Patients in Mammography Examinations using compression analysis. *Zenodo (CERN European Organization for Nuclear Research)*. <https://doi.org/10.5281/zenodo.21593374>
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48. Issahaku Shirazu, Y. B. Mensah, Cyril Schandorf, S. Y. Mensah (2017). A Comprehensive Clinical Decision Support Application Software for Measurements of Body and Renal Dimensions In Ghana. *International Journal of Scientific Research in Science Engineering and Technology*. <https://doi.org/10.32628/ijrsrset173191>
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50. Issahaku Shirazu, Y. B Mensah, Cyril Schandorf, S. Y. Mensah, Alfred Owusu (2017). Comparison of Measured Values of CTDI and DPL with Standard Reference values of Different CT Scanners for dose Management. *International Journal of Scientific Research in Science and Technology*. <https://doi.org/10.32628/ijrst17319>
51. Issahaku Shirazu, Y. B. Mensah, Cyril Schandorf, S. Y. Mensah (2017). Determination of the Relationship between Renal Volume Model and Related Body Indices for Clinical Application in Ghana. *International Journal of Scientific Research in Science Engineering and Technology*. <https://doi.org/10.32628/ijrsrset173169>
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