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RESEARCH

Areas: Civil and Structural Engineering · Building and Construction · Mechanical Engineering · Plant Science · Materials Chemistry · Polymers and Plastics

RESEARCH SUMMARY

54	538	11	14	0.71	9%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 54 publications listed below, 1997–2026. Field-weighted impact is the mean over the 54 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 54 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 54

1. Theophilus Kwaako, **Charles K. Kankam**, Edward C, Mansal, Daniel T. Tackie, Mbassally Manneh, Selase A. K. Kpo (2026). Assessing Structural Capacity and Performance of Two – Way Concrete Slabs Reinforced with Reused GFRP Bars for Sustainable Construction. *Asian Journal of Advanced Research and Reports*. https://doi.org/10.9734/ajarr/2026/v20i11253
2. Emmanuel K. Banini, **Charles K. Kankam**, Vincent K. Akortia (2026). Evaluation of Physiogeometrical Properties of Glass Fiber Reinforced Polymer Bars Manufactured in Ghana. *Journal of Scientific Research and Reports*. https://doi.org/10.9734/jsrr/2026/v32i84371
3. Vincent K. Akortia, **Charles K. Kankam**, Evans Biney, Edward C. Mansal, Russel O. Afrifa, Jack O. Banahene, Joseph Nyumutsu (2025). Bond Characteristics of Coated Reinforcing Steel Bars with Reference to Deformation of Concrete Beams. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2025/v27i81615
4. Richard Akuaku, **Charles K. Kankam**, Jacqueline Obeng, Jonathan Sassah, Kofi Owusu Sarpong, Edward C. Mansal (2025). Experimental Study and Numerical Modeling of the Lap Strength of Reinforcing Steel Bars Milled from Recycled Scrap Metals. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2025/v27i71564
5. George Andoh, **Charles K. Kankam**, Francis Ohene-Coffie, Ezekiel Sackitey Nanor, Selase A. K. Kpo, Kofi Owusu Sarpong, Fredrick Ali Issifu (2025). Flexural Behavior of Reinforced Concrete Beams with Openings Created by PVC Pipes: An Experimental and Numerical Study. *Asian Journal of Advanced Research and Reports*. https://doi.org/10.9734/ajarr/2025/v19i1879
6. Selase A. K. Kpo, **Charles K. Kankam**, Charles Osei Ababio, Daniel Tetteh Tackie (2025). Investigation on the Shear Performance of Concrete Beams Reinforced with Glass Fiber Reinforced Polymer (GFRP) Bars. *Asian Journal of Advanced Research and Reports*. https://doi.org/10.9734/ajarr/2025/v19i4969
7. **Charles K. Kankam**, Selase A. K. Kpo, Russell O. Afrifa, Jack O. Banahene, Johnson Dwomoh Boateng, Joycelyn Esi Asamoah, Maxwell Appiah-Kubi, Theophilus Kwaako, Edward C. Mansal, George Oti Boateng, Daniel Kofi Ati, Enoch Tongyem (2025). Structural Performance of Reused GFRP Bars in Reinforced Concrete Beams: A Sustainable Approach to Concrete Reinforcement. *Asian Journal of Advanced Research and Reports*. https://doi.org/10.9734/ajarr/2025/v19i4987
8. Sampson Assiamah, **Charles K. Kankam**, Kwadwo Adinkrah-Appiah, Russell Owusu Afrifa, Osei Jack

Banahehe, Stephen Agyeman (2025). The impact of burnt sawdust ash from timber species as partial cement replacements on the durability properties for sustainable interlocking blocks. *Discover Civil Engineering*. https://doi.org/10.1007/s44290-025-00183-2

9. Francis Ohene-Coffie, **Charles K. Kankam**, Selase A. K. Kpo, George Oti Boateng, Ezekiel Sackitey Nanor (2024). Anchorage Bond Strength of Glass Fibre Polymer Reinforced Concrete with Palm Kernel Shells as Partial Coarse Aggregate. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2024/v26i71189
10. Vincent K. Akortia, **Charles K. Kankam**, Evans Biney, Perseverance Dzikunu, Russel O. Afrifa, Jack O. Banahene (2024). Assessment of Oil Paints for Corrosion Protection of Reinforcing Steel Bars in Concrete. *Journal of Scientific Research and Reports*. https://doi.org/10.9734/jsrr/2024/v30i112598
11. Sampson Assiamah, **Charles K. Kankam**, Kwadwo Adinkrah-Appiah, Russell Owusu Afrifa, Jones Owusu Twumasi (2024). Effects of burnt sawdust ashes from timber species on the strength properties of laterite-interlocking blocks. *Discover Civil Engineering*. https://doi.org/10.1007/s44290-024-00093-9
12. John K. Quarm Junior, **Charles K. Kankam** (2024). Enchancing the Mechanical Properties of Self–compacting Concrete: Means to Achieve a Better Economy in Concrete Construction. *Asian Journal of Advanced Research and Reports*. https://doi.org/10.9734/ajarr/2024/v18i7703
13. George Oti Boateng, **Charles K. Kankam**, Edward C. Mansar, Russell O. Afrifa, Felix Kwarteng, Francis Ohene-Coffie, Selase A. K. Kpo (2024). Evaluating the Mechanical Properties of Fiberglass-reinforced Polymer Bar. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2024/v26i71200
14. Evans Biney, **Charles K. Kankam**, Vincent K. Akortia, Peter Adzakey, John K. Quarm Junior, Enock Tongyem (2024). Examining the Geometrical Properties, Chemical Composition, and Mechanical Properties of Local Reinforcing Bars in Ghana. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2024/v26i61176
15. Edward C. Mansal, **Charles K. Kankam**, Evans Biney, Vincent Akortia, Alidu Babamu (2024). Flexural Behaviour and Environmental Impact of African Fan Palm Reinforced Concrete Beams under Symmetrical Loading Conditions. *Journal of Scientific Research and Reports*. https://doi.org/10.9734/jsrr/2024/v30i102482
16. Evans Biney, **Charles K. Kankam**, Enock Tongyem, Vincent K. Akortia, Peter Adzakey, Edward C. Mansal (2024). Flexural Strength and Deformations Capacity of Structural Beams Reinforced with Steel Bars Milled from Recycled Metals in Ghana. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2024/v26i91262
17. Assiamah Sampson, **Charles K. Kankam**, Russell Owusu Afrifa, Kwadwo Adinkrah-Appiah, Osei Jack Banahehe (2024). Improving Tensile Strength Characteristics and Water Absorption of Laterite Interlocking Blocks Enhanced with Different Burnt Sawdust Ash from Timber Species. *Journal of Materials Science Research and Reviews*. https://doi.org/10.9734/jmsrr/2024/v7i4348
18. Felix Kwarteng, **Charles K. Kankam**, Jack O. Banahene, George Oti Boateng, Edward Ceasar Mansal (2024). Predictive Behaviour from Finite Element Analysis on PVC-Ducted Reinforced Concrete Column. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2024/v26i31101
19. Selase A. K. Kpo, **Charles K. Kankam**, Francis Ohene-Coffie, George Oti Boateng, Ezekiel Sackitey Nanor, John K. Quarm Junior, Edward C. Mansal (2024). Strength and Deformation Characteristics of Concrete Beams Reinforced with Glass Fibre Reinforced Polymer Bars. *Asian Journal of Advanced Research and Reports*. https://doi.org/10.9734/ajarr/2024/v18i9741
20. Sampson Agudze, Vincent K. Akortia, **Charles K. Kankam**, Evans Biney, John K. Quarm Junior, Edward C. Mansar (2023). Appraisal of Structural Integrity Assessment Methodology and Reports of Existing RC Building Structures in Ghana. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2023/v25i101003
21. Eric Boateng, **Charles K. Kankam**, Anthony K. Danso, Joshua Ayarkwa, Alex Acheampong (2023). Assessing Compressive Strength of Concrete with Waste Automobile Tire and Palm Kernel shells as Aggregates. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2023/v24i6819
22. Akyen Thomas, **Charles Kwame Kankam**, Nnaa Kelvin Awine (2023). Assessing the Influence of Variations

in Chemical Composition of Cement Brands in Ghana on their Setting and Workability of Concrete. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2023/v25i3891

23. Eric Boateng, **Charles K. Kankam**, Anthony K. Danso, Joshua Ayarkwa, Alex Acheampong (2023). Bond Characteristics of Deformed Steel Rebar in Palm Kernel Shell (PKS)-Rubberised Concrete Composite. *Journal of Civil Engineering and Construction*. https://doi.org/10.32732/jcec.2023.12.2.69
24. Eric Boateng, **Charles K. Kankam**, Anthony K. Danso (2023). Models for Predicting Strength Reduction Factors for Concrete that Utilizes Palm Kernel Shells and Waste Automobile Tires as Aggregates. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2023/v24i9842
25. Sampson Assiamah, **Charles K. Kankam**, Emmanuel K. Banini, Stephen Agyeman (2023). Standardization Issues in Africa: Bayesian analysis of physicogeometrical and mechanical characteristics of rebars in Ghana's construction industry. *Journal of Building Engineering*. https://doi.org/10.1016/j.jobe.2023.106835
26. John K. Quarm Junior, **Charles K. Kankam**, Prosper Tudagbe-Obuor, Vincent K. Akortia, Emmanuel K. Banini, Evans Biney, Peter K. Adzakey, Christopher Kofi Dzivenu (2023). Strength and Deformational Characteristics of Concrete Beams Reinforced with Steel Bars Locally Produced from Recycled Metal Scrap in Ghana. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2023/v24i12860
27. Eric Boateng, **Charles K. Kankam**, Anthony K. Danso, Joshua Ayarkwa, Alex Acheampong (2023). The Effect of Using Waste Automobile Tires and Palm Kernel Shells as Coarse Aggregates in Concrete on Tensile Strength and Failure Modes. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2023/v24i8833
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29. Evans Biney, Vincent K. Akortia, **Charles K. Kankam**, John K. Quarm Junior, Peter Adzakey (2022). Assessing Structural Performance of Ceramic Waste as Partial Replacement of Coarse Aggregate on Properties of Concrete. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2022/v23i12771
30. Thomas Akyen, **Charles K. Kankam** (2022). Comparative Study of the Chemical Analysis of Different Brands of Cements used in Ghana. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2022/v23i517612
31. Akyen Thomas, **Charles Kwame Kankam** (2022). Comparative Study of the Compressive Strength of Concrete made from Different Brands of Cements in Ghana. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2022/v23i9747
32. Peter P Yalley, **Charles K Kankam** (2022). Compressive, flexural and corrosion permeability resistance properties of concrete with bauxite tailing as supplementary mineral admixtures. *Scientific African*. https://doi.org/10.1016/j.sciaf.2022.e01409
33. John K. Quarm Junior, **Charles K. Kankam**, Christopher K. Dzivenu, Vincent K. Akortia (2022). Strength Characteristics of Concrete Partially Replaced with Glass Powder and Palm Kernel Shells. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2022/v23i12760
34. John Kwesi Quarm Junior, **Charles Kwame Kankam** (2022). The Strength Characteristics of Concrete Blended with Recycled Concrete, Quarry Dust and Broken Glass. *Journal of Engineering Research and Reports*. https://doi.org/10.9734/jerr/2022/v23i117586
35. Peter Paa Kofi Yalley, Emmanuel Appiah-Kubi, Emmanuel Osei-Tweneboah, **Charles K. Kankam** (2021). Assessing the Performance of Concrete Mixed with Different Water Sources within Small Scale Mining Catchment Areas in Ghana. *Journal of Materials Science Research and Reviews*.
36. Peter Paa-Kofi Yalley, **Charles K. Kankam** (2021). Experimental and Computational Analysis of Compressive Strength of Bricks with Granite Powder and Fibres as Binder to Soil. *HAL (Le Centre pour la Communication Scientifique Directe)*.

37. Abdullai Mohammed Ghadafi, **Charles K. Kankam** (2021). Strength Characteristics of Recycled Polyethylene Fibre Reinforced Concrete. *Journal of Materials Science Research and Reviews*.

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