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RESEARCH

Areas: Building and Construction · Plant Science · Biomedical Engineering · Polymers and Plastics · Mechanical Engineering · Organic Chemistry

RESEARCH SUMMARY

33	335	9	9	0.48	3%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 33 publications listed below, 2009–2024. Field-weighted impact is the mean over the 33 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 33 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 33

1. Mark Glalah, **Charles Antwi-Boasiako**, Derrick Adu-Gyamfi (2024). Binder-type effect on the physico-mechanical, combustion and emission properties of Alstonia boonei De Wild. sawdust and Theobroma cacao L. pod biochar briquettes for energy applications. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0306827
2. Maxidite Minkah, Kojo Agyapong Afrifah, **Charles Antwi-Boasiako**, Ana Paula Soares da Silva, Jaqueline Rocha de Medeiros, Juarez Paes, Djeison Batista, Christian Brischke, Holger Militz (2024). Biological resistance of thermally modified Gmelina arborea wood. *Maderas Ciencia y tecnología*. https://doi.org/10.22320/s0718221x/2024.36
3. **C. Antwi-Boasiako**, E.S. Ofosu, M. Glalah (2024). PHYSICO-MECHANICAL AND ANATOMICAL PROPERTIES OF NORMAL AND TENSION WOODS OF TERMINALIA SUPERBA (Engl. & Diels). *Wood Material Science and Engineering*. https://doi.org/10.1080/17480272.2024.2337149
4. Frederick Amin Anthonio, **Charles Antwi-Boasiako** (2023). Natural resistance of coppiced and non-coppiced rosewood (Pterocarpus erinaceus Poir.) under outdoor field exposure to termites. *Wood Material Science and Engineering*. https://doi.org/10.1080/17480272.2023.2289029
5. Mark Glalah, **Charles Antwi-Boasiako** (2021). Hazardous emissions and concentrations of toxic metalloids and trace elements in charcoals from six commonly used tropical timbers for carbonization. *Environmental Science and Pollution Research*. https://doi.org/10.1007/s11356-021-16304-0
6. **Charles Antwi-Boasiako**, Mark Glalah (2021). Physico-combustion characteristics and suitability of six carbonized tropical hardwoods as biofuels for domestic and industrial applications. *Biomass and Bioenergy*. https://doi.org/10.1016/j.biombioe.2021.106208
7. **C. Antwi-Boasiako**, A. Osei-Owusu Ansah, M. Glalah (2021). Physico-mechanical properties of wood–plastic composites from Triplochiton scleroxylon K. Schum wood-residue and post-consumer polyethylene waste as construction materials. *International Wood Products Journal*. https://doi.org/10.1080/20426445.2021.2014026
8. **C. Antwi-Boasiako**, M. Glalah (2021). Proximate Analysis and Strength Properties of Carbonized Woods from the Most-Used Tropical Timbers from the Afram Plains, Ghana's Charcoal Production Hub. *Journal of Sustainable Forestry*. https://doi.org/10.1080/10549811.2021.1948869

9. **Charles Antwi-Boasiako**, Frederick Amin Anthonio, Kwasi Frimpong-Mensah (2018). Mechanical properties of coppiced and non-coppiced Pterocarpus erinaceus boles and their industrial application. *Journal of Forestry Research*. https://doi.org/10.1007/s11676-018-0727-1

10. Kwadwo Boakye Boadu, **Charles Antwi-Boasiako**, Linda Ofosuhene (2018). Solvent extraction of inhibitory substances from three hardwoods of different densities and their compatibility with cement in composite production. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-018-0219-0

11. **Charles Antwi-Boasiako**, Linda Ofosuhene, Kwadwo B. Boadu (2018). Suitability of sawdust from three tropical timbers for wood-cement composites. *Journal of Sustainable Forestry*. https://doi.org/10.1080/10549811.2018.1427112

12. **C. Antwi-Boasiako**, J. K. Appiah (2017). Glue-line durability of organo-chemical/urea formaldehyde resin joints of Ceiba pentandra (L.) Gaertn. plywood. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-017-0187-9

13. **C. Antwi-Boasiako**, S. Abam (2017). Milicia excelsa (Welw.) C. C. Berg sawdust as glue-extender in urea formaldehyde-adhesive in enhancing Ceiba pentandra (L.) Gaertn. veneer joint bonding strength. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-017-0188-8

14. **Charles Antwi-Boasiako**, Kwadwo Boakye Boadu, Kwasi Frimpong-Mensah (2017). Termite resistance of Klainedoxa gabonensis (kruma), a tropical lesser-utilised-species for commercial utilisation. *International Wood Products Journal*. https://doi.org/10.1080/20426445.2017.1317470

15. Frederick ANTHONIO, **Charles ANTWI-BOASIAKO** (2017). The Characteristics of Fibres within Coppiced and Non-Coppiced Rosewood (Pterocarpus erinaceus Poir.) and their Aptness for Wood - and Paper - Based Products. *DOAJ (DOAJ: Directory of Open Access Journals)*.

16. Kwadwo Boakye Boadu, **Charles Antwi-Boasiako** (2016). Assessment of the bending strength of mortise-tenon and dovetail joints in leg-and-rail construction using Klainedoxa gabonensis Pierre Ex Engl. and Entandrophragma cylindricum (Sprague) Sprague. *Wood Material Science and Engineering*. https://doi.org/10.1080/17480272.2016.1174883

17. K. Boakye Boadu, **C. Antwi-Boasiako**, K. Frimpong-Mensah (2016). Physical and mechanical properties of Klainedoxa gabonensis with engineering potential. *Journal of Forestry Research*. https://doi.org/10.1007/s11676-016-0331-1

18. **Charles Antwi-Boasiako**, Kwadwo Boadu (2016). The Level of Utilization of Secondary Timber Species among Furniture Producers. *South-east European forestry*. https://doi.org/10.15177/seefor.16-08

19. **C. Antwi-Boasiako**, B.B. Acheampong (2015). Strength properties and calorific values of sawdust-briquettes as wood-residue energy generation source from tropical hardwoods of different densities. *Biomass and Bioenergy*. https://doi.org/10.1016/j.biombioe.2015.12.006

20. A. Asamoah, K. Frimpong-Mensah, **C. Antwi-Boasiako** (2014). Efficacy of Erythropleum suaveolens (potrodom) and Distemonanthus benthamianus (bonsamdua) water extractives on the durability of five Ghanaian less used timber species of varying perviousness and retentiveness. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-014-0120-4

21. Sandra A. Owusu, Emmanuel Opuni-Frimpong, **Charles Antwi-Boasiako** (2014). Improving regeneration of mahogany: techniques for vegetative propagation of four African mahogany species using leafy stem cuttings. *New Forests*. https://doi.org/10.1007/s11056-014-9431-y

22. **Charles Antwi-Boasiako**, Kwadwo Boakye Boadu (2013). SWELLING CHARACTERISTICS OF CONVENTIONAL AND ORGANIC PRESERVATIVE-TREATED POROUS TROPICAL UTILITY HARDWOOD [CEIBA PENTANDRA (L.) GAERTN.]. *Special Topics & Reviews in Porous Media An International Journal*. https://doi.org/10.1615/specialtopicsrevporousmedia.v4.i2.30

23. **C. Antwi-Boasiako**, D. Amponsah (2012). Compressive strength, static bending and specific gravity of chemically-treated stakes from three structural and general-purpose hardwoods. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-012-0076-1

24. **C. Antwi-Boasiako**, S. O. Animapauh (2012). Effect of Solvent Type on Tannin Extractability from Three

Tetrapleura Tetraptera (Schum. & Thonn.) Taubert Positions for Wood Composite Adhesive Formulation. *Journal of Emerging Trends in Engineering and Applied Sciences*.

25. **C. Antwi-Boasiako**, M. Appiah Kyei (2012). Effects of preservative-chemicals on the bonding strength of urea–formaldehyde adhesive in Bambusa vulgaris Schrad. ex J. C. Wendl. var. vulgaris hort. laminates. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-012-0067-2
26. **C. Antwi-Boasiako**, A. Atweri-Obeng (2012). Leachability and efficacy of CCA, creosote and two durable hardwood extracts in Ceiba pentandra (L.) Gaertn.-treated stakes against termite attack. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-012-0066-3
27. **C. Antwi-Boasiako**, R. Enninful (2011). Effects of growth medium, a hormone, and stem-cutting maturity and length on sprouting inMoringa oleiferaLam. *The Journal of Horticultural Science and Biotechnology*. https://doi.org/10.1080/14620316.2011.11512813
28. **C Antwi–Boasiako**, AH Baidoo (2010). Accelerated Field Durability Assessment Of Two Non-Durable Timbers (Ceiba Pentandra (L.) Gaertn. And Celtis Milbraedii Engl.) Impregnated With Natural And Inorganic Preserva-tives. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v30i1.53956
29. **C. Antwi-Boasiako**, J. R. Barnett, A. J. Pitman (2010). Relationship between total extractive content and durability of three tropical hardwoods exposed to Coriolus versicolor (Linnaeus) Quelet. *Journal of the Indian Academy of Wood Science*. https://doi.org/10.1007/s13196-010-0002-3
30. **C. Antwi-Boasiako**, A. Allotey (2010). The effect of stake dimension on the field performance of two hardwoods with different durability classes. *International Biodeterioration & Biodegradation*. https://doi.org/10.1016/j.ibiod.2009.11.004
31. **C Antwi-Boasiako**, E Atta-Obeng (2010). Vessel-Fibre Ratio, Specific Gravity And Durability Of Four Ghanaian Hardwoods. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v29i3.50046
32. **C Antwi-Boasiako**, AJ Pitman (2009). Influence Of Density On The Durabilities Of Three Ghanaian Timbers. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v29i2.46221
33. **C Antwi-Boasiako**, JR Barnett (2009). Within-stem denstiy variations of two lesser-utilized timbers and their related primary species. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v29i1.46442