

Isaac Galyuon

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RESEARCH

Interests Molecular Biology · Plant Genetics and Breeding · Plant Physiology · PCR Microbiology
Areas Plant Science · Molecular Biology · Agronomy and Crop Science · Food Science · Horticulture · Nutrition and Dietetics

RESEARCH SUMMARY

36	757	13	15	2.28	39%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 36 publications listed below, 1999–2026. Field-weighted impact is the mean over the 18 works scored for it; 1.00 is the world average for works of the same field, type and year. 7 of the 18 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 35

1. Aaron T. Asare, Peter Haruna, Isaac K. Galyuon, Daniel Asante, Joshua Yeboah Asiamah (2026). Heterotic response and inbreeding depression in seed traits and other related attributes of cowpea (*Vigna unguiculata* [L.] Walp.). *Electronic Journal of Plant Breeding*. <https://doi.org/10.37992/2026.1701.004>
2. Jianbin Li, Michael Ackah, Frank Kwarteng Amoako, Justice Kwaku Addo, Xin Jin, Frank Kumi, Vailly Jubline Banzouzi Bouzika, Hao Wei, John Nelson Buah, Isaac K.A. Galyuon, Meina Zhu, Mengdi Zhao, Weiguo Zhao (2026). Magnesium-induced transporters remodel the ionome of mulberry leaves by promoting the nitrate reductase (NIA) gene in nitrogen metabolism. *Plant Science*. <https://doi.org/10.1016/j.plantsci.2026.113396>
3. Zipei Cui, Michael Ackah, Frank Kwarteng Amoako, Jianbin Li, Aaron Tettey Asare, Changyu Qiu, Qiang Lin, Owuraku Amponsah Abu, Isaac K. A. Galyuon, Xueying Jin, Mengdi Zhao, Weiguo Zhao (2026). Metabolomic and physiological responses of mulberry plants to exogenous molybdenum enhance amino acid and sugar metabolism. *Plant and Soil*. <https://doi.org/10.1007/s11104-026-08495-7>
4. 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>
5. A. Danquah, E. P. Otwe, I. K. A. Galyuon, F. Kumi, C. Napo (2025). Morphological and Physiological Responses of Sorghum to Drought: Implications for Development of Climate-resilient Cultivars. *Biotechnology Journal International*. <https://doi.org/10.9734/bji/2025/v29i2767>
6. Isaac Galyuon (2024). Assessment of genetic diversity for yield, yield attributes and water use efficiency related traits in groundnut [*Arachis hypogaea* L.]. *Electronic Journal of Plant Breeding*. <https://ejplantbreeding.org/index.php/EJPB/article/view/283>
7. R. E. Puobi, A. T. Asare, E. P. Otwe, I. K. A. Galyuon (2023). Drought Tolerance in Soybean (*Glycine max* L. Merr.) Genotypes during the Flowering Stage of Development. *Journal of Advances in Biology & Biotechnology*. <https://doi.org/10.9734/jabb/2023/v26i11663>
8. Caleb M. Agbale, Justice K. Sarfo, Isaac K. Galyuon, Samuel A. Juliano, Gislaine G. O. Silva, Danieli F. Buccini, Marlon H. Cardoso, Marcelo D. T. Torres, Alfredo M. Angeles-Boza, Cesar de la Fuente-Nunez,

Octavio L. Franco (2019). Antimicrobial and Antibiofilm Activities of Helical Antimicrobial Peptide Sequences Incorporating Metal-Binding Motifs. *Biochemistry*. <https://doi.org/10.1021/acs.biochem.9b00440>

9. Daniel S. Agyirifo, Mark Wamalwa, Emmanuel Plas Otwe, Isaac Galyuon, Steven Runo, Jemmy Takrama, Joseph Ngeranwa (2019). Metagenomics analysis of cocoa bean fermentation microbiome identifying species diversity and putative functional capabilities. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2019.e02170>
10. I.K.A. Galyuon, A. Gay, A.K. Borrell, C.J. Howarth (2019). Physiological and biochemical basis for stay-green trait in sorghum. *African Crop Science Journal*. <https://doi.org/10.4314/acsj.v27i4.8>
11. Aaron T. Asare, Bhavani Shankara Gowda, Isaac Galyuon, Lawrence M. Aboagye, Jemmy F. Takrama, Francis Kwame Padi, Michael P. Timko (2017). Identification of potential sources of striga resistance in cowpea [*Vigna Unguiculata* (L.) walp.] accessions from Ghana. *Journal of Microbiology and Biotechnology Research*.
12. Emmanuel Plas Otwe, Daniel S. Agyirifo, Isaac K. Galyuon, John S Heslop-Harrison (2017). Molecular Diversity in some Ghanaian Cowpea [*Vigna unguiculata* L. (Walp)] Accessions. *Tropical Plant Biology*. <https://doi.org/10.1007/s12042-017-9184-9>
13. E. Muller, S. Ravel, C. Agret, F. Abrokwhah, H. Dzahini-Obiatey, I. Galyuon, K. Kouakou, E.C. Jeyaseelan, J. Allainguillaume, A. Wetten (2017). Next generation sequencing elucidates cacao badnavirus diversity and reveals the existence of more than ten viral species. *Virus Research*. <https://doi.org/10.1016/j.virusres.2017.11.019>
14. Caleb Mawuli Agbale, Marlon Henrique Cardoso, Isaac Kojo Galyuon, Octávio Luiz Franco (2016). Designing metallodrugs with nuclease and protease activity. *Metallomics*. <https://doi.org/10.1039/c6mt00133e>
15. Francis Abrokwhah, Henry Dzahini-Obiatey, Isaac Galyuon, Francis Osae-Awuku, Emmanuelle Muller (2016). Geographical Distribution of Cacao swollen shoot virus Molecular Variability in Ghana. *Plant Disease*. <https://doi.org/10.1094/pdis-01-16-0081-re>
16. L Yafetto, Isaac KA Galyuon (2016). Towards genetically engineered crops in ghanaiian agriculture: Confined field trials and the „next-door neighbor effect“ theory. *AgBioForum*. <http://agbioforum.org/wp-content/uploads/2021/02/AgBioForum-19-1-66.pdf>
17. Isaac Galyuon (2015). Cadmium contamination of cocoa beans and cocoa growing agricultural soils of Ghana: There is no cause for public alarm. *Peak Journal of Public Health and Management*. <https://scholar.google.com/scholar?cluster=16380540299486877581&hl=en&oi=scholar>
18. S Acheampong, Isaac KA Galyuon, AT Asare (2015). Effects of sterilization protocols, benzylaminopurine and type of explants on growth initiation of pineapple (*Ananas comosus* (L.) Merr.) cultures. *Journal of Basic & Applied Sciences*. https://www.researchgate.net/profile/Aaron-T-Asare/publication/295918449_Effects_of_sterilization_protocols_benzylaminopurine_and_type_of_explants_on_growth_initiation_of_pineapple_Ananas_comosus_L_Merr_cultures/links/56d07b4308ae4d8d64a38ec1/Effects-of-sterilization-protocols-benzylaminopurine-and-type-of-explants-on-growth-initiation-of-pineapple-Ananas-comosus-L-Merr-cultures.pdf
19. Caleb M Agbale, Isaac K. Galyuon (2015). Optimisation of antimicrobial peptide design: insights from action mechanisms. *Journal of Postdoctoral Research*. https://www.researchgate.net/profile/Isaac-Galyuon/publication/281392780_Optimization_of_antimicrobial_peptide_design_insights_from_action_mechanisms/links/5687b0a408aebccc4e1522ec/Optimization-of-antimicrobial-peptide-design-insights-from-action-mechanisms.pdf?_sg%5B0%5D=started_experiment_milestone&origin=journalDetail
20. I Galyuon (2013). Evaluation of Agronomic Performance of Drought-Tolerant QTL Introgression Hybrids of Millet (*Pennisetum glaucum* L R. Br.) in the Guinea Savannah Zone of Ghana. *International journal of agriculture sciences*. <https://pdfs.semanticscholar.org/f10f/864b067eb3c3bae30f4a88f085620b581f9de.pdf>
21. AT Asare, IKA Galyuon (2013). Identification of potential sources of striga resistance in cowpea [*Vigna unguiculata* (L.) Walp.] accessions from Ghana. *Journal of Microbiology and Biotechnology Research*.

22. Michael Buenor Adinortey, Charles Ansah, Isaac Galyuon, Alexander Nyarko (2013). In Vivo Models Used for Evaluation of Potential Antigastroduodenal Ulcer Agents. *Ulcers*. <https://doi.org/10.1155/2013/796405>
23. Aaron T. Asare, Isaac Galyuon, Francis Kwame Padi, Emmanuel Plas Otwe, Jemmy F. Takrama (2013). RESPONSES OF RECOMBINANT INBRED LINES OF COWPEA [(VIGNA UNGUICULATA (L.) WALP) TO STRIGA GESNERIOIDES INFESTATION IN GHANA. *European Scientific Journal ESJ*.
24. Michael Buenor Adinortey, Isaac K Galyuon, Nicholas Oteng Asamoah (2013). Trema orientalis Linn. Blume: A potential for prospecting for drugs for various uses. *Pharmacognosy Reviews/Bioinformatics Trends/ Pharmacognosy review*. <https://doi.org/10.4103/0973-7847.112852>
25. J Aggrey-Fynn, I Galyuon, DW Aheto, I Okyere (2011). Assessment of the environmental conditions and benthic macroinvertebrate communities in two coastal lagoons in Ghana. *Annals of Biological Research*. https://www.academia.edu/download/79235170/Assessment_of_the_environmental_conditio20220121-24680-18z0ndx.pdf
26. AT Asare, IKA Galyuon (2011). Effects of sucrose on development of cultures of some accessions of Dioscorea spp. *J. Ghana Sci. Ass.* <https://ghanascience.gov.gh/wp-content/uploads/2018/04/12-19-Asare2-1.pdf>
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28. MB Adinortey, Isaac Galyuon (2011). G-6-PD deficiency-a potential risk factor for development of diabetes mellitus. *Journal of Medicine and Medical Sciences*. https://www.academia.edu/download/49247417/G-6-PD_deficiency_a_potential_risk_fact20160930-31052-5rkuzs.pdf
29. Isaac KA Galyuon, MB Adinortey (2011). The Ghanaian Currency notes and Coins: A Medium of Exchange for pathogenic microbes. *Journal of Ghana Science Association*. <https://ir.ucc.edu.gh/server/api/core/bitstreams/1319d243-acc1-4d9f-b0c6-8c5e4484d55d/content>
30. Aaron T. Asare, Bhavani S. Gowda, Isaac K. A. Galyuon, Lawrence L. Aboagye, Jemmy F. Takrama, Michael P. Timko (2010). Assessment of the genetic diversity in cowpea (Vigna unguiculata L. Walp.) germplasm from Ghana using simple sequence repeat markers. *Plant Genetic Resources*. <https://doi.org/10.1017/s1479262110000092>
31. I Galyuon (2008). The genetic control of senescence revealed by mapping quantitative trait loci. *Ann. Plant Rev. Senes. Proc. Plants*.
32. I KA Galyuon (2007). Effect of solar radiation on photosynthesis and pigmentation in the cyanobacterium microcoleus chthonoplastes. *Journal of Ghana Science Association*. <https://www.osti.gov/etdeweb/biblio/20927619>
33. IKA Galyuon (2005). Functioning under drought stress of stay-green sorghum developed by marker-assisted selection. *Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology*. https://www.researchgate.net/profile/Isaac-Galyuon/publication/376448542_Functioning_under_drought_stress_of_stay-green_sorghum_developed_by_marker-assisted_selection/links/65789047ea5f7f020564bcc6/Functioning-under-drought-stress-of-stay-green-sorghum-developed-by-marker-assisted-selection.pdf
34. IKA Galyuon (1999). Regulatory effects of cultural and iat siol treat on soybean (Glycine max (L) Merr.). *Journal of the Ghana Science Association*. <https://www.ajol.info/index.php/jgsa/article/view/17965>
35. IKA Galyuon (1999). Responses of stomates of talinum triangulare and tradescantia virginiana to some growth regulators. *Journal of the Ghana Science Association*. <https://www.ajol.info/index.php/jgsa/article/view/18005/63123>

Theses 1

1. Isaac K. A. Galyuon (2005). Physiological, Biochemical and Molecular Characterisation of the Stay-green Trait in Sorghum [Sorghum bicolor (L.) Moench]. *University of Wales, Aberystwyth, Wales, UK*.