Paul Kingsley buah-bassuah

Professor · Department of Physics
University of Cape Coast

Profile scholar.ucc.edu.gh/staff/e57565e0-2afb-4b0f-822d-ce2a2410c0d5

RESEARCH

Areas: Atomic and Molecular Physics, and Optics · Biomedical Engineering · Computational Mechanics · Electrical and Electronic Engineering · Plant Science · Radiological and Ultrasound Technology

RESEARCH SUMMARY

32	252	8	6	0.60	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 32 publications listed below, 1989–2025. Field-weighted impact is the mean over the 32 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 32 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 30

1. A.S.K. Amable, F. Otoo, **P.K. Buah-Bassuah**, A. Twum, E.N. Manso, J.P. Adeti, E. Ahiave (2025). Assessment of indoor radon, radon exhalation rate, and radium levels within Kpando Municipality, Volta Region, Ghana. *International Journal of Radiation Research*. https://doi.org/10.61186/ijrr.23.1.53
2. A. S. K. Amable, F. Otoo, **P. K. Buah-Bassuah**, R. Kpordzro, A. Frempong, C. K. Azah (2025). Seasonal variations and health implications of indoor radon, radon and radium levels in soil in communities near Volta Lake in North Dayi District, Ghana. *The European Physical Journal Plus*. https://doi.org/10.1140/epjp/s13360-025-06208-0
3. Anthony Selorm Kwesi Amable, Francis Otoo, **Paul Kingsley Buah-Bassuah**, Anthony Kwabena Twum (2024). Assessment of indoor radon distribution and seasonal variation within the Kpando Municipality of Volta Region, Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0299072
4. Anthony Selorm Kwesi Amable, Francis Otoo, **Paul Kingsley Buah-Bassuah**, Anthony Kwabena Twum (2023). Assessment of natural radioactivity, radon gas and soil characteristics along the Volta Lake in the Kpando municipality of Volta region, Ghana. *Radiation Protection Dosimetry*. https://doi.org/10.1093/rpd/ncad255
5. Peter Osei-Wusu Adueming, Moses Jojo Eghan, Benjamin Anderson, Samuel Kyei, Jerry Opoku-Ansah, Charles Lloyd Yeboah Amuah, Charles Darko Takyi, **Paul Kingsley Buah-Bassuah** (2020). Laser-induced autofluorescence assisted by multivariate techniques discriminates a cataractous lens from healthy lens tissues of Sprague–Dawley rats. *Journal of the Optical Society of America A*. https://doi.org/10.1364/josaa.394555
6. Charles Lloyd Yeboah Amuah, Moses Jojo Eghan, Benjamin Anderson, Peter Osei-Wusu Adueming, Jerry Opoku-Ansah, **Paul Kingsley Buah-Bassuah** (2020). Laser-induced fluorescence combined with multivariate techniques identifies the geographical origin of antimalarial herbal plants. *Journal of the Optical Society of America A*. https://doi.org/10.1364/josaa.396701
7. TB, Dery, JK, Amoako, **PK, Buah-Bassuah** (2018). Evaluation of Scanner Response with Radiochromic EBT3 Film in Radiation Therapy. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.21568239
8. Philip Mensah, Massimiliano Locatelli, Eugenio Pugliese, Pasquale Poggi, **Paul K Buah Bassuah**, Riccardo Meucci (2018). Scanning digital holography at 10.6 µm for large scene reconstruction. *Journal of Physics*

Communications. https://doi.org/10.1088/2399-6528/aac395

9. Theresa Bebaaku Dery, J. K. Amoako, **Paul K. Buah-Bassuah**, William Osei-Mensah (2018). Virtual Simulation of Co-60 Gamma Ray Beam Geometry. *International Journal of Sciences: Basic and Applied Research*.
10. Isaac Nape, Charlotte Kyeremah, Adam Vallés, Carmelo Rosales-Guzmán, **Paul K. Buah-Bassuah**, Andrew Forbes (2017). A hybrid quantum eraser scheme for characterization of free-space and fiber communication channels. *Optics Communications*. https://doi.org/10.1016/j.optcom.2017.06.084
11. Peter Osei-Wusu Adueming, Moses Jojo Eghan, Benjamin Anderson, Samuel Kyei, Jerry Opoku-Ansah, Charles L. Y. Amuah, Samuel Sonko Sackey, **Paul Kingsley Buah-Bassuah** (2017). Multispectral Imaging in Combination with Multivariate Analysis Discriminates Selenite Induced Cataractous Lenses from Healthy Lenses of Sprague-Dawley Rats. *Open Journal of Biophysics*. https://doi.org/10.4236/ojbiphy.2017.73011
12. Jerry Opoku-Ansah, Moses Jojo Eghan, Benjamin Anderson, Johnson Nyarko Boampong, **Paul Kingsley Buah-Bassuah** (2016). Laser-Induced Autofluorescence Technique for Plasmodium falciparum Parasite Density Estimation. *Applied Physics Research*. https://doi.org/10.5539/apr.v8n2p43
13. Benjamin Anderson, Moses Jojo Eghan, Elvis Asare-Bediako, **Paul Kingsley Buah-Bassuah** (2015). Optical Imaging Method for Determining Symptoms Severity of Cassava Mosaic Disease. *Applied Physics Research*. https://doi.org/10.5539/apr.v7n6p34
14. P.K Mensah, **P.K Buah-Bassuah** (2013). Surface Defect Detection for Some Ghanaian Textile Fabrics using Moire Interferometry. *Research Journal of Applied Sciences Engineering and Technology*. https://doi.org/10.19026/rjaset.6.4085
15. Benjamin Anderson, Moses J Eghan, Elvis Asare-Bediako, **Paul K Buah-Bassuah** (2011). Violet diode laser-induced chlorophyll fluorescence: a tool for assessing mosaic disease severity in cassava (Manihot esculentaCrantz) cultivars. *Environmental Technology*. https://doi.org/10.1080/09593330.2011.575184
16. S De Nicola, G Zito, R Meucci, K Al Naimee, **P K Buah Bassuah** (2010). Fourier projection method for measuring the two-point correlation of Laguerre–Gaussian modes. *Journal of Optics*. https://doi.org/10.1088/2040-8978/12/3/035404
17. **Paul K Buah-Bassuah**, Hubertus M von Bergmann, Ebenezer T Tatchie, Christine M Steenkamp (2008). A portable fibre-probe ultraviolet light emitting diode (LED)-induced fluorescence detection system. *Measurement Science and Technology*. https://doi.org/10.1088/0957-0233/19/2/025601
18. S. Residori, **P. K. Buah-Bassuah**, F. T. Arecchi (2007). Fragmentation instabilities of a drop as it falls in a miscible fluid. *The European Physical Journal Special Topics*. https://doi.org/10.1140/epjst/e2007-00193-8
19. Sergio De Nicola, Pietro Ferraro, Simonetta Grilli, Lisa Miccio, Riccardo Meucci, **Paul K. Buah-Bassuah**, F. Tito Arecchi (2007). Infrared digital reflective-holographic 3D shape measurements. *Optics Communications*. https://doi.org/10.1016/j.optcom.2007.11.059
20. Maurizio Vannoni, **Paul K Buah-Bassuah**, Giuseppe Molesini (2007). Making a microscope with readily available materials. *Physics Education*. https://doi.org/10.1088/0031-9120/42/4/008
21. **Paul K Buah-Bassuah**, Maurizio Vannoni, Giuseppe Molesini (2007). One-step real-image reflection holograms. *European Journal of Physics*. https://doi.org/10.1088/0143-0807/28/2/021
22. Moses J Eghan, **Paul K Buah-Bassuah**, Osborne C Oppon (2007). Track analysis of laser-illuminated etched track detectors using an opto-digital imaging system. *Measurement Science and Technology*. https://doi.org/10.1088/0957-0233/18/11/051
23. **Paul K. Buah-Bassuah**, René Rojas, Stefania Residori, F. T. Arecchi (2005). Fragmentation instability of a liquid drop falling inside a heavier miscible fluid. *Physical Review E*. https://doi.org/10.1103/physreve.72.067301
24. Benjamin Anderson, **Paul K Buah-Bassuah**, Jonathan P Tetteh (2004). Using violet laser-induced chlorophyll fluorescence emission spectra for crop yield assessment of cowpea (Vigna unguiculata (L) Walp) varieties. *Measurement Science and Technology*. https://doi.org/10.1088/0957-0233/15/7/005
25. **Paul K. Buah-Bassuah**, Bruno Tiribilli, Massimo Vassalli, Giuseppe Molesini (2003). Simple portable lens meter. *Applied Optics*. https://doi.org/10.1364/ao.42.005086

26. **Paul K. Buah-Bassuah**, Stefano Euzzor, Franco Francini, Gabriel W. Quansah, Paola Sansoni (1998). Soil textural classification by a photosedimentation method. *Applied Optics*. https://doi.org/10.1364/ao.37.000586

27. S Y Mensah, **P K Buah-Bassuah** (1993). The thermomagnetic effect in a semiconductor superlattice in the presence of laser radiation. *Journal of Physics Condensed Matter*. https://doi.org/10.1088/0953-8984/5/9/019

28. F. Francini, G. Longobardi, **P.K. Buah-Bassuah** (1992). Automatic inspection with optical position sensors. *Optics and Lasers in Engineering*. https://doi.org/10.1016/0143-8166(92)90048-c

29. F. T Arecchi, **P. K Buah-Bassuah**, C Perez-Garcia (1991). Fragment Formation in the Break-up of a Drop Falling in a Miscible Liquid. *Europhysics Letters (EPL)*. https://doi.org/10.1209/0295-5075/15/4/011

30. F. T Arecchi, **P. K Buah-Bassuah**, F Francini, C Pérez-Garcia, F Quercioli (1989). An Experimental Investigation of the Break-up of a Liquid Drop Falling in a Miscible Fluid. *Europhysics Letters (EPL)*. https://doi.org/10.1209/0295-5075/9/4/006

Conference papers 2

1. M. J. Eghan, **Paul Buah-Bassuah** (2003). Alpha track counting in LR-115 nuclear detector with optical Fourier digital system. *Proceedings of SPIE, the International Society for Optical Engineering/Proceedings of SPIE*. https://doi.org/10.1117/12.524479

2. **P. K. Buah-Bassuah** (1996). Lateral vibrations measurement of powdery clay sample using speckle photography. *17th Congress of the International Commission for Optics: Optics for Science and New Technology*. https://doi.org/10.1117/12.2299049