Ms. Cynthia Jebuni-Adanu

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RESEARCH

Interests	Developing of Scientific Inquiry Skills and Gender in STEM issues · Photonics Explorer Kit · scientific inquiry skills · optics · Gender Responsive Pedagogy · Indigenous practices and technology
Areas	Education · Atomic and Molecular Physics, and Optics · Materials Chemistry · Biomedical Engineering · Developmental and Educational Psychology · Civil and Structural Engineering

RESEARCH SUMMARY

12	40	4	2	0.45	8%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 12 publications listed below, 2020–2026. Field-weighted impact is the mean over the 12 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 12 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

LECTURER 2021–present
PHYSICS EDUCATION, University of Education Winneba, Winneba, Ghana

EDUCATION AND QUALIFICATIONS

MPhil Physics 2013–2017
PHYSICS, University of Education, Winneba, Winneba, Ghana

BSc Physics 2005–2009
PHYSICS, University of Cape Coast, Cape Coast, Ghana

DISTINCTIONS, MEMBERSHIPS AND SERVICE

Professional Membership Fellow 2022–present
Professional Fellowship, Commonwealth Secretariat, London, United Kingdom

Content Developer for Physics Content for the Secondary Schools 2014–present
i Box Project, CENDLOS, ACCRA, Ghana

Regular Membership 2010–present
National Society of Black Engineers, Alexandria, United States

Participant for the Institute of Physics , UK to be trained on electroncs 2014–2018
Science Resource Centre, Ghana Education Service, Accra, Ghana

PUBLICATIONS

Journal articles 12

1. **Cynthia Jebuni-Adanu** (2026). ENHANCING PRESERVICE PHYSICS TEACHERS' SCIENTIFIC INQUIRY SKILLS THROUGH PHOTONICS EXPLORER KIT-SUPPORTED INQUIRY ACTIVITIES / AMÉLIORATION DES COMPÉTENCES D'INVESTIGATION SCIENTIFIQUE DES FUTURS ENSEIGNANTS DE PHYSIQUE GRÂCE À DES ACTIVITÉS REPOSANT SUR LE KIT PHOTONICS EXPLORER. *European Journal of Education Studies*. https://doi.org/10.46827/ejes.v13i7.6839
2. **Cynthia Jebuni-Adanu** (2026). Enhancing Preservice Physics Teachers' Optics Understanding Through PEK-Supported 7E Inquiry Using Educational Design Research. *Schrödinger Journal of Physics Education*. https://doi.org/10.37251/sjpe.v7i4.3434
3. Anthony Babategremine Yuoni, Issahaku Sontaa Jakalia, Victor Antwi, Isaac Kwesi Acquah, **Cynthia Jebuni-Adanu** (2025). Exploring the factors influencing undergraduate students' decision to pursue physics at the University of Education, Winneba. *Research in Science & Technological Education*. https://doi.org/10.1080/02635143.2025.2510404
4. **Cynthia Jebuni-Adanu**, Michael Gyan, Desmond Appiah, Bright Owusu Ansah, Robert Wilson, Charles Enoch Mensah (2024). Improving Students' Performance in Resolution of Vectors Using PhET Interactive Simulations. *Schrödinger Journal of Physics Education*. https://doi.org/10.37251/sjpe.v5i3.1078
5. Raymond Edziah, Samuel S. Bentsiefi, Kwadwo Dompreh, Anthony Twum, Emmanuel Kofi Amewode, Patrick Mensah-Amoah, Ebenezer T. Tatchie, **Cynthia Jebuni-Adanu**, Samuel Y. Mensah (2024). Investigation of Acoustomagnetoelectric Effect in Bandgap Graphene by the Boltzmann Transport Equation. *World Journal of Condensed Matter Physics*. https://doi.org/10.4236/wjcmp.2024.141002
6. Victor Antwi, Michael Gyan, Desmond Appiah, Isaac Kwesi Acquah, Fortune Addo Wuver, **Cynthia Jebuni-Adanu** (2024). Theoretical study of the strong piezo-phototronic effect in 2D monochalcogenides for multi-junction solar cells. *Physica Scripta*. https://doi.org/10.1088/1402-4896/ad7cdc
7. 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
8. Fortune Addo-Wuver, Victor Antwi, Isaac Kwesi Acquah, Desmond Appiah, Michael Gyan, **Cynthia Jebuni-Adanu**, Peter Opoku (2023). IMPROVEMENT OF SENIOR HIGH STUDENTS' PERFORMANCE IN HEAT TRANSFER USING PRACTICAL ACTIVITIES IN EFFUTU MUNICIPAL, GHANA. *European Journal of Education Studies*. https://doi.org/10.46827/ejes.v10i9.4997
9. **Cynthia Jebuni-Adanu**, Victor Antwi, Isaac Kwesi Acquah, Desmond Appiah, Michael Gyan, Fortune Addo Wuver, Issahaku Sontaa Jakalia, Bernard Sarkyi (2023). Utilizing Physics Education Technology (PhET) for Improving Students' Understanding of Energy Conversion and Conservation in a Senior High Technical School. https://doi.org/10.7176/jep/14-8-06
10. 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
11. Daniel Sakyi-Arthur, Samuel Y. Mensah, Kofi W. Adu, Kwadwo A. Dompreh, Raymond Edziah, Natalia G. Mensah, **Cynthia Jebuni-Adanu** (2020). Induced Hall-Like Current by Acoustic Phonons in Semiconductor Fluorinated Carbon Nanotube. *World Journal of Condensed Matter Physics*. https://doi.org/10.4236/wjcmp.2020.102005
12. D. Sakyi-Arthur, S. Y. Mensah, K. W. Adu, K. A. Dompreh, R. Edziah, N. Mensah, **C. Jebuni-Adanu** (2020). Semiconductor Fluorinated Carbon Nanotube as a Low Voltage Current Amplifier Acoustic Device. *World Journal of Condensed Matter Physics*. https://doi.org/10.4236/wjcmp.2020.101002