Dr. Ernest Koranteng

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RESEARCH

Interests	Organic photochemistry · polymer chemistry
Areas	Biomaterials · Polymers and Plastics · Education · Physical and Theoretical Chemistry · Automotive Engineering · Pollution

RESEARCH SUMMARY

25	238	11	12	0.47	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 25 publications listed below, 2016–2026. Field-weighted impact is the mean over the 13 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 13 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer/Dr 2020–present
Chemistry Education, University of Education Winneba, Winneba, Ghana

EDUCATION AND QUALIFICATIONS

Student/PhD 2014–2020
College of Chemistry, Central China Normal University, Wuhan, China

DISTINCTIONS, MEMBERSHIPS AND SERVICE

American Chemical Society
Washington D.C., United States

PUBLICATIONS

Journal articles 25

1. Fangqing Weng, Qin Luo, **Ernest Koranteng**, Yuanyuan Deng, Jingyi Wang, Yuehong Su, Saffa Riffat, Hui Lv, Tian Wu, Qiangxian Wu (2026). Enhanced Compatibility of Waste PET/PBAT Composites via Polyurethane Compatibilizers: Structure and Properties. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.71387
2. Mingtian Ren, **Ernest Koranteng**, Qiangxian Wu (2025). Preparation and Properties of Poly(Butylene Adipate- co -Terephthalate)/Soybean Protein Composites Compatibilized With Different Types of Poly(ε-Caprolactone)-Based Polyurethane Prepolymer. *Journal of Vinyl and Additive Technology*. https://doi.org/10.1002/vnl.70000
3. **Ernest Koranteng**, Yunguo Liu, Esther Nartey, Fangqing Weng, Qiangxian Wu (2025). Sustainable Compatible Packaging Films From Biodegradable Poly(butylene adipate-co-terephthalate)/Sweet Potato Starch Composite: Structure and Properties. *Starch - Stärke*. https://doi.org/10.1002/star.70099
4. **Ernest Koranteng**, Huiqi Long, Esther Nartey, Kui Jian, Weng Fangqing, Qiangxian Wu (2025). Toughening Eco-Friendly PLA With a Castor Oil-Based Polyurethane Prepolymer: Application in 3D Printing. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.57729

5. Esther Nartey, **Ernest Koranteng**, Emmanuel Kyame Oppong, Ruby Hanson (2024). Analysis of undergraduate chemistry students' responses to substitution reaction mechanisms: a road to mastery. *Chemistry Teacher International*. https://doi.org/10.1515/cti-2023-0075
6. Fangqing Weng, Kui Jian, Yazhou Yi, Peirui Zhang, **Ernest Koranteng**, Qing Huang, Jiahui Liu, Guoping Zeng (2024). Eco-Friendly Castor Oil-Based Composite with High Clam Shell Powder Content. *Polymers*. https://doi.org/10.3390/polym16233232
7. **Ernest Koranteng** (2024). Metallaphotoredox-Catalyzed Three-Component Couplings for Practical Synthesis of Ureas and Carbamates†. *Chinese Journal of Chemistry*. https://doi.org/10.1002/cjoc.202300500
8. Mingtian Ren, Yunguo Liu, **Ernest Koranteng**, Fangqing Weng, Qiangxian Wu (2024). Special interface structure and properties for compatible packaging film from biodegradable poly (butylene adipate-co-terephthalate)/corn starch composite. *Polymer Engineering and Science*. https://doi.org/10.1002/pen.26728
9. **Ernest Koranteng** (2024). Unmasking Approaches and Errors to Synthesis-Type Problems: Insights from Undergraduate Chemistry Students. *Science education international*. https://doi.org/10.33828/sei.v35.i4.5
10. **Ernest Koranteng**, Sike Jiang, Fang Xiao, Fangqing Weng, Qiangxian Wu (2023). Effects of poly(butanediol adipate ester) based polyurethane prepolymer content on structure and properties of PLA –diatomaceous earth composites. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.54067
11. Sike Jiang, **Ernest Koranteng**, Fang Xiao, Fangqing Weng, Kui Jian (2023). Effects of the molecular weight of soft segment of polycaprolactone polyurethane prepolymer on the properties of polyurethane composites with high wood content. *Journal of Thermoplastic Composite Materials*. https://doi.org/10.1177/08927057231176426
12. Claudia Quayson, Kwarteng Twumasi Ankrah, **Ernest Koranteng**, Ruby Hanson (2022). Chemistry Teacher Trainees' use of Molecular Models in Learning Spiro and Bicyclic Compounds. *Science education international*. https://doi.org/10.33828/sei.v33.i3.4
13. **Ernest Koranteng** (2021). Effect of special structure of clam shell powder on structure and properties of castor oil-based composites. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.49963
14. Fangqing Weng, Peirui Zhang, **Ernest Koranteng**, Yu Zhang, Qiangxian Wu, Guoping Zeng (2021). Effects of shell powder size and content on the properties of polycaprolactone composites. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.51264
15. Fang Xiao, Fangqing Weng, Duyu Guo, **Ernest Koranteng**, Hongbin Zhou, Qiangxian Wu (2021). Preparation and characterization of thermosetting wood flour composite material with high biomass content. *Polymer Composites*. https://doi.org/10.1002/pc.26192
16. **Ernest Koranteng** (2020). Effects of the special structure of bio-based shell powder on the properties of shell-polycaprolactone composite. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.48768
17. **Ernest Koranteng** (2020). Preparation and properties of compatible starch-PCL composites: effects of the NCO functionality in compatibilizer. *Starch-Stärke*. https://doi.org/10.1002/star.201900239
18. **Ernest Koranteng** (2019). Effects of PBA-Based Polyurethane Prepolymer as Compatibilizer on the Properties of Polylactic Acid-Starch Composites. *Starch-Stärke*. https://doi.org/10.1002/star.201800205
19. **Ernest Koranteng** (2019). Practical C–P bond formation via heterogeneous photoredox and nickel synergetic catalysis. *Chinese Journal of Catalysis*. https://www.sciencedirect.com/science/article/pii/S1872206719633796
20. **Ernest Koranteng** (2019). Properties of compatible soy protein isolate/polycaprolactone composite with special interface structure. *Polymer Composites*. https://doi.org/10.1002/pc.24694
21. **Ernest Koranteng** (2019). Structure and properties of a compatible wood-plastic composite prepared by using poly (butylene succinate)-based polyurethane prepolymer. *Polymer Composites*. https://doi.org/10.1002/pc.25337
22. **Ernest Koranteng** (2017). Preparation and properties of compatible starch-polycaprolactone composites: Effects of hard segments in the polyurethane compatibilizer. *Starch-Stärke*. https://doi.org/10.1002/star.

201600071

23. **Ernest Koranteng** (2017). Structure and properties of a compatible starch-PCL composite using p-phthaloyl chloride-based prepolymer. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.45400

24. **Ernest Koranteng** (2016). Effects of a Special Interface Structure on the Properties of a Starch-Based Composite. *Journal of Biobased Materials and Bioenergy*. https://scholar.google.com/scholar?cluster=9033077549242424650&hl=en&oi=scholarr

25. **Ernest Koranteng** (2016). Structure and properties of polylactide toughened by polyurethane prepolymer. *Journal of Applied Polymer Science*. https://doi.org/10.1002/app.42983