Eunice Sefakor Aku Dogbe

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RESEARCH

Interests	Energy analysis · Exergy analysis · Renewable Energy · Biorefinery · Process design and simulation
Areas	Biomedical Engineering · Molecular Biology · Mechanical Engineering · Control and Systems Engineering · Nutrition and Dietetics · Renewable Energy, Sustainability and the Environment

RESEARCH SUMMARY

10	305	7	6	2.05	33%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 10 publications listed below, 2017–2025. Field-weighted impact is the mean over the 9 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 9 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2022–present
Chemical Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Kumasi, Ghana

Postdoctoral Researcher 2020–2022
Process Engineering, Stellenbosch University, Stellenbosch, South Africa

EDUCATION AND QUALIFICATIONS

PhD 2016–2020
Process Engineering, Stellenbosch University, Stellenbosch, South Africa

BSc 2004–2008
Chemical Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 9

1. Amma Konadu Adjei, **Eunice Dogbe**, Nana Yaw Asiedu, Enoch Asante, Ahmad Addo, Razak Seidu (2025). Multi-response optimization and machine learning modeling algorithms of electrocoagulation parameters for cost-effective micro-algae harvesting. *Next Chemical Engineering*. https://doi.org/10.1016/j.nxcen.2025.100019
2. Mirelle René Gouws, **Eunice Sefakor Dogbe**, Catharine Elizabeth Bosman, Johann Ferdinand Görgens (2023). Comparative techno-economics of 1,3-butadiene production from sugarcane feedstocks via ethanol or 2,3-butanediol as intermediates. *Industrial Crops and Products*. https://doi.org/10.1016/j.indcrop.2023.117872
3. Mirelle René Gouws, Catharine Elizabeth Bosman, **Eunice Sefakor Dogbe**, Johann Ferdinand Görgens (2023). Comparative techno-economics of 2,3-butanediol, polyhydroxybutyrate and citric acid production

in a biorefinery using 1G and 1G2G sugarcane-based feedstocks. *Chemical Engineering Science*. https://doi.org/10.1016/j.ces.2023.119649

4. Jeanne Louw, **Eunice S. Dogbe**, Bin Yang, Johann F. Görgens (2023). Prioritisation of biomass-derived products for biorefineries based on economic feasibility: A review on the comparability of techno-economic assessment results. *Renewable and Sustainable Energy Reviews*. https://doi.org/10.1016/j.rser.2023.113840
5. Bright Amanful, **Eunice Sefakor Dogbe**, Catharine Elizabeth Bosman, Johann Ferdinand Görgens (2023). Stochastic techno-economic analysis for the co-production of alternative sweeteners in sugarcane biorefineries. *Food and Bioproducts Processing*. https://doi.org/10.1016/j.fbp.2023.10.006
6. **Eunice Sefakor Dogbe**, Mohsen Mandegari, Johann F. Görgens (2021). Using the aggregated system exergoeconomic methodology as a comparative tool for the cost-effectiveness of the sugarcane biorefinery options. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2021.128607
7. **Eunice S. Dogbe**, Mohsen Mandegari, Johann F. Görgens (2020). Revitalizing the sugarcane industry by adding value to A-molasses in biorefineries. *Biofuels Bioproducts and Biorefining*. https://doi.org/10.1002/bbb.2122
8. **Eunice Sefakor Dogbe**, Mohsen Mandegari, Johann F. Görgens (2019). Assessment of the thermodynamic performance improvement of a typical sugar mill through the integration of waste-heat recovery technologies. *Applied Thermal Engineering*. https://doi.org/10.1016/j.applthermaleng.2019.113768
9. **Eunice Sefakor Dogbe**, Mohsen A. Mandegari, Johann F. Görgens (2017). Exergetic diagnosis and performance analysis of a typical sugar mill based on Aspen Plus® simulation of the process. *Energy*. https://doi.org/10.1016/j.energy.2017.12.134

Conference papers 1

1. **ES Dogbe** (2021). Exergoeconomic comparison and selection of a cost- effective technology to improve the energy efficiency of a sugar mill cogeneration system. *6th International Conference on Contemporary Problems of Thermal Engineering*.