Joseph Parbey

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RESEARCH

Interests: SOFC · Ammonia Synthesis · Biofuel · Renewable Energy

Areas: Biomedical Engineering · Electrical and Electronic Engineering · Materials Chemistry · Mechanical Engineering · Aerospace Engineering · Automotive Engineering

RESEARCH SUMMARY

24	472	11	12	1.09	9%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 24 publications listed below, 2014–2026. Field-weighted impact is the mean over the 11 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 11 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2024–present
Chemical and Renewable Engineering, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PhD Electronic Science and Engineering 2016–2020
School of Energy and Materials, University of Electronic Science and Technology of China - Qingshuihe Campus, Chengdu, China

PUBLICATIONS

Journal articles 22

1. Flavio Odoi-Yorke, John Eshun Davis, Emmanuel Agbo Tei, Stephen Afonaa-Mensah, **Joseph Parbey**, Seth Agbeve Manu (2026). Silicon carbide in thermal energy storage: A two-decade review (2005–2025). *Energy Conversion and Management X*. https://doi.org/10.1016/j.ecmx.2026.101965
2. Clement Akonnor Osei, **Joseph Parbey** (2026). Valorization of Pineapple Peel for Bioethanol Production: Investigating Yeast Fermentation Factors. *Journal of Renewable Energy and Environment*. https://scholar.google.com/scholar?cluster=4106444966694201724&hl=en&oi=scholarr
3. Clement Akonnor Osei, P Agyapong, **Joseph Parbey** (2025). Valorization of Pineapple Peel for Bioethanol Production: Investigating Yeast Fermentation Factors. *Journal of Renewable Energy and Environment*. https://www.jree.ir/article_243099.html
4. Emmanuel Dortey Tetteh, Patricia Ghann, **Joseph Parbey**, Alimatu-Saadia Yussiff (2023). An Analysis of Educational Portals' Implementation for Effective Online Learning. *International Journal of Advanced Corporate Learning (iJAC)*. https://doi.org/10.3991/ijac.v16i1.34703
5. Samuel Sarpong Asamoah, **Joseph Parbey**, Isaac Kwasi Yankey, Alfred Awuah (2023). Techno-economic assessment of a central grid-connected wind farm in Ghana using RETScreen® Expert. *Heliyon*. https://doi.org/10.1016/j.heliyon.2023.e12902
6. Godwin K. Ayetor, **Joseph Parbey**, Gabriel Osei (2020). Durability studies of an indirect diesel engine run on raw palm kernel oil. *International Journal of Technology and Management Research*. https://doi.org/

10.47127/ijtmr.v1i5.42

7. Michael Gyan, Francis E. Botchway, **Joseph Parbey** (2020). Electronic Properties of Bulk and Single-Layer MoS2 Using ab Initio DFT: Application of Spin-Orbit Coupling (SOC) Parameters. *East European Journal of Physics*. https://doi.org/10.26565/2312-4334-2020-4-09
8. **Joseph Parbey** (2020). Electrospun fabrication of nanofibers as high-performance cathodes of solid oxide fuel cells. *Ceramics International*. https://www.sciencedirect.com/science/article/pii/S0272884219332894
9. **Joseph Parbey**, Qin Wang, Jialong Lei, Mayken Espinoza-Andaluz, Feng Hao, Yong Xiang, Tingshuai Li, Martin Andersson (2020). High-performance solid oxide fuel cells with fiber-based cathodes for low-temperature operation. *International Journal of Hydrogen Energy*. https://doi.org/10.1016/j.ijhydene.2019.12.125
10. **Joseph Parbey** (2020). Thermal stress analysis at the interface of cathode and electrolyte in solid oxide fuel cells. *International Communications in Heat and Mass Transfer*. https://www.sciencedirect.com/science/article/pii/S0735193320303596
11. **Joseph Parbey**, Qin Wang, Guangsen Yu, Xiaoqiang Zhang, Tingshuai Li, Martin Andersson (2019). Progress in the use of electrospun nanofiber electrodes for solid oxide fuel cells: a review. *Reviews in Chemical Engineering*. https://doi.org/10.1515/revce-2018-0074
12. **Joseph Parbey** (2018). Alumina particles doped in a polymer film act as scatterers for random laser generation. *Laser Physics*. https://doi.org/10.1088/1555-6611/aa914b
13. **Joseph Parbey** (2018). Effect of the electrochemical active site on thermal stress in solid oxide fuel cells. *Journal of The Electrochemical Society*. https://doi.org/10.1149/2.1341802jes
14. **Joseph Parbey** (2018). Mechanism of chromium poisoning the conventional cathode material for solid oxide fuel cells. *Journal of Power Sources*. https://www.sciencedirect.com/science/article/pii/S0378775318300727
15. **Joseph Parbey** (2018). Thermal stress analysis of solid oxide fuel cells with chromium poisoning cathodes. *Journal of The Electrochemical Society*. https://doi.org/10.1149/2.1001814jes
16. **Joseph Parbey** (2018). Thermal stress analysis of sulfur deactivated solid oxide fuel cells. *Journal of Power Sources*. https://www.sciencedirect.com/science/article/pii/S0378775318300119
17. **Joe Parbey** (2017). Fabrication of nickel-YSZ cermet nanofibers via electrospinning. *Journal of Alloys and Compounds*. https://www.sciencedirect.com/science/article/pii/S0925838816331073
18. GK Ayetor, **J Parbey** (2016). Durability studies of an indirect diesel engine run on raw palm kernel oil. *International Journal of Technology and Management Research*.
19. Godwin Kafui Ayetor, Albert Sunnu, **Joseph Parbey** (2015). Effect of biodiesel production parameters on viscosity and yield of methyl esters: Jatropha curcas, Elaeis guineensis and Cocos nucifera. *Alexandria Engineering Journal*. https://doi.org/10.1016/j.aej.2015.09.011
20. **JOSEPH PARBEY** (2015). Effect of injection pressure and timing on biodiesel fuelled engine. *Journal of Automobile Engineering (jaue)*. https://www.academia.edu/download/105877401/--1436183145-1._20Automobile_20-_20JAuE_20_20-Effect_20of_20injection_20pressure_20-_20_20Godwin_20K._20Ayetor_20-_20Ghana.pdf
21. Godwin Kafui Ayetor, Albert K. Sunnu, **Joseph Parbey** (2015). Performance Evaluation of Biodiesel-Biodiesel Blends in a dedicated CIDI Engine. *DergiPark (Istanbul University)*. https://doi.org/10.20508/ijrer.78139
22. **Parbey, Joseph**, Osei, Gabriel, Arthur, Richard, Ayetor, Godwin (2014). Bioethanol Potential from Oil Palm Sap in Ghana. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.4318879

Book chapters 2

1. **Joseph Parbey**, Fehrs Adu-Gyamfi, Michael Gyan (2024). Progress in Cathode Materials for Methanol Fuel Cells. *IntechOpen eBooks*. https://doi.org/10.5772/intechopen.1003869
2. **Joseph Parbey** (2020). Cermets as anode materials. *Intermediate Temperature Solid Oxide Fuel Cells*. https://www.sciencedirect.com/science/chapter/edited-volume/pii/B9780128174456000041