

# Tabbi Wilberforce Awotwe

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7779347/publications.pdf>

Version: 2024-02-01

100  
papers

8,317  
citations

43973

48  
h-index

62479

80  
g-index

100  
all docs

100  
docs citations

100  
times ranked

5005  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on zero energy buildings – Pros and cons. Energy and Built Environment, 2023, 4, 25-38.	2.9	46
2	Piezoelectric Sensors. , 2022, , 65-71.		1
3	Recent Progress of Metal-Organic Frameworks (MOFs) as Electrodes for Capacitive Deionization (CDI) Desalination. , 2022, , 566-577.		2
4	Applications of Nanofluids in Cooling of Electronic Components. , 2022, , 310-318.		6
5	Waste Heat Recovery Applications Incorporating Phase Change Materials. , 2022, , 513-521.		10
6	Future Directions for Shape Memory Alloy Development. , 2022, , 231-242.		2
7	Introduction to Energy Storage Materials. , 2022, , 1-7.		1
8	Materials for Fuel Cell Membranes. , 2022, , 267-272.		5
9	Classification of Energy Storage Materials. , 2022, , 8-14.		0
10	Assessment of the pre-combustion carbon capture contribution into sustainable development goals SDGs using novel indicators. Renewable and Sustainable Energy Reviews, 2022, 153, 111710.	8.2	207
11	CFD modelling and simulation of drill cuttings transport efficiency in annular bends: Effect of particle size polydispersity. Journal of Petroleum Science and Engineering, 2022, 208, 109795.	2.1	11
12	Low temperature phase change materials for thermal energy storage: Current status and computational perspectives. Sustainable Energy Technologies and Assessments, 2022, 50, 101808.	1.7	11
13	Role of carbon-based nanomaterials in improving the performance of microbial fuel cells. Energy, 2022, 240, 122478.	4.5	40
14	Biogas role in achievement of the sustainable development goals: Evaluation, Challenges, and Guidelines. Journal of the Taiwan Institute of Chemical Engineers, 2022, 131, 104207.	2.7	107
15	Prospects of Thermoelectric Generators with Nanofluid. Thermal Science and Engineering Progress, 2022, 29, 101207.	1.3	17
16	Impact of COVID-19 on the Renewable Energy Sector and Mitigation Strategies. Chemical Engineering and Technology, 2022, 45, 558-571.	0.9	33
17	Effect of Bipolar Plate Material on Proton Exchange Membrane Fuel Cell Performance. Energies, 2022, 15, 1886.	1.6	9
18	Multi-criteria decision making for different concentrated solar thermal power technologies. Sustainable Energy Technologies and Assessments, 2022, 52, 102118.	1.7	21

#	ARTICLE	IF	CITATIONS
19	A review of solar chimney for natural ventilation of residential and non-residential buildings. Sustainable Energy Technologies and Assessments, 2022, 52, 102082.	1.7	27
20	Battery thermal management systems based on nanofluids for electric vehicles. Journal of Energy Storage, 2022, 50, 104385.	3.9	45
21	Battery energy storage systems and SWOT (strengths, weakness, opportunities, and threats) analysis of batteries in power transmission. Energy, 2022, 254, 123987.	4.5	74
22	Finding best operational conditions of PEM fuel cell using adaptive neuro-fuzzy inference system and metaheuristics. Energy Reports, 2022, 8, 6181-6190.	2.5	10
23	Large scale application of carbon capture to process industries – A review. Journal of Cleaner Production, 2022, 362, 132300.	4.6	84
24	Novel Trends in Proton Exchange Membrane Fuel Cells. Energies, 2022, 15, 4949.	1.6	17
25	Performance evaluation of an air breathing polymer electrolyte membrane (PEM) fuel cell in harsh environments – A case study under Saudi Arabia's ambient condition. International Journal of Hydrogen Energy, 2021, 46, 23463-23479.	3.8	6
26	Transition metal carbides and nitrides as oxygen reduction reaction catalyst or catalyst support in proton exchange membrane fuel cells (PEMFCs). International Journal of Hydrogen Energy, 2021, 46, 23529-23547.	3.8	88
27	Proton exchange membrane fuel cell performance prediction using artificial neural network. International Journal of Hydrogen Energy, 2021, 46, 6037-6050.	3.8	39
28	Compressed air energy storage systems: Components and operating parameters – A review. Journal of Energy Storage, 2021, 34, 102000.	3.9	138
29	A comparison on the dynamical performance of a proton exchange membrane fuel cell (PEMFC) with traditional serpentine and an open pore cellular foam material flow channel. International Journal of Hydrogen Energy, 2021, 46, 5984-5998.	3.8	19
30	Selection of proton exchange membrane fuel cell for transportation. International Journal of Hydrogen Energy, 2021, 46, 30625-30640.	3.8	67
31	Fuel cell application in the automotive industry and future perspective. Energy, 2021, 214, 118955.	4.5	377
32	Environmental aspects of fuel cells: A review. Science of the Total Environment, 2021, 752, 141803.	3.9	287
33	Environmental impacts of solar energy systems: A review. Science of the Total Environment, 2021, 754, 141989.	3.9	373
34	Critical review of energy storage systems. Energy, 2021, 214, 118987.	4.5	359
35	Progress in carbon capture technologies. Science of the Total Environment, 2021, 761, 143203.	3.9	300
36	A critical review on environmental impacts of renewable energy systems and mitigation strategies: Wind, hydro, biomass and geothermal. Science of the Total Environment, 2021, 766, 144505.	3.9	252

#	ARTICLE	IF	CITATIONS
37	Value added products from wastewater using bioelectrochemical systems: Current trends and perspectives. <i>Journal of Water Process Engineering</i> , 2021, 39, 101737.	2.6	59
38	Review of operating condition, design parameters and material properties for proton exchange membrane fuel cells. <i>International Journal of Energy Research</i> , 2021, 45, 1227-1245.	2.2	41
39	Application of graphene in energy storage device – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110026.	8.2	452
40	Materials for a New Generation of Batteries. , 2021, , 59-59.		0
41	Progress in plant-based bioelectrochemical systems and their connection with sustainable development goals. <i>Carbon Resources Conversion</i> , 2021, 4, 169-183.	3.2	42
42	Graphene Based Materials for Supercapacitors and Fuel Cells. , 2021, , 399-399.		1
43	Advances in Electrolytes for Sodium-Sulfur Batteries. , 2021, , .		1
44	Bio-Based Carbon Materials for Capacitive Deionization CDI Desalination Processes. , 2021, , .		3
45	Experimental and analytical study of open pore cellular foam material on the performance of proton exchange membrane electrolysers. <i>International Journal of Thermofluids</i> , 2021, 9, 100068.	4.0	12
46	Optimization of Fuel Cell Performance Using Computational Fluid Dynamics. <i>Membranes</i> , 2021, 11, 146.	1.4	12
47	Graphitic carbon nitride/carbon brush composite as a novel anode for yeast-based microbial fuel cells. <i>Energy</i> , 2021, 221, 119849.	4.5	44
48	Environmental impacts of nanofluids: A review. <i>Science of the Total Environment</i> , 2021, 763, 144202.	3.9	51
49	Critical Review of Flywheel Energy Storage System. <i>Energies</i> , 2021, 14, 2159.	1.6	94
50	Thermophysical properties of graphene-based nanofluids. <i>International Journal of Thermofluids</i> , 2021, 10, 100073.	4.0	81
51	A review of grout materials in geothermal energy applications. <i>International Journal of Thermofluids</i> , 2021, 10, 100070.	4.0	78
52	Fuel cells for carbon capture applications. <i>Science of the Total Environment</i> , 2021, 769, 144243.	3.9	92
53	Geometrical effect coupled with nanofluid on heat transfer enhancement in heat exchangers. <i>International Journal of Thermofluids</i> , 2021, 10, 100072.	4.0	59
54	Intensification of heat exchanger performance utilizing nanofluids. <i>International Journal of Thermofluids</i> , 2021, 10, 100071.	4.0	53

#	ARTICLE	IF	CITATIONS
55	Recent progress on Carbon-based nanomaterial for phase change materials: Prospects and challenges. Thermal Science and Engineering Progress, 2021, 23, 100920.	1.3	15
56	Building-integrated photovoltaic/thermal (BIPVT) systems: Applications and challenges. Sustainable Energy Technologies and Assessments, 2021, 45, 101151.	1.7	48
57	Selection Guidelines for Wind Energy Technologies. Energies, 2021, 14, 3244.	1.6	65
58	Application of nanofluids for enhanced waste heat recovery: A review. Nano Energy, 2021, 84, 105871.	8.2	93
59	State-of-the-Art Technologies for Building-Integrated Photovoltaic Systems. Buildings, 2021, 11, 383.	1.4	39
60	Effects of COVID-19 on the environment: An overview on air, water, wastewater, and solid waste. Journal of Environmental Management, 2021, 292, 112694.	3.8	69
61	A Review on Failure Modes of Wind Turbine Components. Energies, 2021, 14, 5241.	1.6	36
62	Mathematical model of a proton-exchange membrane (PEM) fuel cell. International Journal of Thermofluids, 2021, 11, 100110.	4.0	37
63	Augmenting performance of fuel cells using nanofluids. Thermal Science and Engineering Progress, 2021, 25, 101012.	1.3	17
64	Carbon-Based Nanomaterial for Emerging Desalination Technologies: Electrodialysis and Capacitive Deionization. , 2021, , 411-411.		1
65	Progress of Biomaterials Applications in Supercapacitors. , 2021, , .		0
66	Technical and Commercial Challenges of Proton-Exchange Membrane (PEM) Fuel Cells. Energies, 2021, 14, 144.	1.6	71
67	PEMFC Poly-Generation Systems: Developments, Merits, and Challenges. Sustainability, 2021, 13, 11696.	1.6	16
68	Metal-Air Batteriesâ€™A Review. Energies, 2021, 14, 7373.	1.6	59
69	Geothermal based hybrid energy systems, toward eco-friendly energy approaches. Renewable Energy, 2020, 147, 2003-2012.	4.3	142
70	A composite of graphitic carbon nitride and Vulcan carbon as an effective catalyst support for Ni in direct urea fuel cells. Journal of the Taiwan Institute of Chemical Engineers, 2020, 116, 160-168.	2.7	17
71	Bipolar Plate Materials. , 2020, , 273-273.		0
72	Prospects of Fuel Cell Combined Heat and Power Systems. Energies, 2020, 13, 4104.	1.6	79

#	ARTICLE	IF	CITATIONS
73	Environmental impact of desalination technologies: A review. Science of the Total Environment, 2020, 748, 141528.	3.9	235
74	Recent progress of graphene based nanomaterials in bioelectrochemical systems. Science of the Total Environment, 2020, 749, 141225.	3.9	105
75	Review of the regulations and techniques to eliminate toxic emissions from diesel engine cars. Science of the Total Environment, 2020, 748, 141249.	3.9	53
76	Design of Experiment (DOE) Analysis of 5-Cell Stack Fuel Cell Using Three Bipolar Plate Geometry Designs. Sustainability, 2020, 12, 4488.	1.6	22
77	Performance Prediction of Proton Exchange Membrane Fuel Cells (PEMFC) Using Adaptive Neuro Inference System (ANFIS). Sustainability, 2020, 12, 4952.	1.6	31
78	DeNOx removal techniques for automotive applications – A review. Environmental Advances, 2020, 2, 100021.	2.2	14
79	Technical evaluation of proton exchange membrane (PEM) fuel cell performance – A review of the effects of bipolar plates coating. Renewable and Sustainable Energy Reviews, 2019, 113, 109286.	8.2	80
80	Effect of humidification of reactive gases on the performance of a proton exchange membrane fuel cell. Science of the Total Environment, 2019, 688, 1016-1035.	3.9	52
81	A comprehensive study of the effect of bipolar plate (BP) geometry design on the performance of proton exchange membrane (PEM) fuel cells. Renewable and Sustainable Energy Reviews, 2019, 111, 236-260.	8.2	156
82	Material degradation of components in polymer electrolyte membrane (PEM) electrolytic cell and mitigation mechanisms: A review. Renewable and Sustainable Energy Reviews, 2019, 111, 1-14.	8.2	109
83	Numerical modelling and CFD simulation of a polymer electrolyte membrane (PEM) fuel cell flow channel using an open pore cellular foam material. Science of the Total Environment, 2019, 678, 728-740.	3.9	67
84	Energy efficiency improvements by investigating the water flooding management on proton exchange membrane fuel cell (PEMFC). Energy, 2019, 179, 246-267.	4.5	293
85	Overview of ocean power technology. Energy, 2019, 175, 165-181.	4.5	118
86	Comprehensive investigation on hydrogen and fuel cell technology in the aviation and aerospace sectors. Renewable and Sustainable Energy Reviews, 2019, 106, 31-40.	8.2	325
87	Outlook of carbon capture technology and challenges. Science of the Total Environment, 2019, 657, 56-72.	3.9	281
88	Fuel cell membranes – Pros and cons. Energy, 2019, 172, 155-172.	4.5	163
89	Prospects and challenges of concentrated solar photovoltaics and enhanced geothermal energy technologies. Science of the Total Environment, 2019, 659, 851-861.	3.9	101
90	Water Electrolysis Technology. , 2018, , .		4

#	ARTICLE	IF	CITATIONS
91	Effect of Bipolar Plate Materials on Performance of Fuel Cells. , 2018, , .		12
92	Evaluating the Effect of Metal Bipolar Plate Coating on the Performance of Proton Exchange Membrane Fuel Cells. Energies, 2018, 11, 3203.	1.6	71
93	Computational Fluid Dynamic simulation and modelling (CFX) of flow plate in PEM fuel cell using aluminum open cellular foam material. , 2017, , .		9
94	Developments of electric cars and fuel cell hydrogen electric cars. International Journal of Hydrogen Energy, 2017, 42, 25695-25734.	3.8	337
95	Development of Bi-polar plate design of PEM fuel cell using CFD techniques. International Journal of Hydrogen Energy, 2017, 42, 25663-25685.	3.8	107
96	Modelling and simulation of Proton Exchange Membrane fuel cell with serpentine bipolar plate using MATLAB. International Journal of Hydrogen Energy, 2017, 42, 25639-25662.	3.8	76
97	Optimisation of bipolar plate through computational fluid dynamic simulation and modelling using nickle open pore cellular foam material. Renewable Energy and Power Quality Journal, 2017, 1, 886-892.	0.2	5
98	Advances in stationary and portable fuel cell applications. International Journal of Hydrogen Energy, 2016, 41, 16509-16522.	3.8	413
99	Experimental Study of Operational Parameters on the Performance of PEMFCS in Dead end Mode. , 0, , .		4
100	Characterisation of Proton Exchange Membrane (PEMFC) Fuel Cell Through Design of Experiment (DOE). , 0, , .		4