

# Aritra Ghosh

## List of Publications by Year in descending order

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107  
papers

5,028  
citations

66234

42  
h-index

106150

65  
g-index

107  
all docs

107  
docs citations

107  
times ranked

2423  
citing authors

#	ARTICLE	IF	CITATIONS
1	Potential of building integrated and attached/applied photovoltaic (BIPV/BAPV) for adaptive less energy-hungry building's skin: A comprehensive review. <i>Journal of Cleaner Production</i> , 2020, 276, 123343.	4.6	172
2	Impact of COVID-19 pandemic on socio-economic, energy-environment and transport sector globally and sustainable development goal (SDG). <i>Journal of Cleaner Production</i> , 2021, 312, 127705.	4.6	169
3	Possibilities and Challenges for the Inclusion of the Electric Vehicle (EV) to Reduce the Carbon Footprint in the Transport Sector: A Review. <i>Energies</i> , 2020, 13, 2602.	1.6	162
4	Advances in switchable and highly insulating autonomous (self-powered) glazing systems for adaptive low energy buildings. <i>Renewable Energy</i> , 2018, 126, 1003-1031.	4.3	144
5	State of Charge Estimation of Lithium-Ion Battery for Electric Vehicles Using Machine Learning Algorithms. <i>World Electric Vehicle Journal</i> , 2021, 12, 38.	1.6	140
6	How India is dealing with COVID-19 pandemic. <i>Sensors International</i> , 2020, 1, 100021.	4.9	131
7	Characterization of Hybrid-nano/Paraffin Organic Phase Change Material for Thermal Energy Storage Applications in Solar Thermal Systems. <i>Energies</i> , 2020, 13, 5079.	1.6	126
8	Electrically actuated visible and near-infrared regulating switchable smart window for energy positive building: A review. <i>Journal of Cleaner Production</i> , 2021, 301, 126854.	4.6	123
9	Investigation of a binary eutectic mixture of phase change material for building integrated photovoltaic (BIPV) system. <i>Solar Energy Materials and Solar Cells</i> , 2020, 207, 110360.	3.0	121
10	Evaluation of thermal performance for a smart switchable adaptive polymer dispersed liquid crystal (PDLC) glazing. <i>Solar Energy</i> , 2020, 195, 185-193.	2.9	109
11	Hydrophilic and Superhydrophilic Self-Cleaning Coatings by Morphologically Varying ZnO Microstructures for Photovoltaic and Glazing Applications. <i>ACS Omega</i> , 2020, 5, 1033-1039.	1.6	106
12	Dust and PV Performance in Nigeria: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 121, 109704.	8.2	105
13	An analytical indoor experimental study on the effect of soiling on PV, focusing on dust properties and PV surface material. <i>Solar Energy</i> , 2020, 203, 46-68.	2.9	101
14	Investigation of Inorganic Phase Change Material for a Semi-Transparent Photovoltaic (STPV) Module. <i>Energies</i> , 2020, 13, 3582.	1.6	100
15	Measured overall heat transfer coefficient of a suspended particle device switchable glazing. <i>Applied Energy</i> , 2015, 159, 362-369.	5.1	90
16	Investigation of thermal and electrical performances of a combined semi-transparent PV-vacuum glazing. <i>Applied Energy</i> , 2018, 228, 1591-1600.	5.1	85
17	Status of BIPV and BAPV System for Less Energy-Hungry Building in India—A Review. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2337.	1.3	78
18	Thermal performance of semitransparent CdTe BIPV window at temperate climate. <i>Solar Energy</i> , 2020, 195, 536-543.	2.9	77

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19	The colour rendering index and correlated colour temperature of dye-sensitized solar cell for adaptive glazing application. <i>Solar Energy</i> , 2018, 163, 537-544.	2.9	73
20	Evaluation of optical properties and protection factors of a PDLC switchable glazing for low energy building integration. <i>Solar Energy Materials and Solar Cells</i> , 2018, 176, 391-396.	3.0	73
21	Numerical studies of thermal comfort for semi-transparent building integrated photovoltaic (BIPV)-vacuum glazing system. <i>Solar Energy</i> , 2019, 190, 608-616.	2.9	72
22	Modelling photovoltaic soiling losses through optical characterization. <i>Scientific Reports</i> , 2020, 10, 58.	1.6	72
23	Colour properties and glazing factors evaluation of multicrystalline based semi-transparent Photovoltaic-vacuum glazing for BIPV application. <i>Renewable Energy</i> , 2019, 131, 730-736.	4.3	70
24	Measured thermal & daylight performance of an evacuated glazing using an outdoor test cell. <i>Applied Energy</i> , 2016, 177, 196-203.	5.1	68
25	Thermal and visual comfort analysis of adaptive vacuum integrated switchable suspended particle device window for temperate climate. <i>Renewable Energy</i> , 2020, 156, 1361-1372.	4.3	65
26	Evaluation of colour properties due to switching behaviour of a PDLC glazing for adaptive building integration. <i>Renewable Energy</i> , 2018, 120, 126-133.	4.3	64
27	Color Comfort Evaluation of Dye-Sensitized Solar Cell (DSSC) Based Building-Integrated Photovoltaic (BIPV) Glazing after 2 Years of Ambient Exposure. <i>Journal of Physical Chemistry C</i> , 2019, 123, 23834-23837.	1.5	64
28	Measured thermal performance of a combined suspended particle switchable device evacuated glazing. <i>Applied Energy</i> , 2016, 169, 469-480.	5.1	60
29	Investigation of semi-transparent dye-sensitized solar cells for fenestration integration. <i>Renewable Energy</i> , 2019, 141, 516-525.	4.3	60
30	Perovskite Solar Cells for BIPV Application: A Review. <i>Buildings</i> , 2020, 10, 129.	1.4	60
31	Daylighting performance and glare calculation of a suspended particle device switchable glazing. <i>Solar Energy</i> , 2016, 132, 114-128.	2.9	59
32	Design of an Optimized Thermal Management System for Li-Ion Batteries under Different Discharging Conditions. <i>Energies</i> , 2020, 13, 5695.	1.6	57
33	Daylight characteristics of a polymer dispersed liquid crystal switchable glazing. <i>Solar Energy Materials and Solar Cells</i> , 2018, 174, 572-576.	3.0	56
34	Behaviour of a SPD switchable glazing in an outdoor test cell with heat removal under varying weather conditions. <i>Applied Energy</i> , 2016, 180, 695-706.	5.1	53
35	Study of COVID-19 pandemic in London (UK) from urban context. <i>Cities</i> , 2020, 106, 102928.	2.7	53
36	Performance enhancement of copper indium diselenide photovoltaic module using inorganic phase change material. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2020, 15, e2480.	0.8	53

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37	First outdoor characterisation of a PV powered suspended particle device switchable glazing. Solar Energy Materials and Solar Cells, 2016, 157, 1-9.	3.0	51
38	Reduced graphene oxide (rGO) aerogel: Efficient adsorbent for the elimination of antimony (III) and (V) from wastewater. Journal of Hazardous Materials, 2021, 420, 126554.	6.5	51
39	Interior colour rendering of daylight transmitted through a suspended particle device switchable glazing. Solar Energy Materials and Solar Cells, 2017, 163, 218-223.	3.0	49
40	Optimization of PV powered SPD switchable glazing to minimise probability of loss of power supply. Renewable Energy, 2019, 131, 993-1001.	4.3	48
41	Soiling Losses: A Barrier for India's Energy Security Dependency from Photovoltaic Power. Challenges, 2020, 11, 9.	0.9	48
42	Performance of WO <sub>3</sub> -Incorporated Carbon Electrodes for Ambient Mesoscopic Perovskite Solar Cells. ACS Omega, 2020, 5, 422-429.	1.6	44
43	Performance assessment of cadmium telluride-based semi-transparent glazing for power saving in facade buildings. Energy and Buildings, 2020, 215, 109585.	3.1	43
44	Assessment of the overall energy performance of an SPD smart window in a hot desert climate. Energy, 2022, 252, 124073.	4.5	43
45	Durability of switching behaviour after outdoor exposure for a suspended particle device switchable glazing. Solar Energy Materials and Solar Cells, 2017, 163, 178-184.	3.0	41
46	Influence of atmospheric clearness on PDLC switchable glazing transmission. Energy and Buildings, 2018, 172, 257-264.	3.1	41
47	Carbon counter electrode mesoscopic ambient processed & characterised perovskite for adaptive BIPV fenestration. Renewable Energy, 2020, 145, 2151-2158.	4.3	41
48	Realization of Poly(methyl methacrylate)-Encapsulated Solution-Processed Carbon-Based Solar Cells: An Emerging Candidate for Buildings' Comfort. Industrial & Engineering Chemistry Research, 2020, 59, 11063-11071.	1.8	41
49	Effect of sky clearness index on transmission of evacuated (vacuum) glazing. Renewable Energy, 2017, 105, 160-166.	4.3	40
50	Intensifying the Charging Response of a Phase-Change Material with Twisted Fin Arrays in a Shell-And-Tube Storage System. Energies, 2021, 14, 1619.	1.6	39
51	Comprehensive review on various parameters that influence the performance of parabolic trough collector. Environmental Science and Pollution Research, 2021, 28, 22310-22333.	2.7	38
52	Experimental investigations for dust build-up on low-iron glass exterior and its effects on the performance of solar PV systems. Energy, 2022, 239, 122213.	4.5	38
53	Temperature regulation of concentrating photovoltaic window using argon gas and polymer dispersed liquid crystal films. Renewable Energy, 2021, 164, 96-108.	4.3	36
54	Simulation study for a switchable adaptive polymer dispersed liquid crystal smart window for two climate zones (Riyadh and London). Energy and Buildings, 2021, 251, 111381.	3.1	36

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55	Polymer dispersed liquid crystal retrofitted smart switchable glazing: Energy saving, diurnal illumination, and CO2 mitigation prospective. <i>Journal of Cleaner Production</i> , 2022, 350, 131444.	4.6	34
56	Effect of sky conditions on light transmission through a suspended particle device switchable glazing. <i>Solar Energy Materials and Solar Cells</i> , 2017, 160, 134-140.	3.0	33
57	Agro Waste Sugarcane Bagasse as a Cementitious Material for Reactive Powder Concrete. <i>Clean Technologies</i> , 2020, 2, 476-491.	1.9	32
58	Performance Analysis of Photovoltaic Integrated Shading Devices (PVSDs) and Semi-Transparent Photovoltaic (STPV) Devices Retrofitted to a Prototype Office Building in a Hot Desert Climate. <i>Sustainability</i> , 2020, 12, 10145.	1.6	32
59	Novel Multi-Time Scale Deep Learning Algorithm for Solar Irradiance Forecasting. <i>Energies</i> , 2021, 14, 2404.	1.6	32
60	Design and Analysis of a Solar-Powered Electric Vehicle Charging Station for Indian Cities. <i>World Electric Vehicle Journal</i> , 2021, 12, 132.	1.6	32
61	Effect of atmospheric transmittance on performance of adaptive SPD-vacuum switchable glazing. <i>Solar Energy Materials and Solar Cells</i> , 2017, 161, 424-431.	3.0	31
62	Power Resilience Enhancement of a Residential Electricity User Using Photovoltaics and a Battery Energy Storage System under Uncertainty Conditions. <i>Energies</i> , 2020, 13, 4193.	1.6	31
63	Fenestration integrated BIPV (FIPV): A review. <i>Solar Energy</i> , 2022, 237, 213-230.	2.9	31
64	Investigations on Performance Enhancement Measures of the Bidirectional Converter in PV-Wind Interconnected Microgrid System. <i>Energies</i> , 2019, 12, 2672.	1.6	29
65	Visual Comfort Analysis of Semi-Transparent Perovskite Based Building Integrated Photovoltaic Window for Hot Desert Climate (Riyadh, Saudi Arabia). <i>Energies</i> , 2021, 14, 1043.	1.6	29
66	A Systematic Review on Indoor Environmental Quality in Naturally Ventilated School Classrooms: A Way Forward. <i>Advances in Civil Engineering</i> , 2021, 2021, 1-19.	0.4	28
67	Role of Hafnium Doping on Wetting Transition Tuning the Wettability Properties of ZnO and Doped Thin Films: Self-Cleaning Coating for Solar Application. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25540-25552.	4.0	28
68	Daylighting Performance of Light Shelf Photovoltaics (LSPV) for Office Buildings in Hot Desert-Like Regions. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7959.	1.3	27
69	A Comprehensive Review on Sustainable Aspects of Big Data Analytics for the Smart Grid. <i>Sustainability</i> , 2021, 13, 13322.	1.6	27
70	Evaluation of solar factor using spectral analysis for CdTe photovoltaic glazing. <i>Materials Letters</i> , 2019, 237, 332-335.	1.3	26
71	Building energy analysis using EC and PDLC based smart switchable window in Oman. <i>Solar Energy</i> , 2022, 237, 301-312.	2.9	26
72	Nigeria's energy review: Focusing on solar energy potential and penetration. <i>Environment, Development and Sustainability</i> , 2023, 25, 5755-5796.	2.7	25

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73	Perceiving the temperature coefficients of carbon-based perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2020, 4, 6283-6298.	2.5	24
74	Comprehensive review on recycling of spent lithium-ion batteries. <i>Materials Today: Proceedings</i> , 2021, 47, 167-180.	0.9	24
75	Incorporating Solution-Processed Mesoporous WO <sub>3</sub> as an Interfacial Cathode Buffer Layer for Photovoltaic Applications. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5709-5719.	1.1	23
76	Performance Optimization of Solar-Assisted Heat Pump System for Water Heating Applications. <i>Energies</i> , 2021, 14, 3534.	1.6	23
77	A Review on Numerical Approach to Achieve Building Energy Efficiency for Energy, Economy and Environment (3E) Benefit. <i>Energies</i> , 2021, 14, 4487.	1.6	23
78	Soiling on PV performance influenced by weather parameters in Northern Nigeria. <i>Renewable Energy</i> , 2021, 180, 874-892.	4.3	23
79	Floating PVs in Terms of Power Generation, Environmental Aspects, Market Potential, and Challenges. <i>Sustainability</i> , 2022, 14, 2626.	1.6	22
80	Bandgap Engineering in Novel Fluorite-Type Rare Earth High-Entropy Oxides (RE <sub>4</sub> HEOs) with Computational and Experimental Validation for Photocatalytic Water Splitting Applications. <i>Advanced Sustainable Systems</i> , 2022, 6, .	2.7	22
81	Optimized Integration of Hybrid Renewable Sources with Long-Life Battery Energy Storage in Microgrids for Peak Power Shaving and Demand Side Management under Different Tariff Scenario. <i>Energy Technology</i> , 2021, 9, 2100199.	1.8	21
82	Understanding the Semi-Switchable Thermochromic Behavior of Mixed Halide Hybrid Perovskite Nanorods. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18058-18070.	1.5	21
83	Potential and Future Prospects of Geothermal Energy in Space Conditioning of Buildings: India and Worldwide Review. <i>Sustainability</i> , 2020, 12, 8428.	1.6	20
84	Wind power forecasting based on time series model using deep machine learning algorithms. <i>Materials Today: Proceedings</i> , 2021, 47, 115-126.	0.9	18
85	In-situ assessment of photovoltaic soiling mitigation techniques in northern Nigeria. <i>Energy Conversion and Management</i> , 2021, 244, 114442.	4.4	16
86	Energy and Daylighting Evaluation of Integrated Semitransparent Photovoltaic Windows with Internal Light Shelves in Open-Office Buildings. <i>Advances in Civil Engineering</i> , 2020, 2020, 1-21.	0.4	15
87	Angular dependencies of soiling loss on photovoltaic performance in Nigeria. <i>Solar Energy</i> , 2021, 225, 108-121.	2.9	14
88	Energy Savings and Carbon Emission Mitigation Prospective of Building's Glazing Variety, Window-to-Wall Ratio and Wall Thickness. <i>Energies</i> , 2021, 14, 8020.	1.6	14
89	Compelling temperature behaviour of carbon-perovskite solar cell for fenestration at various climates. <i>Chemical Engineering Journal Advances</i> , 2022, 10, 100267.	2.4	12
90	Emplacement of screen-printed graphene oxide coating for building thermal comfort discernment. <i>Scientific Reports</i> , 2020, 10, 15578.	1.6	11

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91	Performance Analysis and Comparison of a Concentrated Photovoltaic System with Different Phase Change Materials. <i>Energies</i> , 2021, 14, 2911.	1.6	11
92	Synergistic Effect of Paraffin-Incorporated In <sub>2</sub> O <sub>3</sub> /ZnO Multifold Smart Glazing Composite for the Self-Cleaning and Energy-Saving Built Environment. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6609-6621.	3.2	11
93	Thermal Behaviour Analysis and Cost-Saving Opportunities of PCM-Integrated Terracotta Brick Buildings. <i>Advances in Civil Engineering</i> , 2021, 2021, 1-15.	0.4	10
94	Smart glazing thermal comfort improvement through near-infrared shielding paraffin incorporated SnO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> composite. <i>Construction and Building Materials</i> , 2022, 331, 127319.	3.2	10
95	The Use of Double-Skin Façades to Improve the Energy Consumption of High-Rise Office Buildings in a Mediterranean Climate (Csa). <i>Sustainability</i> , 2022, 14, 6004.	1.6	10
96	Development of a Mosque Design for a Hot, Dry Climate Based on a Holistic Bioclimatic Vision. <i>Sustainability</i> , 2021, 13, 6254.	1.6	7
97	Model Based Generation Prediction of SPV Power Plant Due to Weather Stressed Soiling. <i>Energies</i> , 2021, 14, 5305.	1.6	7
98	Development of Morphologically engineered Flower-like Hafnium-Doped ZnO with Experimental and DFT Validation for Low-Temperature and Ultrasensitive Detection of NO <sub>x</sub> Gas. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 5885-5897.	1.8	7
99	Optimally Tuned Interleaved Luo Converter for PV Array Fed BLDC Motor Driven Centrifugal Pumps Using Whale Optimization Algorithm—A Resilient Solution for Powering Agricultural Loads. <i>Electronics (Switzerland)</i> , 2020, 9, 1445.	1.8	6
100	The Effect of Variable-Length Fins and Different High Thermal Conductivity Nanoparticles in the Performance of the Energy Storage Unit Containing Bio-Based Phase Change Substance. <i>Sustainability</i> , 2021, 13, 2884.	1.6	6
101	The Grid Independence of an Electric Vehicle Charging Station with Solar and Storage. <i>Electronics (Switzerland)</i> , 2021, 10, 2940.	1.8	6
102	Indoor performance analysis of a low concentrating photovoltaic module for building integration. , 2012, , .		4
103	Exploring the Potential for Electric Retrofit Regulations and an Accreditation Scheme for the UK. <i>Electronics (Switzerland)</i> , 2021, 10, 3110.	1.8	4
104	Comfort Analysis of Hafnium (Hf) Doped ZnO Coated Self-Cleaning Glazing for Energy-Efficient Fenestration Application. <i>Materials</i> , 2022, 15, 4934.	1.3	4
105	Electric Vehicles—Solution toward Zero Emission from the Transport Sector. <i>World Electric Vehicle Journal</i> , 2021, 12, 262.	1.6	3
106	Biocompatible polymer-capped oxidation-resistant copper nanoparticles for nanofluid and hydrogel applications. <i>European Physical Journal Plus</i> , 2022, 137, 1.	1.2	2
107	Recent Advances in Renewable Energy and Clean Energy. <i>Energies</i> , 2022, 15, 3204.	1.6	2