Net energy and cost benefit of transparent organic solar cells in building-integrated applications

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#	Paper	IF	Citations
55	Photovoltaic modules designed for architectural integration without negative performance consequences. *Applied Energy*, **2020**, 279, 115741	10.7	3
54	Potential of building integrated and attached/applied photovoltaic (BIPV/BAPV) for adaptive less energy-hungry building skin: A comprehensive review. *Journal of Cleaner Production*, **2020**, 276, 123343	10.3	68
53	Photovoltaic panel type influence on the performance degradation due dust accumulation. *IOP Conference Series: Materials Science and Engineering*, **2020**, 928, 022092	0.4	2
52	Solar Energy Monitoring System Design Using Radio Frequency for Remote Areas. **2020**,		
51	Location and orientation based LCOE: Simplified visual analysis and generalization of the levelized cost of electricity from storageless photovoltaic systems. *International Journal of Energy Research*, **2021**, 45, 5649-5658	4.5	2
50	Organic Solar Cells The Path to Commercial Success. *Advanced Energy Materials*, **2021**, 11, 2002653	21.8	90
49	On Optoelectronic Processes in Organic Solar Cells: From Opaque to Transparent. *Advanced Optical Materials*, **2021**, 9, 2001484	8.1	5
48	. **2021**,		1
47	Optimizing the Artificial Lighting in a Smart and Green Glass Building-integrated Semi-Transparent Photovoltaics: A Multifaceted Case Study in Egypt. *WSEAS Transactions on Environment and Development*, **2021**, 17, 118-127	1.1	6
46	Degradation through Directional Self-Doping and Homogeneous Density of Recombination Centers Hindered by 1,8-Diiodooctane Additive in Non-Fullerene Organic Solar Cells. *Solar Rrl*, **2021**, 5, 2100024	7.1	2
45	Synthesis, spectroscopic, electrochemical and photophysical properties of high band gap polymers for potential applications in semi-transparent solar cells. *BMC Chemistry*, **2021**, 15, 25	3.7	2
44	Parameterization of Metallic Grids on Transparent Conductive Electrodes for the Scaling of Organic Solar Cells. *Advanced Electronic Materials*, **2021**, 7, 2100192	6.4	1
43	Evaluating the Electricity Production of Electric Vehicle-Integrated Photovoltaics via a Coupled Modeling Approach. **2021**,		0
42	Optical Expediency of Back Electrode Materials for Organic Near-Infrared Photodiodes. *ACS Applied Materials & Interfaces*, **2021**, 13, 27217-27226	9.5	4
41	Review of geographic information systems-based rooftop solar photovoltaic potential estimation approaches at urban scales. *Applied Energy*, **2021**, 291, 116817	10.7	17
40	Organic Photovoltaics: Where Are We Headed?. *Solar Rrl*, **2021**, 5, 2100167	7.1	5
39	Dynamic Analysis of the Similarity of Objects in Research on the Use of Renewable Energy Resources in European Union Countries. *Energies*, **2021**, 14, 3952	3.1	3

38	Quantum Chemical Design of D-A-Type Donor Materials for Highly Efficient, Photostable, and Vacuum-Processed Organic Solar Cells. *Energy Technology*, **2021**, 9, 2100489	3.5	7
37	Optical simulations to inform the design of UV-absorbing organic materials and solar cells. *Solar Energy Materials and Solar Cells*, **2021**, 227, 111114	6.4	3
36	Organic Solar Cells Parameters Extraction and Characterization Techniques. *Polymers*, **2021**, 13,	4.5	0
35	Optimisation of vertically mounted agrivoltaic systems. *Journal of Cleaner Production*, **2021**, 129091	10.3	7
34	Unraveling the Mystery of Ternary Organic Solar Cells: A Review on the Influence of Third Component on Structure-Morphology-Performance Relationships. *Solar Rrl*, 2100503	7.1	2
33	New building simulation method to measure the impact of window-integrated organic photovoltaic cells on energy demand. *Energy and Buildings*, **2021**, 252, 111490	7	2
32	Sustainability and Life-Cycle Cost Analysis of Solar Photovoltaic-Generation Systems in ASEAN Countries. *Economics, Law, and Institutions in Asia Pacific*, **2021**, 277-302	0.2	
31	Cam Gie Panelleri: Bir Derleme. *European Journal of Science and Technology*,	0.4	0
30	A GIWAXS study of crystallization in annealed conjugated polymers presenting technological interest for organic solar cell applications. *Journal of Materials Science: Materials in Electronics*, 1	2.1	
29	Smart grids and smart technologies in relation to photovoltaics, storage systems, buildings and the environment. *Renewable Energy*, **2021**, 185, 1376-1376	8.1	10
28	Well-to-wheel greenhouse gas emissions of electric versus combustion vehicles from 2018 to 2030 in the US.. *Journal of Environmental Management*, **2022**, 308, 114592	7.9	3
27	A comprehensive analyses with new findings of different PSO variants for MPPT problem under partial shading. *Ain Shams Engineering Journal*, **2022**, 13, 101680	4.4	3
26	Understanding Interfacial Recombination Processes in Narrow-Band-Gap Organic Solar Cells. *ACS Energy Letters*, 1626-1634	20.1	2
25	Novel perovskite solar cell with Distributed Bragg Reflector. *PLoS ONE*, **2021**, 16, e0259778	3.7	0
24	The application of life cycle assessment in buildings: challenges, and directions for future research. *International Journal of Life Cycle Assessment*,	4.6	2
23	Improving the building stock sustainability in European Countries: A focus on the Italian case. *Journal of Cleaner Production*, **2022**, 365, 132699	10.3	1
22	Understanding the blade coated to roll-to-roll coated performance gap in organic photovoltaics. *Solar Energy Materials and Solar Cells*, **2022**, 245, 111852	6.4	2
21	A Review on the Materials Science and Device Physics of Semitransparent Organic Photovoltaics. *Energies*, **2022**, 15, 4639	3.1	0

20	Organic Solar Cells: Electrostatic Stabilization of Organic Semiconductor Nanoparticle Dispersions by Electrical Doping. *Advanced Functional Materials*, 2202566	15.6	3
19	Economic value and acceptability of advanced solar power systems for multi-unit residential buildings: The case of South Korea. **2022**, 324, 119671		1
18	Energy performance assessment of semi-transparent photovoltaic integrated large-scale railway stations among various climates of China. **2022**, 269, 115984		0
17	Net energy and cost benefit of phthalocyanine and heptamethine transparent photovoltaics in commercial buildings. **2022**, 53, 102631		0
16	Cellulose Nanocrystals□in-Oxide Hybrid Electron Transport Layers for Solar Energy Conversion. 2201363		0
15	Near ultra-violet absorbers for transparent organic solar cells. **2022**, 207, 110752		1
14	Influence of Acid-Doped Poly(ethylene imine) Interlayers on the Performance of Polymer:Nonfullerene Solar Cells. 2200264		0
13	Modelling the electric field in non-fullerene organic solar cells: The effect of 1-chloronaphthalene additive. **2022**, 247, 286-294		0
12	Nonlinear dynamic stability analysis of axial impact loaded structures via the nonlocal strain gradient theory. **2023**, 115, 259-278		0
11	Photovoltaic windows cut energy use and CO2 emissions by 40% in highly glazed buildings. **2022**, 5, 1271-1285		2
10	Scalable Non-Halogenated Co-solvent System for Large-Area, Four-Layer Slot-Die-Coated Organic Photovoltaics.		1
9	Investigating the Role of Cathode Buffer Layers Based on Zinc Oxide with Surface-Rich Graded Fullerene Isomers in Tuning the Interfacial Properties of Organic Solar Cells. 2200797		0
8	Exploring the Industrial Symbiosis Potential of Plant Factories during the Initial Establishment Phase. **2023**, 15, 1240		0
7	Evaluating the Economic Feasibility of Plant Factory Scenarios That Produce Biomass for Biorefining Processes. **2023**, 15, 1324		0
6	A Mini Review on the Development of Conjugated Polymers: Steps towards the Commercialization of Organic Solar Cells. **2023**, 15, 164		2
5	Machine Learning Assisted Identifying the Matched Energy Level of Material for High Open Circuit Voltage in Binary Organic Solar Cells.		0
4	Performance of prototype tandem UV filter and organic transparent photovoltaic windows. **2023**, 68, 106111		0
3	Organic solar cells pros and cons: Outlooks toward semitransparent cell efficiency and stability. **2023**, 13, 020701		0

2	Doing More with Ambient Light: Harvesting Indoor Energy and Data Using Emerging Solar Cells. **2023**, 3, 161-183	0
1	Photovoltaic Systems through the Lens of Material-Energy-Water Nexus. **2023**, 16, 3174	0