Joshua Pearce

List of Publications by Year
in descending order

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414	17,771	19657 61	21540 114
papers	citations	h-index	g-index

441	441	441	13671
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review of solar photovoltaic levelized cost of electricity. Renewable and Sustainable Energy Reviews, 2011, 15, 4470-4482.	16.4	1,117
2	Mechanical properties of components fabricated with open-source 3-D printers under realistic environmental conditions. Materials & Design, 2014, 58, 242-246.	5.1	859
3	Analytical model for the optical functions of amorphous semiconductors from the near-infrared to ultraviolet: Applications in thin film photovoltaics. Journal of Applied Physics, 2002, 92, 2424-2436.	2.5	485
4	Building Research Equipment with Free, Open-Source Hardware. Science, 2012, 337, 1303-1304.	12.6	442
5	The potential of agrivoltaic systems. Renewable and Sustainable Energy Reviews, 2016, 54, 299-308.	16.4	352
6	Life-cycle economic analysis of distributed manufacturing with open-source 3-D printers. Mechatronics, 2013, 23, 713-726.	3.3	334
7	Quantifying rooftop solar photovoltaic potential for regional renewable energy policy. Computers, Environment and Urban Systems, 2010, 34, 345-357.	7.1	317
8	Evolution of microstructure and phase in amorphous, protocrystalline, and microcrystalline silicon studied by real time spectroscopic ellipsometry. Solar Energy Materials and Solar Cells, 2003, 78, 143-180.	6.2	305
9	The effects of PLA color on material properties of 3-D printed components. Additive Manufacturing, 2015, 8, 110-116.	3.0	283
10	Life cycle analysis of distributed recycling of post-consumer high density polyethylene for 3-D printing filament. Journal of Cleaner Production, 2014, 70, 90-96.	9.3	245
11	Global value chains from a 3D printing perspective. Journal of International Business Studies, 2016, 47, 595-609.	7.3	239
12	Photovoltaics â€" a path to sustainable futures. Futures, 2002, 34, 663-674.	2.5	235
13	Open-Source Syringe Pump Library. PLoS ONE, 2014, 9, e107216.	2.5	233
14	Distributed recycling of waste polymer into RepRap feedstock. Rapid Prototyping Journal, 2013, 19, 118-125.	3.2	215
15	Environmental Life Cycle Analysis of Distributed Three-Dimensional Printing and Conventional Manufacturing of Polymer Products. ACS Sustainable Chemistry and Engineering, 2013, 1, 1511-1519.	6.7	210
16	Producer responsibility and recycling solar photovoltaic modules. Energy Policy, 2010, 38, 7041-7047.	8.8	197
17	Plastic recycling in additive manufacturing: A systematic literature review and opportunities for the circular economy. Journal of Cleaner Production, 2020, 264, 121602.	9.3	196
18	3-D Printing of Open Source Appropriate Technologies for Self-Directed Sustainable Development. Journal of Sustainable Development, 2010, 3, .	0.3	182

#	Article	IF	Citations
19	Tensile strength of commercial polymer materials for fused filament fabrication 3D printing. Additive Manufacturing, 2017, 15, 40-47.	3.0	172
20	Open-source 3-D printing technologies for education: Bringing additive manufacturing to the classroom. Journal of Visual Languages and Computing, 2015, 28, 226-237.	1.8	162
21	Open-Source 3D-Printable Optics Equipment. PLoS ONE, 2013, 8, e59840.	2.5	160
22	Tightening the loop on the circular economy: Coupled distributed recycling and manufacturing with recyclebot and RepRap 3-D printing. Resources, Conservation and Recycling, 2018, 128, 48-58.	10.8	155
23	Characteristics of Self-Assembled Ultrathin Nafion Films. Macromolecules, 2013, 46, 3461-3475.	4.8	148
24	Fused Particle Fabrication 3-D Printing: Recycled Materialsâ€™ Optimization and Mechanical Properties. Materials, 2018, 11, 1413.	2.9	137
25	Exchanging Ohmic Losses in Metamaterial Absorbers with Useful Optical Absorption for Photovoltaics. Scientific Reports, 2014, 4, 4901.	3.3	133
26	Aquavoltaics: Synergies for dual use of water area for solar photovoltaic electricity generation and aquaculture. Renewable and Sustainable Energy Reviews, 2017, 80, 572-584.	16.4	126
27	A review of open source ventilators for COVID-19 and future pandemics. F1000Research, 2020, 9, 218.	1.6	124
28	Return on investment for open source scientific hardware development. Science and Public Policy, 2016, 43, 192-195.	2.4	121
29	Natural occurrences as analogues for the geological disposal of carbon dioxide. Energy Conversion and Management, 1996, 37, 1123-1128.	9.2	119
30	The effects of snowfall on solar photovoltaic performance. Solar Energy, 2013, 92, 84-97.	6.1	115
31	Integrating solar energy with agriculture: Industry perspectives on the market, community, and socio-political dimensions of agrivoltaics. Energy Research and Social Science, 2021, 75, 102023.	6.4	114
32	Levelized cost of electricity for solar photovoltaic, battery and cogen hybrid systems. Renewable and Sustainable Energy Reviews, 2016, 57, 692-703.	16.4	110
33	The case for open source appropriate technology. Environment, Development and Sustainability, 2012, 14, 425-431.	5.0	105
34	Polymer recycling codes for distributed manufacturing with 3-D printers. Resources, Conservation and Recycling, 2015, 97, 24-30.	10.8	105
35	Expanding photovoltaic penetration with residential distributed generation from hybrid solar photovoltaic and combined heat and power systems. Energy, 2009, 34, 1947-1954.	8.8	103
36	A Low-Cost Open-Source Metal 3-D Printer. IEEE Access, 2013, 1, 803-810.	4.2	102

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37	Mechanical Properties and Applications of Recycled Polycarbonate Particle Material Extrusion-Based Additive Manufacturing. Materials, 2019, 12, 1642.	2.9	101
38	Effects of spectral albedo on solar photovoltaic devices. Solar Energy Materials and Solar Cells, 2014, 124, 111-116.	6.2	99
39	Estimating potential photovoltaic yield with r.sun and the open source Geographical Resources Analysis Support System. Solar Energy, 2010, 84, 831-843.	6.1	98
40	Emergence of Home Manufacturing in the Developed World: Return on Investment for Open-Source 3-D Printers. Technologies, 2017, 5, 7.	5.1	98
41	Incorporating shading losses in solar photovoltaic potential assessment at the municipal scale. Solar Energy, 2012, 86, 1245-1260.	6.1	97
42	Towards real energy economics: Energy policy driven by life-cycle carbon emission. Energy Policy, 2010, 38, 1969-1978.	8.8	96
43	Open-Source Colorimeter. Sensors, 2013, 13, 5338-5346.	3.8	95
44	Optimizing limited solar roof access by exergy analysis of solar thermal, photovoltaic, and hybrid photovoltaic thermal systems. Applied Energy, 2014, 120, 115-124.	10.1	94
45	A review of greenhouse gas emission liabilities as the value of renewable energy for mitigating lawsuits for climate change related damages. Renewable and Sustainable Energy Reviews, 2016, 55, 899-908.	16.4	93
46	Agrivoltaic potential on grape farms in India. Sustainable Energy Technologies and Assessments, 2017, 23, 104-110.	2.7	92
47	Toward renewable energy geo-information infrastructures: Applications of GIScience and remote sensing that build institutional capacity. Renewable and Sustainable Energy Reviews, 2013, 18, 416-429.	16.4	91
48	The energy crises revealed by COVID: Intersections of Indigeneity, inequity, and health. Energy Research and Social Science, 2020, 68, 101661.	6.4	91
49	Progress in Indium Gallium Nitride Materials for Solar Photovoltaic Energy Conversion. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1947-1954.	2.2	86
50	Impact of Snow and Ground Interference on Photovoltaic Electric System Performance. IEEE Journal of Photovoltaics, 2015, 5, 1680-1685.	2.5	86
51	Dispatch strategy and model for hybrid photovoltaic and trigeneration power systems. Applied Energy, 2011, 88, 3270-3276.	10.1	85
52	Open-source, self-replicating 3-D printer factory for small-business manufacturing. International Journal of Advanced Manufacturing Technology, 2016, 85, 633-642.	3.0	84
53	Anisotropic mechanical property variance between ASTM D638-14 type i and type iv fused filament fabricated specimens. Polymer Testing, 2018, 68, 294-301.	4.8	84
54	The effect of spectral albedo on amorphous silicon and crystalline silicon solar photovoltaic device performance. Solar Energy, 2013, 91, 233-241.	6.1	83

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55	Quantifying the Value of Open Source Hard-ware Development. Modern Economy, 2015, 06, 1-11.	0.5	82
56	Economic savings for scientific free and open source technology: A review. HardwareX, 2020, 8, e00139.	2.2	80
57	Experimental characterization of heat transfer in an additively manufactured polymer heat exchanger. Applied Thermal Engineering, 2017, 113, 575-584.	6.0	77
58	Performance of U.S. hybrid distributed energy systems: Solar photovoltaic, battery and combined heat and power. Energy Conversion and Management, 2015, 105, 71-80.	9.2	75
59	RepRapable Recyclebot: Open source 3-D printable extruder for converting plastic to 3-D printing filament. HardwareX, 2018, 4, e00026.	2.2	74
60	General Design Procedure for Free and Open-Source Hardware for Scientific Equipment. Designs, 2018, 2, 2.	2.4	74
61	Environmental Impacts of Distributed Manufacturing from 3-D Printing of Polymer Components and Products. Materials Research Society Symposia Proceedings, 2013, 1492, 85-90.	0.1	70
62	Mechanical properties of 3-D printed truss-like lattice biopolymer non-stochastic structures for sandwich panels with natural fibre composite skins. Composite Structures, 2019, 213, 220-230.	5.8	68
63	Factors effecting real-time optical monitoring of fused filament 3D printing. Progress in Additive Manufacturing, 2017, 2, 133-149.	4.8	66
64	Multi-material additive and subtractive prosumer digital fabrication with a free and open-source convertible delta RepRap 3-D printer. Rapid Prototyping Journal, 2015, 21, 506-519.	3.2	65
65	Mechanical Properties of Direct Waste Printing of Polylactic Acid with Universal Pellets Extruder: Comparison to Fused Filament Fabrication on Open-Source Desktop Three-Dimensional Printers. 3D Printing and Additive Manufacturing, 2020, 7, 237-247.	2.9	65
66	Make nanotechnology research open-source. Nature, 2012, 491, 519-521.	27.8	64
67	Limitations of Nuclear Power as a Sustainable Energy Source. Sustainability, 2012, 4, 1173-1187.	3.2	64
68	Impact of DIY Home Manufacturing with 3D Printing on the Toy and Game Market. Technologies, 2017, 5, 45.	5.1	63
69	A First Investigation of Agriculture Sector Perspectives on the Opportunities and Barriers for Agrivoltaics. Agronomy, 2020, 10, 1885.	3.0	63
70	Industrial symbiosis of very large-scale photovoltaic manufacturing. Renewable Energy, 2008, 33, 1101-1108.	8.9	62
71	Optimization of open circuit voltage in amorphous silicon solar cells with mixed-phase (amorphous+nanocrystalline) p-type contacts of low nanocrystalline content. Journal of Applied Physics, 2007, 101, 114301.	2.5	61
72	The Application of LiDAR to Assessment of Rooftop Solar Photovoltaic Deployment Potential in a Municipal District Unit. Sensors, 2012, 12, 4534-4558.	3.8	61

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73	A review of open source ventilators for COVID-19 and future pandemics. F1000Research, 2020, 9, 218.	1.6	61
74	Open-Source 3-D Platform for Low-Cost Scientific Instrument Ecosystem. Journal of the Association for Laboratory Automation, 2016, 21, 517-525.	2.8	60
75	Distributed Recycling of Post-Consumer Plastic Waste in Rural Areas. Materials Research Society Symposia Proceedings, 2013, 1492, 91-96.	0.1	58
76	Structure-property relationships of common aluminum weld alloys utilized as feedstock for GMAW-based 3-D metal printing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 673, 511-523.	5.6	58
77	Structural and optical characterization and efficacy of hydrothermal synthesized Cu and Ag doped zinc oxide nanoplate bactericides. Materials Chemistry and Physics, 2016, 184, 172-182.	4.0	58
78	Technical pathways for distributed recycling of polymer composites for distributed manufacturing: Windshield wiper blades. Resources, Conservation and Recycling, 2020, 157, 104810.	10.8	58
79	Emerging Business Models for Open Source Hardware. Journal of Open Hardware, 2017, 1, .	0.5	58
80	Securitization of residential solar photovoltaic assets: Costs, risks and uncertainty. Energy Policy, 2014, 67, 488-498.	8.8	57
81	Cut costs with open-source hardware. Nature, 2014, 505, 618-618.	27.8	55
82	Environmental and economic assessment of a greenhouse waste heat exchange. Journal of Cleaner Production, 2011, 19, 1446-1454.	9.3	54
83	In situ formation of substrate release mechanisms for gas metal arc weld metal 3-D printing. Journal of Materials Processing Technology, 2015, 226, 50-59.	6.3	54
84	Towards Distributed Recycling with Additive Manufacturing of PET Flake Feedstocks. Materials, 2020, 13, 4273.	2.9	54
85	Thermal properties of 3-D printed polylactic acid-metal composites. Progress in Additive Manufacturing, 2017, 2, 57-71.	4.8	51
86	Dependence of open-circuit voltage in hydrogenated protocrystalline silicon solar cells on carrier recombination in p/i interface and bulk regions. Applied Physics Letters, 2000, 77, 3093-3095.	3.3	50
87	Open-Source Wax RepRap 3-D Printer for Rapid Prototyping Paper-Based Microfluidics. Journal of the Association for Laboratory Automation, 2016, 21, 510-516.	2.8	50
88	Green fab lab applications of large-area waste polymer-based additive manufacturing. Additive Manufacturing, 2019, 27, 515-525.	3.0	50
89	Reversing the Trend of Large Scale and Centralization in Manufacturing: The Case of Distributed Manufacturing of Customizable 3-D-Printable Self-Adjustable Glasses. Challenges in Sustainability, 2014, 2, 30-40.	0.2	50
90	Open-source development of solar photovoltaic technology. Energy for Sustainable Development, 2012, 16, 379-388.	4.5	49

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91	Distributed Manufacturing of Flexible Products: Technical Feasibility and Economic Viability. Technologies, 2017, 5, 71.	5.1	49
92	Financial return for government support of large-scale thin-film solar photovoltaic manufacturing in Canada. Energy Policy, 2010, 38, 4291-4303.	8.8	48
93	Understanding the Ionomer Structure and the Proton Conduction Mechanism in PEFC Catalyst Layer: Adsorbed Nafion on Model Substrate. ECS Transactions, 2011, 41, 1393-1406.	0.5	48
94	Three Hundred and Sixty Degree Real-Time Monitoring of 3-D Printing Using Computer Analysis of Two Camera Views. Journal of Manufacturing and Materials Processing, 2017, 1, 2.	2.2	48
95	Feeding everyone: Solving the food crisis in event of global catastrophes that kill crops or obscure the sun. Futures, 2015, 72, 57-68.	2.5	47
96	Retraining investment for U.S. transition from coal to solar photovoltaic employment. Energy Economics, 2016, 57, 295-302.	12.1	46
97	A new method of preparing highly conductive ultra-thin indium tin oxide for plasmonic-enhanced thin film solar photovoltaic devices. Solar Energy Materials and Solar Cells, 2016, 149, 250-257.	6.2	46
98	Open source laboratory sample rotator mixer and shaker. HardwareX, 2017, 1, 1-12.	2.2	46
99	Electric vehicle charging potential from retail parking lot solar photovoltaic awnings. Renewable Energy, 2021, 169, 608-617.	8.9	46
100	Open-source mobile water quality testing platform. Journal of Water Sanitation and Hygiene for Development, 2014, 4, 532-537.	1.8	45
101	Wood Furniture Wasteâ€“Based Recycled 3-D Printing Filament. Forest Products Journal, 2018, 68, 86-95.	0.4	45
102	Resilience to global food supply catastrophes. Environment Systems and Decisions, 2015, 35, 301-313.	3.4	44
103	Influence of Oxygen Concentration on the Performance of Ultra-Thin RF Magnetron Sputter Deposited Indium Tin Oxide Films as a Top Electrode for Photovoltaic Devices. Materials, 2016, 9, 63.	2.9	44
104	Mobile Open-Source Solar-Powered 3-D Printers for Distributed Manufacturing in Off-Grid Communities. Challenges in Sustainability, 2014, 2, 18-27.	0.2	44
105	Maximization of the open circuit voltage for hydrogenated amorphous silicon nâ€“iâ€“p solar cells by incorporation of protocrystalline silicon p-type layers. Applied Physics Letters, 2002, 81, 1258-1260.	3.3	43
106	Effects of silver catalyst concentration in metal assisted chemical etching of silicon. Materials Letters, 2018, 221, 206-210.	2.6	42
107	Energy policy for energy sovereignty: Can policy tools enhance energy sovereignty?. Solar Energy, 2020, 205, 109-112.	6.1	42
108	Systems Analysis Approach to Polyethylene Terephthalate and Olefin Plastics Supply Chains in the Circular Economy: A Review of Data Sets and Models. ACS Sustainable Chemistry and Engineering, 2021, 9, 7403-7421.	6.7	42

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109	Potential lives saved by replacing coal with solar photovoltaic electricity production in the U.S.. Renewable and Sustainable Energy Reviews, 2017, 80, 710-715.	16.4	41
110	Fabricating ordered 2-D nano-structured arrays using nanosphere lithography. MethodsX, 2017, 4, 229-242.	1.6	41
111	Distributed manufacturing with 3-D printing: a case study of recreational vehicle solar photovoltaic mounting systems. Journal of Frugal Innovation, 2015, 1, .	6.0	40
112	MACE nano-texture process applicable for both single- and multi-crystalline diamond-wire sawn Si solar cells. Solar Energy Materials and Solar Cells, 2019, 191, 1-8.	6.2	40
113	A new method to determine the effects of hydrodynamic surface coatings on the snow shedding effectiveness of solar photovoltaic modules. Solar Energy Materials and Solar Cells, 2013, 113, 71-78.	6.2	39
114	Emerging economic viability of grid defection in a northern climate using solar hybrid systems. Energy Policy, 2016, 95, 378-389.	8.8	39
115	Partially RepRapable automated open source bag valve mask-based ventilator. HardwareX, 2020, 8, e00131.	2.2	39
116	Improved performance of hybrid photovoltaic-trigeneration systems over photovoltaic-cogen systems including effects of battery storage. Energy, 2013, 49, 366-374.	8.8	38
117	Applications of Open Source 3-D Printing on Small Farms. Organic Farming, 2013, 1, .	1.0	38
118	Barriers to Appropriate Technology Growth in Sustainable Development. Journal of Sustainable Development, 2011, 4, .	0.3	37
119	Effects on amorphous silicon photovoltaic performance from high-temperature annealing pulses in photovoltaic thermal hybrid devices. Solar Energy Materials and Solar Cells, 2012, 100, 199-203.	6.2	37
120	U.S. strategic solar photovoltaic-powered microgrid deployment for enhanced national security. Renewable and Sustainable Energy Reviews, 2017, 78, 167-175.	16.4	37
121	Properties of Al-doped zinc oxide and In-doped zinc oxide bilayer transparent conducting oxides for solar cell applications. Materials Letters, 2018, 222, 50-53.	2.6	37
122	Open source computer vision-based layer-wise 3D printing analysis. Additive Manufacturing, 2020, 36, 101473.	3.0	37
123	Potential of microbial protein from hydrogen for preventing mass starvation in catastrophic scenarios. Sustainable Production and Consumption, 2021, 25, 234-247.	11.0	37
124	Free and Open-source Control Software for 3-D Motion and Processing. Journal of Open Research Software, 2016, 4, 2.	5.9	37
125	Analytical model for the optical functions of amorphous semiconductors and its applications for thin film solar cells. Thin Solid Films, 2004, 455-456, 388-392.	1.8	36
126	Double amorphous silicon-carbide p-layer structures producing highly stabilized pin-type protocrystalline silicon multilayer solar cells. Applied Physics Letters, 2005, 87, 193509.	3.3	35

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127	Life cycle analysis of silane recycling in amorphous silicon-based solar photovoltaic manufacturing. Resources, Conservation and Recycling, 2013, 70, 44-49.	10.8	35
128	Examining interconnection and net metering policy for distributed generation in the United States. Renewable Energy Focus, 2017, 22-23, 10-19.	4.5	35
129	Energy Payback Time of a Solar Photovoltaic Powered Waste Plastic Recyclebot System. Recycling, 2017, 2, 10.	5.0	35
130	Open-Source Photometric System for Enzymatic Nitrate Quantification. PLoS ONE, 2015, 10, e0134989.	2.5	35
131	A new model for enabling innovation in appropriate technology for sustainable development. Sustainability: Science, Practice, and Policy, 2012, 8, 42-53.	1.9	34
132	Multi-resonant silver nano-disk patterned thin film hydrogenated amorphous silicon solar cells for Staebler-Wronski effect compensation. Journal of Applied Physics, 2014, 116, .	2.5	34
133	Simulations of greenhouse gas emission reductions from low-cost hybrid solar photovoltaic and cogeneration systems for new communities. Sustainable Energy Technologies and Assessments, 2014, 8, 34-41.	2.7	34
134	3-D printing solar photovoltaic racking in developing world. Energy for Sustainable Development, 2017, 36, 1-5.	4.5	34
135	Distributed Manufacturing of Open Source Medical Hardware for Pandemics. Journal of Manufacturing and Materials Processing, 2020, 4, 49.	2.2	34
136	Chemical compatibility of fused filament fabrication-based 3-D printed components with solutions commonly used in semiconductor wet processing. Additive Manufacturing, 2018, 23, 99-107.	3.0	33
137	Evaluation of Potential Fair Trade Standards for an Ethical 3-D Printing Filament. Journal of Sustainable Development, 2014, 7, .	0.3	32
138	Solar photovoltaic powered on-site ammonia production for nitrogen fertilization. Solar Energy, 2015, 122, 562-568.	6.1	32
139	High-Efficiency Solar-Powered 3-D Printers for Sustainable Development. Machines, 2016, 4, 3.	2.2	32
140	Open source high-temperature RepRap for 3-D printing heat-sterilizable PPE and other applications. HardwareX, 2020, 8, e00130.	2.2	32
141	3D-mapping optimization of embodied energy of transportation. Resources, Conservation and Recycling, 2007, 51, 435-453.	10.8	31
142	Policies to Overcome Barriers for Renewable Energy Distributed Generation: A Case Study of Utility Structure and Regulatory Regimes in Michigan. Energies, 2019, 12, 674.	3.1	31
143	Net Energy Analysis for Sustainable Energy Production From Silicon Based Solar Cells. , 2002, , 181.		30
144	Preparation of meta-stable phases of barium titanate by Sol-hydrothermal method. AIP Advances, 2015, 5, .	1.3	30

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145	Development of a Resilient 3-D Printer for Humanitarian Crisis Response. Technologies, 2018, 6, 30.	5.1	30
146	Intrinsic and light induced gap states in a-Si:H materials and solar cellsâ€"effects of microstructure. Thin Solid Films, 2004, 451-452, 470-475.	1.8	29
147	Foreign Languages and Sustainability: Addressing the Connections, Communities, and Comparisons Standards in Higher Education. Foreign Language Annals, 2010, 43, 365-383.	1.0	29
148	Prediction of energy effects on photovoltaic systems due to snowfall events. , 2012, , .		29
149	The effect of hybrid photovoltaic thermal device operating conditions on intrinsic layer thickness optimization of hydrogenated amorphous silicon solar cells. Solar Energy, 2012, 86, 2673-2677.	6.1	29
150	Conceptual Design and Rationale for a New Agrivoltaics Concept: Pasture-Raised Rabbits and Solar Farming. Journal of Cleaner Production, 2021, 282, 124476.	9.3	29
151	Changes in the VEP in preterm neonates with arousal states, as assessed by EEG monitoring. Electroencephalography and Clinical Neurophysiology - Evoked Potentials, 1987, 68, 223-225.	2.0	28
152	Absence of carrier recombination associated with the defect pool model in intrinsic amorphous silicon layers: Evidence from currentâ€"voltage characteristics on pâ€"iâ€"n and nâ€"iâ€"p solar cells. Applied Physics Letters, 2003, 82, 3023-3025.	3.3	28
153	Evaluation of compositional depth profiles in mixed-phase (amorphous+crystalline) silicon films from real time spectroscopic ellipsometry. Thin Solid Films, 2004, 455-456, 665-669.	1.8	28
154	Economic Advantages of Dry-Etched Black Silicon in Passivated Emitter Rear Cell (PERC) Photovoltaic Manufacturing. Energies, 2018, 11, 2337.	3.1	28
155	Thermodynamic limitations to nuclear energy deployment as a greenhouse gas mitigation technology. International Journal of Nuclear Governance, Economy and Ecology, 2008, 2, 113.	0.2	27
156	A review of technical requirements for plug-and-play solar photovoltaic microinverter systems in the United States. Solar Energy, 2016, 135, 455-470.	6.1	27
157	Power and energy potential of mass-scale photovoltaic noise barrier deployment: A case study for the U.S. Renewable and Sustainable Energy Reviews, 2017, 80, 125-132.	16.4	27
158	Open-Source Automated Mapping Four-Point Probe. Materials, 2017, 10, 110.	2.9	27
159	Coal with Carbon Capture and Sequestration is not as Land Use Efficient as Solar Photovoltaic Technology for Climate Neutral Electricity Production. Scientific Reports, 2018, 8, 13476.	3.3	27
160	3-D printed soft magnetic helical coil actuators of iron oxide embedded polydimethylsiloxane. Sensors and Actuators B: Chemical, 2021, 326, 128781.	7.8	27
161	The application of smartphone technology to economic and environmental analysis of building energy conservation strategies. International Journal of Sustainable Energy, 2012, 31, 295-311.	2.4	26
162	Substrate Release Mechanisms for Gas Metal Arc Weld 3D Aluminum Metal Printing. 3D Printing and Additive Manufacturing, 2014, 1, 204-209.	2.9	26

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163	Scaling of greenhouse crop production in low sunlight scenarios. Science of the Total Environment, 2020, 707, 136012.	8.0	26
164	Cost-Effectiveness of Interventions for Alternate Food to Address Agricultural Catastrophes Globally. International Journal of Disaster Risk Science, 2016, 7, 205-215.	2.9	25
165	Economic viability of captive off-grid solar photovoltaic and diesel hybrid energy systems for the Nigerian private sector. Renewable and Sustainable Energy Reviews, 2019, 114, 109348.	16.4	25
166	Systems Analysis for PET and Olefin Polymers in a Circular Economy. Procedia CIRP, 2019, 80, 602-606.	1.9	25
167	Feeding everyone if the sun is obscured and industry is disabled. International Journal of Disaster Risk Reduction, 2017, 21, 284-290.	3.9	24
168	From Open Access to Open Science: The Path From Scientific Reality to Open Scientific Communication. SAGE Open, 2020, 10, 215824402091590.	1.7	24
169	Energy conservation from systematic tire pressure regulation. Energy Policy, 2007, 35, 2673-2677.	8.8	23
170	Total U.S. cost evaluation of low-weight tension-based photovoltaic flat-roof mounted racking. Solar Energy, 2015, 117, 89-98.	6.1	23
171	Slicer and process improvements for open-source GMAW-based metal 3-D printing. Additive Manufacturing, 2017, 18, 110-120.	3.0	23
172	Decarbonizing rural residential buildings in cold climates: A techno-economic analysis of heating electrification. Energy and Buildings, 2021, 250, 111284.	6.7	23
173	Expanded microchannel heat exchanger: design, fabrication, and preliminary experimental test. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2012, 226, 532-544.	1.4	22
174	Open-source nanotechnology: Solutions to a modern intellectual property tragedy. Nano Today, 2013, 8, 339-341.	11.9	22
175	The Internet and other ICTs as tools and catalysts for sustainable development: innovation for 21st century. Information Development, 2013, 29, 217-232.	2.3	22
176	Improved model and experimental validation of deformation in fused filament fabrication of polylactic acid. Progress in Additive Manufacturing, 2018, 3, 193-203.	4.8	22
177	Food without sun: price and life-saving potential. Foresight, 2019, 21, 118-129.	2.1	22
178	Parametric nasopharyngeal swab for sampling COVID-19 and other respiratory viruses: Open source design, SLA 3-D printing and UV curing system. HardwareX, 2020, 8, e00135.	2.2	22
179	Evaluation of lab performance of stamp sand and acrylonitrile styrene acrylate waste composites without asphalt as road surface materials. Construction and Building Materials, 2022, 338, 127569.	7.2	22
180	Kinetics of Light Induced Changes in Protocrystalline Thin Film Materials and Solar Cells. Materials Research Society Symposia Proceedings, 2000, 609, 1551.	0.1	21

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181	Reducing greenhouse gas emissions by inducing energy conservation and distributed generation from elimination of electric utility customer charges. Energy Policy, 2007, 35, 6514-6525.	8.8	21
182	Diverting indirect subsidies from the nuclear industry to the photovoltaic industry: Energy and financial returns. Energy Policy, 2011, 39, 2626-2632.	8.8	21
183	U.S. market for solar photovoltaic plug-and-play systems. Renewable Energy, 2017, 103, 255-264.	8.9	21
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